# **Catalog Home**

Purdue University Fort Wayne 2101 E. Coliseum Blvd. Fort Wayne, IN 46805-1499

## **About Purdue University Fort Wayne**

Purdue University Fort Wayne is the largest institution of higher learning in northeast Indiana, offering prestigious Purdue degrees and certificates. As a metropolitan university, it is uniquely positioned to serve the region as a crossroads of intellectual, social, economic, and cultural advancement and to continue expanding its global reach through research, scholarship, and creative expression. Challenging academics are combined with a focus on student success across many prestigious degree programs, taught by 330 full-time faculty. More than 8,300 degree-seeking students of diverse ages, ethnicities, and nationalities pursue their education on the nearly 700-acre campus. Purdue Fort Wayne is an Equal Opportunity/Equal Access University accredited by The Higher Learning Commission.

# What's New?

Listed below are academic changes that have been made after the 2020-2021 PFW University catalog was published due to legislation or accreditation. Please see your advisor if you have any questions.

# **Programs**

## **Policies**

# College/School

# Courses - BUS 2002 - Computer LIteracy (1 Credit) effective Fall 2020

# **General Education Requirements**

Click on a link to be taken to the entry below.

## Category A: Foundational Intellectual Skills

- 1. Written Communication (at least 3 cr and all outcomes in approved courses)
- 2. Speaking and Listening (at least 3 cr and all outcomes in approved courses)
- 3. Quantitative Reasoning (at least 3 cr and all outcomes in approved courses)

## Category B: Ways of Knowing

- 4. Scientific Ways of Knowing (at least 3 cr and all outcomes in approved courses)
- 5. Social and Behavioral Ways of Knowing (at least 3 cr and all outcomes in approved courses)
- 6. Humanistic and Artistic Ways of Knowing (at least 3 cr and all outcomes in approved courses)
- 7. Interdisciplinary or Creative Ways of Knowing (at least 3 cr and all outcomes in approved courses.
- 8. The remaining 9 credit hours of the state-mandated general education should be taken by students from among the approved courses in Categories A and B as needed to fulfill their remaining state-mandated outcomes and as works best for their programs/majors.

## Category C. Capstone

9. Capstone Experience (at least 3 cr and all outcomes in an approved course)

#### **Subject Area Abbreviation Key**

#### Course List

#### **Principles of General Education**

General Education ensures students will be familiar with the important modes of human thought that are the foundations of science, philosophy, art and social behavior. General Education helps students understand the traditions that have informed one's own and other cultures of the world. It requires that students consider the nature and diversity of individuals, cultures and societies around the world, and gain appreciation of the natural systems in which these individuals, cultures and societies exist.

General Education at Purdue University Fort Wayne defines an integrated pedagogical framework that offers both substantive knowledge and an appreciation of multiple methods of inquiry and learning. Individual courses satisfy specific learning outcomes. The overall goals of the General Education program are achieved through cumulative course work. Individual courses should provide a basis for life-long learning, allow students to gain both substantive knowledge and an appreciation of method, and be appropriate for non-majors and for students who are unlikely to take another course in the discipline. This requirement does not preclude the possibility that the course might also be appropriate for majors.

Students who complete the General Education requirements at Purdue Fort Wayne are expected to:

- Read, write, and speak with comprehension, clarity, and precision in appropriate media. Reason quantitatively.
- · Identify substantive knowledge and disciplinary methods and critically evaluate ideas. Demonstrate an ability to use information literacy skills.
- · Demonstrate an ability to think critically and solve problems. Understand the traditions that form one's own and other cultures
- · Be familiar with modes of human thought that are the foundations of science, philosophy, art and social behavior.
- · Understand aspects of the natural world.
- · Use acquired knowledge and skills to create new scholarship.

#### Categorical Framework

The Statewide Transfer General Education Core for associate and bachelor degree programs at Purdue Fort Wayne shall consist of 30 credits, distributed as indicated, in areas 1-3 of category A, areas 4-7 of category B, and all the enumerated competencies 1.1-6.7 or 1.1-7.4, as defined thereunder.

All students completing a bachelor degree program at Purdue Fort Wayne must also complete category C: Capstone.

A student who completes requirements in categories A and B with a grade of C- or better shall have completed the Statewide Transfer General Education Core, as long as those 30 credits are completed with a GPA of 2.0 or higher. This achievement shall be noted on the student's transcript. A student transferring to Purdue Fort Wayne with a similar notation from another college or university shall be exempt from additional requirements in categories A and B.

#### A. Foundational Intellectual Skills

- 1. Written Communication (at least 3 cr and all outcomes in approved courses)
- 2. Speaking and Listening (at least 3 cr and all outcomes in approved courses)
- 3. Quantitative Reasoning (at least 3 cr and all outcomes in approved courses)

## B. Ways of Knowing

- 4. Scientific Ways of Knowing (at least 3 cr and all outcomes in approved courses)
- 5. Social and Behavioral Ways of Knowing (at least 3 cr and all outcomes in approved courses)
- 6. Humanistic and Artistic Ways of Knowing (at least 3 cr and all outcomes in approved courses)
- 7. Interdisciplinary or Creative Ways of Knowing (at least 3 cr and all outcomes in approved course)

The remaining 9 credit hours of the state-mandated general education should be taken by students from among the approved courses in Categories A and B as needed to fulfill their remaining state-mandated outcomes and as works best for their programs/majors.

#### C. Capstone

8. Capstone Experience (at least 3 cr and all outcomes in an approved course)

Students who entered Purdue Fort Wayne for the first time in fall 1995 or a subsequent term in a bachelor's degree program, or transferred into a new bachelor's degree program, are required to satisfy Purdue Fort Wayne's general education program as part of their degree requirements. The courses listed below may be used to satisfy these requirements. The student's advisor will know of any courses that have been added to this list.

Students should check specific college, school or division requirements to determine if any special conditions about general education apply to their major. Under certain circumstances, students may be allowed to substitute courses for those listed below. An academic advisor will explain the procedure for requesting a substitution.

A student must earn a grade of C- or better in each course used to satisfy the Purdue Fort Wayne general education requirements.

The general education website is pfw.edu/offices/oaa/programs/genedprograms.html. Click here to see Senate document SD 12-14: Change In General Education Program for futher information.

See the Subject Area Abbreviation Key at the end of this section to determine the subject area under which the course falls, (e.g., ENG W131 falls under English)

## Learning Outcomes for Categories A and B

#### Category A: Foundational Intellectual Skills

Linguistic and numerical foundations are requisite to thinking and communicating critically and creatively. Foundational skills help students to speak and write precisely, clearly, and persuasively; read and listen actively and with comprehension; and reason quantitatively as a means of drawing reliable conclusions. These skills are fundamental, and courses in category A are best completed in each student's first 30 credits of enrollment.

#### 1. Written Communication

Upon completion of the Written Communication competency, students will be able to:

- 1.1. Produce texts that use appropriate formats, genre conventions, and documentation styles while controlling tone, syntax, grammar, and spelling.
- 1.2. Demonstrate an understanding of writing as a social process that includes multiple drafts, collaboration, and reflection.
- 1.3. Read critically, summarize, apply, analyze, and synthesize information and concepts in written and visual texts as the basis for developing original ideas and claims.
- 1.4. Demonstrate an understanding of writing assignments as a series of tasks, including identifying and evaluating useful and reliable outside sources.
- 1.5. Develop, assert, and support a focused thesis with appropriate reasoning and adequate evidence.
- 1.6. Compose texts that exhibit appropriate rhetorical choices, which include attention to audience, purpose, context, genre, and convention.
- 1.7. Demonstrate proficiency in reading, evaluating, analyzing, and using material collected from electronic sources (such as visual, electronic, library databases, Internet sources, other official databases, federal government databases, reputable blogs, wikis, etc.).

#### 2. Speaking and Listening

Upon completion of the Speaking and Listening competency, students will be able to:

- 2.1. Use appropriate organization or logical sequencing to deliver an oral message.
- 2.2. Adapt an oral message for diverse audiences, contexts, and communication channels.
- 2.3. Identify and demonstrate appropriate oral and nonverbal communication practices.
- 2.4. Advance an oral argument using logical reasoning.
- 2.5. Provide credible and relevant evidence to support an oral argument.
- 2.6. Demonstrate the ethical responsibilities of sending and receiving oral messages.
- 2.7. Summarize or paraphrase an oral message to demonstrate comprehension.

#### 3. Quantitative Reasoning

Upon completion of the Quantitative Reasoning competency, students will be able to:

- 3.1. Interpret information that has been presented in mathematical form (e.g. with functions, equations, graphs, diagrams, tables, words, geometric figures).
- 3.2. Represent information/data in mathematical form as appropriate (e.g. with functions, equations, graphs, diagrams, tables, words, geometric figures).
- 3.3. Demonstrate skill in carrying out mathematical (e.g. algebraic, geometric, logical, statistical) procedures flexibly, accurately, and efficiently to solve problems.
- 3.4. Analyze mathematical arguments, determining whether stated conclusions can be inferred.
- 3.5. Communicate which assumptions have been made in the solution process.
- 3.6. Analyze mathematical results in order to determine the reasonableness of the solution.
- 3.7. Cite the limitations of the process where applicable.
- 3.8. Clearly explain the representation, solution, and interpretation of the math problem.

## Category B: Ways of Knowing

#### 4. Scientific Ways of Knowing

Natural science is a knowledge domain transcending the human experience. Students should understand the role of observation and inference in investigations; how natural science theories are formed, tested, and validated; the limitations inherent to natural scientific inquiry; and the impact of science and mathematics upon intellectual history. Courses in this way of knowing foster scientific thinking; knowledge of the physical and natural world; and relativize humanity's position within the universe.

Upon completion of the Scientific competency, students will be able to:

- 4.1. Explain how scientific explanations are formulated, tested, and modified or validated.
- 4.2 Distinguish between scientific and non-scientific evidence and explanations.
- 4.3 Apply foundational knowledge and discipline-specific concepts to address issues or solve problems
- 4.4 Apply basic observational, quantitative, or technological methods to gather data and generate evidence-based conclusions.
- 4.5 Use current models and theories to describe, explain, or predict natural phenomena.
- 4.6 Locate reliable sources of scientific evidence to construct arguments related to real-world issues.

#### 5. Social and Behavioral Ways of Knowing

Students must understand the nature and diversity of individuals, cultures and societies around the world. An exploration of behavioral, societal, and cultural processes utilizing the application of scientific methodologies forms the basis for that understanding. This understanding of diverse systems assists the student in overcoming provincialism; developing the willingness, confidence, and sense of responsibility for making informed decisions; and acquiring the ability to assess personal behavior and that of others. Such learning requires a historical consciousness; familiarity with components of social structure and social institutions; knowledge of basic behavioral processes; comprehension of the interplay among ideas, technology, and social organization; and appreciation of the complex dimensions of personal and institutional rules.

Upon completion of the Social and Behavioral competency, students will be able to:

- 5.1 Demonstrate knowledge of major concepts, theoretical perspectives, empirical patterns, or historical contexts within a given social or behavioral domain.
- 5.2 Identify the strengths and weaknesses of contending explanations or interpretations for social, behavioral, or historical phenomena.
- 5.3 Demonstrate basic literacy in social, behavioral, or historical research methods and analyses.
- 5.4 Evaluate evidence supporting conclusions about the behavior of individuals, groups, institutions, or organizations.
- 5.5 Recognize the extent and impact of diversity among individuals, cultures, or societies in contemporary or historical contexts.
- 5.6 Identify examples of how social, behavioral, or historical knowledge informs and can shape personal, ethical, civic, or global decisions and responsibilities.

#### 6. Humanistic and Artistic Ways of Knowing

Humanistic thought is the attempt to resolve such abiding issues as the meaning of life, the role

of the arts in our understanding of what it is to be human, and the limits of knowledge. Humanistic inquiry assesses-across temporal, cultural, disciplinary, and theoretical divisions-how humans view themselves in relation to other humans, to nature, and to the divine. Studies in the humanities offer students the intellectual resources to develop mature self-concepts and heightened social consciousness.

Upon completion of the Humanistic and Artistic competency, students will be able to:

- 6.1 Recognize and describe humanistic, historical, or artistic works or problems and patterns of the human experience.
- 6.2 Apply disciplinary methodologies, epistemologies, and traditions of the humanities and the arts, including the ability to distinguish primary and secondary sources.
- 6.3 Analyze and evaluate texts, objects, events, or ideas in their cultural, intellectual, or historical contexts.
- 6.4 Analyze the concepts and principles of various types of humanistic or artistic expression.
- 6.5 Create, interpret, or reinterpret artistic and/or humanistic works through performance or criticism.
- 6.6 Develop arguments about forms of human agency or expression grounded in rational analysis and in an understanding of and respect for spatial, temporal, and cultural contexts.
- 6.7 Analyze diverse narratives and evidence in order to explore the complexity of human experience across space and time.

## 7. Interdisciplinary or Creative Ways of Knowing

True scholarship necessarily involves the creation of a deeper understanding about nature and/or the human experience. This understanding is sometimes achieved through a traditional academic approach and sometimes through performance and art. Scholarship cannot always be compartmentalized into a single way of knowing, and performance is inherently based upon a broad experience of life and the world around us.

A student will complete a broadly interdisciplinary course, or will complete a course having a significant experiential, integrative, and/or creative performance.

Option 1: Upon completion of the Interdisciplinary Ways of Knowing using a broadly interdisciplinary course, students will be able to:

Meet any three learning outcomes from 1.1 to 3.8 of the Category A foundation areas and any two outcomes from each of two different areas selected from areas 4-6 under Category B: Ways of Knowing.

- Option 2: Upon completion of the Creative Ways of Knowing using an experiential, integrative and/or creative performance, students will be able to:
  - 7.1 Demonstrate an understanding of the creative process using the vocabulary of the appropriate discipline.
  - 7.2 Perform or create a work of personal expression and bring the work to fruition using applicable skills.
  - 7.3 Articulate a reflective and critical evaluation of their own and other's creative efforts using written and/or oral communication.
  - 7.4 At least two additional learning outcomes selected from 1.1-6.7.

### **Learning Outcomes for Category C: Capstone**

In addition to the 30 credit transfer core, all Purdue Fort Wayne bachelor's degree candidates are expected to complete an approved three credit capstone course at the 300 level or higher. The capstone course reflects the faculty commitment to the acquisition and application of knowledge as fundamental to the baccalaureate degree, and allows flexibility and innovation in capstone course creation.

All capstone projects will involve the acquisition or application of knowledge. This should be broadly construed and may include the exploration of any discipline-specific scholarship including the scholarly activities typically associated with the professional schools, service professions, engineering, and the performing arts. A capstone may center on any aspect of university life as long as its primary focus is on the acquisition or application of knowledge. The project may involve a formal service-learning experience, or a formal international study experience as its primary focus.

All capstone projects, including those in the performing arts, shall produce a significant product in a discipline-appropriate format, demonstrating the scholarly methods, techniques, and conventions associated with the discipline.

Upon completion of the capstone, students will be able to:

8.1. Produce an original work involving the creation or application of knowledge, performance or service.

- 8.2. Report the results of original work through a discipline-appropriate product.
- 8.3. Demonstrate a high level of personal integrity and professional ethics by understanding the ethical responsibilities related to the profession associated with the subject of the capstone project.
- 8.4. Demonstrate critical-thinking abilities and familiarity with quantitative and/or qualitative reasoning.

#### **General Education Courses**

Students must earn a grade of C- or better in each course used to satisfy the Purdue Fort Wayne general education requirements.

Category A Courses: Foundational Intellectual Skills

Category B Courses: Ways Of Knowing

Category C Courses: Capstone

### **Subject Area Abbreviation Key**

ΑD Art and Design AGR Agriculture ANSC Animal Sciences Anthropology ANTH

Architectural Engineering Technology ARET

**ASTR** Astronomy Biochemistry **BCHM** BIOL Biology BUS Business

CDFS Child Development and Family Studies

CE CET Civil Engineering

Civil Engineering Technology CFS Consumer and Family Sciences

CHM Chemistry **CLCS** Classical Studies Comparative Literature **CMPL** 

Construction Engineering Technology **CNET** 

COAS Arts and Sciences-General COM Communication

CPET Computer Engineering Technology

CS Computer Science CSD

Communication Sciences and Disorders DANC Dance

**EALC** 

East Asian Language and Culture (Chinese) **EAPS** Earth Atmospheric Science

ECE Electrical Engineering

**ECET** Electrical and Computer Engineering Technology

**ECON Economics** EDU Education **ENGL** English **ENGR** Engineering **ENTM** Entomology

EΤ **Engineering Technology** 

**ETCS** Engineering Technology and Computer Science

FNR Forestry and Natural Resources FOLK Folklore

French FVS Film Studies GEOG Geography GER German **GERN** Gerontology HIST History HONR Honors **HORT** Horticulture

Health, Physical Education, and Recreation **HPER** 

HSCI Health Sciences HSRV **Human Services** 

 $\mathsf{HTM}$ Hotel, Restaurant, and Tourism Management

IDIS Interdisciplinary Studies and Honors

ΙE Industrial Engineering

IET Industrial Engineering Technology

ILCS International Language and Culture Studies

IM Informatics INTL International Studies

INTD Interior Design IST Information Systems and Technology

ΙT Industrial Technology

ITC Information Technology and Computers

LBST Liberal Studies

**LGBT** Lesbian, Gay, Bisexual, and Transgender LING Linguistics

LTAM Latin American Studies

MA Mathematics

MARS Medieval and Renaissance Studies

ME Mechanical Engineering

Mechanical Engineering Technology MET MSL Military Science and Leadership MII Military Science and Leadership MUSC

Near East Language and Culture **NELC** 

NUTR Nutrition Science

Organizational Leadership and Supervision OLS

**PACS** Peace and Conflict Studies **PCTX** Pharmacology and Toxicology

PHIL Philosophy **PHYS** Physics Political Science POL **PPOL** Public Policy **PSY** Psychology Religious Studies REL Systems Engineering SE SOC

Sociology **SPAN** Spanish STAT Statistics **TECH** Technology THTR Theatre VM Veterinary WOST Women's Studies

# Regulations, Policies, Rights, & Responsibilities

Click on a link to be taken to the entry below.

#### **Academic Regulations**

- · Academic Honesty
- Academic Standing
- · Advanced Credit
- · Attendance
- Course Registration
- Definitions
- Degrees Encumbrances
- English Language Proficiency
- · Final Examinations Grade Appeals
- Grade-Point Averages
- Grades
- Minors
- Placement Tests
- · Special Credit, Credit for Military Service,
- **Transcripts**
- · Transfer Credit

#### **Purdue Fort Wayne Policies**

- · Academic Renewal
- · Admission
- Affiliation Purdue University
- Affirmative Action, Nondiscrimination, and
- Anti-harassment
- · Change of Major
- Drug and Alcohol Abuse Prevention
- Enrollment Certification
- Ethical Guidelines for Purdue University Fort
- Wayne Information Technology (IT) Users
- · Fees and Expenses
- Parking and Traffic Regulations
- Payment Options
- Payment Processing Policies
- Release of Student Information
- Residency
- Smoking
- Statement on Civility
- Student Identification Number

# Code of Students Rights, Responsibilities and

Part I. Student Rights and Responsibilities

Part II. Student Conduct Subject to University Action

Part III. Student Misconduct Procedures Part IV. Student Complaint Procedures

Part V. Petition for Hearing

Part VI. Authority, Application and Amendments

## **Academic Regulations**

The following academic regulations were in effect for all undergraduate students at the time of printing.

### **Academic Honesty**

Policy. Academic honesty is expected of all students. Students are responsible for knowing how to maintain academic honesty and for abstaining from cheating, the appearance of cheating, and permitting or assisting in another's cheating. The instructor is responsible for fostering intellectual honesty as well as the intellectual development of students, and for applying methods of teaching, examination, and assignments that discourage student dishonesty. If necessary, the instructor will explain clearly any specialized meanings of cheating and plagiarism as they apply to a specific course. The instructor will thoroughly investigate signs of academic dishonesty, take appropriate actions, and report such activity properly to prevent repeated offenses and to ensure equity.

Procedures. An instructor who has evidence of cheating will initiate a process to determine guilt or innocence and the penalty, if any, to be imposed. During an informal conference within 10 business days of discovering the alleged cheating, the instructor will inform the student of charges and evidence and allow the student to present a defense. The instructor will make an initial determination after this conference. The grade of Incomplete (I) may be assigned if the matter cannot be fully resolved before course grades are

Reporting. During the period in which students are permitted to drop courses, the instructor will inform the registrar promptly of any allegation of cheating, so that students cannot withdraw from the course. The instructor who makes an initial finding that academic dishonesty has been practiced will impose an academic sanction. Then, within 10 business days, the instructor will supply a written report to the student, the department chair, dean of the college or division, and the dean of students. The report will summarize the evidence and penalties assessed.

Appeal. If the course grade is affected by the penalty, the student has a right to appeal the penalty imposed by an instructor in accordance with the grade-appeals policy See

#### Academic Standing

Good standing. For purposes of reports and communication to other institutions, and in the absence of any further qualifications of the term, students are considered in "good standing" unless they have been dismissed, suspended, or dropped from Purdue University Fort Wayne and not readmitted.

Academic recognition. At the conclusion of each fall or spring semester (but not any summer session), the registrar indicates which students are eligible for the following academic recognitions:

Semester Honors List for (1) having at least 6 credits included in the semester GPA, (2) achieving at least a 3.50 semester GPA, and (3) achieving at least a 2.00 cumulative GPA

Dean's List for (1) having at least 12 credits included in the cumulative GPA, (2) having at least 6 credits included in the semester GPA, (3) achieving at least a 3.50 cumulative GPA, and (4) achieving at least a 3.00 semester GPA.

If a student has earned academic recognition for either of the two previous semesters, achievements will be recognized at the annual Honors Convocation and appropriately noted on the academic record.

Recognition of completion in the Honors Program. Students certified by the Honors Program Council as having completed the requirements of the Honors Program, an appropriate academic record notation is made when the degree is completed.

Academic probation, dismissal, and readmission. The following probation, dismissal, and readmission criteria are minimums for Purdue University Fort Wayne; academic units may set higher standards that become effective upon publication in the catalog or its "What's New" section. Students dismissed from a program for failure to meet the higher standards imposed by an academic unit, must be accepted into another program before registering for a subsequent academic session.

**Probation**. Students are placed on probation and are so notified by the university whenever the fall or spring semester GPA or cumulative GPA at the end of any fall or spring semester is less than a 2.0.

- · Students on academic probation and whose cumulative GPA is less than 2.0 but semester GPA is greater than or equal to 2.0, will remain on probation.
- · Students on academic probation and whose semester GPA is less than 2.0 but cumulative GPA is greater than or equal to 2.0, will remain on probation.

An appropriate notation will be made on the academic record. Any grade change will require recalculation of a probation status. Academic standing will not be assessed in summer sessions. Students are removed from probation at the end of the first subsequent fall or spring semester in which the semester and cumulative GPA are greater than or equal to 2.0. A student who wishes to appeal an academic probation standing should contact the academic department of their major for guidance in the appeal process.

**Dismissal**. Students currently on probation, will be notified of dismissal by the university if, at the end of any fall or spring semester, the semester and cumulative GPA are both less than a 2.0. An appropriate notation will be made on the academic record. Any grade change will require recalculation of a dismissal status. An appeal for an academic dismissal standing should be directed to the academic department of the student's major for guidance in the appeal process.

**Readmission.** A student who has been dismissed from Purdue University Fort Wayne or any other campus of Purdue University may not enroll at Purdue University Fort Wayne until one fall or spring semester has passed. A student who is academically dismissed for a second time is not eligible to enroll for at least one year. All readmissions are into probationary status and are subject to stipulations in effect as a condition of readmission. Readmissions are reported to the Registrar and an appropriate entry is made on the student's academic record.

A student dismissed by this policy must apply to the appropriate office or readmission committee. A fee is assessed for processing the readmission application.
 Readmission is not guaranteed.

#### **Advanced Credit**

You can establish advanced credit in the following ways:

College Board advanced-placement program. Students can establish college credit based on an exam taken after completion of a high school advanced-placement course. The test score necessary to support an award of credit varies depending on the test subject. Specific information is available from Purdue University Fort Wayne Student Success and Transitions or at www.pfw.edu/sst/transfer-students/transfer-credit-to-pfw.

International Baccalaureate Program. For participants in the IB Program, an award of 3-8 credits will be made for each high-level examination passed with a score of 4 or above. Purdue University Fort Wayne Student Success and Transitions will award undistributed credit in the appropriate disciplines until specific credit equivalencies are established by Purdue University Fort Wayne departments. No credit will be awarded for performance on standard-level exams.

College-Level Examination Program (CLEP). This program evaluates nontraditional college-level education. Purdue Fort Wayne does not grant credit for every test. A guide to CLEP credit available at Purdue Fort Wayne can be obtained from Student Success and Transition or at www.pfw.edul/offices/sst/transfer-students/transfer-credit-to-pfw.

Directed credit/credit by examination. For information about "testing out" of courses, see 5. Special Credit, Credit for Military Service, and Excess Undergraduate Credit.

Modern foreign languages placement tests. Students that begin foreign-language study in a second semester or higher course in French, German, or Spanish, may be eligible for special credit for the courses below their placement level. Application for this credit is through the Department of International Language and Culture Studies (LA 267, 481-6836); it is not granted automatically.

### Attendance

Students are expected to attend every meeting of the classes in which they are registered. Work missed during absences may be made up if permitted by the instructor. At the beginning of the academic session, each instructor will provide a clear statement to all students regarding his or her policy for handling absences.

Students may not attend a class (1) before completing official registration procedures, (2) after officially withdrawing from the class, or (3) after your registration has been canceled.

In cases where students must report their class attendance in order to satisfy requirements of financial aid sponsors, they must present the sponsor's certification form to each instructor. Each instructor will certify attendance by completing the form. Unless prior agreement has been made with the instructor, he or she will not be obligated to certify attendance for more than the most recent class.

Discontinuing class attendance and not fulfilling course requirements is regarded as an unauthorized withdrawal and will result in receiving a grade of F.

## **Course Registration**

Registration procedures. Students must register for courses in accordance with procedures and guidelines prescribed by the registrar. Initial registration for each term must occur according to the timetables for registration established for each semester/session. In most cases, students register for classes using the online Web registration system.

Academic load. The following maximums apply to enrollment at Purdue University Fort Wayne:

Limit with special permission. Academic load may not exceed 18 credits in a regular semester or 8 credits in a summer session unless unusual circumstances exist and special permission is granted by the academic advisor.

**Absolute maximum in any academic session or intensive course.** Registration for a class, or combination of classes, that generates more than 1.5 credits per week is not allowed. Registration for more than one intensive course at a time is not allowed.

Enrollment Status/Course Load. For most purposes, undergraduate students are considered to be full-time students when enrolled in 12 or more credits during a semester and part-time students when enrolled in 11 or fewer credits during a semester.

Fall, Spring and Summer Semesters:		
Enrollment Status	Total Credit Hours	
Less than half-time	0-5	
Half-time	6-8	
Three-quarter time	9-11	
Full-time	12 or more	

Course prerequisites and corequisites. Before students begin a course, they must satisfy all prerequisites and corequisites or secure the instructor's or sponsoring department's permission. At the request of the instructor or the department through which a course is offered, the registrar may withdraw the student from a course for which prerequisites and corequisites are not satisfied.

Auditing. Enrollment as an auditor in a course during the first week of the semester must be noted on the registration form or drop/add card as auditor (A) along with completion of the normal registration procedures established by the department. Regular course fees will be assessed. Enrollment as an auditor is not permissible if the student has been dismissed from Purdue University Fort Wayne.

Grades of NC are assigned for auditors and no academic credit is received for the course. However, under the rules of a department's examination, the student may later be allowed to earn credit for a course which has been audited.

Schedule revisions. Students may revise their schedule in accordance with the policies listed in the registration related sections of the catalog. Students may add or drop a course after their initial registration via the online Web registration system up until the last day to drop/add online per the Master Detail Calendar registration schedule.

Late registration: For changes after the 100 percent refund period for classes, a completed schedule-revision (drop/add) form must be submitted with appropriate signatures to the student's department and the registrar's office. An academic advisor's approval is required to process a course addition or withdrawal. All schedules and deadlines are prorated for courses not meeting for an entire 16-week semester.

Weeks	Restrictions
Through Week 1 of classes	College/school policies determine whether an academic advisor's approval is required.
Weeks 2-4	Approval of the instructor is required. College/school policy determine whether an academic advisor's approval is required.
Weeks 5-9	Approval of the instructor and your dean is required. College/school/division policy determine whether an academic advisor's approval is required. Approval will normally be given only when extenuating circumstances are involved.
Weeks 10-16	Courses may not normally be added during this time.

## Withdrawal from course(s)

Subject to the time limits specified in the Purdue University Fort Wayne Master Detail Calendar and the published Fee Refund Schedule and in the absence of any allegation of academic dishonesty in the course(s) and any pertinent hold(s) or encumbrance - a student may officially withdraw from a course by completing the Course Withdrawal (After Full Refund Period) form found within goPFW on the enrollment tab.

Course withdrawals for regular 16-week courses:

- First Week of Classes: This is the Add/Drop period and students may drop courses through goPFW. Course is not recorded on the student record.
- Weeks 2-9: Students must submit the Course Withdrawal (After Full Refund Period) form found in goPFW. The course is recorded with a grade of W on the student record. Refer to the Fee Refund Schedule for refund information.
- Weeks 10-16: Courses may not be withdrawn during this period except for extenuating circumstances outside a student's control. Such withdrawals will not be approved if sought because of poor performance in the course. If a late-withdrawal is approved, the course(s) is recorded with a grade of W on the student record.
- After the end of the Week 16: A course grade may be changed only by following the grade appeal procedure.

All deadlines and time periods will be prorated for courses offered during a period of time that differs from a regular 16-week semester.

A Late Withdrawal is defined as a withdrawal due to circumstances reasonably beyond the control of the student from any or all classes occuring after the deadline for the last day to withdraw. Specific deadlines for the last day to withdraw for a term are published in the Master Detail Calendar and the Fee Refund Schedule. A Petition for Late Withdrawal will be considered only for non-academic reasons and will be treated with the greatest degree of confidentiality possible.

## Once final grades have been submitted, a student is ineligible for a late withdrawal except for extreme and well-documented circumstances.

If a Petition for Late Withdrawal is granted, Student Success and Transitions will notify the student. The student's withdrawal status will be reflected on the course roster for the instructor. There may be financial and academic consequences related to withdrawal. If a Petition for Late Withdrawal is granted a student may then submit an Appeal of Fees application.

Change of pass/not-pass (P/NP) option. Prior to the end of the fourth week of an academic semester (or equivalent period during a summer session), you may add or remove the P/NP option for a course by obtaining the signature of the course instructor or an academic advisor next to the appropriate notation on the schedule-revision (drop/add) form, and by submitting the form for processing by the registrar's office.

Change of auditing option. The regular audit deadline is the end of the first week of an academic semester (or equivalent period during a summer session). During the first week of the semester changes from audit to credit status or credit to audit status can be made by obtaining the signature from the student's academic advisor and submitting the schedule-revision (drop/add) form for processing by the registrar's office by specified deadlines.

The late audit deadline is the end of the sixth week of an academic semester (or equivalent period during a summer session). During weeks two through six (or equivalent during a summer session), changes from audit to credit or credit to audit status can be made by obtaining the signature or written acknowledgment from the instructor, academic advisor, and a representative from the financial aid office on the "Petition for Late Audit" form. Submission of the form must be made to the registrar's office by specified deadlines for final processing Audited courses do not count in enrollment status (full-time, half-time, etc.) and may have an impact on financial aid eligibility and loan repayment deferment.

NOTE: All deadlines and time periods will be prorated for courses offered during a period of time that differs from a regular 16-week semester.

Withdrawal from the university. Withdrawal from the university is accomplished by withdrawing from each course in which a student is enrolled.

Withdrawal for military service. Any student called to active military duty may present a copy of their military service orders and (1) withdraw from all courses and receive a 100 percent refund of tuition and fees at any time during the semester through the end of final examinations or (2) with the permission of each instructor, receive an Incomplete or final grade in the courses taken. Such requests and documentation may be presented by the student or other responsible party who has the student's permission to make the request. Refunds of fees will not be made if the student receives a grade and credit for the course, and all refunds will be adjusted as required by financial aid regulations. If a withdrawal is processed after the first week of classes, the grade of W will be assigned.

#### **Definitions**

Certain terms have very specific meanings in these regulations. These terms are defined as follows:

Academic record. Each student's Purdue University Fort Wayne cumulative record is maintained by the registrar in accordance with these academic regulations. The Purdue University Fort Wayne academic record is the sole basis upon which all questions relating to such matters as grades, graduation requirements, academic standing, and scholastic recognition are resolved. Since official transcripts are produced using Purdue University procedures, the official transcript may, as noted in these regulations, may vary somewhat from your Purdue University Fort Wayne academic record.

Credit. The semester hour is called the "credit hour" or "hour." Credit can be resident credit or transfer credit, as described below:

Resident credit. This is credit earned at Purdue University Fort Wayne or at another campus of Purdue University. There are two types of resident credit-course credit and special credit. Each is defined as follows:

Course credit. This is resident credit earned on the basis of enrollment in, and satisfactory completion of, courses.

Special credit. This is resident credit awarded by Purdue University Fort Wayne and based on factors other than enrollment in and satisfactory completion of courses. There are three types of special credit:

Credit by examination. This credit is awarded on the basis of achievement on a divisional or departmental proficiency examination.

Department credit. This is credit for a course offered by a department and granted on the basis of substantially equivalent experience. Only the director/chair of the department that offers the course is authorized to award this type of credit.

Achievement credit. This credit is granted on the basis of achievement on a nationally administered, college-level examination.

**Transfer (nonresident) credit.** This is credit earned from another university (other than Purdue University Fort Wayne or another campus of Purdue University). Transfer credits are evaluated by the Registrar's Office and accepted as transfer credit if completed at a regionally accredited institution with a grade of C- or better. Designations of plus and minus that accompany these grades will be disregarded in the evaluation of this credit.

Credit accepted as transfer credit will be equated to Purdue University Fort Wayne course numbers (or classified as 1XXXX, 2XXXX, 3XXXX, 4XXXX if not equivalent to Purdue University Fort Wayne courses), and posted to the academic record at the time of matriculation or re-entrance to Purdue University Fort Wayne. The academic-record entry includes the name of the transfer institution, the years attended, and the individual courses accepted for transfer. The Purdue University Fort Wayne college/school or department determines how credit earned at other institutions, and accepted by Purdue University Fort Wayne, applies to a student's plan of study. The dean or chair of the Purdue University Fort Wayne college/school or department may request an adjustment of transfer-course equivalencies.

Student classification. This is a system for classifying undergraduate students who have been regularly admitted to Purdue University Fort Wayne.

Undergraduate Student Classification	Earned Credit Hours
Freshman	Fewer than 30
Sophomore	30-59
Junior	60-89
Senior	90 or more

The Registrar may establish additional classifications to serve Purdue University Fort Wayne's record-keeping needs.

Beginning student. A student enrolled in college courses for the first time, or a student who has completed a small number of credits while in a temporary admission status, most often while still a high school student.

International student: For admission purposes, an international student is defined as: an individual who resides outside of the U.S. and will be applying for a temporary (e.g. F-1, J-1) visa to study at Purdue University Fort Wayne, or individual who resides in the U.S. on a temporary visa, and who is not an immigrant (W.S. legal permanent resident), or an undocumented immigrant, or a refugee.

Advanced placement. Admission of students to courses beyond the first course or courses in an established sequence, but without granting credit for earlier courses in the sequence

**Exception**. A departure from a department or university regulation that has been approved as a substitute or waiver to the catalog requirement. Exceptions require approval by the Dean or Department Chair that established the requirement (or their designee). Exceptions are documented on the student's degree audit.

Course work not scheduled for a regular fall or spring semester. This is course work offered during a summer session or during a period of time that differs from a regular 16-week semester, and that is equivalent in content, contact hours, and credit value to course work offered during a regular semester. Because the length of the course differs from the regular semester, all deadlines and time periods will be prorated.

Intensive course. A course that meets for extended class times but for fewer weeks than the course would meet in a standard session.

Pass/not-pass option. An enrollment option that generally limits course grades to P (pass) and NP (not pass). The option may be used to take only elective courses with limited concern for the grade. This option may not be elected for more than 20 percent of the credits required for graduation or in courses for which you have already earned a grade. Under the P/NP option, students who receive a grade of NP will have a grade of N recorded on official transcripts.

Auditor. A student who enrolls in a course, attends class, and pays full fees, but does not receive a grade or credit for the course. Registration as an auditor is included in the calculation of the academic load.

Cheating. Dishonesty of any kind with respect to examinations, course assignments, or alteration of records.

Plagiarism. A form of cheating in which the work of someone else is offered as ones own. The language or ideas thus taken from another may range from isolated formula, sentences, or paragraphs, to entire articles copied from printed sources, speeches, software, or the work of other students.

**Grade-point average (GPA).** This is a numerical calculation or report of grade averages. Purdue University GPAs are based on a four-point system with grades of A equated to 4.00 points, grades of F equated to 0.0 points, and other grades scaled accordingly (see *Grades*).

**NOTE**: Prior to June 1993, Purdue University transcripts and related Purdue University records were computed on a six-point scale (A = 6.00) rather than a four-point scale (A = 4.00). Since June 1993, Purdue University GPAs are computed using a four-point scale (A = 4.00).

#### **Degrees**

Colleges/schools may impose stricter requirements than those listed in this section, but they may not waive the following minimum standards. Provided these minimum standards are satisfied, adjustments to any degree requirement may be made by the unit establishing that requirement.

Degrees offered. For completion of undergraduate plans of study of at least 60 credits, associate degrees may be conferred. For completion of undergraduate plans of study of at least 120 credits, bachelor's degrees may be conferred.

Requirements for degrees. Students entering a degree, certificate, or premajor program, are required to fulfill the requirements published in the catalog current at the time of entry or re-entry to the university.

The primary reasons for a student to be required to meet the requirements of a subsequent catalog include:

- · Re-entry to Purdue University Fort Wayne (after a one year period of non-enrollment)
- · By request with the written acknowledgment of the academic advisor
- · When required by accreditation, a department may require students to complete the curriculum defined by the most current catalog.

Any student who remains continuously enrolled or admitted to the university will be required to meet the requirements of the catalog of the term of entry or re-entry to the university unless the student chooses to change to a subsequent catalog with the written acknowledgment of the academic advisor. Any student who is <u>not</u> continuously enrolled due to a period of deployment to serve in a branch of the armed services may meet the requirements of the catalog of the most recent entry or re-entry to the university. Any new requirement for a degree, certificate, or premajor program may not be imposed on currently enrolled students in these programs if it would increase the number of credits or the number of semesters required for completion of the program. The college/school/department committee in charge of curriculum matters may refuse to accept as credit toward graduation any course that was completed 10 or more years previously. Former students will be notified of all such decisions upon re-entering or when the credit is determined to be unacceptable.

To earn an associate or bachelor's degree at Purdue University Fort Wayne, the following four requirements must be satisfied:

1. Completion of, by resident credit or transfer credit, the plan of study underlying the degree, including

For an associate degree, registration in and completion of at least 32 credits of resident course credit, including at least 15 credits in courses applicable to the major.

For a bachelor degree, registration in and completion of at least 32 credits of resident course credit at the 200-level or above, including at least 15 credits at the 300-level or above in courses applicable to the major.

- 2. Normally, students must complete the entire final year at Purdue University Fort Wayne. However, with the approval of the college/school and if the student has satisfied the resident credit requirement, completion of the remaining requirements in another approved college or university is allowed.
  - 3. Students must establish a cumulative GPA of 2.00 or better.
  - 4. Students must register, either in residence or absentia, as a candidate for the desired degree during the academic session immediately preceding its conferral.

**Double majors and double degrees**. A student who will be completing the requirements for two or more degree programs simultaneously may be eligible to be registered as a candidate for more than one degree according to the following criteria:

- Double major If the degree programs are in the same college/school and lead to the same degree, only one degree shall be awarded. The academic record shall reflect multiple fields of study, as appropriate.
- Double degree If the degree programs are in different colleges/schools, two (or more) degrees may be awarded upon special request approved by the deans of the college or schools concerned and filed with the registrar at the beginning of the semester or session in which the degrees are to be awarded. If the degree programs are in the same college/school and lead to different degrees, the appropriate degrees shall be awarded.

**Graduation with distinction.** To be a candidate for the bachelor's degree with distinction, the student must have a minimum of 65 resident credits included in the computation of the cumulative GPA. To be a candidate for an associate degree with distinction, the student must have a minimum of 35 resident credits included in the computation of the cumulative GPA. In each college/school, the minimum cumulative GPA for graduation with highest distinction from an associate or bachelor degree program shall be at least 3.95 (A = 4.00). In each college/school, the minimum cumulative GPA for graduation with distinction from an associate or bachelor degree program shall be at least 3.80 (A = 4.00).

The required GPA, calculated each spring as detailed above, also applies to degrees for the following summer sessions and fall semester.

Conferring of degrees. Degrees are granted at the close of each academic session.

### **Encumbrances**

Current and former students that are in arrears to Purdue University Fort Wayne, are not eligible to receive transcripts or diplomas. The clearance of all financial obligations by the Friday before Commencement will be essential for graduation and release of the diploma.

## **English Language Proficiency**

The language of instruction at Purdue University Fort Wayne is English. Therefore, the ability to read, write, speak, and understand English is vital to academic success.

English-as-a-Second-Language. Prior to admission, the Admissions Office shall determine which prospective undergraduate students have a native language other than English. All such students who do not have transfer credit for an English composition course that carries credit toward graduation shall be identified as ESL students and shall be required to submit scores on the TOEFL or an equivalent test approved by the Department of English and Linguistics.

ESL students shall be admitted with the condition that they achieve appropriate competency levels in English composition.

Based upon TOEFL or equivalent test scores, the Department of English and Linguistics shall determine which ESL students need ESL instruction. Students who are found to be exempt from ESL course requirements shall be subject to the regular English placement-testing and course-completion requirements described in these regulations.

#### **Final Examinations**

Next-to-last week. No instructor may schedule a comprehensive or non-comprehensive examination except for laboratory and practicum courses, during the week preceding the last week of a fall or spring semester.

Final week. With the exception of courses classified as individual instruction, clinic, studio, practice teaching, or research and those offered for 0 credits, each class is expected to meet for a two-hour session during the last week of each fall or spring semester. The two-hour session is to be used for (1) a final examination; (2) a last, non-comprehensive examination; (3) submission of an out-of-class examination or assignments; or (4) a regular class meeting.

Conflicts. Students who (1) are scheduled to take more than two final examinations in one day, (2) have conflicting final examinations, or (3) are scheduled to take a state, national, or professional licensing examination, may contact the instructors involved prior to the last week of a fall or spring semester to obtain appropriate rescheduling. In cases where the student and instructor cannot agree upon a rescheduling, the vice chancellor for academic affairs shall investigate and issue a binding schedule.

Absences. Students must contact the instructor as soon as possible if the absence from a final examination is because of an emergency. Absence from a final examination, may result in a grade of F for the course.

#### Grade Appeals

The grade appeals policy applies to all students enrolled at Purdue University Fort Wayne. It can be used by any student who has evidence or believes that evidence exists to show that a course grade was assigned or a similar evaluation was made as a result of prejudice, caprice, or other improper condition such as mechanical error. In appealing, the student must support in writing the allegation that an improper decision has been made and must specify the remedy sought. The student should seek the assistance of the dean of students in pursuing the appeal. During an appeal, the burden of proof is on the student, except in the case of alleged academic dishonesty, where the instructor must support the allegation. The student may have an advisor or friend present during all meetings with faculty members, administrators, and/or committees; he or she may advise the student but may not speak for the student during the meetings. Grades may be changed only by a university authority upon the decision of the grade appeals subcommittee or by the instructor any time prior to the decision of the grade appeals subcommittee.

Appeal deadlines. An appeal must be initiated no later than the fourth week of the fall or spring semester immediately following the session in which the grade was assigned. A final decision at each step must be reported within 30 calendar days of the filling of an appeal at that step, provided that this deadline falls within the regular academic year (fall or spring semester). If the deadline falls during the summer, the decision must be reported within 30 calendar days of the start of the fall semester. Each successive step in the appeals procedure must be initiated within three calendar weeks of the completion of the prior step.

#### Steps in the Process of a Grade Appeal

Step 1. Course instructor: The student makes an appointment with his or her instructor to discuss the matter. If the instructor is unavailable, the department or program chair shall authorize an extension of time or allow the student to proceed to Step 2. If the chair is unavailable, the dean of the college or school shall authorize the extension.

Step 2. *College/school/department/program*: If the matter has not been resolved at Step 1, the student makes an appointment with the chair of the department or program offering the course, who may make an informal attempt to resolve the appeal. If the appeal is not resolved informally, the chair will direct the student procedurally in making an appeal to the college, school, department, or program committee. Only one committee shall hear the appeal in Step 2. The student filing an appeal shall have the opportunity to be heard in person by the committee.

Step 3. *Grade appeals subcommittee*: If the matter has not been resolved at Step 2, the student makes an appointment with the dean of students, who will direct the student procedurally in submitting the case to the grade appeals subcommittee.

College/school/department/program appeals procedure. Each college, school, department or program will establish appeals procedures that provide for a committee of three or more faculty members responsible for hearing grade appeals related to courses listed or administered by that college/school/department/program if those appeals have not been satisfactorily resolved between the student and the instructor or informally by the department chair. The procedures established by each college, school, department or program shall provide for each case to be heard by only one such committee. The procedure shall provide the opportunity for the student to be heard in person and for the decision to be reported in writing to the student and the instructor. A copy of each unit's procedures will be given to the vice chancellor for academic affairs, to the dean of students, and to students, upon request.

Grade appeals subcommittee. This subcommittee shall consist of nine members elected from among the Voting Faculty according to procedures specified in the Bylaws of the Senate. Before hearing the details of a case, the subcommittee will decide by majority vote whether to consider the appeal and will report its decision in writing within 30 calendar days. The bases for a decision to consider an appeal may include (but not be limited to) a finding that (1) improper procedures have been followed by university employees at earlier steps of the appeal; (2) new information is present; or (3) the instructor has declined to accept the college, school, department, or program committee's recommendation. No member of the subcommittee may take part in an appeal involving a course or instructor from the member's department or program. Members should also recuse themselves from cases in which they have potential conflicts of interest, personal involvement, schedules that will interfere with hearing the appeal in a timely manner, or other disqualifying causes. From those members remaining, the chair will elect the five-person hearing panel. The panel members will elect a chair who will be responsible for making arrangements related to the case. If the case is to be heard, the hearing will take place within 30 days of the decision to hear the appeal, or within 30 days of the start of the fall semester, whichever is applicable. Each member of the panel will vote on whether the appeal is valid, and if so, on what remedy should be provided. If the panel, by majority vote, finds in favor of changing a grade, the chair shall report this finding to the registrar and to the parties listed below. The decision of the panel is binding on all parties and may not be appealed.

Reporting of subcommittee and panel decisions. The subcommittee and each panel shall report its finding and actions to the student; the college, school, department, or program from which the appeal came; the instructor; the chair of the student's department; the dean of the student's college or school; the dean of students; and (in the case of a panel decision) the chair of the grade appeals subcommittee.

## **Grade-Point Averages**

A grade-point average (GPA) is a weighted average of all credits for which a GPA-related grade (A, B, C, D, F, IF) has been assigned. The three GPAs used at Purdue University Fort Wayne are defined and computed (and rounded to two decimal places) as follows:

Semester GPA is computed using only those credits for which are assigned a GPA-related grade for the specified semester.

Cumulative GPA is computed using all credits which are assigned a GPA-related grade, with the exception of credits earned in those courses that have been repeated and are not repeatable for credit. All credits earned at Purdue University Fort Wayne or at another campus of Purdue University for which a grade of A, B, C, D, F, or IF was assigned are applicable.

**Program GPA** is computed using credits which are assigned a GPA-related grade in only those courses that fulfill a graduation requirement, with the exception of credits earned in those courses that have been repeated and are not repeatable for credit. For students pursuing more than one degree program, the cumulative GPA will be determined by the academic unit through which they register.

All applicable credits earned at Purdue University Fort Wayne or at another campus of Purdue University for which a GPA-related grade was assigned are included if they were received for courses that fulfill a graduation requirement.

**Note**: Prior to June 1993, Purdue University transcripts and related Purdue records were computed on a six-point scale, (A = 6.00). Since June 1993, Purdue University GPAs are computed using a four point scale (A = 4.00).

#### Grades

Basis of grades. The instructor is responsible for explaining to the student preferably in writing at the beginning of an academic session, the course requirements and grading system to be used. The student will be assigned a grade in each course at the close of the session. Students are responsible for the completion of all required work in each course by the time of the last scheduled class meeting or other deadline set by the instructor, unless the student is h officially withdrawn from the course, or unless both student and instructor have agreed that a grade of Incomplete (I) is warranted.

Semester Grades. The following grades may be assigned:

Grade		Grade Points
A+, A	Highest passing grade	4.0 x Semester Hours
A-		3.7 x Semester Hours
B+		3.3 x Semester Hours
В	Above-average passing grade	3.0 x Semester Hours
B-		2.7 x Semester Hours
C+		2.3 x Semester Hours
С	Average passing grade	2.0 x Semester Hours
C-		1.7 x Semester Hours
D+		1.3 x Semester Hours
D		1.0 x Semester Hours
D-	Lowest passing grade	0.7 x Semester Hours

- Failure or unauthorized discontinuance of class attendance; no credit.
- Incomplete. A temporary record of passing work that (1) was interrupted by circumstances beyond the student's control, or (2) represents satisfactory work-in-progress in an independent-study or self-paced course. A student must have a majority of the required coursework completed (as determined by the instructor) before the instructor is permitted to assign the grade of incomplete.
- IF Unremoved-removed incomplete, Failing. Recorded for failure to achieve a permanent grade by the deadline stated in these regulations.
- NC Completion of the course as an auditor; carries no credit.
- NP Not passing grade when enrolled under the P/NP enrollment option. Purdue University students who receive this grade will have a grade of N recorded on official transcripts.
- P Passing grade. Under the P/NP option, equivalent to a grade of A+, A, A-, B+, B, B-, C+, C or C-.
- S Satisfactory, credit. Awarded by the registrar upon satisfactory performance in a course offered only on an S/F basis, or on a departmental/divisional examination, or another award of special credit, or completion of a 0- credit course. Purdue University students who receive this grade will have a grade of P recorded on official transcripts whenever the course involves one or more credits.
- W Withdrew. A record of the fact that the student officially withdrew from a course or was administratively withdrawn from a course for nonpayment of fees after the end of the first week.

Pass/not-pass (P/NP) option. The P/NP grade option provides a limited opportunity for students to take "free electives" with minimal concern for the grades earned. Students must fulfill the same requirements as others enrolled in courses for which they elect this alternative. Instructors are not advised that students have registered for their courses under this option.

Use of this option is subject to the three general limitations listed below. However, the college/school or department may impose additional restrictions.

- Students may not elect this option for courses that fulfill specific graduation requirements other than total number of credits (i.e., only for "free-elective" courses).
- Students may not elect this option for more than 20 percent of the credits required for graduation
- Students may not elect this option for any course in which they have already earned a grade of A, B, C, D, or F.

Grades earned of A, B, or C under this option, will be changed to a grade of P by the registrar and posted to the transcript. Students enrolled at Purdue University Fort Wayne as a Purdue University student, grades of D or F that you earn under this option will be changed by the Registrar to a grade of NP and will post to your official transcript as a grade of N. Grades of P and NP (or N) are not used in the computation of the GPA.

Incomplete. A grade of I may be granted to students (1) who are unable to complete specific course requirements for clearly unavoidable, nonacademic reasons (such as extended illness or relocation) and (2) whose work has been of passing quality up to that time. A student must have a majority of the required coursework completed (as determined by the instructor) before the instructor is permitted to assign the grade of incomplete. A grade of I will not be considered as an alternative to an anticipated low grade in a course. Certain Purdue University Fort Wayne colleges/schools or departments impose additional limitations on the use of I grades.

An instructor who reports a grade of I must provide the registrar's office with a form specifying:

- · Reason for the incomplete
- · Requirements for completing the course
- Grade earned for the course to date

The specific time limit allowed for completing the course which shall not exceed one calendar year. An instructor may change the incomplete to a regular letter grade if requirements for completion of the course are not met within the time specified.

Given extenuating circumstances, the initial time limit may be extended for a period not to exceed one additional calendar year if approved by the instructor and the instructor's dean, and if the registrar's office is notified before the expiration of the original time limit. The registrar's office changes the I to a grade of IF unless the student has graduated or remove the incomplete within the time allowed.

If a student re-enrolls in the same course while the I is still on the academic record, and the course is not repeatable for credit, the original grade of I remains on the official transcript.

If a student transfers resident credit for a course in which they received an incomplete, the grade of I remains recorded on the academic record for up to one calendar year from the date of admission to Purdue Fort Wayne. At the end of this period, if the student has not graduated or provided evidence that the incomplete has been replaced with a permanent grade, the registrar's office will change the incomplete to IF.

Final grade report. The complete record for the session and the cumulative GPA are available to the student through their online go.pfw account and are reported to the major department and college/school.

Changes of grade. An instructor, who discovers within 30 days of the grade-processing deadline that a grade reported to the student was in error, must promptly submit to the registrar a statement, countersigned by the instructor's department chair, of the circumstances of the error and of the change to be incorporated in future GPAs. Correction of errors after this time requires the additional approval of the instructor's dean. The registrar will inform the student, department chair, and the dean of the change of grade. Students may seek a change of grade through the grade-appeals procedure Grade Appeals.

Retaking a course. Students may retake any course. Unless the course is described in this catalog or its "what's new" section as repeatable for credit, credit will be given only once for a repeated course, and only the most recent grade earned will be incorporated into cumulative GPA calculations.

#### Change of Major

Current students must work directly with the department of the intended major. The department and advisor will review the student's academic record.

#### Minors

Completion of any minor requires a minimum of 12 credits, including at least 6 resident credits at the 200 level or above. Minor certification is based on completion of the minor program requirements in effect for the catalog of your current degree program. Concurrent with the completion of the student's degree requirements, the transcript will denote completion of the minor. No entry will be made on the transcript if the minor is not completed by the time the student is certified for graduation.

Students may earn a minor by providing the department verification of acceptance into the minor program, a statement of the minor program requirements, and by successfully completing those requirements.

#### **Placement Tests**

Placement procedures. Students should complete the following procedures as soon as possible after admission to Purdue University Fort Wayne. Students completing these procedures shall be notified of the test results and their implications in a timely fashion.

English. A regularly admitted beginning student is allowed to register for classes only after completing the appropriate placement procedure. Any other student is allowed to register for classes beyond the session in which the first 12 credits are completed at Purdue University Fort Wayne only if the student has (1) completed the appropriate procedures; or (2) established credit in an entry-level English course.

Mathematics. A regularly admitted beginning student is allowed to register for classes only after completing the appropriate placement procedure. Any other student is allowed to register for classes beyond the session in which the first 12 credits are completed at Purdue University Fort Wayne only if the student has (1) completed the appropriate procedures; or (2) established credit in an entry-level math course.

Students who place in developmental math must complete the appropriate developmental course(s) in their first 24 credits of Purdue University Fort Wayne course work, with the exception of developmental math for those students enrolled in a certificate or associate degree program that does not require math.

Reading. Regularly admitted beginning students are considered for reading placement using one of the following.

ENG R190 Rhetorical Reading is the required course for students who have

- 1. on the new SAT, a Total Score (Test Code S95 on far left of SOATEST) of 1020 or lower;
- 2. on the old SAT, a Critical Reading score (Test Code S01) of 450 or lower; or
- 3. on the ACT, a Reading score (Test Code A03) of 19 or lower.

A score above the minimum on any of these tests exempts the student from the requirement. A student not meeting the minimum has the option to take the Reading Placement Test for which a score of 003 requires ENG R190 (002 recommends the course, and 001 exempts).

Students who do not meet at least one of these requirements will be required to complete a reading course as specified by the Department of English and Linguistics and approved by the College of Arts and Sciences during one of the student's first two enrollment periods.

Foreign language. If a student studied Spanish for two or more years in high school and wishes to continue to study that language, the student may enroll in the Spanish 113 course, recommended unless the student graduated from high school five years or more prior to enrolling at Purdue University Fort Wayne. The 113 course is equivalent to the second semester of the first year, but incorporates a review of what is studied in Spanish 111. No placement test is required for enrollment in 113. Students who graduated from high school five years or more prior to enrolling at Purdue University Fort Wayne may start their study of Spanish over by enrolling in 111, or they may take a placement test to determine whether they might be successful in 113. French and German do not offer 113 classes, so a placement test is important to determine whether students who have had some French or German in high school should begin in 111 or 112.

If a student completed three or more years of high school French, German, or Spanish, the student is urged to take the foreign-language placement test in order to determine where they place. Call 260-481-6600 to schedule a free foreign language test.

If a student studied French, German, or Spanish at a college or university and have transfer credits, please contact the Department of International Language and Culture Studies (LA 267, 260-481-6836) before enrolling in additional classes in that language.

English as a second language. If a student has been designated as an ESL student, see English Language Proficiency.

### Special Credit, Credit for Military Service, and Excess Undergraduate Credit

Credit by department examination. Opportunities for earning undergraduate credit by department examination are encouraged in order to expedite the education of qualified students. Toward this end, each academic department establishes procedures to consider candidates and to administer and grade such examinations. Each department also keeps a list of the principal courses available for credit by examination and test schedules if known.

Students may request an examination for credit for a course if the course is available for credit by examination and if no grade in the course other than a grade of W or NC has been awarded. The examination will be at least as comprehensive as those given in the course, and will be graded satisfactory (performance comparable to that expected of a student who receives an A, B, or C in the course), or unsatisfactory. The registrar will record results of satisfactory performance on your academic record; no academic record entry will be made for unsatisfactory performance.

Achievement credit. Credit or transfer credit for nationally administered examinations (except the International Baccalaureate Program) will be awarded only after approval by the Purdue University Fort Wayne department that offers courses in the subject area.

Credit for military service. Each college/school determines whether credit for participation in military service may be applied toward a degree.

Excess undergraduate credit. A senior with a GPA of 3.00 or better may, with written permission from both an authorized graduate advisor and the instructor(s) involved, enroll in up to 9 credits in excess of the requirements for graduation, in courses intended for use in a graduate program. Permission, if given, will be noted on forms supplied by the registrar, who shall make a transcript notation of the special status of these credits. Instructors will impose graduate-level standards in these courses.

#### **Transcripts**

A student or former student whose record is not encumbered for any reasons described herein shall, upon application to the Registrar and payment of any prescribed charge, be entitled to receive a transcript of the complete record, including any major(s) and minors(s).

The registrar's office is the only university office authorized to issue official transcripts. Instructions for requesting transcripts are available on the Purdue University Fort Wayne Registrar's Office webpage.

Records of Actions on Transcripts. Disciplinary actions will not be recorded on transcripts unless disciplinary actions involve involuntary separation from the University or degree revocation. In these instances, the following notations will be added to the transcript:

- Suspension The following statement will be added to the transcript while the suspension is in place. Once the suspension ends, regardless of whether or not the student returns to the University, the statement will no longer appear on the academic record. "The student has been suspended until (date) due to violation of University regulations."
- Expulsion The following statement will be added to the transcript and remain a permanent part of the transcript. "The student was expelled due to violation of University regulations."
- Degree revocation The following statement will be added to the transcript and remain a permanent part of the transcript. "The individual's degree has been revoked and this individual has been expelled due to violation of University regulations."

#### Transfer Credit

Purdue Fort Wayne Transfer Credit Policies

- 1. Transferability: Courses completed with a grade of C- or higher in college level courses taken at a regionally accredited institution will transfer. Only credit will transfer; grades do not. Method of delivery (classroom, online, dual- or concurrent-credit courses taught in high school) will not affect transferability.
  - o Grades of "Pass," "Satisfactory," or "Credit" must be defined as C- or higher for courses to transfer.
  - Remedial or Developmental Courses, including English as a Second Language, will not transfer.
  - Institutions outside the US must be identified as holding the equivalent to Regional Accreditation in order for courses to transfer (please see International Transfer Credit Requirements).
- 2. **Equivalency:** Equivalency is determined based on comparable learning outcomes. Equivalent courses will count toward degree requirements just like corresponding Purdue courses do. Equivalencies are ultimately at the discretion of the academic department and are subject to change.
- Undistributed Credit: Courses that are transferable but not determined equivalent to a Purdue Fort Wayne course will be articulated as 1XXXX, 2XXXX, 3XXXX,
  4XXXX credit in the corresponding subject. The course level of undistributed credit granted will match that of the source institution. Use of XXXX Credit towards
  degree progress is at the discretion of your advising department.
- 4. Maximum number of transfer credits allowed: There is no limit on transferable credit. 32 credit hours must be completed at Purdue Fort Wayne or another Purdue campus in order to graduate with a degree from Purdue Fort Wayne. See academic program information for program-specific limitations on transfer credit.
- Number of Credits Student can apply to a Specific Area (General Education vs. Major): Not all transfer credit granted will satisfy degree requirements for every major. Consult with your academic advisor for information on transferring credit for your major.
- 6. Credit for Prior Learning: Credit for Prior Learning not otherwise granted as transfer credit can be granted at the discretion of the corresponding department as Departmental Credit.
- 7. International Transfer Credit Requirements: For any institution outside the United States that does not hold United States Regional Accreditation, a third-party course-by-course evaluation from ECE or WES must be provided. XXXX credit in corresponding disciplines will be awarded for international credit unless course descriptions and/or syllabi are provided as well.
- 8. Transfer of Credit across Academic Levels: Graduate-level coursework will not transfer to an undergraduate record. If you would like to use a graduate-level course for an undergraduate degree, consult with your academic advisor.
- Credit Conversion of Transfer Credit: Purdue Fort Wayne operates on a semester calendar. Credit from institutions operating on a calendar other than the semester will be converted to yield semester credit hours.
  - For quarter hours, the credit will be multiplied by .75 to yield the semester hours.
- 10. Transfer of Credit where Courses have differing hours: With few exceptions, transfer courses must bear at least as many hours as the Purdue University Fort Wayne equivalent.
  - For instances where the credit hours for an incoming course are greater than the appropriate Purdue University Fort Wayne equivalent course, Undistributed credit in that discipline will be also awarded to make up the difference in hours.
- 11. Credit by Exam: Credit by exam from another institution does not transfer to Purdue Fort Wayne. For credit from exams such as Advanced Placement (AP), College Level Examination Program (CLEP), or International Baccalaureate (IB), you must provide the official score report(s) from the testing service; the university does not accept this type of credit from another school's transcript.
- 12. Duplicate Courses: Credit for duplicate courses will only be granted once. This does not apply to repeatable courses.
- 13. **Grade Replacement:** The only way to replace grades from Purdue Fort Wayne courses is to retake the course at Purdue Fort Wayne or another Purdue campus. Course credit from another institution will not replace grades for an equivalent Purdue course.

## **Purdue University Fort Wayne Policies**

The following Purdue University Fort Wayne policies are in effect for all undergraduate students at the time of publication. Changes to Students Rights, Responsibilities and Conduct go into effect periodically and are published in the Purdue University Fort Wayne Student Handbook.

#### **Academic Renewal**

This option may be available to students under the following conditions:

- Students have not registered for classes at Purdue University Fort Wayne or any other campus of Purdue University for five or more calendar years; and
- · The college/school through which the student re-enters Purdue University Fort Wayne provides this option for eligible students.

The academic-renewal option provides the eligible student in a participating college/school a review to exclude from the calculation of their cumulative GPA grades previously earned that are considered to be below "passing." These grades and the courses in which they were earned will remain on the official academic record. The student must request

this option and it must be exercised during the re-entry semester and can be employed only one time per student. Academic renewal does not impact the academic standing in place at the time the student departed from the university. Students interested in this option should contact the college/school that offers the degree program they are seeking.

#### Admission

Students must be admitted to Purdue University Fort Wayne before they are eligible to register for classes. Admission applications may be obtained from online at apply.pfw.edu/apply. Purdue University Fort Wayne admissions counselors are available to help with selections. Please call the Admissions office at (260)-481-6812 for a personal appointment. Program-specific admission requirements may be imposed by schools/divisions and departments. Any such requirements become effective when published in the catalog or appropriate supplementary publications. Applicants should be aware that certain criminal convictions may result in ineligibility for admission to certain programs of study.

Basic skills. As an applicant for regular admission to Purdue University Fort Wayne, students should already possess the following basic-level skills in reading, writing, and mathematics:

Reading. Students should be able to identify the main and supporting ideas in moderately complex texts, identify the authors' purposes, and evaluate the logic, accuracy, and value of their writing. Students should be able to recognize implications, inferences, and assumptions and to integrate information from their experience or reading with new information.

Mathematics. Students should be able to demonstrate arithmetic numeracy and mastery of the content of a substantial first-year high school algebra course and a high school geometry course. Students should be able to use problem-solving strategies and translate word problems into mathematical expression; to recognize relationships between variables in graphs; and to identify one-, two-, and three-dimensional figures, and use the formulas that yield the dimensions, area, or volume of the figures.

Graduation and persistence rates. Graduation and persistence-rate information for Purdue University Fort Wayne is available at www.pfw.edu/offices/ir/consumer

Purdue University Fort Wayne Admission requirements. All applicants must have earned Indiana Core 40 high school diploma (or similar college preparatory diploma from high schools in other states) not a certificate of completion or non-standard curriculum or a GED. Some of the university's degree and certificate programs have admissions requirements in addition to the general campus requirements. These program-specific requirements are explained in the Colleges and Programs area of the Purdue University Fort Wayne catalog and cannot be waived. Purdue University Fort Wayne Admission requirements can be found at <a href="mailto:ptw.edu/admissions/areas/applying/admission-requirements/">ptw.edu/admissions/areas/applying/admission-requirements/</a>

#### Purdue University Fort Wayne Admission classifications are the following:

- 1. Regular admission to a program of choice
- 2. Admission to Pathway Program Students will be provided with information about the Purdue University Fort Wayne academic resources available to them to ensure their academic success.
- 3. Admission with Conditions will be offered to students if they do not meet requirements for regular admission. Students will be required to meet prescribed academic requirements to support their academic success.

Minimum requirements for admission with conditions are: 1. Indiana Core 40 high school diploma (or similar college preparatory diploma from high schools in other states); 2. SAT total scores of 840 or above and a minimum math score of 420 or ACT above 16 minimum math score of 15.

#### Applicants for undergraduate admission are classified into one of the following admission categories:

- 1. **Beginning freshman**. If students have never attended a college as a degree-seeking student, they must submit an application, a high school transcript or GED scores, and an application fee. Unless a student graduated from high school more than two years prior to applying for admission, they must also submit SAT or ACT scores.
  - To have SAT scores sent to Purdue University Fort Wayne, use code number 1336.
  - To have ACT scores sent to Purdue University Fort Wayne, use code number 1217.

If students are a high school student, they should apply to Purdue University Fort Wayne as soon as possible at the beginning of their senior year.

If students are a high school senior completing graduation requirements at the end of their seventh semester, they must meet all regular admission criteria listed below in order to enroll in the spring semester. If students have not met all requirements, they may be considered for admission for the following fall.

For admission to programs in engineering refer to requirements in the current Purdue University Fort Wayne <a href="mailto:catalog.pfw.edu">catalog.pfw.edu</a>.

Students may be offered regular admission to the program of choice, admission with recommendations, conditional admission or be denied admission to the university.

- 2. **GED graduates.** Students must submit an official copy of their GED text scores. If a student scored 580 or above on the GED they will be offered regular admission to their program of choice, if they scored 570-540 they will be offered admission with conditions, if they scored 530 or lower they will be denied admission.
- 3. **Returning Adults**. If the applicant graduated from high school or earned a GED more than two years prior to applying for admission and have not attended another college, an official copy of the high school transcript or GED scores must be submitted. Students may be offered regular admission to the program of choice, admission with conditions, or denial of admission.
- 4. **Transfers**. If students have attended college but never attended Purdue University Fort Wayne or Purdue University West Lafayette, an application, official high school transcript and official transcripts from all colleges attended must be submitted. A cumulative GPA of 2.0 at the most recent college attended is required. Students will be offered regular admission or denial of admission based on their GPA.
- 5. Intercampus transfer from Purdue University. If students are currently attending, or have attended a Purdue campus and want to transfer temporarily or permanently to Purdue University Fort Wayne, they must submit an application, an unofficial transcript from their Purdue campus, and official transcripts from any colleges attended since enrollment at Purdue. No application fee is due.
- 6. Re-entry. If students previously attended Purdue University Fort Wayne but have not registered for classes at Purdue University Fort Wayne for more than one year, they must submit an application and official transcripts from any colleges attended since enrollment at Purdue. A \$100 application fee is due. Reentry or entry to desired degree program is not guaranteed.

Since a student re-entry status may be subject to the approval of the specific division/department they may wish to re-enter, several working days may be required to process the application before registering for classes.

- 7. **Dual credit-Collegiate Connection**. High school students (junior and seniors) with a GPA of 2.8 or higher and high school students (second semester freshmen and sophomores) with a GPA of 3.0 or higher may take college classes offered either on campus, via Internet, or at their high school campus as long as they meet the prerequisites for the course. Students must submit an application, high school transcript, and parent/guardian permission form. There is no application fee for the dual credit Collegiate Connection application. Students are not eligible for federal or state financial aid, but may qualify for financial assistance for classes held at their high school taught by a PFW credentialed high school instructor. Contact the Collegiate Connection office at 260-481-5478.
- 8. Special college graduate. If students have a bachelor's degree from a regionally accredited institution and wish to take undergraduate courses but do not plan to pursue another undergraduate degree, they may take up to 24 undergraduate credits as a temporary student. Students must submit an application but need not submit an application fee or additional documentation. Students are not eligible for financial aid.

9. **Guest**. If a student wants to become a visiting student from another college outside Purdue systems, they may enroll temporarily at Purdue University Fort Wayne for up to 24 credits. Students must submit an application and an official transcript from their home institution. No credits will be evaluated for transfer to Purdue University Fort Wayne. No application fee is due. Students are not eligible for financial aid.

Institutional, state, and federal financial aid is not available to special adult students, graduate nondegree students, special high school students, and guest students. These are temporary/nondegree-seeking classifications.

Regular admission of a temporary student. If students are admitted in temporary (non-degree) status, they may apply for regular admission for a subsequent semester. After they have earned 24 credits in temporary status, they may register for additional credits only after they apply for and are granted regular admission. If students are granted regular admission, their academic advisor will determine which of the courses completed as a temporary student may be applied to satisfy the requirements of their degree program. An application fee will be charged.

Appeal of an Admission Decision. To appear an admission decision, a student must submit a written statement to the Purdue University Fort Wayne Admission Appeals Committee explaining how, regardless of past academic performance, that they are now prepared to be successful in university studies. The statement must be typed and no longer than one page. Students name, address and contact information must be included. The decision of the committee will be sent in writing.

Mailing address: Appeal Committee, Purdue University Fort Wayne Office of Admissions, 2101 E. Coliseum Blvd., Fort Wayne, IN 46805 FAX number: 260-481-5450

Email: ask@pfw.edu

**Readmission.** A student who has been dismissed from Purdue University Fort Wayne or from another campus of Purdue University may not enroll at Purdue University Fort Wayne until one fall or spring semester has passed. All readmissions are subject to stipulations in effect as a condition of readmission. Readmissions shall be reported to the Registrar and an appropriate entry shall be made on the student's academic record. A student who is academically dismissed for a second time is not eligible to enroll for at least one year.

A student dismissed by this policy must apply to the appropriate office or readmission committee. A fee is assessed for processing the readmission application.
 Readmission is not guaranteed.

#### **Affiliation with Purdue University**

Purdue University Fort Wayne is a campus of Purdue University. Students enrolled at Purdue University Fort Wayne who elect to transfer to another campus of Purdue University, will have courses completed at Purdue University Fort Wayne treated as resident credit.

#### Affirmative Action, Nondiscrimination, and Anti-harassment

Purdue University Fort Wayne is committed to maintaining an inclusive community that recognizes and values the inherent worth and dignity of every person; fosters tolerance, sensitivity, understanding, and mutual respect among its members; and encourages each individual to strive to reach his or her own potential. In pursuit of its goal of academic excellence, the university seeks to develop and nurture its diversity. The University believes that diversity among its many members strengthens the institution, stimulates creativity, promotes the exchange of ideas, and enriches campus life.

Purdue University Fort Wayne views, evaluates, and treats all persons in any University-related activity or circumstance in which they may be involved solely as individuals on the basis of their personal abilities, qualifications, and other relevant characteristics.

Purdue University Fort Wayne prohibits discrimination against any member of the University community on the basis of race, religion, color, sex, age, national origin or ancestry, genetic information, marital status, parental status, sexual orientation, gender identity and expression, disability, or status as a veteran. The University will conduct its programs, services, and activities consistent with applicable federal, state, and local laws, regulations, and orders and in conformance with the procedures and limitations as set forth in Purdue University's Equal Opportunity, Equal Access and Affirmative Action policy, which provides specific contractual rights and remedies. Additionally, the University promotes the full realization of equal employment opportunities for women, minorities, persons with disabilities, and veterans through its affirmative action program.

It is essential that Purdue University Fort Wayne demonstrate its intellectual and ethical leadership by reaffirming its strong position against harassment in all forms. All members of the University community must be able to pursue their goals, educational needs and working lives without intimidation or injury generated by intolerance and Harassment.

Harassment in the workplace or the educational environment is unacceptable conduct and will not be tolerated. Purdue University Fort Wayne is committed to maintaining an educational and work climate for faculty, staff and students that is positive and free from all forms of Harassment, including Harassment toward individuals for reasons of race, religion, color, sex, age, national origin or ancestry, genetic information, disability, status as a veteran, marital status, parental status, sexual orientation, gender identity, or gender expression. The University will not tolerate Harassment of its faculty, staff or students by persons conducting business with or visiting the University, even though such persons are not directly affiliated with the University.

For questions, advice or complaints, please contact the Office of Institutional Equity (Kettler Hall 252, 260-481-6106) or with the director of Services for Students with Disabilities (Walb 113, 260-481-6657).

## **Drug and Alcohol Abuse Prevention**

Guidelines for the prevention of alcohol and substance abuse are included in the Student Handbook. Copies of the handbook are available at various campus locations.

#### **Enrollment Certification**

Current students can use Enrollment Certification services on the Enrollment tab in goPFW for the following enrollment certification services:

- Enrollment verification certificates for health insurers, lenders, insurance companies and other organizations
- · Find out when deferment notices were sent to their student lenders
- · View their enrollment history
- View the proofs of enrollment sent on their behalf to student service providers
- · Obtain a list of their student loan holders

If enrollment certification is not undertaken using goPFW, the registrar's office is authorized to officially certify your enrollment status. Requests for enrollment certification may be directed to that office. Enrollment status for a specific semester/session can be certified only after classes for that semester/session have begun and will be reported only as of the date requested.

### Ethical Guidelines for Purdue University Fort Wayne Information Technology (IT) Users

(Reprinted from Purdue University Fort Wayne Faculty Senate Document SD91-5, as amended December 13, 2010)

The Purdue University Fort Wayne Code of Student Rights, Responsibilities, and Conduct (hereafter, the Code) sets forth general policies and procedures governing the use of university facilities by students. Various university policies establish similar requirements for faculty and staff. The purpose of these guidelines is to interpret these policies and procedures specifically for students, faculty, and staff using the university's IT facilities.

University IT resources are designed to be used in connection with legitimate, university-related purposes. The use of university IT resources to disseminate obscene, pornographic, or libelous materials; to threaten or harass others; or to otherwise engage in activities forbidden by the Code or university policy is subject to disciplinary action.

Intellectual property rights and responsibilities. Central to an understanding of the rights and responsibilities of IT users is the notion of intellectual property. In brief, this concept holds that materials stored in electronic form are the property of one or more rightful owners. Like any other property, electronically stored information, whether data or programs, can be stolen, altered or destroyed, misappropriated, or plagiarized. Such inappropriate activities violate the Code and university policy and are subject to disciplinary action

Access rights and responsibilities. The use of lab, e-mail, Web, and other IT resources, including wired and wireless networks, should be focused on facilitating university-related purposes; other uses-for example, using IT resources to conduct a commercial enterprise or private business-constitute theft from the university subject to disciplinary action. Similarly, the introduction of information that interferes with the access or information of others-for example, the introduction of programs of a type commonly called "viruses" or of nonacademic, network-game simulations-is subject to disciplinary action. E-mail should not be used for junk mailings. Junk e-mail, including chain mail, wastes system resources and the time of those who receive it. Neither should e-mail be used to forge a message so as to have it appear to come from another user. All such inappropriate uses of e-mail are subject to disciplinary action, including, but not limited to, loss of the university-sponsored e-mail account. Certain university-controlled IT resources are openly available to all students on a first-come, first-served basis; access to other resources is limited-often only by means of posted notices-to students in certain disciplines or specified courses; access to still other resources is carefully controlled by such means as user ID's and passwords. Students are responsible for adhering to the spirit and the letter of these access controls. Violations of access rights can be interpreted under the Code and university policies as theft of university services whether or not those services have been separately billed. Students, faculty, and staff are also responsible for ensuring the confidentiality of access rights under their control. For example, release of a password, whether intentional or inadvertent, invites misuse by others and may be subject to disciplinary action.

General rights and responsibilities. Despite access controls imposed, system failures may occasionally make it possible for students to inappropriately read, use, copy, alter, or delete information stored electronically on a university computer system. System users are responsible for not exploiting such system failures and for reporting them to proper university personnel so that corrective steps can be taken. The university strives to maintain a quiet, environment in its computer labs in order that lab users can use their time productively and with minimal distractions. Proper use of computer resources follows the same standards of common sense and courtesy that govern the use of other public facilities. Improper use violates those standards by infringing upon others' ability to fulfill their responsibilities. All inappropriate uses of IT resources should be reported to proper authorities for possible disciplinary action.

#### Fees and Expenses

Banded tuition is defined as charging a single tuition rate for credits within a defined range. Beginning fall semester 2018, undergraduates will pay the same basic tuition rate for a course load of 12 to 18 credit hours per semester.

Banded tuition is a way to help students graduate on time and reduce the cost of their education. Students who take advantage of the band, and enroll in and pass 15 or more credits per semester will graduate in four years. Tuition charged by the credit hour creates a financial disincentive for students to take more courses in a particular semester. According to the Indiana Commission for Higher Education, an additional year of college can cost a student more than \$50,000 in tuition, lost wages and related costs.

All fees are subject to change by action of the trustees. Fees for the 2018-2019 school year are shown below:

Course fees listed below. If you audit a course, regular course fees are assessed.

Classification	1-11.99 Credit Hours	12-18 Credit Hours	19+ Credit Hours
Undergraduate residents	\$281.65 per credit	\$4,224.75	\$4,224.75 + \$281.65 per credit
Undergraduate nonresidents	\$676.25 per credit	\$10,143.75	\$10,143.75 + \$676.25 per credit
Graduate residents	\$347.25 per credit	NA	NA
Graduate nonresidents	\$786.00 per credit	NA	NA
Distance Learning Classes			
Undergraduate residents	\$281.65 per credit	\$4,224.75	\$4,224.75 + \$281.65 per credit
Undergraduate nonresidents	\$676.25 per credit	\$10,143.75	\$10,143.75 + \$676.25 per credit
Graduate residents	\$347.25 per credit	NA	NA
Graduate nonresidents	\$786.00 per credit	NA	NA

Other fees. The following fees are in addition to the course fees listed above.

- Admission application \$30
- Readmission application \$100
- Late registration fee \$8.50 per credit (\$100 maximum)
- Continuing Studies varies
- Differential Fees Undergraduate \$24.59 per credit
- Differential Fees Graduate \$31.05 per credit
- Lab Fees \$50
- MBA + Differential Fees \$90.45 per credit

**Refunds**. Fee assessments and/or refunds are determined as of the date forms are submitted to the registrar's office in person or via the Web registration system, regardless of any other dates that may appear on the forms. Requests for exceptions to the refund schedule will be considered only to resolve problems that result from (1) documented errors made by university representatives, or (2) other circumstances that are clearly the responsibility of Purdue University Fort Wayne. Requests and supporting documentation must be received by the registrar's office within the first two weeks of classes.

Purdue University Fort Wayne reserves the right to cancel courses and will refund all fees assessed. If you withdraw from a class, the following refund schedule will apply:

Number of Weeks	100%	60%	40%	20%	0%
14, 15, or 16	Days 1-7	Days 8-14	Days 15-21	Days 22-28	Thereafter
12 or 13	Days 1-7	Days 8-14	Days 15-21	Days 22-28	Thereafter
9, 10, or 11	Days 1-7	Days 8-14	Days 15-21	Days 22-28	Thereafter
8	Days 1-3	Days 4-7	Days 8-10	Days 11-14	Thereafter
7	Days 1-3	Days 4-7	Days 8-10	Days 11-14	Thereafter
6	Days 1-3	Days 4-7	Days 8-10	Days 11-14	Thereafter
5	Days 1-3	N/A	Days 4-7	N/A	Thereafter
4	Days 1-3	N/A	Days 4-7	N/A	Thereafter
3	Days 1-3	N/A	Days 4-7	N/A	Thereafter

2	Days 1-2	N/A	Days 3-4	N/A	Thereafter
1	Day 1	N/A	Day 2	N/A	Thereafter
Less than 1	Day 1	N/A	N/A	N/A	Thereafter

Note: A 100 percent refund will be allowed through the day of the first class meeting, even if it occurs after the designated period. Any course meeting for more than eight weeks will use the refund schedule approved for fall and spring semesters. All calendar days are counted, including weekends. If you are receiving federal Title IV financial aid (Stafford, Pell, Perkins, SEOG), and you make a full withdrawal or do not attend classes, a calculation will be made to determine the amount of unearned aid that you will be required to repay. Specific information about this calculation may be obtained at the financial aid office or at prive.edu/financial. Refunds are not transferable from one student to another. To qualify for a refund, your class withdrawal must be processed during the periods specified above. The refund schedule for off-campus credit classes offered through the Division of Continuing Studies may differ from the one above and appears in registration materials published by the Division of Continuing Studies.

#### **Parking and Traffic Regulations**

Parking. Students are charged a parking fee based on the number of credits taken. This entitles students to park in open parking spaces (not in spaces designated as "A" parking, green-lined spaces) in lots or garages. Parking permits for students with disabilities are available from University Police (Support Services 105). Validation from a physician or Services for Students with Disabilities (Walb 113, 260-481-6657) is required.

**Traffic regulations**. The operation of motor vehicles on the Purdue University Fort Wayne campus is governed by applicable state, local, and campus regulations. University police officers are empowered to enforce these statutes. Additional information is published in the *Student Handbook*, with complete information about Purdue University Fort Wayne parking and traffic regulations appearing in the *Vehicle Regulations and Emergency Information* brochure available from University Police and other campus locations.

### **Payment Options**

- A. Pay Online. If students are paying by electronic check, credit/debit card (2.85 percent processing fee, minimum of \$3.00) or Western Union, they may do this through goPFW. Students username and password will be required.
- B. Pay by Mobile. Download the Purdue University Fort Wayne mobile app for Android or Apple from the app store. Students username and password will be required to access their bursar student account.
- C. The after-hours drop box. An after-hours drop box is located next to bursar window no.1 in Kettler Hall, G57. Students may drop a check, cashiers check or money order payment in the box, but it must be received by close-of-business on the payment deadline date. All check payments will be converted to an ACH electronic transaction.
- D. Pay by mail. Students may send a check, cashiers check or money order. All check payments will be converted to an ACH electronic transaction. Please allow adequate mailing time so the payment reaches the bursar's office by the payment deadline. All checks should be made payable to Purdue University Fort Wayne.
- E. Stand in line. Students may pay in-person by check, cashiers check or money order at the bursar's office, but the lines will be long if they wait until the payment deadline. Save time by using one of the above options, or by paying prior to the deadline date.

Senior citizen fee-remission program. A waiver equal to one-half the resident tuition (to a maximum of 9 credits per semester) is available to Indiana residents who are age 60 or older, retired, not employed full-time, and high school graduates or GED recipients. The waiver does not apply to fees. This program is available only during the week prior to the start of classes and also during late registration. Additional information and applications are available from the Purdue University Fort Wayne Financial Aid office (Kettler Hall 102, 260-481-6820 or online at go.pfw/financial/forms).

Payment plan options. Payment plan options are available through the bursar's office.

### **Payment Processing Policies**

- A. Registration and drop/add changes are not official until processed at students academic division, department office, the registrar's office, or through goPFW. Fee assessment is based on the date these forms are processed, regardless of other dates that may appear on the forms.
- B. An e-mail notification will be sent to students who participate in all registration dates. It is the students responsibility to retrieve their bill through goPFW. Students may review their class schedule through goPFW or request a class schedule from their advisor at the time registration is processed or from the bursar's or registrar's office. A paper bill will be mailed only if students opt out of Electronic Consent and must be requested in person.
- C. When students register for classes, they are responsible for paying fees unless they officially withdraw from their classes before the end of the 100 percent refund period. The university reserves the right to administratively remove students from their classes for failure to pay their fees, but students will still owe the fees for these classes. The university may also administratively remove students from future terms if current or past terms are unpaid. Late registration and re-enrollments will be assessed a late registration fee of \$8.50 per credit with a maximum assessment of \$100.00.
- D. Students may pay tuition and fees, and contracted housing charges by enrolling in a payment plan to pay their balance in installments over the course of the semester. Log into goPFW and go to the Billing & Financial Aid tab. The payment plan will not be processed without the first payment and the application fee (non-refundable) that is due by the payment deadline for the semester. Subsequent payments not received by the due date of the payment plan will be subject to a late payment plan charge of \$20.00.
- E. An \$18.50 late payment fee will be assessed to delinquent accounts beginning 10 days AFTER the due date. To avoid paying this charge, accounts must be paid in full by the fee payment deadline. Students with deferred-payment contracts must keep their accounts current to avoid this fee.
- F. All classes are assessed at full fees when added, regardless of the transaction date. Drops are refunded according to the refund schedule.
- G. Electronic check, credit/debit card (2.85 percent processing fee, minimum of \$3.00) may be used to pay fees through goPFW. See payment options for additional information.
- H. If students are receiving financial aid, they are responsible for accepting financial aid awards through goPFW by the fee payment deadline to apply their financial aid award to their account. Students whose fees are to be billed to an employer or other agency must confirm these arrangements with the bursar's office.
- I. Student credit balances of less than \$1 will be held on account for 90 days.

#### Release of Student Information

The Purdue University Fort Wayne policy governing access to student records, which complies with the Family Educational Rights and Privacy Act of 1974 (FERPA), is described below:

#### **Definitions:**

A record includes any data or information about you and related individuals, regardless of the media used to create or maintain the record.

Educational records include records maintained by the institution but exclude records maintained by individuals and available only to those individuals or designated substitutes (that is, "personal files"). Educational records are located and maintained by administrators in one or more of the following offices: Admissions; Alumni Relations; Athletics, Recreation, and Intramural Sports; Bursar; Center for Academic Support and Advancement; Continuing Studies; Financial Aid; Honors Program; Registrar; Student Success and Transitions, and University Police, as well as the student affairs administration and academic units.

The registrar's office is the only university office authorized to issue official transcripts and certify students' enrollment status. Requests for official transcripts can be made directly through Purdue University using the online self service. Transcript request service is also available through Purdue University Fort Wayne. Refer to the Purdue University Fort Wayne registrar webpage for specific details on requesting a transcript.

Public information consists of name, class standing, college/school, major field of study, dates of attendance, degrees and awards, recognized student activities, sports, athletics information, and current enrollment status; address and telephone number are also public information unless the students has filed a registrar's form to keep these private. Records of arrests and/or convictions are public records and thus not subject to university policy.

Students who wish to restrict the release of address and telephone number, must do so by the end of the first week of classes for a session in order to exclude this information from any student directory that may be published.

Release in emergencies. The confidentiality of all records may be broken in an emergency if deemed necessary by the severity of the emergency, the usefulness of the records, and the extent to which time is critical.

Release to you. Records are available to students with the following exceptions: confidential letters of recommendation submitted prior to 1975; records of parents' financial status; records related to student employment that are subject to other laws and are administered by Human Resources; medical and psychological records, which will be released only to a healthcare professional designated by the student; and, if the student has signed a voluntary waiver of access, letters of recommendation related to admission, candidacy for awards, and candidacy for employment. These records may be used only for the purpose originally intended. A student may see any of their available records within 30 days after submitting a written request, either in person or by mail, and may copy any of these records, subject only to payment of any applicable copying charges. The student will receive an interpretation of the record upon request, at or after the time that access is granted. If the student objects to any part of the record and the responsible office will not revise the record as requested, the student may request a formal hearing concerning the objection. Policies and procedures governing the hearing process will be specified by the vice chancellor for academic affairs.

Release to Purdue University Fort Wayne faculty and staff. Student records are available to members of the faculty and staff who have a legitimate need for them, as determined by the administrator of the office responsible for maintenance of the record.

Release to others. Except as specified below, student records will be released only upon completion of a consent form or signed letter by the student. Any such release will include a notice that further release by the recipient is prohibited by law. A record of the release will be maintained. Records about the student will be released without their consent to their parents if the student is a dependent as defined by the Internal Revenue Service; to federal officers as prescribed by law; as required by state law; to agencies or individuals conducting educational research, provided that the administrator of the records is satisfied concerning the legitimacy of the research effort and the confidentiality to be maintained by the researcher; to agencies responsible for accreditation of the institution or its programs; in response to a lawful subpoena, after making reasonable attempts to provide prior notification and opportunity for objection by you; and to institutional security officers when necessary for a criminal investigation; to a transfer student's former college/university and to a college/university that a student is seeking to attend; to contractors, volunteers, and other non-employees performing institutional services and functions as school officials with legitimate educational interests. This includes the National Student Clearinghouse and Educational Computer Systems Incorporated (ECSI).

Retention of records. Purdue University Fort Wayne reserves the right to maintain only those records it considers useful and to set retention schedules for various categories of those records. However, the administrator responsible for each category of records will ensure that a record being challenged is not destroyed prior to resolution of the dispute.

#### Residency

This pertains to resident student status for fee purposes. When students are admitted to Purdue University Fort Wayne, they are classified by Admissions as a resident or nonresident of Indiana. This classification is determined by rules established for all Purdue University Fort Wayne students by the trustees of Purdue University. Students classified as a nonresident must pay nonresident fees as shown in the schedule of fees. Among other criteria, resident student status for fee purposes requires all independent students who enter or re-enter Indiana to be domiciled in the state for 12 consecutive months before the first day of classes of the semester or summer session for which reclassification may be sought. Students who think they are classified incorrectly may apply for resident student status. To appeal a residency classification, pfw.edu/offices/registrar/policies/residency.html submit the form to Purdue University Fort Wayne Registrar, 2101 E. Coliseum Blvd., Fort Wayne, IN 46805-1499.

## **Smoking and Tobacco**

Purdue University Fort Wayne is entirely tobacco-free and smoke-free.

Smoking and tobacco are prohibited in any university facility and on any university grounds. The purpose of this policy is to provide a healthy, comfortable, and productive environment for the campus community. Accordingly, all employees, students, and visitors are expected to comply.

The use or sale of any tobacco or smoking-related product, including the use or sale of smokeless tobacco products or electronic cigarettes, is prohibited on property controlled, operated, or leased by the University or in University vehicles, wherever located. Smoking and the use of tobacco products or electronic cigarettes is also prohibited in private vehicles parked on Purdue University Fort Wayne property.

### Statement on Civility

Purdue University Fort Wayne is committed to the goals and ethics of academic investigation and education. The foundation of academic pursuit is the process of free inquiry, in which individuals may openly explore and express ideas. Free inquiry requires an environment that encourages open investigation, as well as the educational growth and positive social development of individuals; therefore, it is important to state explicitly the ethics that define our academic community. Prominent among the values that define the academic community is civility, which includes mutual respect, fairness, and politeness. Membership in any community requires a concern for the common good for all who belong to that community. Each individual may possess different ideas, as well as different ways of communicating those ideas, particularly in a community avaried and diverse as a university. Because of these differences, respect and civility are integral to maintaining the quality of the academic environment and free inquiry. Respect and civility should therefore be afforded to all individuals regardless of race, ethnicity, gender, age, sexual orientation, disability, religion, family status, socioeconomic level, educational background, veteran status, or position at the university. Because it is not possible to establish a set of rules or guidelines that will address every issue of civility, all members of the academic community are called upon to promote and value this ethic of common respect and civility. Ultimately, such a community-wide concern will assure the continuation of a free and open exchange of ideas.

#### **Student Identification Number**

Students will be assigned a nine-digit number typically beginning with either 900 or 999 as their student identification number. It is used to identify records within Purdue University Fort Wayne and has no significance outside Purdue University Fort Wayne. It will not be provided to external agencies or individuals except in accordance with university policy on release of student information. Students are, however, required to provide Purdue University Fort Wayne with their social security number so that Purdue University Fort Wayne can issue certain informational returns to the Internal Revenue Service and to you. Students are also required to provide your SSN on the Free Application for Federal Student Aid (FAFSA) if they desire to apply for federal or state financial aid. Purdue University Fort Wayne does not use SSN as a student identification number, but only for those purposes required by law or governmental agencies.

## Code of Student Rights, Responsibilities, and Conduct

#### Part I. Student Rights and Responsibilities

#### Preamble

Purdue University Fort Wayne regulations governing the actions of students are intended to enhance the values that must be maintained in the pursuit of Purdue Fort Wayne's mission and goals. These values include freedom of inquiry, intellectual honesty, freedom for the open expression of ideas and opinions within limits that protect the rights of others, and respect for the views and the dignity of other persons.

In exercising their rights, students must bear responsibility to act in accordance with local, state, and national laws, and university rules, regulations, policies, and procedures. No right should be construed as enabling students to infringe upon the individual rights of another member of the academic community.

#### A. Individual Rights and Responsibilities as Citizens

- 1. Students retain all of their citizenship rights when enrolled at Purdue University Fort Wayne.
- 2. Students who violate civil law may incur penalties prescribed by civil authorities. Only where university interests as an academic community are distinct from those of the general community should the special authority of the university be asserted.
- 3. Nondiscrimination. The university is committed to maintaining a community that recognizes and values the inherent worth and dignity of every person; fosters tolerance, sensitivity, understanding, and mutual respect among its members; and encourages each individual to strive to reach his or her own potential. (see www.purdue.edu/purdue/ea eou statement.html)
- All members of the university community must be able to pursue their goals, educational needs, and working lives without intimidation or injury generated by harassment.
- 5. In pursuit of its goal of academic excellence, the university seeks to develop and nurture diversity. The university believes that diversity among its many members strengthens the institution, stimulates creativity, promotes the exchange of ideas, and enriches campus life.
- The university views, evaluates, and treats all persons in any university-related activity or circumstance in which they may be involved solely as individuals on the basis of their own personal abilities, qualifications, and other relevant characteristics.
- The university prohibits discrimination against any member of the university community on the basis of race, religion, color, sex, age, national origin or ancestry, genetic information, marital status, parental status, sexual orientation, gender identity and expression, disability, or status as a veteran. The university will conduct its programs, services, and activities consistent with applicable federal, state, and local laws, regulations and orders and in conformance with the procedures and limitations as set forth by the Purdue University Equal Opportunity, Equal Access, and Affirmative Action policy, which provides specific contractual rights and remedies. Additionally, the university promotes the full realization of equal employment opportunity for women, minorities, persons with disabilities, and veterans through its affirmative action program. Purdue University Fort Wayne is an equal access, equal opportunity, affirmative action university.
- 6. It is the policy of the university to maintain the campus as a place of work and study for faculty, staff, and students, free from all forms of harassment, as defined in Purdue University's policy on Anti-Harassment (III.C.1) (hereinafter, the "Anti-Harassment Policy"). In providing an educational and work climate that is positive and harassment-free, faculty, staff, and students should be aware that harassment in the workplace or the educational environment is unacceptable conduct and will not be tolerated. [See Anti-Harassment Policy.] This Policy addresses harassment in all forms, including harassment toward individuals for reasons of race, sex, religion, color, age, national origin or ancestry, genetic information, disability, sexual orientation, gender identity, gender expression, marital status, parental status, or status as a veteran
- 7. Academic Freedom and Freedom of Speech. Freedom of thought and expression are the lifeblood of our academic community and require an atmosphere of mutual respect among diverse persons, groups and ideas. The maintenance of mutually respectful behavior is a precondition for the vigorous exchange of ideas, and it is the policy of the university to promote such behavior in all forms of expression and conduct. The university reaffirms its commitment to freedom of speech as guaranteed by the First Amendment of the United States Constitution. Accordingly, any form of speech or conduct that is protected by the First Amendment is not subject to this policy. The university reaffirms its commitment to academic freedom, which is essential to its educational mission and is critical to diversity and intellectual life.

#### B. Individual Rights and Responsibilities as Students

- 1. Degree-seeking students have the responsibility for selecting a major field of study, choosing an appropriate degree program within the discipline, planning class schedules, and meeting the requirements for degrees. The university will provide advisors to assist students in academic planning, but students are responsible for being knowledgeable about all academic requirements that must be met before a degree is granted.
- 2. Students have the right to receive in writing (the terms "in writing" or "written" here and throughout this Code include both printed and electronic communication) accurately and plainly stated information that enables them to understand clearly:
  - a. the general qualifications for establishing and maintaining acceptable academic standing within a particular major and at all other levels within the university,
  - b. the graduation requirements for specific curricula and majors, and
  - c. at a minimum, the course objectives, requirements, and grading policies set by individual faculty members for their courses by means of a course syllabus.
- 3. In the classroom, students have the freedom to raise relevant issues pertaining to classroom discussion, to offer reasonable doubts about data presented, and to express alternative opinions to those being discussed. However, in exercising this freedom, students shall not interfere with the academic process of the class. Students who interfere with the academic process of a class may be directed to leave class for the remainder of the class period. Longer suspensions from a class must be preceded by the personal misconduct procedures set forth in Part III.B of this Code.
- 4. Students' course grades shall be based upon academic performance, and not upon opinions or conduct in matters unrelated to academic standards. Students have the right to discuss and review their academic performance with their faculty members. Students who feel that any course grade has been based upon criteria other than academic performance have the right to appeal through the university grade appeals procedure. [See Academic Regulations-Grade Appeals.]
- 5. Students have the right to obtain a clear statement of basic rights, obligations, and responsibilities concerning both academic and personal conduct.
- 6. Students have the responsibility to become familiar with, uphold, and follow all codes of conduct, including this Code, relevant codes of colleges/schools and departments, professional programs, student housing, and all rules applicable to conduct in class environments or university-sponsored activities, including off-campus clinical. field, internship, or in-service experiences.
- 7. Students have the right to participate in the formulation of university policies that directly affect them. In exercising this right, students have the right of access to appropriate information, to express their views, and to have their views considered.
- 8. Students have the privacy rights specified in the university policy on the release of student information. [See Academic Regulations-Release of Student Information.]

## C. Rights and Responsibilities as Participants in Student Groups, Student Organizations, and Campus Activities

- 1. Students have the right to form, join, and participate in groups or organizations that promote the common interests of students, including but not limited to groups or organizations that are organized for academic, professional, religious, social, economic, political, recreational, or cultural purposes.
- 2. Any group of students may petition to become a recognized university student organization in accordance with the established guidelines. Any appeal of a campus decision to discontinue or refuse recognition of a student group shall be made through the Campus Appeals Board.
- 3. Any student group recognized as a university student organization shall be entitled to the use of available campus facilities in conformity with university regulations. [See Regulations Governing the Use and Assignment of University Facilities at Purdue University Fort Wayne.] Recognition shall not imply university endorsement of group goals and activities.
- 4. Any recognized university student organization or any group of students able to secure sponsorship by a recognized student organization and to demonstrate financial responsibility has the right to present speakers of its choice to address members of the university community using appropriate campus facilities. These assemblies shall be subject to regulations necessary to prevent space and time conflicts and to protect the operations of the campus and the safety of persons or property.

- Freedom of assembly shall be guaranteed to all members of the university community. Such assemblies shall be consistent with university regulations regarding the time, place, and manner of such assemblies.
- 6. A student, student group, or student organization has the right to distribute written material on campus without prior approval providing such distribution is consistent with appropriate regulations concerning the time, place, and manner of distribution and does not interfere with university activities.
- 7. Students who publish student publications under university auspices have the right to be free of unlawful censorship. At the same time, students who publish such publications must observe the recognized canons of responsible journalism such as the Sigma Delta Chi Code of Ethics and avoid libel, obscenity, undocumented allegations, attacks on personal integrity, and the techniques of harassment and innuendo. Editors and managers of The Communicator may not be arbitrarily suspended or removed from their positions because of student, faculty, administrative, or public disapproval of their editorial policies or publications. Student editors and managers may be suspended or removed from their positions only for proper cause and by appropriate proceedings conducted by the Board of Directors. All student publications shall explicitly state on the editorial page that the opinions expressed are not necessarily those of the university or of the student body.

#### D. Summary of Rights and Responsibilities

- 1. This statement of Student Rights and Responsibilities is a reaffirmation by the entire Purdue Fort Wayne community that the constitutional guarantees and the basic principles of fair treatment and respect for the integrity, judgment, and contribution of the individual student, coinciding with each student's freedom to learn set forth in the foregoing articles, are essential to the proper operation of an institution of higher learning. Accordingly, in the interpretation and enforcement of the policies, procedures, rules, and regulations of the university, these student rights shall be preserved and given effect, but they shall not be construed or applied so as to limit the rights guaranteed students under the Constitution of the United States or the Constitution of the State of Indiana. Except in the case of grade appeals and appeals of Student Housing decisions, which are addressed further below in this paragraph, a complaint by a student or a group of students that the rights described in this Part I have been violated and that the student or group of students has been or will be adversely affected thereby shall be submitted and resolved in accordance with the procedures described in Part IV. In case of grade appeals, the individuals and committees designated in the university grade appeals procedure shall have final authority to decide the appeal. In the case of an appeal of Student Housing decisions, the individuals and committees designated in the Housing Agreement shall have final authority to decide the appeal. In the case of complaints of discrimination and harassment, the individuals and committees identified in the Purdue University Procedures for Resolving Complaints of Discrimination and Harassment shall have the authority designated in such procedures.
- 2. If the student has a question as to whether the university grade appeals procedures, Student Housing procedures, or the student complaint procedures described in Part IV should be used to resolve a complaint, the dean of students shall decide which one set of procedures shall be used after consulting with the unit head of the faculty or staff member with whom the student or group of students has the complaint. Once the appropriate process is identified, the dean of students will explain the time lines associated with the process.
- 3. The enumeration of these rights and responsibilities shall not be construed to deny or disparage others retained by the student. Nothing contained in the Code of Student Rights, Responsibilities, and Conduct shall be construed as any denial or limitation upon the legal authority or responsibility of the Board of Trustees to establish policies and to make rules and regulations governing the operation of the university.

#### E. Definitions

- 1. A university activity is any teaching, research, service, administrative, or other function, proceeding, ceremony, program, or activity conducted by or under the authority of Purdue University Fort Wayne or with which the university has any official connection, whether taking place on or off campus. Included within this definition without limitation are Purdue Fort Wayne cooperative education programs, internships, practicums, field experiences, and athletic or other intercollegiate activities.
- 2. University property means property owned, controlled, used, or occupied by Purdue University Fort Wayne.
- 3. A business day means any day other than Saturday, Sunday, and any day on which the university is closed, whether by virtue of its being a university holiday or otherwise.

## Part II. Student Conduct Subject to University Action

#### Preamble

Students are expected and required to abide by the laws of the United States, the State of Indiana, and the rules, regulations, policies, and procedures of Purdue University Fort Wayne. Students are expected to exercise their freedom to learn with responsibility and to respect the general conditions that maintain such freedom. The university has developed the following general regulations concerning student conduct which are intended to safeguard the right of every individual student to exercise fully the freedom to learn without interference. The university may hold a student responsible for his or her behavior, including for academic or personal misconduct

## A. Academic Misconduct

This type of misconduct is generally defined as any act that tends to compromise the academic integrity of the university or subvert the educational process. At Purdue Fort Wayne, specific forms of academic misconduct are defined as follows:

- 1. Using or attempting to use unauthorized materials, information, or study aids in any academic exercise. The term "academic exercise" includes all forms of work submitted for credit or hours.
- 2. Falsifying or fabricating any information or citation in an academic exercise.
- 3. Helping or attempting to help another in committing acts of academic dishonesty, including, but not limited to, sharing papers and assignments.
- 4. Adopting or reproducing ideas or statements of another person as one's own without acknowledgment (plagiarism).
- 5. Submitting work from one course to satisfy the requirements of another course unless submission of such work is permitted by the faculty member.
- 6. Serving as or permitting another student to serve as a substitute (or "ringer") in taking an exam.
- 7. Altering of answers or grades on a graded assignment without authorization of the faculty member.
- 8. Engaging in activities that unfairly place other students at a disadvantage, such as taking, hiding, or altering resource material.
- 9. Violating professional or ethical standards of the profession or discipline for which a student is preparing (declared major and/or minor) as adopted by the relevant academic program.

In order to ensure that the highest standards of professional and ethical conduct are promoted and supported at the university, academic departments should establish a written policy/statement addressing the professional or ethical standards for their discipline, which if developed, must be available to all students who are preparing in the discipline. Students have the responsibility to familiarize themselves with the academic department's policy/statement.

#### B. Personal Misconduct

The university may find a student responsible for the following acts of personal misconduct that occur on campus property or in connection with a university activity, or when the health, safety, property, or security of the campus may be adversely impacted.

- 1. Dishonest conduct, including but not limited to false accusation of misconduct; forgery, alteration, or misuse of any university document, record, or identification; and giving to a university official information known to be false.
- 2. Release of access codes for university computer systems to unauthorized persons; use of an access code for a purpose other than that stated on the request for service.
- 3. Lewd, indecent, or obscene conduct as defined by law.
- 4. Disorderly or disruptive conduct that interferes with teaching, research, administration, or other university or university-authorized activity.
- 5. Failure to comply with the directions of authorized university officials in the performance of their duties, including failure to identify oneself when requested to do so, and violation of the terms of a sanction.
- 6. Unauthorized entry, use, or occupancy of campus facilities; refusal to vacate a campus facility when directed to do so by an authorized official of the university.
- 7. Unauthorized taking or possession of university property or services; unauthorized taking or possession of the property or services of others, including but not limited to selling or bartering notes/handouts/recordings from academic classes.
- 8. Intentional action or reckless disregard that results in damage to or destruction of university property or of property belonging to others.

- 9. Possession of firearms, fireworks, other explosives, or other weapons; possession or display of any firearm except as authorized by the university police; and intentional possession of a dangerous article or substance as a potential weapon, or of any article or explosive calculated to injure, intimidate, or threaten any person. Public law enforcement officials who are required by their departments to carry their firearms at all times must register with the university police.
- Acting with violence; and aiding, encouraging, or participating in a riot.
- 11. Harassment, as defined by the Anti-Harassment Policy. Use of the term "harassment" includes all forms of harassment, including stalking, racial harassment, and sexual harassment as defined more completely by the Anti-Harassment Policy (purdue.edu/ethics/policies/FosteringRespect accessible.pdf)
- 12. Hazing, defined as any conduct that subjects another person, whether physically, emotionally, or psychologically, to anything that may endanger, abuse, degrade, or intimidate the person as a condition of association with a group or organization, regardless of the person's consent or lack of consent.
- 13. Physical abuse of any person or conduct that threatens or endangers the health or safety of another person.
- 14. Any form of communication that (a) involves a serious expression of intent to commit an act of unlawful violence to a particular individual or group of individuals or to cause damage to another person's property, or other conduct which threatens or endangers the health and safety of another person or another person's property, or (b) that is inherently likely to provoke a violent reaction or incite an immediate breach of the peace in a face-to-face situation.
- 15. Possession, consumption, distribution, or sale of alcoholic beverages on campus except as expressly permitted by the Internal Operating Procedures for the Possession, Consumption, Distribution, and Sale of Alcoholic Beverages on the Fort Wayne campus.
- 16. Use, possession, manufacture, processing, distribution, or sale of any drug or controlled substance except as expressly permitted by law. The term "controlled substance" is defined in Indiana statutes, and includes, but is not limited to, substances such as marijuana, cocaine, narcotics, certain stimulants and depressants, hallucinogens, and prescription drugs used without proper authorization.

  17. Violations of other published university regulations, policies, procedures, or rules, such as the Tobacco and Smoke Free Campus policy.
- Violation of anyrules governing student organizations, or the use of university property (including the time, place, and manner of meetings or demonstrations on university property), or of any otherrule that is reasonably related to the orderly operation of the university, including, but not limited to, university solicitation policies
- 19. Obstruction or disruption of any university activity or inciting, aiding, or encouraging other persons to engage in such conduct. Obstruction or disruption means any unlawful or objectionable acts or conduct: (1) that seriously threaten the ability of the university to maintain its facilities available for performance of its educational activities; or (2) that are in violation of the reasonable rules and standards of the university designed to protect the academic community from unlawful conduct; or (3) that present a serious threat to persons or property of the academic community. Such phrases shall include, without limitation of the foregoing general definition, the unlawful use of force or violence on or within any buildings or grounds owned, used, occupied, or controlled by Purdue University Fort Wayne; using or occupying any such buildings or grounds in violation of lawful rules, regulations, policies, or procedures of the university, or for the purpose or with the effect of denying or interfering with the lawful use thereof by others; and injuring or harming any person or damaging or destroying the property of the university or the property of others, within such buildings and grounds.

#### C. Other Student Conduct Issues

- 1. Demonstrations. Any individual or group activity or conduct apparently intended to call attention to the participants' point of view on some issues is not of itself misconduct. Demonstrations that do not involve conduct beyond the scope of constitutionally protected rights of free speech and assembly are, of course, permissible. However, conduct that is otherwise improper cannot be justified merely because it occurs in the context of a demonstration.
- Misconduct Subject to Other Penalties. As provided by Indiana statute, misconduct that constitutes a violation of this Code may be sanctioned after determination of responsibility under the procedures herein provided, without regard to whether such misconduct also constitutes an offense under the criminal laws of any state or of the United States or whether such conduct might result in civil liability of the violator to other persons.
- 3. Personal Conduct Not on University Property. The university may find a student responsible for acts of personal misconduct that are not committed on campus property or in connection with an university activity if the acts distinctly and adversely affect the security of the campus community, the safety of others, or the integrity of the educational process, including, but not limited to, drug and alcohol violations or offenses against another person.

#### Part III. Student Misconduct Procedures

Purdue University Fort Wayne procedures for imposing academic and personal misconduct sanctions are designed to provide students with the guarantees of due process and procedural fairness. Except as provided in Part IV, the procedures hereby established shall be followed in all cases in which Purdue Fort Wayne institutes proceedings against students for violations of rules of student conduct set forth in Part II.

#### A. Procedures for Academic Misconduct

- 1. The process for investigating complaints of academic misconduct may vary depending upon the situation. An essential component of any misconduct process should incorporate the requirements of due process. As such, a student whose conduct is being reviewed should know the nature of the information presented against them and be able to have a meaningful opportunity to be heard. Therefore, throughout Part III, Section A, of this Code, whenever there is a requirement for the student to have an "opportunity to be heard," the minimum standard for that meaningful opportunity will include all of the following:
  - notice of the nature of the alleged misconduct
  - notice of the date, time, location, and general procedure of the review of the allegation
  - notice of the potential outcomes of the review
  - · opportunity to address the information supporting the allegation
- 2. When a student in a course commits an act of academic misconduct related to that particular course, the faculty member teaching the course has the authority to initiate academic misconduct proceedings against the student in accordance with these procedures.

If a faculty member initiates academic misconduct proceedings, the faculty member must contact the registrar to place a hold on the student's account. A student may not withdraw from a course during the pendency of these proceedings or to avoid any imposed sanction.

- a. A faculty member who has information that a student enrolled in a course being conducted by the faculty member has committed an act of academic misconduct related to that course is required to hold a conference with the student concerning the matter within 10 business days of discovering the alleged misconduct. The faculty member must advise the student of the alleged act of misconduct and afford the student the opportunity to address the information supporting the allegation. Any action that must be performed by faculty under these procedures may be performed by the faculty chair or next highest administrator.
- b. If the faculty member finds that the student did commit the act of misconduct as alleged, the faculty member is authorized to impose an appropriate academic sanction related to the particular course involved. An appropriate academic sanction for such misconduct may include, and is limited to, one or more of the following:
- (1) The student may be given a lower grade than the student would otherwise have received or a failing grade for any assignment, course work, examination, or paper involved in the act of misconduct
- (2) The student may be required to repeat the assignment, complete some additional assignment, or resubmit any assignment, course work, examination, or paper involved in the act of misconduct.
- (3) The student may be given a lower grade than the student would otherwise have received or a failing grade for the course.
- c. After imposing an academic sanction, the faculty member is required to report the matter and action taken within 10 business days in writing to the student, the chair of the department in which the course is offered, the dean/director of the college/school/division in which the course is offered, the chair of the student's department (if different from above), the dean/director of the student's college/school/division (if different from above), and the dean of students.

- d. The student has the right to appeal the faculty member's findings and/or sanction through the procedures specified in Part IV of this Code.
- e. The chair of the student's department has the authority to initiate additional academic sanctions against the student if the chair concludes, in consultation with the dean of students, that additional sanctions may be warranted by the nature of the act or because the student has committed previous acts of academic misconduct.

The chair of the student's department must notify the student in writing within 10 business days of the date of the faculty member's report if additional sanctions are contemplated at the department level. If additional sanctions are contemplated, the student shall be provided an opportunity to be heard in accordance with the standards articulated in the opening paragraph of Part III, Section A.

The chair must report any decision to initiate additional sanctions in writing to the student, the student's college/school/division dean/director, and the dean of students within 10 business days of the student's opportunity to be heard.

Additional sanctions imposed at the department level may include academic probation, denial of future admission, or dismissal from the department. The student may appeal the chair's decision about additional sanctions through the procedures specified in Part IV of this Code.

f. The dean/director of the student's college/school/division also has the authority to initiate additional academic sanctions against the student if the dean/director concludes, in consultation with the dean of students, that additional sanctions may be warranted by the nature of the act or because the student has committed previous acts of academic misconduct. The dean/director must notify the student in writing within 10 business days of the date of the chair's report if additional sanctions are contemplated at the college/school/division level. If additional sanctions are contemplated, the student shall be provided an opportunity to be heard in accordance with the standards articulated in the opening paragraph of Part III, Section A.

The Dean/Director must report any decision to initiate additional sanctions in writing to the student, the chair, and the dean of students within 10 business days of the student's opportunity to be heard.

Additional sanctions imposed at the college/school/division level may include academic probation, denial of future admission, or dismissal from the college/school/division. The student may appeal the dean's/director's decision about additional sanctions through the procedures specified in Part IV of this Code.

- 3. When a student is alleged to have committed an act of academic misconduct that is not related to a course in which the student is enrolled, the chair of the student's department has the authority to initiate a review of the allegation.
  - a. After discovering the alleged academic misconduct, the chair must notify the dean of students and the student in writing within 10 business days if action is contemplated at the department level and provide the student an opportunity to be heard in accordance with the standards articulated in the opening sentence of Part III,

The chair must report the decision, including any sanctions imposed, in writing to the student, the student's college/school/division dean/director, and the dean of students within 10 business days of the student's opportunity to be heard.

Sanctions imposed at the department level may include, and are limited to, one or more of the following: academic probation, denial of future admission, or dismissal from the department. The student may appeal the chair's decision (including sanctions) through the procedures specified in Part IV of this Code.

b. Similarly, the dean/director of the student's college/school/division has the authority to initiate additional academic sanctions against the student if the dean/director concludes that additional sanctions may be warranted by the nature of the act or because the student has committed previous acts of academic misconduct in accordance with the procedures above.

The dean/director must report any decision to initiate additional sanctions in writing to the student, the chair, and the dean of students within 10 business days of the student's opportunity to be heard.

Additional sanctions imposed at the college/school/division level may include, and are limited to, one or more of the following: academic probation, denial of future admission, or dismissal from the college/school/division. The student may appeal the dean's/director's decision about additional sanctions through the procedures specified in Part IV of this Code.

4. A student may not be placed on disciplinary probation, suspended, or expelled from the university because of an act of academic misconduct unless the dean of students concludes that such a sanction is justified by the nature of the act or because the student has committed previous acts of misconduct. If the dean of students concludes that additional disciplinary sanctions are warranted, the proceedings will be governed by the same procedures that apply to acts of personal misconduct (Part III.B) and may be commenced when notified of the outcome from the faculty member.

#### B. Procedures for Personal Misconduct

Any member of the university community may initiate a complaint of student personal misconduct with the dean of students. Misconduct proceedings are initiated by the issuance of a notice of charges and are governed by the following procedures.

### 1. Notice of Charges

- a. A personal misconduct proceeding is initiated by the dean of students by sending a notice to the student who is the subject of the complaint. If proceedings are initiated against a student under the age of 18, the dean is required to make reasonable efforts to assure that the parent(s) or, when appropriate, the legal guardian of the student is notified concerning the proceedings and the nature of the complaint.
- b. The notice shall be sent by email to the student's address as it appears in the official records of the university or shall be delivered personally to the student. The notice shall quote the rule claimed to have been violated and shall fairly inform the student of the reported circumstances of the alleged misconduct. The notice shall require the student to appear in the office of the dean of students at a time and on a date specified (which ordinarily will not be earlier than three business days after the emailing of the notice) for a hearing on the alleged violations. A copy of these procedures can be found on the webpage: catalog.pfw.edu, a link to which will be included in the email or other notice to the student.
- c. The notice shall inform the student of the following:
- (1) The offense the student is alleged to have committed by citing the relevant section of this Code;
- (2) The date, time, and place of the alleged offense, and other relevant circumstances;
- (3) The date, time, and place of the hearing to discuss the alleged violation;
- (4) That the student may have an advisor or other counsel present during the hearing, but with the understanding that such an advisor or counsel is limited to the role of
- advising the student and that such an advisor or counsel may not participate in presenting the case, questioning the witnesses, or making statements during the hearing; (5) That the student need not answer questions and that a choice to remain silent will not be taken as an admission of responsibility, nor shall it be detrimental to the student's position;
- (6) That, if the student fails to appear for the hearing, the dean of students may (a) reschedule the conference; (b) dismiss the charges; or (c) if the dean reasonably believes the failure to appear to be inexcusable, impose any of the prescribed sanctions set forth in Part III.B.3 below.

#### 2. Hearing

- a. When the student appears as required, the dean of students shall inform the student as fully as possible of the facts concerning the alleged misconduct and of the procedures that follow. The student may, but need not, make responses and explanations.
- b. If, after discussion and such further investigation as may be necessary, the dean of students determines that the violation alleged is not supported by the information, the dean shall dismiss the accusation and notify the student.

- c. If, after discussion, or if the student fails to appear, the dean of students believes that the violation occurred as alleged, the dean shall so notify the student and shall impose a sanction by means of a written notice. The student, by such notice, shall have the option of accepting or appealing the finding and/or sanction through the procedures specified in Part V of this Code.
- d. Both the student and the student's accuser shall be informed of the outcome of any hearing brought alleging any form of physical violence, threat, or harassment.

#### 3. Personal Misconduct Sanctions

- 1. The dean of students is authorized to impose a sanction including, and limited to, one or more of the following:
  - a. Reprimand and Warning. A student may be given a reprimand accompanied by a written warning that the student may receive additional sanctions if the student engages in the same misconduct again or commits any other violation of this Code.
  - b. Disciplinary Probation. A student may be placed on probation for a specified period under conditions specified in writing by the dean of students, with a warning that any violation of the conditions or any further acts of misconduct may result in additional sanctions, including suspension or expulsion from the university. As a condition of probation, the student may be required to participate in a specific program, such as an alcohol-education program, or to provide a specific service, such as the repair or restoration of any property damaged or taken by the student.
  - c. Restitution. A student may be required to pay the cost for the replacement or repair of any property damaged by the student. If the student fails to pay the cost or make the repairs, the student may be subjected to additional sanctions, including suspension or expulsion.
  - d. Participation in a Specific Program, Assessment, or Evaluation. A student may be required to participate in a specific program, assessment, or evaluation, such as an alcohol-education program. If the student fails to participate in the program as directed, the student may be subjected to additional sanctions, including suspension or expulsion.
  - e. Provision of a Specific Service. A student may be required to provide a specific service, such as the repair or restoration of any property damaged or taken by the student. If the student fails to provide the service as directed, the student may be subjected to additional sanctions, including suspension or expulsion.
  - f. Suspension. A student may be suspended from classes and future enrollment and excluded from participation in all aspects of campus life for a specified period of time.
  - g. Expulsion. A student may be permanently dismissed from the university.

#### C. Summary Action

Summary action by way of temporary suspension and exclusion from university property may be taken against a student without the issuance of a notice of charges and without following the procedures prescribed in Part III.B or Part IV on the following conditions:

- Summary action shall be taken only by the chancellor or the chancellor's designee, and only after the student shall have been given an opportunity to be heard if such procedure is practical and feasible under the circumstances.
- Summary action shall be taken only if the chancellor or the chancellor's designee is satisfied that the continued presence of the student on university property threatens imminent harm to any other persons or to the property of the university or of others, or to the stability and continuance of normal university functions.
- Whenever summary action is taken under this provision, the procedures provided for in Part III.B for a hearing or the procedures provided for in Part V for appeals shall be expedited so far as possible in order to shorten the period of summary action.

#### D. Time Limitations

Time limitations specified in the preceding sections of this Code may be extended by either the dean of students or the Campus Appeals Board for a reasonable period if an extension is justified by good cause under the totality of the circumstances. The documentation for extending the time limitations must be provided to the student.

## E. Status During Conduct Proceedings

Except where summary action is taken as provided in Part III.C, the status of a student charged with misconduct shall not be affected, pending the final disposition of charges. The effective date of any sanction shall be a date established by the final adjudicating body (dean of students or the Campus Appeals Board). In case of suspension or expulsion, the student shall not be withdrawn any earlier than the date the notice of charges originated or later than the effective date established by the final adjudicating body.

#### Part IV. Student Complaint Procedures

#### Preamble

The following student complaint procedures are designed to ensure that students have an identified and well-understood mechanism for registering and resolving complaints of the types described below.

A. Students having complaints concerning alleged violations of the Anti-Harassment Policy, as referenced in Part I.A.3, Part I.A.4 and Part I.A.6 of the Code, should use the Purdue University Procedures for Resolving Complaints of Discrimination and Harassment.

B. Students having complaints concerning actions or decisions which are claimed to violate other rights recognized in Part I of the Code must first make a reasonable effort to resolve the complaints informally with the faculty/staff member whose action or decision is the basis for the complaint.

- 1. The effort to resolve the complaint informally with the faculty/staff member must be initiated by the student in a documented manner no later than within 21 calendar days the action or decision occurred. The documentation only needs to be dated and indicate that the student has made a good faith effort at initiating the conversation with the responsible faculty/staff member. For a complaint to continue to receive consideration under these procedures, the student must initiate each successive step in the process within 21 calendar days of conclusion of the previous step. In addition, it is expected that each step in the process will be concluded within 21 calendar days of initiation.
- 2. If the complaint is not resolved informally between the student and the responsible faculty/ staff member, the student may pursue the complaint informally with the faculty/ staff member's department head, who shall investigate, mediate, and suggest a resolution.
- 3. If the complaint remains unresolved after the department head's attempt to mediate a resolution, the student may continue to pursue the complaint with the head of the next highest administrative level (e.g., the college/school/division dean/director), who shall investigate, mediate, and suggest a resolution.
- 4. Only after all such remedies have been exhausted may the student petition for a hearing before the Campus Appeals Board. To petition for a hearing before the Campus Appeals Board, the student must complete the online form. The complaint must describe the action or decision claimed to violate one or more of the student rights recognized in Part I of the Code, identify the right(s) claimed to have been violated, and specify the remedy sought. The dean shall direct properly received complaints to the chair of the Campus Appeal Board. The Campus Appeals Board shall have the authority and duty to reach findings and to convey recommendations to the chancellor. If necessary, the chancellor may present such recommendations to the university president and Board of Trustees for their consideration.
- 5. See Part V of the Code for information about the composition of the Campus Appeals Board.

#### Part V. Petition for Hearing

#### Preamble

Students wishing to appeal any decision by a university official or body under the preceding sections of this Code shall use this petition process.

#### A. Types of Appeals

The Campus Appeals Board (CAB) may hear the following types of appeals from students: (1) appeals of misconduct findings and sanctions imposed by the dean of students, including findings and sanctions concerning student organizations; (2) appeals of academic misconduct findings imposed by faculty members, department chairs, or academic deans or division directors; (3) appeals of SGA Judicial Court rulings; and (4) appeals of faculty/staff decisions claimed to violate student rights recognized in Part I of the Code (per Part IV). Extension to any time limits specified below must be approved by the chair of the board.

#### **B.** Campus Appeals Board

- 1. Composition. The Campus Appeals Board (CAB) shall consist of nine members selected in the following manner: four students appointed by the president of Purdue Fort Wayne Student Government Association subject to confirmation by the SGA Senate; three faculty members elected by the Faculty Senate; and two administrative staff members appointed by the chancellor, one of whom shall be designated as chair of the Campus Appeals Board. An equal number of alternates from each constituent group shall be appointed at the same time and in the same manner as the regular members. From the members and alternates, the chair shall designate a hearing panel consisting of a minimum of three members including at least one student. A minimum of three panel members including at least one student is required for quorum.
- 2. Terms of Office. The term of office for student members and their alternates shall be one year, and for the faculty and administrative members, it shall be two years, except that members shall continue to have jurisdiction of any case under consideration at the expiration of their term. The terms of office for all members shall begin at the start of the fall semester. No member shall serve more than two consecutive terms. If any appointing authority fails to make its prescribed appointments to the Campus Appeals Board, or to fill any vacancy on the panel of alternates within seven calendar days after being notified to do so by the chancellor, or if at any time the Campus Appeals Board cannot function because of the refusal of any members to serve, the chancellor may make appointments, fill vacancies, or take such other action as deemed necessary to constitute the Campus Appeals Board with a full complement of members.

#### C. Criteria for Appeal

Appeals may only be requested for one or more of the following reasons:

- 1. Failure to follow an established policy or procedure;
- 2. The assigned sanction is unduly harsh or arbitrary;
- 3. New information has become available since the conclusion of the process; or
- 4. Bias has been exhibited through the process.

The purpose of an appeal shall not be simply to hold a rehearing of the original matter.

#### D. Filing the Petition

Students who wish to request Campus Appeals Board action shall complete the online form within 10 business days of the date of the sanction letter or within 10 business days of the conclusion of the previous step in the appeal process, as applicable. The dean shall in turn forward properly filed appeals to the chair of the Campus Appeals Board.

To be properly filed, the appeal must be submitted within the established time limits, identify the action or decision being appealed, name the party whose decision or action is being appealed (sometimes referred to below as the "named party"), and identify one or more of the criteria identified in the Criteria for Appeal set forth above. If the above criteria are not met, the CAB chair shall dismiss the appeal.

#### E. Investigation of Appeals

Within 10 business days of the chair's receipt of the appeal, the CAB chair will assign a board member or alternate who is a faculty member or administrator to investigate the appeal and notify the party named that an appeal has been filed. Notification will include a copy of the appeal and the identity of the student who filed the appeal. The party whose action or decision is being appealed will be requested to respond in writing within 10 business days from the date of notification. To protect both the student and the named party, CAB appeals will be treated with the greatest degree of confidentiality possible.

As soon as practicable following appointment, the investigator will interview the student who filed the appeal. The student may have an advisor or legal counsel (at the student's own expense) present at meetings with the investigator. However, the advisor or counsel may not stand in place of the student or otherwise participate in the investigation process.

Within 10 business days following completion of the interview with the student, the investigator will notify the chair as to whether or not the allegations set forth in the appeal, if substantiated, would support the basis for the appeal and, if so, whether the action or decision being appealed would constitute a violation of one or more student rights recognized in Part I of the Code. If in such notification the investigator answers these inquiries in the negative, the chair may dismiss the appeal, and the decision shall be final. The chair shall provide the student and named party with written notice of such dismissal. In all other cases, the investigator will conduct a thorough fact-finding investigation, and will meet separately with the student and named party, interview pertinent witnesses, and review relevant documents regarding the appeal. The investigation shall be completed within 10 business days following the assignment of the appeal to the investigator.

Within 10 business days following conclusion of the investigation, the investigator will prepare and deliver a report to the chair, the student filing the appeal, and the named party. The report will include a finding based upon a preponderance of information that the appeal shall be upheld or denied. The "preponderance of information" standard requires that the information supporting the finding is more convincing than the information offered in opposition to it. The report will include the basis upon which the investigator reached the finding and recommendation for remedy, if any.

#### F. Determination

Within 10 business days of receipt of the investigator's report, the chair will convene a meeting of the CAB hearing panel. The student and the named party will be notified of the date, time, and location of the meeting. Prior to the meeting, the student, named party, and panel members shall be furnished with a copy of the investigator's report and copies of the appeal and response. The student may have an advisor or legal counsel (at the student's own expense) present at the meeting. However, the advisor or counsel may not stand in place of the student or otherwise participate in the hearing process. At the meeting the panel will be afforded the opportunity to ask questions of the investigator. The student who filed the appeal and the named party will be afforded the opportunity to make a brief statement to the panel, after which the panel members may ask questions. The panel shall meet separately with the student and the named party.

Within 10 business days following the final meeting with the panel, the chair shall render the written recommendation of the hearing panel and include a brief explanation of the recommendation setting forth the findings upon which the recommendation is based. The chair shall furnish copies of the recommendation to the chancellor, the student who filed the appeal, the party whose decision is being appealed, and to others within the university with a need to know as determined by the panel. The chancellor shall render a written and final decision within 10 business days of receiving the panel's recommendation.

#### Part VI. Authority, Application, and Amendments

#### A. Authority

Student rights, responsibilities, and standards of conduct will be established by campus administrators in consultation with the student and faculty government organizations and shall be consistent with the principles established by Purdue University."

#### **B.** Application

This Code, as from time to time amended, shall apply to all undergraduate and graduate students while enrolled at Purdue University Fort Wayne and shall be deemed a part of the terms and conditions of admission and enrollment at the university. In case of any conflict or inconsistencies with any other rules, regulations, directives, or policies now existing, this Code shall govern. They shall be enforced by the chancellor.

#### C. Amendments

- 1. In General. This Code, and any amendments hereto, shall remain in effect until rescinded or modified by or under the authority of the Board of Trustees of Purdue University, as exercised by the president of the university under delegated authority from the Board and in consultation with the chancellor. Amendments may be proposed by the Purdue Fort Wayne Student Government Association, Purdue Fort Wayne Senate, university administrative officials, , or the Board of Trustees, and any such proposed amendment shall be submitted to the Purdue Fort Wayne Student Government Association and Faculty Senate for review and comment before adoption.
- 2. Amendments to Part I: Student Rights and Responsibilities. Without limiting the generality of the amendment process described in Part VI.C.1 above, the following additional provisions shall apply to amendments to the student rights and responsibilities set forth in Part I. Proposed amendments of such rights and responsibilities may be initiated by the Purdue Fort Wayne Student Government Association, the Faculty Senate, university administrative officials, or the Board of Trustees and shall be submitted to the Purdue Fort Wayne Student Government Association, and the Faculty Senate for consideration and recommendation before adoption by or under the authority of the Board of Trustees, as exercised by the president of the university under delegated authority from the Board. In the event such an amendment to the rights and responsibilities set forth in Part I is adopted without approval of the Purdue Fort Wayne Student Government Association or the Faculty Senate, either of such bodies may withdraw its endorsement of such rights and responsibilities, in whole or in part.

# Colleges, Schools, Division and Departments

# **Purdue University Fort Wayne**

College of Arts and Sciences

College of Arts and Sciences Liberal Arts Building 153 ~ 260-481-6160

- Academic Programs
- Academic Renewal Option
- Advising
- Associate of Science
- Bachelor of Arts
- Bachelor Degrees through General Studies
- Bachelor of Science
- Certificates
- Cooperative Education (Co-Op) Program
- · Degree Requirements and Academic Regulations
  - Requirements for the Associate of Science Degree
  - Requirements for the Bachelor of Arts Degree
    - Part A: English Writing and Speaking
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    - Part A: English Writing and Speaking
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- Additional Degree Information
  - Credit for Military Service
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  - Degree+ Program
  - General Education Requirements
  - Graduation with Distinction
     Special Credit for Language
  - Undistributed Transfer Credit
  - Upper-Level Courses
- Minors
- Research Certificates

The College of Arts and Sciences offers courses and programs in the traditional liberal arts disciplines. In addition to providing students with opportunities to develop skills required in the workplace and for advanced study, we seek to foster the development of a well-rounded individual. The College recognizes the role of non-traditional students at PFW and makes special efforts to meet their needs.

Graduates of the College's baccalaureate programs should have a level of knowledge and awareness that enables them to be effective citizens and lifelong learners. They are expected to have a working understanding of the knowledge and methodology appropriate for their field of study; to be aware of major issues in their discipline; and be able to communicate this content effectively to others.

The research and service components of the College are those appropriate for a comprehensive regional university. The College is responsible for basic-skills courses in mathematics, oral communication, and written communication as well as for the majority of courses that fulfill both College and PFW General Education requirements. Faculty maintain their qualifications as teachers by engaging in research and creative endeavors, and they enhance the reputation of the university through their contributions to the advancement of knowledge within their disciplines. Through research and service, the College seeks to be a vital resource for business, industry, public and private education, the arts, and government in northeast Indiana.

#### **Academic Renewal Option**

The College of Arts and Sciences participates in the Academic Renewal Option for eligible students returning to PFW after an absence of five or more years. See an advisor in the College of Arts and Sciences Student Success Center for details.

#### Advising

Consult with an advisor in the College of Arts and Sciences or in your department at least one term prior to your anticipated graduation date. Transfer students are required to consult with the Lead Advisor in the College of Arts and Sciences Student Success Center prior to starting their first semester to ensure transferred courses are properly credited and to avoid enrolling in duplicate or overlapping courses. All degree-seeking students are strongly encouraged to meet with their College and Department advisor at least once each term

### Cooperative Education (Co-Op) Program

Cooperative education provides an opportunity for students to gain work experience while still enrolled in school. Check with your Department regarding eligibility for this program.

## **Academic Programs**

The College of Arts and Sciences offers a broad range of majors, minors, and certificate programs. Each program, with its sponsoring unit in the College, is listed below. If you are undecided about declaring a major or minor or certificate within the College, contact an advisor in the College of Arts and Sciences Student Success Center who can help you choose courses to assure reasonable progress as you narrow your choices, and finally decide on a specific plan of study. If you change your major or your catalog term, your degree requirements may also change. Information can also be found in the Program Descriptions section in this catalog.

#### **Current IU Students in Programs Transitioning to Purdue**

Students who enrolled in PFW prior to July 1, 2018 and who are currently enrolled in academic programs leading to one or more Indiana University degrees, who are making adequate progress to degree completion, and who complete all degree requirements by the Fall semester 2021 will receive an Indiana University degree. Students currently enrolled in an Indiana University degree program who do not complete all degree requirements by the Fall semester 2021 will be awarded a Purdue University degree upon completion.

### Associate of Science (AS)

Major	Department
Chemical Methods	Chemistry

### Bachelor of Arts (BA)

Major	Department
Anthropology	Anthropology and Sociology
Communication with Interpersonal and Organizational Concentration	Communication
Communication with Journalism Concentration	Communication
Communication with Media and Culture Concentration	Communication
Communication with Rhetoric and Public Advocacy Concentration	Communication
Economics	Political Science
English with Language Concentration	English and Linguistics
English with Literature Concentration	English and Linguistics
English with Writing Concentration	English and Linguistics
History	History
Political Science	Political Science
Psychology	Psychology
Sociology	Anthropology and Sociology
Spanish	International Language and Culture Studies
Women's Studies	Political Science

For details on pursuing a secondary education second degree (BSEd) to teach English, History or Spanish in middle school/high school, click on the links to the Secondary Education - Second Degree Program and the School of Education page in this catalog. NOTE: The BSEd as a second degree in these programs cannot be earned without completion of the bachelor's degree in the content area from the College of Arts and Sciences.

### Bachelor of Science (BS, and BSC, BSAS, BSDSAS)

Major	Department
Actuarial Science	Mathematical Sciences
Biology	Biology
Biology with Ecology and Evolutionary Biology Concentration	Biology
Biology with Genetics, Cellular & Molecular Biology Concentration	Biology

Biology with Microbiology and Immunology Concentration	Biology
Biochemistry	Chemistry
Chemistry, B.S.	Chemistry
Chemistry, B.S.C.	Chemistry
Communication Sciences and Disorders	Communication Sciences and Disorders
Data Science and Applied Statistics	Mathematical Sciences
Mathematics	Mathematical Sciences
Physics	Physics
Physics with Astronomy Concentration	Physics
Physics with Biomedical Physics Concentration	Physics
Physics with Computational Physics Concentration	Physics
Physics with Engineering Concentration	Physics
Physics with Materials Science Concentration	Physics
Physics with Optoelectronics and Photonics Concentration	Physics
Psychology	Psychology

For details on pursuing a secondary education second degree (BSEd) to teach Biology, Biochemistry, Chemistry, Mathematics or Physics in middle school/high school, click on the links to the Secondary Education - Second Degree Program and the School of Education page in this catalog. Note: The BSEd as a second degree in these programs cannot be earned without completion of the bachelor's degree in the content area from the College of Arts and Sciences.

## Bachelor Degrees through General Studies (BAS, BGS)

General Studies offers a variety of personalized degree options. After students are admitted to the General Studies degree program, an advisor will provide assistance in developing a plan of study to meet the student's objectives. Appointments can be made at the office in Kettler Hall - Room 144 or by phone ~ 260-481-6828. Links to the requirements for the majors can be found in the Program Descriptions section under General Studies (B.G.S.) and General Studies Bachelor of Applied Science.

Major	Department
Applied Science, B.A.S.	General Studies
General Studies, B.G.S.	General Studies

#### Minors

Completion of any minor requires a minimum of 12 credits in courses specified by the sponsoring department, including at least 6 resident credits at the 200 level or above and a grade of C- or better in each course. Students cannot earn a minor and a major in the same program.

Minor	Department
Actuarial Science	Mathematical Sciences
Anthropology	Anthropology and Sociology
Astronomy	Physics
Biology	Biology
Chemistry	Chemistry
Communication Studies	Communication
Creative Writing	English and Linguistics
Economics	Political Science
English	English and Linguistics
Ethics, Professional and Applied	English and Linguistics
Film and Media Studies	Interdisciplinary Studies
Folklore	English and Linguistics
French	International Language and Culture Studies
Geology	Physics
German	International Language and Culture Studies
History	History
Journalism	Communication
Linguistics	English and Linguistics
Materials Science	Physics
Mathematics	Mathematical Sciences
Media Production	Communication
Medieval Studies	Interdisciplinary Studies
Philosophy	English and Linguistics
Physics	Physics
Political Science	Political Science
Professional Writing	English and Linguistics
Psychology	Psychology

Public Relations	Communication
Religious Studies	History
Sociology	Anthropology and Sociology
Spanish	International Language and Culture Studies
Women's Studies	Political Science

#### Certificates

All certificates earned in the College require a minimum GPA of 2.00 for graduation. Minimum grade and resident credit requirements vary by program. Contact the sponsoring department for specific program information. You can also see Program Descriptions in this catalog.

Certificate	Department
Behavior Analysis and Techniques	Psychology
Civic Education and Public Advocacy	Political Science
Death Education	Psychology
Gerontology	Communication Sciences and Disorders
International Studies	Interdisciplinary Studies
Lesbian, Gay, Bisexual and Transgender	Interdisciplinary Studies
Medical Ethics (and Post-Baccalaureate)	English and Linguistics
Peace and Conflict Studies	Interdisciplinary Studies
Teaching English as a New Language	English and Linguistics
Women's Studies	Political Science

#### **Research Certificates**

Pursuing a research certificate provides opportunities to engage in active learning situations integrating original research and the undergraduate curricula. You will learn research methods and tools appropriate to your discipline, and research interests within the discipline; the foundations of research relating to the history, philosophy, and theory of the discipline; and advanced communications skills. You will apply knowledge learned by designing and executing a research study or project and communicating the results to others.

Research Certificate	Department
Anthropology Research Certificate	Anthropology and Sociology
Biology Research Certificate	Biology
Chemistry Research Certificate	Chemistry
Mathematical Sciences Research Certificate	Mathematical Sciences
Physics Research Certificate	Physics

### **Degree Requirements and Academic Regulations**

The following rules apply for the College of Arts and Sciences. Where College regulations are stricter than PFW Academic Regulations, the College regulations apply.

#### Requirements for the Associate of Science Degree (AS)

- 1. The link to program requirements for the Associate of Science in Chemical Methods appear in the Program Descriptions section of this Catalog.
- 2. A grade of C- or better in all courses required for the major, and an overall GPA of 2.00 or higher for all courses required for the major.
- 3. Residency requirements for an Associate degree: registration in and completion of at least 32 credits of resident course credit, including at least 15 resident credits in courses applicable to the major.
- 4. Normally, you must complete the entire final year at PFW. However with the approval of your College and if you have satisfied the resident credit requirement, you may complete the remaining requirements in another approved College or university.
- complete the remaining requirements in another approved College or university.

  5. You must register, either in residence or absentia, as a candidate for the desired degree during the academic session immediately preceding its conferral.

## Requirements for the Bachelor of Arts Degree (BA)

In addition to the General Education Requirements and the requirements for your major found in Program Descriptions, you must satisfy the following requirements:

- 1. Successful completion of Parts A through D listed below.
- 2. At least 30 credits in upper-level courses as defined by the departments offering the courses.
- 3. A grade of C- or higher in all department courses required for the major, and an overall GPA of 2.00 or higher for all courses required for the major.
- 4. The College requires that students complete one of the following MA courses: MA 14000, 15300, 15900, 16500, 22700, 22900, STAT 12500, or placement above MA 15300, or the math course required for your major. Please note that in many degree programs, a specific math course/courses is/are required. The various courses differ with respect to emphasis on the foundations of mathematical reasoning and their application. One of these MA courses may also meet your PFW General Education Category A3 (Quantitative Reasoning) requirement; therefore, you are strongly encouraged to consult your academic advisor to determine which course would be most appropriate for you
- 5. The College of Arts and Sciences requires that you complete at least one science course with a scheduled laboratory as part of your PFW General Education requirements. This requirement may be met either by taking a lecture course that includes a scheduled laboratory or a lecture course plus a laboratory course designed to accompany it. This provides the opportunity to apply concepts learned in the classroom and to conduct scientific inquiry.
- 6. A sufficient number of elective credits to bring the total number of credits counting toward graduation to 120.
- 7. Residency requirements for a Bachelor's degree: registration in and completion of at least 32 credits of resident course credit at the 2000+ level or above, including at least 15 resident credits at the 3000+ level or above in courses applicable to the major.

- 8. Normally, you must complete the entire final year at PFW. However with the approval of the College and satisfaction of the resident credit requirement, you may complete the remaining requirements at another approved College or university and have the credits transferred back to PFW.
- 9. You must register, either in residence or absentia, as a candidate for the desired degree during the academic session immediately preceding its conferral.

## Part A: English Writing and Speaking

An education in the liberal arts and sciences emphasizes the value of analyzing and presenting ideas in writing and speaking; thus the College strives to improve its students' oral and written communication skills. Consequently, in addition to your General Education writing course (ENGL 13100 or equivalent), you are required to complete ENGL 23301 or an equivalent second writing course approved for this purpose by individual departments and the College. In general, these second writing courses are developed to introduce students to the types of writing they will do in their respective fields. Approved equivalents are: ENGL 20201, HIST 21700, ILCS 30000, or POL 20700. You are also required to complete COM 11400 or an equivalent oral communication course approved by individual departments and the College. An approved equivalent course is HIST 12500. You must complete all courses meeting this requirement with a grade of C- or better.

#### Part B: Language

You must complete two courses at the first-year level and two courses at the second-year level in a single international language or in American Sign Language (or demonstrate equivalent proficiency). You are urged to begin studying a language as soon as possible. For information on advanced placement, special credit in an international language or American Sign Language, and international language proficiency for Non-Native Speakers of English, see the "Additional Information for Bachelor's Degrees" section below.

#### Part C: Distribution

A significant component of the College of Arts and Sciences education is the breadth of knowledge throughout the three major areas of Science and Mathematics, Social and Behavioral Sciences, and Humanities. You will accomplish this by completing at least 3 credits in each of these areas. Credits in your major discipline or in directed study courses may not be used to satisfy this requirement. Distribution courses do not overlap with General Education requirements.

Science and Mathematics
Agriculture (only FNR 10300)
Anthropology (only ANTH 20001)
Astronomy
Biology (excluding BIOL 10500)
Chemistry
Entomology
Geography (only physical geography)
Geology
Mathematics (excluding MA 10100, 10200, 10300, 10900, 11100/11101, 11300, 12401)
Physics
Political Science (only POL 39500)
Psychology (only PSY 20100)
Sociology (only SOC 35100)
Statistics

Social and Behavioral Sciences
Anthropology (excluding ANTH 20001)
Communication (excluding COM 11400, 21000, 23800, 31200, 31600, 32700, 35800, 44300, 46300, 47500)
Communication Sciences and Disorders
Economics
English (only ENGL 20501, 20600, 30101)
Geography (only human, cultural, or social geography)
Gerontology (only GERN 23100)
International Studies (only INTL 20000)
Journalism (only COM 30001, 30002)
Linguistics
Lesbian, Gay, Bisexual, and Transgender
Political Science (excluding POL 39500)
Psychology (excluding PSY 20100)
Sociology (excluding SOC 35100)
Spanish* (only SPAN 42500, 42601, 42800)
Women's Studies (only WOST 21000, 24000)

Humanities	
Afro-American studies	
Arabic*	
Architectural Engineering Technology (only ARET 21000, 31000)	

Chinese\* Classical studies' Communication (only COM 21000, 21600, 23800, 31200, 31600, 35800, 46300, 47500) Comparative literature English (excluding ENGL 20501, 20600, 30101, 12900, 13100, 14000, 23202, 23301, 23401, 33101, 36402, 39700, 39800, 42101, 42202, 46001) Film studies Fine arts (excluding studio courses) Folklore French\* German\* History International Language and Culture Studies (excluding ILCS 30000) International Studies (excluding INTL 20000) Japanese\* Journalism (excluding COM 30001, 30002) Latin American Studies Medieval Studies Music (excluding performance/skills courses) Near Eastern Language and Culture' Peace and Conflict Studies (only PACS 20000) Philosophy Religious Studies Russian\* Spanish\* (excluding SPAN 42500, 42601, 42800) Theatre (excluding performance/production courses) Women's Studies (excluding WOST 21000, 24000) \*excluding courses used to satisfy the Part B requirement

#### Part D: Cultural Studies

An important element of the College of Arts and Sciences degree requirements is for students to acquire skills necessary to be productive, responsible citizens and community leaders. To do this, you must have a commitment to free and open inquiry and show mutual respect across multiple cultures and perspectives. Students will accomplish this by taking at least 6 credit hours in cultural studies, including one 3 credit course in Western Culture and one 3 credit course in Non-Western Culture. The Western Culture courses deal broadly with the Western tradition. The Non-Western Culture courses deal exclusively or primarily with a non-Western culture or cultures. Contact your advisor or the College of Arts and Sciences Student Success Center to discuss the possibility of courses double counting to satisfy the Western and Non-Western Culture Studies requirements.

Western Culture
CLCS 20500, 40500
COM 31200
ENGL 10101, 10201
AD 11100, 11201
HIST 11300, 11400, 22500 (only when offered as Intro To Political Theory), HIST 38601, HIST 38801
PHIL 11000, 24000, 30100
POL 10500, 38100, 38200
REL 11200, 23100, 30000

Non-Western Culture
ANTH 31001, 33000, 35600, 37500, 39800, 40200, 44500, 45500, 45700, 47000, 37001
EALC 23100, 27100
ENGL 10700, 36401
FOLK 30500, 35200
HIST 10001, 20101, 20200, 23200, 31001, 31002, 31101, 33101, 33201, 33503, 34201, 34601, 39301, 40201, 43200,
NELC 2040
POL 33900, 34000
REL 23000, 30100, 30600, 30700, 31100
SOC 21100 (only when offered as Contemporary Japanese Culture), SOC 41000 (only when offered as Culture of China, or Modern Japanese Society)
SPAN 41200, 47101, 47200, 47900, 48001
WOST 30100

## Requirements for the Bachelor of Science Degree (BS, and BSC, BSAS, BSDSAS)

In addition to the General Education Requirements and the requirements for your major found in Program Descriptions, you must satisfy the following requirements:

- 1. Successful completion of Parts A and B listed below.
- 2. At least 30 credits in upper-level courses as defined by the departments offering the courses.
- 3. An overall GPA of 2.00 or higher for all courses required for the major.
- 4. The College requires that students complete one of the following MA courses: MA 14000, 15300, 15900, 16500, 22700, 22900, STAT 12500, or placement above MA 15300, or the math course required for your major. Please note that in many degree programs, a specific math course/courses is/are required. The various courses differ with respect to emphasis on the foundations of mathematical reasoning and their application. One of these MA courses may also meet your PFW General Education Category A3 (Quantitative Reasoning) requirement; therefore, you are strongly encouraged to consult your academic advisor to determine which course would be most appropriate for you.
- 5. A sufficient number of elective credits to bring the total number of credits counting toward graduation to 120.
- 6. Residency requirements for a Bachelor's degree: registration in and completion of at least 32 credits of resident course credit at the 2000+ level or above, including at least 15 resident credits at the 3000+ level or above in courses applicable to the major.
- 7. Normally, you must complete the entire final year at PFW. However with the approval of the College and satisfaction of the resident credit requirement, you may complete the remaining requirements at another approved College or university and have the credits transferred back to PFW.
- 8. You must register, either in residence or absentia, as a candidate for the desired degree during the academic session immediately preceding its conferral.

#### Part A: English Writing and Speaking

An education in the liberal arts and sciences emphasizes the value of analyzing and presenting ideas in writing and speaking; thus the College strives to improve its students' oral and written communication skills. Consequently, in addition to your General Education writing course (ENGL 13100 or equivalent), you are required to complete ENGL 23301 or an equivalent second writing course approved for this purpose by individual departments and the College. In general, these second writing courses are developed to introduce students to the types of writing they will do in their respective fields. Approved equivalents are: ENGL 20201, HIST 21700, ILCS 30000, or POL 20700. You are also required to complete COM 11400 or an equivalent oral communication course approved by individual departments and the College. An approved equivalent course is HIST 12500. You must complete all courses meeting this requirement with a grade of C- or better.

#### Part B: Language

You must complete two courses at the first-year level in a single international language or in American Sign Language (or demonstrate equivalent proficiency). You are urged to begin studying a language as soon as possible. For information on advanced placement, special credit in an international language or American Sign Language, and international language proficiency for Non-Native Speakers of English, see the "Additional Information for Bachelor's Degrees" section below.

### **Additional Degree Information:**

Along with the PFW Academic Regulations, the following information also applies to the College of Arts and Sciences degrees:

#### 1. Special Credit for Language:

When you begin your international language or American Sign Language studies at PFW at the second-semester level or higher, you are eligible to apply for special credit after successfully completing the course into which you placed. This credit is not automatically granted and must be applied for through either the Department of International Language & Culture Studies or the Department of Communication Sciences & Disorders. To demonstrate language proficiency, non-native speakers of English, may submit an application to the Director of Advising for the College of Arts and Sciences Student Success Center. The application may be found online through the College of Arts and Sciences webpage under Advising Resources or by visiting the College's Student Success Center.

### 2. Undistributed Transfer Credit:

Undistributed transfer credit (for courses not equivalent to PFW courses) may be used to satisfy general education requirements and distribution requirements, and may be counted in the degree program where appropriate. Contact the Lead Advisor in the College of Arts and Sciences Student Success Center as soon as possible to confirm the application of any undistributed transfer credit you are awarded. Properly distributing transfer credit will help students avoid enrolling in duplicate or overlapping courses.

## 3. Credit Restrictions:

- a. You may count no more than 4 credits in:
  - HPER activity courses (i.e., HPER 11100, 11700, 11900, 12100, 13300, 13501, 15000, 15900, 16500, 18100, 18500, 19000, 21100, 21701, 25001, 29000)
- b. You may count no more than 3 credits toward a major in:
  - IDIS courses, MA 14900
- c. You may count no credit toward a major in:
  - Developmental courses (i.e., ENGL 11500, 11600, 15000, MA 11300)
  - Courses that provide only surveys of career opportunities (i.e., AGR 10100, BUS 10000, EDU 30000 (except when offered as Invitation to Teaching), 21000, HSRV 10000, VM 10200)
  - · Courses designed to provide a skill not required to complete the major

#### 4. Credit for Military Service:

Up to 9 credits for military service in the armed forces of the United States may be counted toward graduation.

### 5. General Education Requirements:

Some majors may require particular General Education courses as specified in their program description. Up to six credits of approved General Education courses satisfying requirements in Areas A and B, and three credits satisfying requirements in Area C, may originate in the major. A grade of C- or higher in each course, and an overall GPA of 2.0 is required to satisfy the Purdue Fort Wayne General Education Requirements.

#### 6. Upper-Level Courses:

All courses numbered 3000+ are considered upper-level courses. In addition, the following 2000+ numbered courses are defined as upper-level by the College of Arts and Sciences Departments offering them and may be included in the 30 credits in upper-level courses required for graduation.

Courses which may count toward 3000+ level requirement:
CHM 24100, 25400, 25500, 25600, 25800, 26100, 26200, 26500, 26600
ENTM 20600, 20700
EAPS 22101, 22201
MA 26100, 26300, 27300, 27500
PSY 20300, 20500, 23500, 24000, 27200
REL 23000, 23100

#### 7. Graduation With Distinction:

Graduation with distinction. To be a candidate for the bachelor's degree with distinction, the student must have a minimum of 65 resident credits included in the computation of the cumulative GPA. To be a candidate for an associate degree with distinction, the student must have a minimum of 35 resident credits included in the computation of the cumulative GPA. In each college/school, the minimum cumulative GPA for graduation with highest distinction from an associate or bachelor degree program shall be at least 3.95 (A = 4.00). In each college/school, the minimum cumulative GPA for graduation with distinction from an associates or bachelor degree program shall be at least 3.80 (A = 4.00).

The required GPA, calculated each spring as detailed above, also applies to degrees for the following summer sessions and fall semester. Conferring of degrees: Degrees are granted at the close of each academic session.

## 8. Degree+ Program:

- 1. COAS Bachelor of Science students listed in point 4 below who are double majoring in one of the degree programs outside of COAS listed in point 5 below, do not need to complete the following College of Arts Liberal Arts Requirements:
  - 1. Speaking Requirement
  - 2. Writing Requirement
  - 3. Foreign Language Requirement
- 2. If a Bachelor of Science student in a program listed in point 4 below does not complete the degree program in the degree programs listed in point 5 below, the student must complete all of the Liberal Arts requirements for the Bachelor of Science students in COAS.
- 3. If a student is returning with a degree from IPFW, Purdue University Fort Wayne, or any Higher Learning Commission accredited university that matches one of the degrees listed in point 5 below, and wants to complete a second COAS Bachelor of Science degree listed below in point 4, the Speaking, Writing, and Foreign Language Requirements are waived.
- 4. This policy affects the following Bachelor of Science degrees in COAS:
  - 1. Bachelor of Science in Biology, including:
    - Biology with an Ecology & Evolutionary Concentration (B.S.)
    - Biology with a Genetics, Cellular, and Molecular Concentration (B.S.)
    - · Biology with a Microbiology and Immunology Concentration (B.S.)
  - 2. Bachelor of Science in Chemistry, including:
    - · Biochemistry (B.S.)
    - Chemistry (B.S.)
    - Chemistry (B.S.C)
  - 3. Bachelor of Science in Communication Sciences and Disorders (B.S.)
  - 4. Bachelor of Science in Mathematical Sciences, including:
    - Actuarial Sciences (B.S.A.S.)
    - · Data Sciences and Applied Statistics (B.S.D.S.A.S.)
    - Mathematics (B.S.)
    - Mathematics Teaching (B.S.)
  - 5. Bachelor of Science in Physics, including:
    - Physics (B.S.)
    - · Physics Engineering Concentration (B.S.)
    - Physics with Biomedical Concentration (B.S.)
    - Physical with Computational Concentration (B.S.)
    - Physics with Optoelectronics Concentration (B.S.)
  - 6. Bachelor of Science in Psychology, including:
    - Psychology (B.S.)
  - 7. The policy should affect any additional Bachelor of Science degrees added to the College of Arts and Sciences during the duration of this policy if and when the B.S. degree is confirmed by all COAS & Purdue University Fort Wayne curricular and governing bodies. This document does not need to be formally amended with each new degree; this document considers any new degrees enumerated here in spirit.
- 5. The following degrees qualify as second majors outside COAS degree programs for Degree:
  - 1. Bachelor of Science in Electrical & Computer Engineering, including:
    - · Computer Science (B.S.)
    - Computer Engineering (B.S.)
    - · Electrical Engineering (B.S.)
    - Information Systems (B.S.)
    - Computer Engineering Technology (B.S.)
    - Electrical Engineering Technology (B.S.)
    - Physics + Electrical Engineering Dual Degree (B.S.) (would need curricular change in ETCS as well)
    - 5 year B.S./M.S.E. Combined Degree (B.S./M.S.E.)
  - 2. Bachelor of Science in Civil and Mechanical Engineering, including:
    - Civil Engineering (B.S.C.E.)
    - Mechanical Engineering (B.S.M.E.)

- 5 Year BSME/MSE program (B.S./M.S.E.)
- 3. Bachelor of Science in Secondary Education Biology (Life Science), including:
  - Secondary Education (B.S.Ed.) + B.S. in point 4.1 above
- 4. Bachelor of Science in Secondary Education Chemistry, including:
  - Secondary Education (B.S.Ed.) + B.S. in point 4.2 above
- 5. Bachelor of Science in Secondary Education Mathematics, including:
  - Secondary Education (B.S.Ed.) + B.S. in point 4.4 above
- 6. Bachelor of Science in Secondary Education (B.S.Ed.) + B.S. Physics, including:
  - Secondary Education (B.S.Ed.) + B.S. in point 4.5 above
- 6. This proposal (COASCCD#18-29A) will be in effect for five years. After the fourth year of its enactment, the College will have a year to assess the benefits and drawbacks from this program, as well as how well it fits with related Purdue University West Lafayette credit requirements in the College of Science and College of Liberal Arts.
- 7. All students must meet Purdue University Fort Wayne General Education Requirements.

# **Anthropology and Sociology**

Department of Anthropology and Sociology College of Arts and Sciences

Anthropology:

Kettler Hall G11 ~ 260-481-6272

Shannon Bischoff, Professor and Interim Chair Doug Kline, Lead Advisor, Anthropology Mieko Yamada, Lead Advisor and Program Director, Sociology Hal Odden, Program Director, Anthropology Amy Carter, Administrative Assistant

Courses in Anthropology provide an understanding of the nature of cultures and help you assess various explanations of human behavior. They also assist in the development of your analytical and critical abilities. The curriculum is structured to include studies in the history and theory of anthropology in four anthropological fields: ethnology, archeology, bioanthropology, linguistics; in at least two different world ethnographic areas; and in topical specializations. This program will help you prepare for graduate study, for teaching, and for various careers in which the understanding of cultures is an asset.

Although a minor is not required for the Bachelor's degree in Anthropology, an outside concentration is highly recommended. Fifteen credits in history, political science, psychology, or sociology support the major.

A Research Certificate in Anthropology is also available. For details, see Program Descriptions in this catalog.

Sociology:

*Liberal Arts Building 241 ~ 260-481-6842* 

Shannon Bischoff, Professor and Interim Chair Mieko Yamada, Lead Advisor, Sociology Donna Holland, Director, Center for Social Research Amy Carter, Secretary

Courses in Sociology provide an understanding of society and of the relationship between the individual and society. Studies in sociology help to prepare you for graduate school and for careers in the social services, law, human relations, criminal justice, government, education, and mass media. In order to effectively plan a course of study that will best meet your educational and career objectives, you will be assigned an advisor as soon as you declare a major in sociology.

Although a minor is not required for the Bachelor's degree in Sociology, study in an outside area is highly recommended. Anthropology, computer science, economics, history, labor studies, political science, psychology, organizational leadership, and women's studies courses support the major. For details, see Program Descriptions in this catalog.

# **Biology**

Department of Biology College of Arts and Sciences

Science Building 330 ~ 260-481-6305

Elliott Blumenthal, Chair and Lead Advisor Mark Jordan, Associate Chair Jordan Marshall, Graduate Director Bruce Kingsbury, Director, Environmental Resource Center Frank Paladino, Director, Center for Marine Conservation & Biology Oluwadamilola "Dami" Oke, Academic Advisor Dar Bender, Administrative Assistant Colleen Krohn, Administrative Assistant

Biology is one of the most interdisciplinary of all the sciences and its study prepares students for a range of careers in health and medicine, the environmental field, agriculture, research, and education. The Department of Biology helps students pursue their educational goals by delivering a modern curriculum rooted in scientific inquiry. Faculty with expertise in many specialties of the discipline teach and actively conduct research with students. Students have the opportunity to pursue areas of concentration within the discipline, earn an Honors degree in Biology, or earn a Research Certificate in Biology. More than half of all graduates earning a bachelor's of science degree in Biology from Purdue University Fort Wayne continue on to pursue graduate degrees or professional certifications.

For details on pursuing a secondary education second degree (BSEd) to teach Biology in middle school/high school, click on the links to the Secondary Education - Second Degree Program and the School of Education page in this catalog. Note: The BSEd as a second degree in these programs cannot be earned without completion of the bachelor's degree in the content area from the College of Arts and Sciences.

See Program Descriptions in this catalog for more information on the Biology programs:

- · Bachelor of Science degree
- · Concentrations in Ecology & Evolutionary Biology; Genetics, Cellular, & Molecular Biology; and Microbiology & Immunology
- · Second major in teaching secondary education Biology
- · Research Certificate in Biology
- Minor

## **Pre-professional Study**

Those seeking careers in dentistry, medicine, veterinary medicine, forestry and agriculture should consult with their preprofessional advisor before deciding what specific elective courses in biology to take. Detailed and early planning is necessary.

#### Departmental Honors Degree in Biology

You may earn an Honors Degree in Biology by achieving an overall GPA of 3.00 or higher and a Biology GPA of 3.50 or higher while completing at least 6 research credits. Research credits should be composed of BIOL 59500, although BIOL 29500 credits will be accepted if it can be demonstrated that the BIOL 29500 research was conducted on the same topic as the BIOL 59500 research. A senior thesis committee of three faculty members must be established at least one semester before graduation. Students must prepare a plan of research, senior thesis, and give a public oral presentation of the thesis research for review by the thesis committee. **Students earning the Departmental Honors Degree in Biology are not eligible for the Biology Research Certificate.** 

#### **Special Assignments**

Students who qualify may elect to do an independent project supervised by a faculty member. With the permission of the faculty member and the department chair, the student can enroll in BIOL 19500, BIOL 29500 or BIOL 59500. The student must work closely with the faculty member to design and complete the project. Each faculty member will define how the grade will be earned each semester, but typically students write papers or give a presentation over their research project. Credits earned in these courses cannot be used to satisfy A/B and concentration elective requirements, and a maximum of 6 such credits can be used toward graduation as general elective credits.

## Cooperative Education (Co-op) Program

The co-op program is designed to provide employment experience in an area of your academic interest while you are still enrolled in school. A co-op experience may be repeated. You may earn up to 2 elective credits toward your degree.

#### Special Regulation for Biology Majors

• Time Limit: All biology courses applied toward graduation must be completed within 10 years from the time the first biology course was completed.

# Chemistry

Department of Chemistry College of Arts and Sciences

Science Building  $496 \sim 260\text{-}481\text{-}6289$ 

Jeff Anderson, Interim Chair Michael Columbia, Associate Chair and Lead Advisor Jayla Heller, Administrative Assistant

The Department of Chemistry offers several programs of study:

- · Associate of Science (A.S.) with a major in Chemical Methods
- Bachelor of Science (B.S.) with a major in Chemistry
- · Bachelor of Science (B.S.) with a major in Biochemistry
- Bachelor of Science in Chemistry (B.S.C.)
- · Research Certificate in Chemistry
- · Minor in Chemistry

See Program Descriptions in this catalog for details.

For details on pursuing a secondary education second degree (BSEd) to teach Chemistry or Biochemistry in middle school/high school, click on the links to the Secondary Education - Second Degree Program and the School of Education page in this catalog. Note: The BSEd as a second degree in these programs cannot be earned without completion of the bachelor's degree in the content area from the College of Arts and Sciences.

## **Communication**

Department of Communication College of Arts and Sciences

Neff Hall 230 ~ 260-481-6825

Michelle Kelsey, Chair Steve Carr, Graduate Director Elana Merritt, Administrative Assistant

The Department of Communication offers a Bachelor's degree with a choice of four concentrations: Interpersonal and Organizational; Media and Culture; Journalism; and Rhetoric and Public Advocacy. Minors include: Communication Studies; Journalism; Media Production; and Public Relations. Film and Media Studies, a minor with an interdisciplinary approach, may also be of interest.

For details on these majors and minors, see Program Descriptions in this catalog.

## **Communication Sciences and Disorders**

Department of Communication Sciences and Disorders College of Arts and Sciences

Modular Clinic Classroom Bldg 111 ~ 260-481-6410

Stacy Betz, Chair and Associate Professor Naomi Gurevich, Lead Advisor for Gerontology Certificate Joanne Blosser, Administrative Assistant

The Communication Sciences and Disorders bachelor's degree curriculum offers courses and practical experiences that prepare you to work with individuals with communication impairments in such settings as schools, hospitals, agencies, rehabilitation centers, clinics, and private practices. The certificate in Gerontology offers courses and practical experiences focused on aging and working with older adults.

For details on these programs, see Program Descriptions in this catalog.

# **English and Linguistics**

Department of English and Linguistics College of Arts and Sciences

Liberal Arts Building 145 ~ 260-481-6841

Hardin Aasand, Chair and Professor Andrew Kopec, Lead Advisor Debrah Huffman, Director of Writing Lewis Roberts, Graduate Director Shanté Howard, Administrative Assistant Carrie Adams. Administrative Assistant

The Department of English and Linguistics offers courses that cover all periods of British and American literature; in special topics, such as children's literature; and in writing, film study, linguistics, folklore, and mythology. Degree programs in English and minors in creative writing, English, folklore, linguistics, and professional writing are designed for students who desire a humanistic education. The program in English offers excellent preparation for many different careers.

Literary study provides a basis for understanding various forms of cultural expression; writing skills are a powerful tool in an age dominated by information technologies; linguistics teaches the structure and function of language; folklore introduces the student to voices otherwise neglected by a dominant culture. The Bachelor of Arts with a major in English is appropriate for those who wish to enter a graduate or professional school. Degree options also prepare students for careers in teaching, writing, and business communications.

The Teaching English As A New Language Certificate (TENL) is offered through the department at both the undergraduate and graduate levels.

The Medical Ethics Certificate is offered as both an undergraduate and a post-baccalaureate program.

Other minors available include Philosophy; and Professional and Applied Ethics.

For details on these programs, see Program Descriptions in this catalog.

For details on pursuing a secondary education second degree (BSEd) to teach English in middle school/high school, click on the links to the Secondary Education - Second Degree Program and the School of Education page in this catalog. Note: The BSEd as a second degree in these programs cannot be earned without completion of the bachelor's degree in the content area from the College of Arts and Sciences.

# **General Studies**

Department: General Studies College of Arts and Sciences

Kettler Hall 144 ~ 260-481-6828

La Tishia Horrell, Executive Director Sara Thomas, Assistant Director Jamie Gregory, Academic Advisor Rhonda Meriwether, Academic Advisor Jodie Powell, Administrative Clerk

General Studies offers a wide variety of personalized degree options to students. They may individually tailor their programs to combine a substantial core of courses basic to a traditional university education and study in career-related areas. Within the flexible framework of degree requirements, students may design an undergraduate program that can more readily meet their career and personal-development goals. Students will be encouraged and assisted in developing a unique academic program complementing their individual interests, abilities, and intellectual and practical concerns.

The General Studies degree program offers two different bachelor's degrees, the Bachelor of General Studies (B.G.S.) and the Bachelor of Applied Science (B.A.S.). Courses are available to students on-campus, days, evenings, and weekends, and online. Students may attend part-time or full-time. General Studies serves as the home for the Exploring General Studies program.

#### The Bachelor of General Studies (B.G.S.)

Completing the B.G.S. gives students a well-rounded education that makes them competitive for many careers and graduate programs. B.G.S. graduates work in various professional fields, including business, education, law, government, healthcare, real estate, social services, and industry. The B.G.S. may be completed online.

#### The Bachelor of Applied Science (B.A.S.)

This degree will enhance the educational and professional attainment of students who have completed an Associate of Applied Science degree. The degree will provide students an advanced education, giving them a broad knowledge of skills needed to run an organization and in-depth knowledge in a concentration. Students in this program must have completed an Associate in Applied Science. There are five concentrations students may explore:

- · Business Specialty
- Information Systems
- · Information Technology
- · Interdisciplinary
- · Organizational Leadership and Supervision

# History

Department of History College of Arts and Sciences

Liberal Arts Building 209 ~ 260-481-6686

Richard Weiner, Chair and Professor Ann Livschiz, Lead Advisor Erik Ohlander, Program Coordinator for Religious Studies Teri Luce, Administrative Assistant

The courses and programs offered through the Department of History can help you gain a better understanding of yourself and your world as you prepare for a career in teaching, library work, law, public service, or a related profession. The department offers a Bachelor of Arts in History as well as a minor.

As an entering student, you could be eligible for the History Honors Program. Details for this departmental honors program is included in the section describing the major or we invite you to check with a department advisor.

The department also serves as administrative home for the Religious Studies Program which offers the Minor in Religious Studies.

For details on all of these programs, see Program Descriptions in this catalog.

For details on pursuing a secondary education second degree (BSEd) to teach History in middle school/high school, click on the links to the Secondary Education - Second Degree Program and the School of Education page in this catalog. Note: The BSEd as a second degree in these programs cannot be earned without completion of the bachelor's degree in the content area from the College of Arts and Sciences.

# **International Language and Culture Studies**

Department of International Language and Culture Studies College of Arts and Sciences

Liberal Arts Building 267 ~ 260-481-6836

Ana Benito, Chair and Professor, Lead Advisor Suzanne Randall, Administrative Assistant

The Department of International Language and Culture Studies offers:

- · Bachelor's degree in Spanish
- For details on pursuing a secondary education second degree (BSEd) to teach Spanish in middle school/high school, click on the links to the Secondary Education Second Degree Program and the School of Education page in this catalog. Note: The BSEd as a second degree in these programs cannot be earned without completion of the bachelor's degree in the content area from the College of Arts and Sciences.
- Minors
  - · French
  - German
  - Spanish
- · Limited courses in other languages are also available. Visit the Department of International Language and Culture Studies for details and other opportunities.

The Department of International Language and Culture studies is also planning to offer a bachelor's degree in Global Studies. Information will be available when this program is open for enrollment.

For related studies, the College of Arts and Science Interdisciplinary Studies program offers an International Studies Certificate. This certificate can be earned and awarded separate from any other degrees students may be pursuing.

For details on all of these programs, see Program Descriptions in this Catalog.

#### Independent Study Policy for the Department of International Language & Culture Studies:

The objective of an independent study is to accommodate students who, for reasons beyond their control, have been unable to take a course required for their major within the 4-year plan framework.

- Independent study courses are designed to accommodate advanced students only. A student should have completed at least 40% of their program before taking an
  independent study and have a GPA of 3.0 or better.
- · An independent study will only be allowed in exceptional cases when the Department or program has been unable to provide a course needed for graduation.
- Students who are unable to take a course due to scheduling conflicts are not eligible to take an independent study unless special permission is granted by the faculty in their major and in consultation with the chair of ILCS.
- Each independent study should be roughly equivalent to 64 hours of work (based on the model of one hour per week of contact time and three hours of additional work in a 16-week semester). The ratio of contact time to independent work will be decided by the individual instructor.
- Students may not take lower-division courses (100 or 200 level) by independent study.
- An independent study can be one credit or more, however the typical independent study is three credit hours. In general, no more than three credits of independent study
  may count towards graduation. Exceptions are rare and will only be granted to students in extraordinary circumstances.

## Study Abroad

Both majors and non-majors are encouraged to study abroad. Programs are available at all levels to study French, German, Spanish, Italian, Russian, Portuguese, Arabic, Japanese, Chinese, Korean, and many more. Students can take courses in language and culture, content area courses in a host language, or a mix of English and host language courses. Students have the option of over 600 programs in over 90 different countries for anywhere between two weeks and two semesters; plus financial aid applies. Pay PFW tuition and housing and study in over 50 countries with ISEP exchange! There are also many generous scholarships for students to study a language abroad for either a summer or semester. For further information you can visit the Office of International Education in Walb Union Room 145; phone a Study Abroad Advisor at 260-481-6494; email them at: studyabroad@ipfw.edu; or visit the webpage at ipfw.edu/study-abroad/.

# **Mathematical Sciences**

Department of Mathematical Sciences College of Arts and Sciences

Kettler Hall 200 ~ 260-481-6821

Peter Dragnev, Chair and Professor
James Hersberger, Associate Chair and Lead Advisor
Joe Francis, Actuarial Science Lead Advisor
Yvonne Zubovic, Data Science and Applied Statistics Lead Advisor
Doug Weakley, Graduate Director
Sheila McFarland, Administrative Assistant
Yvette Zahir, Administrative Assistant

The Department of Mathematical Sciences offers the bachelor of science degree in several majors including Mathematics; Actuarial Science; and Data Science and Applied Statistics. A Mathematical Sciences Research Certificate is also available.

For details on these programs, see Program Descriptions in this catalog.

For details on pursuing a secondary education second degree (BSEd) to teach Mathematics in middle school/high school, click on the links to the Secondary Education - Second Degree Program and the School of Education page in this catalog. Note: The BSEd as a second degree in these programs cannot be earned without completion of the bachelor's degree in the content area from the College of Arts and Sciences.

# **Physics**

Department of Physics College of Arts and Sciences

Kettler Hall  $126B \sim 260-481-6306$ 

Mark Masters, Chair and Professor Gang Wang, Lead Advisor, Physics Ray Gildner, Lead Advisor, Geology Melissa Froderman, Administrative Assistant

People are often unaware of what physics is and what physicists do. They believe that physicists can only be teachers or professors; that physics is impractical; that physicists are "thinkers" not "doers"; and that physics is all "theory". Physics, however, is much more. Most physicists are experimental scientists. Much of today's technology, including our medical technology, originated in the physics laboratory. Most physicists work in industry and are often titled "Engineer". Physicists have many employment opportunities because of the skills developed through physics. Learning physics teaches you many important skills such as problem solving, experimentation, and communication.

The Department of Physics provides an excellent educational opportunity for our students. Our award winning program is one of the most rigorous physics degrees. It is designed to help students understand physics and develop the skills to be a scientist. Every class emphasizes experimental work, computational work and communication skills. Our program is designed to help create a sense of community among our students in order to help them succeed. Finally, each of our students is involved in doing cutting edge research by the time they graduate.

#### Physics Bachelor's Degree:

Within the Physics program, there are a number of concentrations; most are interdisciplinary.

#### **Concentrations:**

- Astronomy. The Astronomy concentration adds course work in astronomy to the physics major. It also has traditional physics courses that are modified to be more
  relevant to astronomy. The program is designed to provide students with a strong background for future careers. The astrophysics track adds several additional courses
  that provide either more hands-on skills and/or greater theoretical understanding. The astronomy concentration with an optional track in astrophysics seeks to lead
  students to a career in astronomy, optics, data analysis, or software for pursuing graduate education in physics, astronomy or engineering.
- Biomedical Physics. The Biomedical Physics concentration combines Physics, Chemistry and Mathematics. It is designed to help the student understand physical
  mechanisms in biology and can be used as preparation for medical school or graduate study in medical physics or biophysics. There are three separate tracks available to
  students in the Biomedical Physics concentration.
  - Biophysics: combines courses in biology with physics providing a strong physics background with which to examine biology.
  - Medical Physics: this track has the core requirements to pursue graduate school in medical physics (medical physics is a wonderful career!).
  - · Pre-med: preprofessional program for medical school.
- Computational Physics. The Computational/Mathematical concentration adds a number of either computer science or mathematics courses to the physics program and is a good background for modeling and for further study of mathematical or computational physics in the future.
  - · Computational Physics: Adds additional advanced Computer Science courses in exchange for some of the advanced laboratory course work in physics.
  - Mathematical Physics: Adds additional advanced Mathematics courses in exchange for some of the advanced laboratory course work in physics.
- Engineering Physics. The Engineering Physics concentration adds courses from different engineering programs (Electrical, Mechanical, and Civil) so that you can learn basic engineering skills and build on these skills with the scientific skills developed in physics. There are three separate tracks in the Engineering Physics Concentration.
  - · Civil Engineering: Adds Civil and Environmental courses replacing some of the intermediate physics courses.
  - Electrical Engineering: Adds Electrical Engineering courses in place of some intermediate physics courses.
  - Mechanical Engineering: Adds some mechanical engineering courses in place of some intermediate physics courses.
- Materials Science. Materials Science is the study of properties, structures and uses of various materials. The concentration adds courses from chemistry, physics, and technology that teach about material structures and how to use the tools to perform analysis of materials (X-Ray, Scanning Electron Microscope, Scanning Probe Microscope, Optical Analysis, etc.)
- Optoelectronics and Photonics. Optoelectronics and Photonics is the study of light and the production of light, and the electronics used in detection of light. This concentration expands upon the physics program by adding courses in laser physics, coherent optics and electronic instrumentation.

For details on pursuing a secondary education second degree (BSEd) to teach Physics in middle school/high school, click on the links to the Secondary Education - Second Degree Program and the School of Education page in this catalog. Note: The BSEd as a second degree in these programs cannot be earned without completion of the bachelor's degree in the content area from the College of Arts and Sciences.

#### Minors:

- Astronomy
- Geology
- Materials Science
- Physics

#### Research Certificate:

· Research Certificate in Physics

### Electrical Engineering (B.S.E.E.) and Physics (B.S.) Dual Degree

· Students that are already actively enrolled Physics majors should speak with their assigned physics academic advisor and an electrical engineering advisor.

For details on the various degree programs, see the Program Descriptions section in this Catalog.

The department offers opportunities for students to participate in fun and educational events such as:

- · Friday Night at the Observatory
- · Active Research Programs
- · Physics Demonstrations

# **Political Science**

Department of Political Science College of Arts and Sciences

Liberal Arts Building 209 ~ 260-481-6686

Michael Wolf, Chair and Professor Georgia Ulmschneider, Lead Advisor and Pre-Law Advisor Andy Downs, Director, Mike Downs Center for Indiana Politics Craig Ortsey, Coordinator, Peace and Conflict Studies Certificate Janet Badia, Director, Women's Studies Program Teri Luce, Administrative Assistant

The Political Science Department is an interdisciplinary home to multiple degrees that deal with fundamental institutional, social, and cultural issues in historical and contemporary, as well as local and global, contexts. Our department houses Political Science, Women's Studies, the B.A. in Economics, the Certificate of Civic Engagement and Public Advocacy, and the Certificate in Peace and Conflict Studies. The common thread that runs through our diverse academic programs is a commitment to advancing knowledge about systems of power, engagement and leadership, and civic life in a broad, inclusive perspective.

### **Department of Political Science**

Several programs of study are offered:

- Bachelor of Arts (B.A.) in Political Science
- · Bachelor of Arts (B.A.) in Economics
- · Minor in Political Science
- · Minor in Economics
- Certificate in Civic Education and Public Advocacy
- Certificate in Peace and Conflict Studies

### Women's Studies Program

The department serves as administrative home for the Women's Studies Program.

Programs offered include:

- · Bachelor of Arts (B.A.) in Women's Studies
- · Minor in Women's Studies
- · Certificate in Women's Studies

## Pre-Law Program and Advising

Specialized advising for pre-law students is provided by faculty in the political science department. Although no specific major is usually required for admission to law school, pre-law students can benefit greatly from the experience and analytical skills gained from the study of political science.

For details on all of the programs offered through Political Science, see Program Descriptions in this catalog.

# **Psychology**

Department of Psychology College of Arts and Sciences

Neff Hall 388 ~ 260-481-6403

Carol Lawton, Chair and Professor Michael Bendele, Lead Advisor Michelle Stewart, Administrative Assistant Sara Simpson, Administrative Assistant

Courses in psychology provide an understanding of human behavior and mental processes from a scientific perspective. The psychology majors prepare students for careers that involve knowledge of behavior along with skills in data analysis and research. We offer a Bachelor of Science program for students who wish to pursue graduate programs in psychology and related fields or in medical school. We offer a Bachelor of Arts program for students who intend to work in social services, mental health agencies, or business-related areas such as human resources. We also offer two specialized certificate programs: the Behavior Analysis and Techniques Certificate is for students interested in working with individuals with autism or other behavioral problems; and the Death Education Certificate is for students who wish to pursue careers in healthcare, education, and business and be able to provide support to dying or bereaved people. There are many opportunities for students to become involved in research in our extensive lab facilities and in field experiences in the community.

For further details on programs offered in the Department of Psychology, see Program Descriptions in this Catalog.

### College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 243 ~ 260-481-6839

- · Academic Programs
- Associate of Science
- · Bachelor of Arts
- Bachelor of Science
- Bachelor's Degrees

- Certificate
- Certificates and Associate Degrees
- Cooperative Education (Co-Op) and Related Programs
- General Degree and Certificate Requirements
- Minor

The objective of the College of Engineering, Technology, and Computer Science (ETCS) is to be an increasingly valuable technological resource for its students, and to serve society as an integral component of a unique and comprehensive university with vigorous regional ties and a growing national reputation. Within the broader mission of the university, the college's goal is to prepare students for a variety of careers in engineering, engineering technology, computer sciences and related disciplines, and leadership. The College is also the academic home for Military Science faculty members who offer courses in the Army ROTC program that leads to commissioning as an Army Officer.

ETCS offers degree programs in many areas related to computer science, engineering technology, engineering, and leadership. Courses for these programs range from the study of fundamentals to practical, real-world, industrial methods.

## **Academic Programs**

Full descriptions of the college's certificate and degree programs appear in alphabetical order in Programs of this catalog.

### **Associate of Science**

Subject	Department
Electrical Engineering Technology	Computer, Electrical, and Information Technology
Industrial Engineering Technology	Manufacturing & Construction Engineering Technology
Information Systems	Computer Science
Mechanical Engineering Technology	Manufacturing & Construction Engineering Technology
Organizational Leadership	Organizational Leadership

#### **Bachelor of Arts**

Subject	Department
Computer Science	Computer Science

## **Bachelor of Science**

Subject	Department
5 Year BSCmpE/MSE Combined Degree Program	Electrical and Computer Engineering
5 Year BSEE/MSE Combined Degree Program	Electrical and Computer Engineering
5 Year BSME/MSE Combined Degree Program	Civil and Mechanical Engineering
Civil Engineering (B.S.C.E.)	Civil and Mechanical Engineering
Computer Engineering (B.S. Cmp.E.)	Electrical and Computer Engineering

Computer Engineering Technology (B.S.)	Computer, Electrical, and Information Technology
Computer Science (B.S.)	Computer Science
Construction Engineering Technology (B.S.)	Manufacturing & Construction Engineering Technology
Electrical Engineering (B.S.E.E.)	Electrical and Computer Engineering
Electrical Engineering Technology (B.S.)	Computer, Electrical, and Information Technology
Industrial Engineering Technology (B.S.)	Manufacturing & Construction Engineering Technology
Information Systems (B.S.)	Computer Science
Information Technology (B.S)	Computer, Electrical, and Information Technology
Mechanical Engineering (B.S.M.E.)	Civil and Mechanical Engineering
Mechanical Engineering Technology (B.S.)	Manufacturing & Construction Engineering Technology
Organizational Leadership (B.S.)	Organizational Leadership

#### Certificate

Subject	Department
Advanced Microprocessors	Computer, Electrical, and Information Technology
Computer Controlled Systems	Computer, Electrical, and Information Technology
Computer Networking	Computer, Electrical, and Information Technology
Information Systems	Computer Science
Quality	Manufacturing & Construction Engineering Technology
Supervisory Leadership	Organizational Leadership
Advanced Manufacturing Management	Manufacturing & Construction Engineering Technology
Advanced Manufacturing Engineering	Civil and Mechanical Engineering
Bio-Mechanical Engineering	Civil and Mechanical Engineering

#### Minor

Subject	Department
Computer Science	Computer Science
Electronics	Computer, Electrical, and Information Technology
Information Systems	Computer Science
Information Technology	School of Polytechnic
Organizational Leadership	Organizational Leadership
Materials Engineering Technology	School of Polytechnic
Military Science	Engineering, Technology, and Computer Science

## **General Degree and Certificate Requirements**

In addition to the academic regulations of PFW (Regulations), the following rules apply to students in the college. Where the college regulations are stricter than PFW regulations, the college regulations apply.

## Certificates and Associate Degrees

Requirements for certificates and Associate of Science degrees offered by the college are specified in the college's departmental listings.

## **Bachelor's Degrees**

In addition to the requirements of PFW (Regulations) and those of your elected major, you must satisfy the following requirements of the College of Engineering, Technology, and Computer Science:

- 1. Earn a minimum of 120 credits.
- 2. Earn a graduation GPA of 2.00 or better in courses required for the major that are offered by the major department.
- Satisfactorily complete ENG W131 or an equivalent English composition course with a grade of C- or better.
   Satisfactorily complete any additional degree requirements defined by individual departments based upon respective accrediting body criteria.

No credit toward graduation will be given for (a) courses or sequences considered to have overlapping content (see listings, College of Arts and Sciences).

# Cooperative Education (Co-Op) and Related Programs

The college's departments offer many options for Cooperative Education experiences. Regular co-op positions, work-study internships, and practicum positions are available and many departments offer laboratory or teaching assistantships. You should check with your department for these opportunities.

# Civil and Mechanical Engineering

Department of Civil and Mechanical Engineering College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 321 ~ 260-481-6965

Through the Department of Civil and Mechanical Engineering, Purdue University Fort Wayne offers bachelor's programs in civil engineering and mechanical engineering. Both the civil engineering and the mechanical engineering programs are accredited by the Engineering Accreditation Commission of ABET, <a href="www.abet.org">www.abet.org</a>.

The civil and mechanical engineering curriculum consists of a common first-year engineering program, challenging engineering science coursework, hands-on laboratory activities, up-to-date technical elective courses, and practical design experiences, that are complemented with an enriching general education program.

In addition to coursework, the department supports and encourages student participation in undergraduate research, co-op and internships, and several very active student organizations.

The civil and mechanical engineering programs develop students' technical knowledge and problem-solving abilities, as well as teamwork and communication skills, producing engineers that are in high-demand in Northeast Indiana.

The mechanical engineering program offers two certificates:

- Advanced Manufacturing Engineering Certificate In Mechanical Engineering
- · Bio-Mechanical Engineering Certificate In Mechanical Engineering

At the graduate level, the department offers a <u>Master of Science in Engineering (M.S.E)</u> degree program with specializations of study in mechanical engineering. The department also offers a <u>combined five-year BSME/MSE Program</u>. This is an integrated degree program in which qualified students can receive a Bachelor of Science degree in Mechanical Engineering and a Master of Science in Engineering (MSE) with an area of specialization in Mechanical Engineering.

In its recently (2020) released rankings of the best colleges and universities in the United States, U.S. News & World Report deemed the engineering programs at Purdue University Fort Wayne to be among the best in the country. Both programs are ranked #38 around the country at schools where no PhD is offered. This ranking puts the two programs among the top 20% in the country.

#### Mission

Our mission is to support the engineering needs of Northeast Indiana and beyond through education, innovation, community engagement, and professional service. We are committed to providing quality educational opportunities to traditional and non-traditional students and equipping our students with the knowledge, skills, experience, and character to pursue productive and fulfilling engineering careers.

#### Admission

To gain admission to the engineering programs, in addition to satisfying Purdue University Fort Wayne admission requirements (Regulations) you should rank in the upper half of your high school class and have the following courses on your record:

Semester
4
2
2
8
2
1

Additionally, you must have a minimum SAT critical reading score of 480, an SAT mathematics score of 520, and an SAT writing score of 500 or a minimum ACT composite score of 21 (with at least an English score of 20 and a mathematics score of 23). Also, a placement in MA 15400 (or equivalent) or higher is required for admission to the Civil and Mechanical Engineering Department. If you don't meet those requirements, you may be admitted to the PFW 2+3 Engineering & Engineering Technology Joint Program.

#### Admission deadlines for the Department of Civil and Mechanical Engineering are:

Aug. 1 for the fall semester. Dec. 15 for the spring semester. May 1 for Summer Session I. June 15 for Summer Session II.

#### Special Academic Regulations for Students in the Department of Civil and Mechanical Engineering

## Plan of Study

A one-year plan of study must be approved by your academic advisor every semester to ensure that you are making progress towards graduation.

### **Concentration Course Grades**

You must have a combined GPA of at least 2.0 in all engineering courses and in any other courses used to fulfill technical-elective requirements. You must also have a GPA of at least 2.0 in all general education courses It is your responsibility to see that these requirements are met. Even though the grade of D is accepted as passing (except in general education courses with a prerequisite grade requirement), it is highly recommended that the course be repeated if it serves as a prerequisite to another required course.

# Computer, Electrical, and Information Technology

Department of Computer, Electrical and Information Technology (School of Polytechnic ) College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 221 ~ 260-481-4127 (CPET, EET and ITC Programs) Engineering, Technology, and Computer Science Building 205 ~ 260-481-6338 (CM, IET and MET Programs)

Department of Computer, Electrical and Information Technology is now the School of Polytechnic .

# **Computer Science**

Department of Computer Science College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 125 ~ 260-481-6803

#### Mission

The department strives to offer students excellent instruction and educational opportunities in computer science and applied computer science as well as in information systems.

It endeavors to provide its students a durable technical foundation in an environment of rapid technical change, to enable and promote their professional growth through contact with the best professional practice, and to play a role of resource and technical leadership in the regional communities.

#### **Program Educational Objectives**

The Computer Science Program Educational Objectives are to produce graduates who:

- · are able to apply the theoretical and technical computer science knowledge to analyze, design, implement, test, and maintain high quality computer-based solutions;
- · hold professional computer science/information systems positions or pursue graduate studies in computer science or other related degrees;
- · exhibit skills in effective oral and written communication, leadership, and are able to work individually and in diverse teams;
- · contribute to Fort Wayne and the greater northeast Indiana region economy as productive and successful professionals in computing and information systems;
- · pursue lifelong learning in their computing professions;
- · demonstrate commitment to high ethical and professional standards within the community and profession.

#### Note:

Two bachelor's programs in computer science are offered: a B.A. and a B.S. You should review both programs before selecting one.

The degree programs in computer science provide a strong background to students interested in developing software for diverse computer applications. Preparation includes an understanding of programming and problem solving, data abstraction, computer hardware organization, operating systems, programming language design and translation, and development of large-scale software systems.

The Computer Science Department also offers the Bachelor of Science in Information Systems and an Associate of Science in Information Systems. In addition to the degrees, the department offers a minor in Computer Science, Information Systems and Informatics.

# **Construction Management**

## School of Polytechnic

College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 221 ~ 260-481-6338

Construction Management is part of the School of Polytechnic. Construction Management (CM) prepares students for the application of engineering principles and technological developments in construction methods, business operations and management skills to oversee a construction project. CPET majors manage and supervise the conversion of engineering and architectural plans from ideas to reality.

## CM B.S. Program Objectives

- To provide education of the traditional and returning adult student for career success in the construction industry, with a special emphasis on sustainable construction.
- To develop a respect for diversity and a knowledge of contemporary professional, societal, and global issues with an understanding of professional and ethical responsibilities.
- To be responsive to the ever-changing technologies of the construction industries.
- To instill in students the desire for and ability to engage in lifelong learning

The breadth of the curriculum will provide leadership potential in addressing problems of the region, its people, and its industries. Graduates of this program take jobs with contractors, building-materials companies, utilities, architectural firms, engineering firms, and government agencies. The construction management program does not lead to licensure as a professional engineer or registered architect.

# **Electrical and Computer Engineering**

Department of Electrical and Computer Engineering College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building  $327 \sim 260-481-6362$  email: ece@pfw.edu; https://www.pfw.edu/ece

Through the Department of Electrical and Computer Engineering, Purdue Fort Wayne offers bachelor's programs in computer engineering and electrical engineering. Both the computer engineering and the electrical engineering programs are accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology Inc. (EAC/ABET), 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone 410-347-7700.

Studies in engineering emphasize the practical and analytical aspects of engineering by combining laboratory and lecture courses in mathematics, science, humanities, and engineering sciences.

#### Mission

The mission of the Department of Electrical and Computer Engineering is to support the needs of Northeast Indiana through education, scholarship, and service. We are committed to providing quality educational opportunities to both traditional and non-traditional students and seek to equip our students with the knowledge, skills, and experience to pursue productive engineering careers. Our faculty is also dedicated to excellence in scholarship and service to the community and the profession.

#### **Educational Objectives**

The faculty of the electrical and computer engineering department at Purdue Fort Wayne is committed to continuous improvements in its engineering programs. As such, the faculty continues to work with the alumni, their employers, and the Industrial Advisory Board to realize the following educational objectives:

- · Function and communicate effectively to solve technical problems.
- Advance professionally to roles of greater electrical and computer engineering responsibilities, and/or by transitioning into leadership position in business, government, and/or education.
- Participate in life-long learning through the successful completion of advanced degree(s), continuing education, and/or engineering certification(s)/licensure or other
  professional development.
- · Demonstrate a commitment to community by applying technical skills and knowledge to support various service activities.

#### Admission

To gain admission to the engineering programs, in addition to satisfying Purdue Fort Wayne admission requirements (Regulations) you should rank in the upper half of your high school class and have the following courses on your record:

Subject	Semester
Algebra	4
Biology or physics	2
Chemistry	2
English	8
Plane geometry	2
Trigonometry	1

Additionally, you must have a minimum SAT critical reading score of 480, an SAT mathematics score of 520, and an SAT writing score of 500 or a minimum ACT composite score of 21 (with at least an English score of 20 and a mathematics score of 23) for admission to freshman engineering. If you only partially meet the above requirements, you may be admitted to a dual technology/engineering program until you meet all of the admission requirements for the engineering program of your choice.

#### Admission deadlines for the Department of Electrical and Computer Engineering are:

### **Applicants**

US Citizen: Fall deadline is June 30th, Spring deadline is November 15th International: Fall deadline is April 1st, Spring deadline is September 15th

## Special Academic Regulations for Students in the Department of Electrical and Computer Engineering

### Plan of Study

A One Year Plan of Study must be approved by your academic advisor every semester to ensure that you are making satisfactory academic progress towards graduation.

#### **Concentration Course Grades**

You must have a combined GPA of at least 2.00 in all ECE courses and in any other courses used to fulfill technical-elective requirements. It is your responsibility to see that this requirement is met. Even though the grade of D is accepted as a passing grade in some courses, it is highly recommended that the course be repeated if it serves as a prerequisite to another required course. All courses used to satisfy any General Education Requirement must be completed with a grade of C- or better.

# **Manufacturing & Construction Engineering Technology**

Department of Manufacturing & Construction Engineering Technology (School of Polytechnic ) College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building  $221 \sim 260-481-4127$  (CPET, EET and ITC Programs) Engineering, Technology, and Computer Science Building  $205 \sim 260-481-6338$  (CM, IET and MET Programs)

Department of Manufacturing & Construction Engineering Technology is now the School of Polytechnic .

# **Organizational Leadership**

Neff Hall 288 ~ 260-481-6420

The mission of the department of Organizational Leadership is to integrate theory and practical application in developing leaders for roles in the dynamic organizational environment of the 21st century. This goal is accomplished through an interdisciplinary curriculum that emphasizes an understanding of people, groups, and the global community within an organizational framework.

OL combines the study of leadership with a career concentration. The program focuses on understanding and working with people within organizations and the practical application of leadership concepts and theories. Students' creativity and competence in the administration of human resource systems, team design and facilitation, and the influencing processes that define leadership are developed through this program.

The department offers the following academic programs, which are described in Programs of this catalog.

Subject Organizational Leadership Supervisory Leadership Program
A.S., B.S., and Minor
Certificate

# **School of Polytechnic**

School of Polytechnic College of Engineering, Technology and Computer Science

Engineering, Technology, and Computer Science Building 221 ~ 260-481-4127 (CPET, EET and ITC Programs) Engineering, Technology, and Computer Science Building 205 ~ 260-481-6338 (CM, IET and MET Programs)

The School of Polytechnic degree programs provide hands-on-experience with a dynamic and progressive learning environment. The design of the student educational experience produces graduates who not only have profound technical knowledge, an ability to apply principles, and experiences relevant in their discipline but they can also problem solve, think critically, innovate, and communicate. The educational setting imparts practical knowledge with basic theory leading to highly sought professional degrees. The degree programs encourage students to acquire knowledge and understanding to contribute to society by leading meaningful and productive lives.

All majors prepare graduates to understand basic concepts of knowledge, have studied one technical field in sufficient depth to appreciate its methodologies and fundamental unresolved questions, and have acquired a basis for lifelong learning. This accomplishment is through the establishment of required courses in (1) a core of general education, (2) required technical courses in the major area, and (3) elective courses combining breadth of subject matter with specific study in depth. Laboratory experience is an essential part of all degree programs in the School of Polytechnic.

The ComputerEngineering Technology, Electrical Engineering Technology, Industrial Engineering Technology and Mechanical Engineering Technology programs are accredited by the Engineering Technology Accreditation Commission of ABET, <a href="http://www.abet.org">http://www.abet.org</a>.

#### School of Polytechnic Mission

The School of Polytechnic delivers high quality undergraduate and graduate education, leading to meaningful careers in engineering and technology fields. The School supports regional needs and enriches the educational experience through hands-on teaching methods, research, technical innovation, and collaboration with industry.

## **Associate of Science Degree Programs**

- Electrical Engineering Technology (A.S.)
- Industrial Engineering Technology (A.S.)
- Mechanical Engineering Technology (A.S.)

#### Bachelor of Science (B.S.) Degree Programs

- Computer Engineering Technology (B.S.)
- Construction Management( B.S.)
- Electrical Engineering Technology (B.S.)
- Information Technology (B.S.)
- Industrial Engineering Technology (B.S.)
- Mechanical Engineering Technology (B.S.)

#### Master of Science

- · Technology, M.S.
  - Information Technology/Advanced Computer Applications Specialization
  - Industrial Technology/Manufacturing Specialization

#### Minors

- · Electronics Minor
- · Information Technology Minor
- Materials Engineering Technology Minor

#### Certificates

- · Advanced Manufacturing Management Certificate
- Computer Networking Certificate
- · Computer-Controlled Systems Certificate
- · Quality Certificate

## **College of Professional Studies**

Neff Hall 250 ~ 260-481-4123

The College of Professional Studies (CPS) has earned national accreditation by demonstrating excellence in the areas of content and pedagogy, clinical experiences, selectivity, program impact, and capacity for continuous improvement.

The CPS is composed of a School of Education and three departments: Hospitality and Tourism Management, Human Services, and Public Policy. The vision of the members of the CPS is to promote doing public good through teaching, research, and engagement on a diverse array of public policy and public sector issues. As a unit, we are collectively committed to the following values:

Civic-mindedness: Students gain and apply knowledge to prepare themselves for a lifetime of effective citizenship in a modern democracy. Academic programs in the College are designed to build the capacity and commitment of students to participate in diverse communities in order to address common challenges.

Social Change: Students are encouraged to seek positive social change through processes of discourse, consciousness-raising, advocacy, and socially just practices. The College members are dedicated to the realization of a diverse, inclusive, equitable society that values the worth of all humans, and strives to empower students to become agents for positive change in their personal and professional lives.

Community Collaboration and Service: Students learn to value and respect the knowledge and expertise that exists within local, regional, and global communities, and are urged to engage diverse perspectives and experiences in forging practical and innovative solutions. The College members support collaborative University-community partnerships built on responsiveness and reciprocity, and work to advance and disseminate new knowledge and best practices through research and creative endeavors.

To support this mission, the faculty of the college of Professional Studies subscribe to the highest academic, research, and ethical standards for themselves and their students. When possible, we seek national accreditation for each discipline specific accrediting agencies. Our education programs are accredited by the Council for the Accreditation of Educator Preparation (CAEP). In addition, individual content-area programs are nationally recognized for being high quality. Please see individual programs for specific

#### **Academic Renewal Option**

The College of Professional Studies participates in the Academic Renewal Option for eligible students returning to PFW after an absence of five or more years. See an advisor in the College of Professional Studies advising office for details.

## **Academic Programs**

#### **School of Education**

Majors

- · Early Childhood Education
- **Elementary Education**
- · Middle School Generalist
- · Secondary Education

Minor

• Mild Intervention (Special Education)

The School of Education programs have earned professional accreditation from the Council for the Accreditation of Educator Preparation (CAEP).

## **Department of Hospitality and Tourism Management**

Major

### Hospitality Management with concentrations in:

- · Hotel and Resort Management
- Restaurant Management
- · Tourism and Destination Management

### **Department of Human Services**

Major

· Human Services

Minor

· Human Services

Concentrations

- Administration
- · Disabilities and Special Needs
- · Diversity
- Family
- · Health
- Human Behavior
- Justice
- Pre-Occupational Therapy
- · Substance Abuse

## **Department of Public Policy**

Major

· Public Affairs

Minors

- · Criminal Justice
- · Public Affairs

Concentrations

- · Criminal Justice
- · Healthcare Management

# **Hospitality and Tourism Management**

College of Professional Studies Neff Hall 330 ~ 260-481-6562

The department of Hospitality and Tourism Management offers courses in Hospitality Management (HM), Nutrition and Couple and Family Relations which are described in Programs of the catalog. The department offers a Bachelor of Science with a major in Hospitality Management as well as four minors.

#### Major:

· Hospitality Management B.S.

#### Minors

Four specific Hospitality Management Minors are offered to any PFW student majoring in a non-HTM degree program. These Hospitality Management Minors allow students to concentrate on specific aspects of the industry, with rewarding potential employment opportunities.

The fields of hospitality management covered by these minors are appealing to employers seeking specialized employees, who might also bring an interesting skill set and perspective from their non-Hospitality Management majors.

- Food And Beverage Minor
- Resort And Tourism Minor
- · Room Division Minor

# **Human Services**

#### Department of Human Services College of Professional Studies

Neff Hall 130 ~ 260-481-6424

Students preparing for careers as a human services professional will be able to work effectively in diverse settings such as: correctional, intellectual disability, and community health centers as educators, case managers, and other areas. Students will also be able to work in family, child, and youth service agencies, and programs designed to assist those with alcoholism, drug abuse, family violence, and aging. A human services degree is a good fit for those who want to be in a positon to help others.

The Bachelor of Science in Human Services is a degree that requires a total of 120 semester credit hours. Students will be engaged in 360 internship hours at agencies within the community. By the time students graduate, they have been able to network with numerous references and are able to build a strong resume.

### **Student Learning Outcomes**

Students who complete the bachelor's degree curriculum will:

- 1. Apply concepts and principles from human services courses to work settings.
- 2. Implement practice theories and design treatment plans utilizing the appropriate theory.
- 3. Demonstrate competency, by analyzing human services helping skills.
- 4. Understand the structure and function of human services organizations.
- 5. Use a variety of computer programs necessary in human services organizations.
- 6. Demonstrate competency in two concentration areas.
- 7. Engage in a service learning project in the community.
- 8. Understand characteristics of people from a diverse range of backgrounds and varying demographics.
- 9. Understand methods, analyses, and interpretation for human services' research.
- 10. Think critically using a clinical lens when working with clients.
- 11. Analyze their own values, predicting how these values will affect their academic and professional experiences.
- 12. Apply professional ethics and standards in human service settings
- 13. Involve themselves in professional organizations and activities and lifelong learning.

#### **Program Delivery**

The program in human services is available on campus. There are a few courses offered online and as hybrid for students.

#### **Declaring Human Services**

To gain entry into this program, students must meet all of the requirements for admission to Purdue University Fort Wayne, the Department of Human Services, and comply with requirements for internship placements. Students should contact the Department of Human Services at 260-481-6424 for more information and to be assigned an advisor.

## **Human Services Admission Requirements**

#### Students are admitted to this degree program as follows:

- Students new to Purdue Fort Wayne must complete an application for undergraduate admission and meet the criteria for admission to the University. In addition, students
  must complete a two step TB test, a criminal background check, and a drug test. Students who have previously taken courses at Purdue Fort Wayne should apply for reentry to the University if they have not been actively enrolled at Purdue Fort Wayne for one year or greater. Contact the Office of Admissions at 260-481-6812. Students
  must have a 2.8 in pre-requisite courses and a cumulative GPA of 2.0. Prerequisite courses include: COM 11400, ENGL 13100, HSRV 10000, HSRV 10300, HSRV 10500, PSY 12000 and SOC 16101.
- Students who have completed the requirements for the Associate of Science in Human Services at Ivy Tech Community College or another Human Services program from another accredited institution, and have a cumulative grade point average (GPA) of at least 2.0 with no grades of D or F, are enrolled in the program with junior status
- · All students will be required to meet the regular Purdue Fort Wayne and Purdue University admission standards, as presented in the Purdue Fort Wayne Catalog.
- The Bachelor's degree requires four semesters of Internship (360 hours) at an approved agency in northeastern Indiana.

Students must comply with agency requirements for internship placements. A live interview is required. The agencies require proof of a 2-step TB test, background check, and a 10-panel drug screen.

Anyone with a record of a sex crime against a child may not be placed into a clinical in which there is an actual or potential possibility that they will come into contact with children (IC5-2-12-12). Students who cannot be placed in clinicals with reasonable effort as a result of their criminal histories and subsequently cannot complete the program requirements will be unable to graduate from the program.

# **Public Policy**

Neff Hall 260 ~ 260-481-6351

"The Department of Public Policy is a multidisciplinary department committed to student success and community impact through our teaching, research, and service. We offer a Bachelor of Science in Public Affairs (B.S.P.A.) degree that prepares our graduates to work in government through a major in Public Administration and Policy with two concentrations in Criminal Justice Policy and Healthcare Management. In addition to the B.S.P.A., we offer minors in criminal justice and public affairs."

Although a minor is not required, study in an outside area and/or internships are recommended.

The academic programs in the department are listed below. Requirements for these programs appear in Programs of this catalog.

Subject	Program
Criminal Justice Public Affairs Public Affairs: Concentration in Criminal Justice Public Affairs: Concentration in Healthcare Management	Minor Minor B.S.P.A. B.S.P.A.

## Special Academic Regulation for Students in Public Policy

Requirements for the undergraduate degree should be completed within 10 years of admission to the Department of Public Policy. You may transfer no more than 90 credit hours (60 credits from a junior college) toward a Bachelor of Science degree program. A maximum of 10 credits will be awarded on the basis of military training toward any degree from the Department of Public Policy. Credit for Police Academy completion may be awarded.

Good Standing in the Department of Public Policy requires that you maintain a minimum semester and cumulative GPA of 2.00 and a minimum core/major GPA of 2.30. Therefore, you will be placed on academic probation if your semester, cumulative, or core/concentration GPA at the end of any regular semester is lower than these minimum standards. Once on probation, you may be dismissed from the department and PFW if you fail to make significant progress toward good standing or if you fail to meet the minimum PFW standards listed in Regulations of this catalog.

#### **PPOL Internships**

As a PPOL major, you may earn a maximum of six hours of elective credit during your junior and senior years through the PPOL internship program, if you are a student in good standing and have obtained prior approval from the Internship Coordinator. Internships are strongly encouraged because they give you the opportunity to apply classroom theory and techniques to the real world and to network with professionals in your career field. The program is designed for maximum flexibility so that many valid learning experiences can qualify as internships. Internships can be full or part time, paid or unpaid, credit or noncredit. Interested students should contact the Department of Public Policy Internship Coordinator for further information about internships.

# School of Education

School of Education College of Professional Studies

Neff Hall 250 ~ 260-481-4146

#### **Faculty and Staff Contacts**

Dr. Jim Burg ~ Dean
Dr. J. Wiley Sirk ~ Associate Dean
Dr. Isabel Nunez ~ Chair
Mr. Jim Beard ~ Advisor
Mrs. Sharon Wight ~ Advisor
Mrs. Cheryl Wolever ~ Department Secretary
Mrs. Mclinda Woods ~ Advisor Secretary

#### **Conceptual Framework**

Transformative scholar-practitioners are broadly defined as leaders in education and public policy who weave between research and practice, and theory and experience, constantly working within communities to foster learning and a just, democratic society. Graduates of our programs use their strong foundation of knowledge and content, methodologies, and exemplary practices as well as their habits of mind to critically reflect on those components. They advocate for public policies and practices that benefit the people they serve, the community, and their professions while striving to build a more just, inclusive, democratic community, and to expand and strengthen public voice and identity.

Specifically, the departments strive to prepare future leaders who thoroughly understand, consciously apply, and intentionally use democracy and community, habits of mind, and advocacy in their professional endeavors. We define those concepts as:

#### 1. Democracy and Community

Transformative scholar-practitioners need to be a part of a dynamic, diverse professional community. They actively explore what it means to live and participate in a diverse, just, and global world. They use that knowledge to inform effective practice which demonstrates their respect for and valuing of our multicultural, multilingual, and multi-abled society. Through this they work towards developing communities that are cognizant of and compassionate toward democratic encounters over moral, cultural, social, political, and economic differences. Consequently, the departments support transformative scholar-practitioners who strive for and create democratic, just, inclusive communities.

#### 2. Habits of Mind

Transformative scholar-practitioners develop more powerful cognition and action through their strong knowledge of content, methodologies, and exemplary practices. However, they realize that such knowledge alone is not sufficient. They practice critical thinking and reflection as they explore the reciprocal relationship between scholarship and practice. Within the context of a compassionate, caring community, transformative scholar-practitioners foster habits of mind such as investigating, inquiring, challenging, critiquing, questioning, analyzing, synthesizing, and evaluating. They view such habits of mind as necessary for engaging students, clients, community members, and the public in the process of teaching and learning. Consequently, the departments foster transformative scholar-practitioners who integrate critical habits of the mind in all aspects of their professional work.

#### 3. Advocacy

Transformative scholar-practitioners develop and support the rights of students, clients, and community members as they advocate for the people they serve and the profession. They cultivate professional, public visions informed by historical and cultural perspectives. They strive to set the highest goals for themselves and the profession while inspiring their colleagues to do likewise. Transformative scholar-practitioners resolve professional and ethical challenges through the convergence of knowledge, theory, and practice.

Consequently, the departments facilitate transformative scholar-practitioners' development as professional and community advocates.

## Procedures for Declaring or Changing Majors:

Current students wishing to declare or change majors to one of the following programs of study should contact the School of Education secretary at 260-481-4146 or stop by the office in Neff Hall 240 and inform the secretary of your intent to declare or change your major. The secretary will then submit appropriate paperwork to the Registrar's Office on your behalf. The process usually takes one to two weeks before you will see the switch on your myBLUEprint.

Programs

Early Childhood:

Licensure (Preschool-3rd Grade) - 4-year option Licensure (Preschool-3rd Grade) - Transfer option\* Non-Licensure (Birth-Age 5) - Transfer option\*

\*These programs require an A.S. degree in Early Childhood Education prior to transferring into this PFW program.

Elementary: Elementary Generalist (K-6)

Elementary Education with a concentration in Education Policy (non-licensure)

Middle School: Middle School Generalist (5-9)

Select two content area concentrations:

Language Arts Mathematics Science Social Studies

Secondary: Earth and Space Science (5-12)

Secondary Education with a concentration in Education Policy (non-licensure)

Middle School/Jr. High and High School (5-12)

Select one content area major:

Biochemistry (Chemistry)\* Biology (Life Science)\* Chemistry \*

English (Language Arts)\*

History \* Must also complete a minor in one of the following:

- · Economics
- · Political Science
- · Psychology
- · Sociology

Mathematics \*
Physics \*
Spanish \*

\*These programs require completion of a second degree in the content area from any Purdue University campus.

All Grades:

Art Education (P-12) \*\*

Music Education (P-12)\*\*

\*\*These programs require completion of a degree in the content area from the College of Visual and Performing Arts.

The following content areas may also be added to any of the majors listed above

French (minor)

# Special Academic Regulations for Students in the School of Education

## **Professional Education**

Students are usually admitted to Professional Education (Block 1) courses beginning their junior year.

There are a number of academic regulations for students seeking admission to the Professional Education program. They include the following:

- 1. for early childhood degree completion majors only, completion of an A.S. in early childhood
- 2. completion of all Pre-Professional Education classes
- 3. complete at least 45 credit hours with a minimum 2.70 cumulative GPA (3.00 GPA for Early Childhood Education Degree Completion majors); 2.70 cumulative GPA in your major course work with at least 50% completed in major (secondary) "as defined below under the Graduation heading"
- 4. successfully complete all program assessments
- 5. pass a Criminal History Report
- 6. students may repeat a Pre-Professional Education course one time.

## **Student Teaching**

Below are the requirements for entering into the student teaching semester:

- 1. complete an application for student teaching and meet with the Director of Student Teaching ONE YEAR before intended student teaching semester (Fall: meet Sep-Nov; Spring: meet Feb-April).
- 2. submit and pass a Safe Hiring Solutions Criminal History Report
- 3. must have no more than 6 credit hours of general education or specialty area/major courses remaining before student teaching
- 4. completion of each Block course with a grade of C- or higher.
- 5. successfully complete all program assessments
- 6. must have a minimum 3.00 cumulative GPA and 3.00 major GPA (PFW)
- 7. take the Pearson content exam(s)
- 8. candidates may retake a Block course one time

#### Graduation

Below are the requirements for graduation:

- 1. apply for graduation
- 2. successfully complete all program assessments
- 3. completion of student teaching and all course requirements
- 4. no grade lower than a C- in the 120 credits used to meet BSEd degree requirements
- 5. minimum 3.00 cumulative GPA
- 6. secondary students must also have a 3.00 major GPA (PFW) as defined below:

- · History major HIST courses
- English major ENGL (ENG), COM (JOUR), LING, CLCS, CMPL, FVS (FILM), FOLK courses
- Math major MA 16500, 16600, 17500 or 27500, 26100 or 26300, 31400, 35100, 46000, 44100 or 58000 and STAT 51100 or 51600
- · Biochemistry, Biology, Chemistry and Physics major BIOL, CHM, PHYS, ENTM and FNR courses
- Spanish major SPAN courses and ILCS 30000

#### Licensure

Below are the additional requirements for obtaining an Indiana teaching license:

- 1. pass the Pearson pedagogy exam
- pass the Pearson content exam(s)
- 3. provide evidence of CPR/AED certification
- 4. provide evidence of suicide prevention certification
- 5. apply for license

#### International Students

International students desiring to complete a program in the School of Education, or Public Policy must comply with all university requirements for international admissions, including demonstration of English language proficiency. International students seeking to obtain a license to teach, counsel, or administer in an Indiana school must obtain a social security number prior to application of the license.

#### **Early Field Experiences**

If you are pursuing a B.S. in a teacher education program, you are required to participate in the prescribed field experiences. Field-experience courses are numbered EDU 10100, 20100, 30100, and 40100 and must be taken as shown in the degree-requirements listings.

This distinctive program provides an organized series of courses designed to integrate all professional education courses with field experiences. The program allows you repeated opportunities to participate with teachers/pupils in classrooms. In the early part of your field experiences, you are introduced to teaching, educational concerns, goal setting, and professionalism. Beginning in your freshman or sophomore year and continuing up to your final semester, field experiences build upon one another so that you gain valuable classroom experiences designed to prepare you for your student teaching.

#### Pass/Not-Pass Option

Permission to elect this option must be requested on a form available from the College of Professional Studies. Permission will be granted only if the course will not be used to fulfill any degree requirements other than total credits for the degree.

#### **Certification-Only Option**

Students who already hold a bachelor's degree and who seek to obtain a teaching license in early childhood education, elementary education, or secondary education may qualify for enrollment under a Certification-Only status. Students who complete our certification-only option will qualify for an Indiana teaching license, but will not receive a second baccalaureate degree, unless they hold a Purdue University or IPFW degree in Biochemistry, Biology, Chemistry, English, History, Mathematics, Physics, or Spanish. Students enrolled in this option will have to complete the same education (EDU) courses (51 credits in early childhood education, 62 credits in elementary education or 36 credits in secondary education) as those enrolled in a degree-seeking program. However, Pearson Content Assessment exams must be taken prior to Block 1 and passed before student teaching. For more information on this option, you may view these programs in the catalog under **Program Descriptions - Certification** or contact the advising office in the School of Education, Neff Hall 243, 260-481-6449.

## Special Academic Regulations for Students in Education Policy Concentrations

### 1st Checkpoint for Admission to Education Policy courses requires:

- 1. Completion of 45 credits with a minimum 2.70 cum GPA (PFW), and enrolled to retake any course that has a grade of "C-" or below.
- 2. Submit and pass a Criminal History Report via Safe Hiring Solutions (criminal reports must be updated each year).

### 2nd Checkpoint for Admission to Senior Internship

- 1. Complete an application for internship by specified date.
- 2. Submit and pass a Criminal History Report via Safe Hiring Solutions.
- 3. Minimum 2.70 cum GPA (PFW); no grade lower than a "C-" in any required course.

### 3rd Checkpoint: Verification for Completion of Degree

- 1. Apply for graduation.
- 2. Completion of internship and all course requirements.
- 3. Minimum 2.70 cum GPA (PFW) in courses required for the degree; no grade lower than a "C-" in any required course.

For an exception to any of the above requirements, a student should request permission for a waiver in writing from the School of Education Chair. All waiver requests must be submitted at least 10 days before classes begin.

### College of Visual and Performing Arts

Visual Arts Building 102 ~ 260-481-6977

- Academic Renewal Option
- Bachelor's Degrees
- Minor

The mission of the PFW College of Visual and Performing Arts is to (1) provide exceptional professional and liberal arts degree programs that combine development in an artistic discipline and career preparation in the arts to students through individualized instruction within a broadly based curriculum, (2) offer culturally enriching opportunities to all students and members of the university community, and (3) be recognized as the center for arts education, outreach, collaborations, and professional leadership in northeast

Indiana as well as a major regional arts resource through excellence in artistic performances, productions, exhibitions, library holdings, and technology. To support this mission, the faculty of the college of Visual and Performing Arts subscribe to the highest academic, artistic, and ethical standards for themselves and their students.

The college is composed of the departments of art and design, and theatre, along with the school of Music. More than 600 students majoring and minoring in the visual and performing arts receive instruction from professional and academic staff that include 32 full-time faculty, 9 half-time continuing lecturers, and more than 50 limited-term lecturers and visiting artists.

The College of Visual and Performing Arts is fully accredited by all of its discipline specific accrediting agencies: the National Association of Schools of Art and Design (NASAD), the National Association of Schools of Music (NASM) and the National Association of Schools of Theatre (NAST).

The college offers the following academic programs:

#### **Bachelor's Degrees**

Subject	Department/Program
Art Education (B.A.) Art and Design (B.F.A.)with 8 concentrations in both studio and design art Interior Design (B.S.)	Art and Design Art and Design Art and Design Art and Design
Music (B.Mus. and B.S.) Music Education (B.Mus.Ed.) Music Therapy (B.S.M.T.)  Music Industry (B.S.M.)  Popular Music with concentrations in Recording and Production or Songwriting and Performance	Music Music Music Music
Theatre (B.A.)	Theatre

#### Minor

Subject	Department/Program
Art and Design	Art and Design
Art History	Art and Design
Jazz	Music
Music	Music
Theatre	Theatre

The above programs are described in Programs of this Catalog.

As a regularly admitted student, you must follow the degree requirements and the college and program academic regulations specified in the Catalog in effect at the time you first enrolled in the college. If you wish to follow the degree requirements specified in a later edition of the Catalog, you must consult with your departmental advisor.

Departments and program areas reserve the right to publish new academic requirements and regulations at the beginning of an academic year. If such changes occur, newly admitted students will be subject to the revised requirements.

# **Academic Renewal Option**

The College of Visual and Performing Arts participates in the Academic Renewal Option for eligible students returning to PFW after an absence of five or more years. See your advisor for additional information.

# **Art & Design**

Department of Art and Design College of Visual and Performing Arts

Visual Arts Building 117 ~ 260-481-6709

Degree programs offered by the Department of Art and Design provide comprehensive training for the following degrees: Bachelor of Arts in Art and Design, Bachelor of Fine Art in eight concentrations including Ceramics, Drawing, Graphic Design, Imaging and Photography, Metalsmithing, Painting, Printmaking, and Sculpture, Bachelor of Arts in Art Education, and a Bachelor of Science in Interior Design.

Minors in Art History or Art and Design are also available; the Art and Design minor includes courses in Ceramics, Drawing, Imaging and Photography, Metalsmithing, Painting, Printmaking, and Sculpture and is available to students seeking degrees outside the Department of Art and Design, or to add an emphasis to their existing concentration.

The Department of Art and Design is accredited by the National Association of Schools of Art and Design (NASAD).

Courses are offered on campus, with some distance and hybrid course offerings.

#### Department of Art and Design Full-Time Faculty:

Laurel Campbell, Associate Professor, Art Education Ed.D. Art Education, University of Illinois, Urbana-Champaign M.A. Art Education, University of Illinois, Urbana-Champaign B.F.A. Metals, University of Illinois, Urbana-Champaign	260-481-6877 campbell@ipfw.edu
Steven J. Cody, Assistant Professor, Art History PhD Art History - University of Maryland, College Park M.A., University of Maryland, College Park B.A., Roanoke College, Salem, Virginia	260-481-6265 codys@ipfw.edu
Suining Ding, Professor, Interior Design Ph.D. Architectural Studies, University of Missouri-Columbia M.A. Interior Design, The Ohio State University B.A. Architecture, Southeast University	260-481-6008 dings@ipfw.edu
James Gabbard, Continuing Lecturer, Photography B.A. English, Indiana University-Purdue University Fort Wayne	260-481-6053 gabbardj@ipfw.edu
Christopher Ganz, Associate Professor, Printmaking/Drawing M.F.A. Printmaking, Indiana University-Bloomington B.F.A. Printmaking, University of Missouri-Columbia	260-481-6925 ganzc@ipfw.edu www.chrisganz.com
Seth Green, Assistant Professor, Ceramics M.F.A. Ceramics, University of Nebraska - Lincoln (UNL) B.A. Art: Emphasis in Ceramics/ Sculpture	260-481-6876 greens@ipfw.edu www.sethgreenpottery.com
Dana Goodman, Professor, Sculpture M.F.A. Ceramics, Ohio University M.A. Art History, Ohio University B.F.A. Sculpture, University of Iowa	260-481-0530 goodmand@ipfw.edu
John Hrehoy, Chair, Professor, Painting/Drawing M.F.A. Painting, University of Illinois, Urbana-Champaign B.F.A. Painting, Cleveland Institute of Art	260-481-6706 hrehov@ipfw.edu www.johnhrehov.com
Andres Montenegro, Associate Professor, Computer Modeling M.F.A. Digital Arts, University of Oregon M.A. Universidad de Playa Ancha B.A. Universidad de Chile	260-481-5799 montenea@ipfw.edu www.andresmontenegro.com
John Motz, Director VCD, Continuing Lecturer, Graphic Design B.F.A Graphic Design, Indiana University-Purdue University Fort Wayne	260-481-6053 motzj@ipfw.edu
Audrey Ushenko, Professor, Painting/Drawing Ph.D. Art History, Northwestern University M.A. Art History, Northwestern University B.A. Indiana University-Bloomington	260-481-6639 ushenkoa@ipfw.edu
Jessica Vachon, Continuing Lecturer, Graphic Design M.F.A. Web Design & New Media, Academy of Art University B.F.A. Computer Art, Indiana University-Purdue University Fort Wayne	260-481-6709 vachja01@pfw.edu
James Williams, Continuing Lecturer, Foundations Coordinator M.F.A Book Arts, University of Alabama B.A. English, Hunter College	260-481-6709 willje03@ipfw.edu

Residence Requirements At least 33 credit hours, including art methods courses, must be completed on the PFW campus. For the Bachelor of Fine Arts degree, registration in and completion of at least 33 credits of resident course credit at the junior level or above, including at least 15 credits at the senior level or above, are required in courses applicable to the major.

**Transfer and Returning Student Credit** All studio and art history courses transferred from another institution or former Indiana University-Purdue University art programs must be evaluated by appropriate faculty in the Department of Art and Design before they may be applied to a major in the department, unless transfer equivalencies have previously been established. See Transfer and Returning Student Credit Review below.

Transfer and Returning Student Credit Review - Courses in art that have been transferred to PFW from another institution or former PFW art programs will not be credited to an incoming or returning Art and Design major unless they have been reviewed by the Chair of the Department of Art and Design. For a review of transferred studio credit, the student should provide the viewer with a portfolio consisting of representative work in each area (e.g. painting, sculpture, etc.) for which the transfer credit is desired. The portfolio should include both studies and finished work and be as encompassing as possible. Course descriptions from the previous university are also helpful in evaluating course equivalency. Students transferring credits to pursue the Bachelor of Fine Arts B.F.A. degree, must pass the required portfolio review to be admitted into the B.F.A. program. Students requesting transfer credits for classes in the first and second year foundation studio courses must be able to provide work from those transfer classes as part of their portfolio review process.

### Scholarships

Each spring semester the Department of Art and Design offers scholarships to art and design majors. The awards are based on both artistic merit and the student's contribution to the Department of Art and Design.

#### Special Academic Regulations

Credit by Self-Acquired Competency is at the discretion of the department, and evaluated on an individual basis.

Enrollment Policy - To ensure that degree-seeking students are guaranteed priority registration in their classes, the following policies will be observed:

- Students who are not progressing toward completion of degree requirements, including students who have graduated but wish to continue a program of study, will be reclassified in a new degree code;
- Course registration for these students will not be processed until the final week before the beginning of each semester. This will allow students an opportunity to access studio classes when space is available;
- All upper level studio courses may be repeated up to a maximum of 18 credits. Students should become familiar with financial aid restrictions regarding repeat limits if
  they utilize financial aid;
- 4. Prerequisites for studio fundamentals courses may be waived by the appropriate instructor during the week before classes begin, contigent upon space availability. Completion of all prerequisites is required to continue with classes beyond 6 credit hours in that discipline.

Course Audit - The Department of Art and Design does not allow students to audit any Art and Design classes due to the following reasons:

- 1. Space Limitations Studio classes are small in size and space is at a premium;
- 2. Equipment Studios have limited equipment for the students enrolled; class sizes are typically between 12-15 total;
- 3. Safety Due to some potentially dangerous processes, safety is a major concern for instructors in our classes;
- 4. Pass/Fail Option The pass/fail option is not permitted in the department of Art and Design.

Repeat limits - All Non-major and non-degree seeking students may not repeat any Art and Design classes beyond 6 credit hours. All advanced studio courses may be repeated up to a maximum of 18 credits, however, students must be familiar with financial aid restrictions on re-taking courses. No courses may be repeated in Graphic Design or Imaging and Photography concentrations.

Self-Paced Courses and Independent Study - Independent study courses are available for students with at least a junior class standing, to pursue studio interests not served in other course offerings. Independent study courses may be arranged with the appropriate faculty member on the basis of a viable course of study, a reasonable load for the instructor, and space availability. Priority will be given to degree-seeking student and to classes with regularly scheduled meeting times;

#### Dismissal and Readmission

If you are on Academic probation and do not correct academic deficiencies during your next two semesters of enrollment, you will be dismissed from university, and the Art and Design program.

If you are dismissed from the Art and Design program, you may seek readmission under the university guidelines specified in Regulations of this Catalog.

#### Time Limit

You must complete the degree requirements specified in the Catalog in effect at the time you were regularly admitted to the university. However, to ensure that you will be professionally competitive with other members of your graduating class, you may be required to satisfy the degree requirements specified in the most current *Catalog* if you have not completed all requirements for your degree within seven years from the date of your admission.

### **Degree Requirements**

Typically, you may not use a single course to fulfill more than one Department of Art and Design requirement. Within the Art Education B.A. and the Art History minor programs, some classes are allowed to fulfill requirements in two different areas of the degree program.

#### Department Handbook

Detailed information regarding requirements, policies, and practices of the department is included in an Art and Design student handbook available in the department office. All Art and Design majors must comply with the requirements specified in the handbook.

# School of Music

School of Music College of Visual and Performing Arts

Rhinehart Music Center 144 ~ 260-481-6714

The School of Music provides degree programs leading to careers in music, functions as a service department to the university, and serves as a musical center and resource for Greater Fort Wayne and northeast Indiana. The school offers programs leading to the following degrees:

- · Bachelor of Music in Performance
- · Bachelor of Music Education
- Bachelor of Science in Music with a major in Music Industry
- · Bachelor of Science in Music with a major in Popular Music with concentrations in Recording/Performance or Songwriting/Performance
- · Bachelor of Science in Music with a Concentration in an Outside Field Includes a concentration in Music Technology
- · Bachelor of Science in Music Therapy
- · Minors in music and jazz

#### Accreditation:

· Programs offered by the school are fully accredited and under review by the National Association of Schools of Music and the American Music Therapy Association.

#### Admission:

• One must satisfy the admission requirements of Purdue University Fort Wayne (Regulations). For the Music programs, students must successfully complete an audition wherein appropriate faculty committees evaluate a student's musical knowledge, skill, and potential. Students who do not meet all school of music entrance

requirements may be admitted to the department as pre-music students who can enroll in music courses to prepare for a second audition for entrance to a music degree within a designated time period. Students entering the Music Industry major are not required to perform an audition and are accepted at the time of admittance to the university.

#### Curricula:

• To complete a degree in music, a student must satisfy the university's general education requirements, School of Music core requirements, and requirements specific to the degree program.

#### Special Academic Regulations for Students Majoring in Music:

Detailed information regarding policies and practices of the school are included in the School of Music Student Handbook, available on the web page (pfw.edu/music).
 Information included below is detailed in the handbook. All music majors are expected to be familiar with the contents of the handbook.

#### **Academic Probation:**

- Music majors must earn: (1) a semester GPA of 2.00 and a cumulative GPA of 2.00 or higher; (2) a semester GPA of 2.5 or higher for all music courses required for the degree program; (3) a C- or better in a music course or ensemble required for the degree. Failure to meet these standards will result in placement on probation in the major.
- Music Education majors are required to maintain a minimum GPA of 3.0 in music courses and a graduation GPA of 3.0 Additional academic requirements are available
  on the web page of the Educational Studies program.
- Students on probation may lose eligibility for scholarships and financial aid, as well as risk dismissal from the program. See the school's student handbook for further information on academic probation.

#### Dismissal:

• Students will be dismissed from the school when (1) they have been placed on probation in the school due to grade point deficiency and do not correct the deficiency in the next semester of enrollment; (2) they have been placed probation in the school for failure to earn a C- or better in a music course required for the degree and do not earn a C- or better in the second attempt in the same course; (3) they fail to earn a C- or better in two consecutive semesters of the same ensemble.

#### Readmission

• Students who are dismissed may petition for readmission to the School of Music one semester from the date of dismissal. Students returning from dismissal will automatically be placed on probation. Failure to maintain a 2.5 GPA in music courses for the first semester of re-entry or to make a C- or better in all required music courses will result in permanent dismissal from the school.

#### **Keyboard Proficiency:**

All Music Performance, Music Education, Music Therapy and Music with an Outside Field/Technology concentration majors must pass a keyboard proficiency
examination by enrolling in MUSC 29900. Entering students who are prepared to take the examination may do so before registration; all others must register in piano
courses until this requirement is satisfied. Popular Music majors will be required to pass proficiency barriers in a secondary instrument of keyboard, guitar or voice.
 There is no keyboard requirement in the Music Industry major.

#### **Transfer Credits:**

 Audition and placement exams will be required of transfer students for Music Performance, Music Education, Music Therapy, Popular Music and Music with an Outside Field/Technology concentration majors. These are not required for the Music Industry major.

#### **Upper-Division Standing:**

- Following the fourth semester of applied music at the 300 or 400 level on the same instrument, students, for whom applied study is required, are eligible and will be expected to take the Upper Division Performance Examination (MUSC 29600), an applied music performance for the applied music instructor and the resident music faculty. Successful completion of this barrier is required for continued applied study and progress towards degree completion.
- Music Education majors must also complete the Music Education Upper Divisional Examination (MUSC 29700). Music therapy majors must also complete the Music Therapy Skills Examination (MUSC 29800). See the course descriptions for content and prerequisites for these examinations.

#### Performance Studies for Students Majoring in Music:

• Performance study (applied music) is required for Music Performance, Music Education, Music Therapy, Popular Music and Music with an Outside Field/Technology concentration majors and is available for the study of classical voice, keyboard (including piano and organ), brass, woodwinds, strings(including guitar and harp), and percussion for all majors except Popular Music and Music Industry. For the Popular Music majors, contemporary applied study is offered and can be fulfilled in combination with classical applied study. Music Industry majors are not required to complete applied music requirements but are invited to enroll for elective credit where suitable. Students are assigned to applied music teachers on the basis of instructor availability and suitability. An audition and departmental permission are required. Both a junior and a senior recital are required for the Bachelor of Music in Performance. Music Education, Music Therapy and Music with an Outside Field/Technology concentration majors require a concentration recital, the required number of semesters of study varying with the degree. The Popular Music (both concentrations) and Music Industry majors require a senior seminar (MUSC 49900). Popular Music Songwriting and Performance concentration requires a concentration recital. Popular Music Recording and Production concentration requires a recital/presentation. The Music Industry major does not require a recital or performance, but does require a public final presentation within the MUSC 49900 course.

#### Performance Class MUSC 09500:

Music majors are required to enroll in Performance Class in every semester of enrollment in applied study on their primary instrument. This 0-credit course is a weekly
meeting of music majors and minors and serves as a laboratory for performance. Part of the course requirement is attendance at specified public concerts and recitals.

#### **Applied Primary and Secondary Performance Studies Courses:**

MUSC 10000, 10001, 10002, 10003, 10004, 11000, 11001, 11002, 11003, 12000, 12001, 12002, 13000, 13001, 13002, 14001, 14002, 14003, 15000, 15001, 20000, 20001, 20002, 20003, 20004, 20005, 21000, 21001, 21002, 22000, 22001, 22002, 23000, 23001, 23002, 24000, 24001, 24002, 25000, 25001, 30001, 30002, 30003, 30004, 30005, 30006, 30007, 31000, 31001, 31002, 32000, 32001, 32002, 33000, 33001, 33002, 34000, 34002, 34003, 35000, 35001, 40000, 40001, 40003, 40004, 41000, 41002, 41004, 42000, 42002, 42003, 43000, 43001, 43002, 44000, 44001, 44002, 45000, 45001.

### **Music Department Ensemble Requirements:**

- Music Performance, Music Education, Music Therapy and Music with an Outside Field/Technology concentration majors are required to enroll in a major ensemble each
  semester of enrollment in applied study. Popular Music majors are required to earn 14 credit hours in ensemble credit. Music Industry majors are invited but not required
  to participate in ensembles. Degree specific ensemble requirements are listed with each degree program.
- All Brass, Woodwind, Percussion, String and Voice Primaries in the Music Performance, Music Education, Music Therapy and Music with an Outside Field/Technology
  concentration majors are required to take a minimum of 7 or 8 semesters of major ensemble according to their degree.

- Keyboard Applied Primaries in the Music Performance, Music Education, Music Therapy and Music with an Outside Field/Technology concentration major take major ensembles, chamber ensembles and/or MUSC 00200 Piano Accompanying contingent on advisor/ensemble director placement and based on degree requirements.
- Guitar Applied Primaries in the Music Performance, Music Education, Music Therapy and Music with an Outside Field/Technology majors are required to take MUSC 34100 Guitar Ensemble for 5-8 semesters in lieu of major ensembles listed above depending on degree requirements.
- Popular Music Majors will select from the following ensembles: MUSC 04000, 04100, 04200, 04300, 07100, 07200, 07300, 28341, 34100, 42004, 45002, 45200, 46000, 49001
- · Music Scholarships may require additional ensemble participation as outlined in the scholarship agreement.
- Students who have passed into Upper Division may substitute MUSC 07200 Chamber Singers, MUSC 47001 Opera Ensemble (Vocal Applied Primaries) or MUSC 04200 Jazz Ensemble (Instrumental Applied Primaries) in place of a major ensemble for a maximum of one semester of the requirement.

#### **Major Ensembles:**

- MUSC 04000 University Instrumental Ensembles
- MUSC 04100 Symphonic Wind Ensemble
- · MUSC 04300 Orchestra
- · MUSC 07100 University Singers

#### **Additional Conducted Ensembles:**

- MUSC 04200 Jazz Ensemble
- MUSC 07200 Chamber Singers
- MUSC 07300 Choral Union
- MUSC 28341 Popular Music Performance Ensemble
- MUSC 34100 Guitar Ensemble
- MUSC 47001 Opera Ensemble
- MUSC 49001 Percussion Ensembles

#### **Chamber Ensembles:**

- MUSC 28341, MUSC 45200, MUSC 42004, MUSC 45002, MUSC 46000, MUSC 49001 and other courses offer a variety of additional ensembles for all instruments as
  created by the music department.
- · Pep Band is not a curricular ensemble, does not award credit, and cannot be applied toward any music degree.

#### Restriction on Use of University Facilities:

· University facilities are not to be used for any private enterprises such as teaching.

#### Time Limit:

Students are expected to be current in the knowledge and skills required for the degree at the point of degree completion. Accordingly, a student who does not complete
the requirements within seven years of matriculation may be required to (1) demonstrate eligibility to continue in the degree program by passing comprehensive
examinations in any or all music subjects previously completed, or (2) meet the degree requirements specified in the current catalog. Time spent fulfilling a militaryservice obligation will not be counted toward this seven-year limit.

# **Theatre**

#### Department of Theatre College of Visual and Performing Arts

Williams Theatre 128 ~ 260-481-6551

Degree programs offered by the Department of Theatre provide comprehensive training for the theatre profession and explore theatre's 2,000-year history and literature. Through its programs, the department seeks to provide the finest in undergraduate education by providing a professional curriculum that embodies defined objectives and comprehensive performance/production training. Students study both content (dramatic literature, theory and criticism, and theatre history) and process (acting, directing, musical theatre, design, and production).

The department offers a Bachelor of Arts in theatre. Emphases are available in acting, musical theatre, design/technology and directing.

A Minor in theatre is available to students who are interested in theatre, but are pursuing a PFW bachelor's degrees in other subjects. Theatre Teaching certification is available through the School of Education.

## Special Academic Regulations

#### Probation

You must earn a grade of C or better in each required theatre course and maintain a GPA of 2.5 or higher over all theatre courses you have completed. You are placed on academic probation if you do not meet this requirement.

#### Dismissal and Readmission

If you are on probation and do not correct academic deficiencies during your next semester of enrollment, you will be dismissed from the theatre program.

If you are dismissed from the theatre program, you may seek readmission under the university guidelines specified in Regulations of this Catalog.

#### Time Limit

You must complete the degree requirements specified in the Catalog in effect at the time you were regularly admitted to the university. However, to ensure that you will be professionally competitive with other members of your graduating class, you may be required to satisfy the degree requirements specified in the most current *Catalog* if you have not completed all requirements for your degree within seven years from the date of your admission.

## Degree Requirements

You may not use a single course to fulfill more than one Department of Theatre requirement.

#### Department Handbook

Detailed information regarding requirements, policies, and practices of the department is included in a theatre student handbook available in the department office. All theatre majors must comply with the requirements specified in the handbook.

#### Continuing Studies, Division of

The Division of Continuing Studies at Purdue University Fort Wayne (Kettler 139, 260-481-6619) provides lifelong learning opportunities through its credit programs at both the bachelors and masters levels, its public courses for professional development and personal enrichment, and opportunities for contract training with community businesses and organizations. The division manages approximately 32,000 student enrollments annually and increases student access to internationally recognized Purdue University degrees. Through collaborations with the university's academic departments, the division provides online, hybrid and traditional delivery of college credit courses, minors, certificates and degree programs. The division manages online learning delivery, high school dual credit, the university's Weekend College program, the Professional MBA program through the Doermer School of Business, and the M.S. in Educational Leadership, Elementary and Secondary Education, and Special education through the College of Professional Studies. In addition, the division manages the ACELINK program, connecting Allen County K-12 schools through video conferencing and virtual field trips. An array of noncredit options, many of which yield continuing education units, are offered through the division of continuing studies. These include public courses for personal and professional development and customized contract training for regional businesses. A variety of credit and noncredit professional development options for educators are available through the division, as well. For more targeted, in-depth training, selected professional development courses are grouped into certificate programs.

For more information about the Division of Continuing Studies and a listing of available courses, see pfw.edu/dcs.

#### Richard T. Doermer School of Business

Undergraduate Student Success Center Richard T. Doermer School of Business

Neff Hall 366 ~ 260-481-6472

- Academic Programs
- Admission
- Courses Required for Admission
- Enrollment In Business Courses
- B.S.B. Requirements
  - Academic Probation
  - · Academic Renewal Option
  - Credit by Examination
  - · Overlapping Courses
  - Repeat Limits
  - Special Academic Regulations for Students in Undergraduate Business Programs
  - Student's Responsibility
  - · Time Limit
  - Transfer Credit

The mission of the Richard T. Doermer School of Business is to strive for excellence in business education and support regional economic development.

Excellence in student learning, teaching, intellectual contributions and service are all fundamental to the achievement of our mission and the preparation of students for successful careers in Northeast Indiana and beyond. The following Core Values shall serve to guide the planning and actions of the faculty and staff of the Doermer School of Business:

- · LEARNING: The intellectual growth of students and the fostering of a culture of life-long learning are of paramount importance
- COLLEGIALITY: The premise that the common goals and actions of those representing the School will be pursued for the collective good and in collaboration with all relevant stakeholders.
- RELEVANCE: The critical linkage between the knowledge shared and its operational significance in Northeast Indiana and beyond.
- SCHOLARSHIP: The pursuit and dissemination of knowledge as it pertains to the mission, vision and goals of the school with a focus on applied and pedagogical scholarship.
- STEWARDSHIP: The use of limited resources efficiently and effectively and in a timely fashion.
- TOLERANCE: The unconditional acceptance of diversity.
- INTEGRITY: The sense of wholeness, consistency, and consonance between one's actions and espoused values.

The mission reflects a continuing commitment to the importance of learning in a changing environment, supported through the interdependence of teaching, intellectual contributions, and service.

Program

Certificate

Certificate

### Academic Programs

Small Business Management

Professional Sales

Subject

The academic programs in the school are listed below. Requirements for these programs appear in Program Descriptions in this catalog.

#### Accounting Bachelor of Science in Business (B.S.B.) Post-Baccalaureate Certificate Accounting Accounting Minor for Business Majors Finance Bachelor of Science in Business (B.S.B.) Finance Minor for Business Majors Financial Economics Certificate Business Economics & Public Policy Bachelor of Science in Business (B.S.B.) Management and Administration Bachelor of Science in Business (B.S.B.) Management Minor for Business Majors Marketing Bachelor of Science in Business (B.S.B.) Marketing Minor for Business Majors Business Studies Minor for Non-Business Majors Bank Management Certificate

The Bachelor of Science in Business (B.S.B.) program is accredited by The Association to Advance Collegiate Schools of Business (AACSB), which provides a voluntary mechanism of quality control. AACSB is the most prestigious business accrediting body in the nation. Only about one-quarter of all business schools in the nation possess this distinction.

Your initial courses are selected from introductory-level general education, business, and economics subjects. When you have qualified for admission to the B.S.B. program, additional opportunities are provided for in-depth studies in a variety of advanced business, management, and analytical subjects. These advanced studies help you prepare for positions of increasing executive responsibility in the business community.

At the time you are admitted to the B.S.B. program, you must declare a specialization in one of five majors: accounting, business economics, finance, management, or marketing.

#### Admission

Students are admitted as pre-business students until they have completed the specific pre-business requirements needed for admission to the Bachelor's degree program.

To be admitted to the B.S.B. program applicants must have a cumulative GPA of 2.00 or higher and will have completed at least 45 credits that apply toward the degree, including the courses listed below. Within this course listing, successful applicants will have (1) a grade of C- or better in each course and (2) a GPA of 2.50 or better within these courses.

#### Courses Required for Admission to the B.S.B. Program

Course Number and Title		Credits
COM 11400	Fundamentals of Speech Communication	3
MA 22900	Calculus for the Managerial, Social, and Biological Sciences I	3
PSY 12000 <u>or</u> SOC 16101	Elementary Psychology or Principles of Sociology	3
BUS 10001	Principles of Business Administration	3
ENGL 23301	Intermediate Expository Writing	3
BUS 20401	Business Communication	3
BUS 10000	Intro to College and Business Careers	1
BUS 20100	Principles of Financial Accounting	3
BUS 20101	Computers in Business	3
ECON 20101	Introduction to Microeconomics	3
BUS 20001	Business Degree Seminar	0

Three additional rules apply for admission to the B.S.B. program:

- 1. No more than 6 credits of these courses may be repeated, and no course may be repeated more than once.
- 2. Both the original and the repeat grades earned in the above courses will be used to compute the admission GPA. This includes courses that you have taken or repeated at PFW and other Purdue campuses.
- 3. Students must earn a minimum of 300 points in the Passport to Success program, including at least two high impact events, before they can be admitted to any of the majors. Passport to Success is a program required of all business majors that emphasizes participation in activities outside the classroom. Details of the Passport to Success program may be found on the Doermer School of Business website.

#### Note:

Bachelor's degree programs in business are offered at other Purdue University campuses. Since admission and graduation requirements vary among these campuses, you must meet the admission and graduation requirements of the campus from which you intend to graduate.

#### **Enrollment in Business Courses Numbered 30100 and Above**

Unless you have met at least one of the following conditions, you are not permitted to enroll in a business course numbered 30100 or above:

- You have been admitted to the B.S.B. program at PFW.
- The course is a specified requirement for another bachelor's degree program or minor in which you are enrolled and you have completed all course prerequisites.
- · You have obtained written permission from the department through which the course is offered.

If you have enrolled and are not eligible, you will be withdrawn from the course.

#### **B.S.B. REQUIREMENTS**

To earn the B.S.B., you must complete a minimum of 120 credits as specified below and obtain an overall cumulative GPA of at least 2.30. You must satisfy the requirements of PFW (see Regulations) and the Richard T. Doermer School of Business, including completion of the Passport to Success program, and earn a grade of C- or better in each BUS and ECON course. Developmental courses do not apply to degree requirements.

Your final consecutive 30 credits must be taken at PFW after you have been formally admitted to the B.S.B. program. Business majors may not count BUS, ECON or OLS courses towards their general education requirements (unless noted).

Special Academic Regulations for Students in Undergraduate Business Programs Following are the general policies and procedures for students enrolled in business undergraduate programs. In addition to the policies of PFW (see Regulations), these are intended to maintain the historically high academic standards of undergraduate business programs at PFW.

The Student's Responsibility You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

Academic Renewal Option The school participates in the Academic Renewal Option for eligible students returning to PFW after an absence of five or more years.(see Regulations)

Time Limit. To ensure that you will be professionally competitive with other members of your graduating class, you may complete the degree requirements specified in the catalog in effect at the time you were formally admitted to the degree program only if

- Progress toward your degree objective has been continuous. If you have not registered for degree-applicable courses as an PFW business major for a period of one
  calendar year, you will be considered as not progressing toward your original degree objective. Subsequently, if you qualify for re-entry to an undergraduate business
  program at PFW, you must satisfy the admission and degree requirements specified in the PFW catalog that includes your year of re-entry.
- No more than five years have elapsed since your admission to the business degree program. If more than five years have elapsed, your cumulative academic record will be reviewed by the appropriate business or economics department, and you will be required to meet the degree criteria specified in the current PFW catalog. This may result in your having to repeat those courses in which the original content is determined to be outdated.
- The necessary courses or degree programs are available. If the courses that were required at the time of your formal admission to the business degree program are no longer available, you must complete the current replacements for those courses. Should these newer courses require prerequisites you have not taken, you must also enroll for these prerequisites in the appropriate sequence.

Overlapping Courses You may not count toward graduation any courses or sequences considered to have overlapping content. A list of overlapping courses appears in Colleges of this catalog under the College of Arts and Sciences.

Academic Probation You are on academic probation upon completion of a semester in which you fail to earn a semester GPA of 2.0. or anytime your cumulative GPA falls below a 2.0

Repeat Limits To remain eligible for the B.S.B. program, a student may not retake any of the 30000 or 40000-level BUS or ECON courses more than twice. An appeal may be made by the student to the Undergraduate Policy Committee (UPC) in the case of extenuating circumstances.

Transfer Credit Generally, courses in basic business and economics subjects (10000-20000 level) will be accepted as equivalent if they are being transferred from regionally accredited institutions. Courses in advanced business and economics (30000-40000 level) will only be considered equivalent if they are from another business school accredited by The Association to Advance Collegiate Schools of Business (AACSB), were taken within the past five years, and were taken as a junior or senior class standing.

At least 50 percent of required business and economics courses must be completed at PFW in order for a B.S.B. degree to be awarded.

Credit by Examination Under very limited circumstances and subject to the following policies, you may be permitted to earn credit by means of a special examination:

- In all cases, your eligibility for a credit examination; the type of examination; testing procedures, date, time, and location; and evaluation of your performance are the decision of the appropriate PFW business or economics department. The decision of the department is final.
- · Credits earned by examination cannot exceed 10 percent of your total degree requirements.
- · You may attempt an authorized credit examination only once.
- · Only those examination scores that equate to a C- grade or better will be considered. Only the grade P will be reported for credit earned by examination.

# Accounting

Department of Accounting Richard T. Doermer School of Business

Neff Hall 350 ~ 260-481-6471

**Doermer School of Business Undergraduate Student Success Center** 

Neff Hall 366 ~ 260-481-6472

Through the Department of Accounting and Finance, the Richard T. Doermer School of Business offers programs in accounting and finance. The Bachelor of Science in Business (B.S.B.) program is accredited by The Association to Advance Collegiate Schools of Business (AACSB).

The accounting program provides you with academic preparation for careers in auditing, corporate accounting and management services, government and nonprofit organizations, public accounting, and taxation. In addition, it equips you with a management tool for intelligent analysis, prediction, decision making, and control.

For program descriptions, see Programs in this catalog.

# **Business and Management**

**Undergraduate Student Success Center Richard T. Doermer School of Business** 

Neff Hall 366 ~ 260-481-6472

The academic programs in the Richard T. Doermer School of Business are listed below. Requirements for these programs appear in Program Descriptions in this catalog.

## Subject Program

Accounting
Accounting
Accounting
Finance
Finance
Business Economics & Public Policy
Management and Administration
Management

Bachelor of Science in Business (B.S.B.)
Post-Baccalaureate Certificate
Minor for Business Majors
Bachelor of Science in Business (B.S.B.)
Minor for Business Majors
Bachelor of Science in Business (B.S.B.)
Bachelor of Science in Business (B.S.B.)
Minor for Business Majors

Marketing Bachelor of Science in Business (B.S.B.) Marketing Minor for Business Majors Business Studies Minor for Non-Business Majors Bank Management Small Business Management

Certificate Certificate Certificate

The Bachelor of Science in Business (B.S.B.) program is accredited by The Association to Advance Collegiate Schools of Business (AACSB), which provides a voluntary mechanism of quality control. AACSB is the most prestigious business accrediting body in the nation. Only about one-quarter of all business schools in the nation possess this distinction.

Your initial courses are selected from introductory-level general education, business, and economics subjects. When you have qualified for admission to the B.S.B. program, additional opportunities are provided for in-depth studies in a variety of advanced business, management, and analytical subjects. These advanced studies help you prepare for positions of increasing executive responsibility in the business community.

At the time you are admitted to the B.S.B. program, you must declare a specialization in one of five majors: accounting, business economics, finance, management, or marketing.

## **Economics and Finance**

**Department of Economics and Finance** Richard T. Doermer School of Business

Neff Hall 340 ~ 260-481-6794

Professional Sales

**Doermer School of Business Undergraduate Student Success Center** 

Neff Hall 366 ~ 260-481-6472

Through the Department of Economics, the Richard T. Doermer School of Business offers programs in business economics and public policy. The Bachelor of Science in Business (B.S.B.) program is accredited by The Association to Advance Collegiate Schools of Business (AACSB).

The business economics program explores the economic environments in which businesses must operate, as well as the interrelationships among micro- and macroeconomic conditions, private-sector decision making, and governmental programs. Students have opportunities to study economic problems and their alternative solutions. Students may also study aspects of employment, inflation, international trade, and other economics subject areas.

The finance program is composed of courses that have been selected to familiarize students with the theory, instruments, and institutions of finance, and with a financial approach for structuring and analyzing management decisions. The study of finance provides a basis for careers in corporate financial management, as well as executive positions in commercial banking, savings and credit institutions, and the investment field.

For program descriptions, see Programs in this catalog.

# Management and Marketing

Program: B.S.B. Department of Management and Marketing Richard T. Doermer School of Business

Neff Hall 340 ~ 260-481-6470

**Doermer School of Business Undergraduate Student Success Center** 

Neff Hall 366 ~ 260-481-6472

Through the Department of Management and Marketing, the Richard T. Doermer School of Business offers programs in management and marketing. The Bachelor of Science in Business (B.S.B.) program is accredited by The Association to Advance Collegiate Schools of Business (AACSB).

The management major provides students with an opportunity to study a broad scope of business and economics subjects, as well as concepts and theories of managing complex business operations. The courses stress goal setting, planning, controlling, and problem solving in the context of major business firms in domestic and international environments.

The marketing major is concerned with the movement of goods and services from the producer to the customer. It encompasses such topics as consumer behavior, product development, pricing, channels of distribution, promotion, marketing research, and effective management of corporate marketing operations.

For program descriptions, see Programs in this catalog.

### **Unit of Affiliated Programs**

## **Unit of Affiliated Programs**

The Unit of Affiliated Programs includes programs that serve students' academic needs and interests within the following departments and/or programs:

Collegiate Connection

International Education

Student Success and Transitions

# **Student Success and Transitions**

#### Student Success and Transitions Unit of Affiliated Programs

Kettler Hall 112 ~ 260-481-0404

- Pathways
- Services and Programs

### **Services and Programs**

#### Academic Advising

Academic advisors and enrollment services counselors connect with the students we serve to provide proactive and on-time delivery of services that assist students with academic planning, registration, withdrawal, declaring a major, transfer, and connecting with campus resources.

#### Academic Support

We offer academic support services for students who are on academic probation. These services include online workshops, accessed via Blackboard and supplemental academic advising support. The Probation Intervention Program is mandatory for students who are on academic probation and have not completed the program in a prior term.

#### **Collegiate Connection**

Collegiate Connection allows high school students to take college credit in high school based and campus based classroom settings. For additional information on Collegiate Connection, please see: Student Services.

#### **New Student Orientation**

New Student Orientation provides students with the foundation they need to connect them with their new academic community, learn how to access important resources, have some fun, build their semester schedule, and get on a successful path towards graduation! All facets of Orientation are mandatory for new, transferring, and returning students, regardless of the amount of credit hours transferring to Purdue Fort Wayne. All degree-seeking students will complete an enrollment intake form to facilitate a successful onboarding process.

#### Senior Citizen Programs

Legal residents of Indiana who are retired and over the age of 60 may participate in our senior citizen programs, which enables them to take classes at Purdue Fort Wayne. Participants must hold a high school diploma or GED and cannot be employed full time.

#### Senior Scholars Program

Senior citizens may audit open courses for no cost\* through this program (\*lab and material fees will apply). Instructor permission is required and no letter grade is awarded. Registration occurs on Monday of the 2nd week of the semester. Participants may take up to 9 credit hours.

#### Senior Citizen Fee Remission

Senior citizens can recieve a fee waiver that covers half of their tution, excluding fees. The waiver covers up to 9 credit hours and a letter grade is awarded. Instructor permission is required and registration occurs one week prior to the start of the semester.

#### Withdrawal

Student Success and Transitions staff process course withdraw requests from students in all academic departments and majors, per the University policies on course withdrawal. For additional information on withdrawal policies, please see: Regulations.

### **Pathways**

The University and Student Success and Transitions (SST) care about the futures of all of our students. To that end, beginning Fall Semester 2016, the Pathway Program was implemented to allow students a more targeted approach to choosing a major. We recognize the importance and often times difficulty in making this decision - you are not alone. The staff in SST assist students in exploring options, connecting with career counselors, faculty, and staff in academic departments, by promoting analysis and exploration through an individualized Pathway plan. Students who choose a Pathway will meet with specific Pathway Advisors at their Orientation.

There are four Pathway options:

#### **Business and Leadership**

Students who choose the Business and Leadership Pathway have an interest in solving problems, inspiring others, social justice, and/or engaging in the community. Many who choose this pathway would describe themselves as goal-orientated, innovative, organized, strategic and motivated. Those in Business and Leadership are thoughtful decision makers and may consider themselves to be "balanced people" or have "balanced interests," meaning they have varied skills and abilities. For example, someone in this Pathway may like working with people in a management, business or political environment, but not in a profession akin to social work or nursing. Some skills related to majors and careers in this pathway: problem solving, global awareness, communication, ethical reasoning skills, commitment, integrity, courage, straightforwardness, and imagination.

Related Majors: Business (Accounting, Marketing, Management, Finance and Economics), Organizational Leadership and Supervision, Public Affairs (Criminal Justice, Public Policy, Health Services Administration and Environmental Policy) and Hospitality and Tourism Management.

### **Humanities and Social & Behavioral Sciences**

The humanities and social sciences are academic disciplines that examine human culture and society, as well as relationships among individuals. The humanities are those disciplines that focus on human belief systems, human culture and art, societies, relationships, and in the ways in which humans express themselves and create meaning. The social sciences investigate and analyze human nature and behavior, including human social structures and governments as well as how humans communicate with each other within these social structures. This broad pathway is concerned with understanding human institutions, how the mind works, and how we interact with one another. Students in this pathway are caring, compassionate, able to improvise, and often choose helping professions. Others within this pathway are curious about the world and its people, cultures, societies, relationships, language, and belief systems. Still others are interested in how we construct governing bodies, how the mind works, how we interact in society, and how we express ourselves and create meaning. Some skills and attributes related to majors and careers in this pathway include the following: global awareness, communication, critical thinking and reasoning skills, empathy, compassion, a desire to learn new concepts and theories, and open-mindedness. Students who choose majors in this pathway are often interested in how many different disciplines work together to help paint a broad pricture of the world in which we live, and they use this broad understanding of the world in order to solve problems, analyze situations, data, and texts, and communicate clearly within the global marketplace.

Related Majors: Anthropology, Communication, Economics, English and Linguistics, History, Human Services, International Languages and Culture Studies, Political Science, Psychology, Sociology, Women's Studies

### Engineering and Science

Students who choose the Engineering and Science Pathway enjoy solving problems and are generally very analytical, linear, rational, and theoretical. Many seek to understand things on a higher level - why things work the way that they do, not simply how they work. Those who choose this Pathway enjoy complex puzzles and games that involve strategy and love the challenge of applying scientific/logical methods to solve problems. Most within this Pathway excel in math and data analysis and/or have an interest in understanding more about the world in which we live. Research in areas such as the natural world, environment, human body, computer programming, and other technical systems are generally of interest to students who choose this Pathway.

Related Majors: Civil Engineering, Electrical Engineering, Mechanical Engineering, Computer Engineering, Computer Science, Mathematics, Chemistry, Biology, Physics, and Geology.

#### Visual and Performing Arts

Students within the Visual and Performing Arts Pathway seek to understand the non-verbal language of art, are creative, and wish to express themselves using a myriad of methods: visually, vocally, with an instrument, and using design techniques/methods. Most within this Pathway appreciate and value art and artistic expression and wish to become familiar or more familiar with the major achievements in the history of art, including the works and intentions of leading artists past and present. Those within this Pathway value an environment that encourages free and open inquiry, diversity, the cultivation of creativity and artistic collaboration.

Related Majors: Fine Arts, Music Performance, Music Technology, Music Therapy, Theatre (Acting, Directing, and Design Technology), Graphic Design, Imaging and Photography, Modeling and Animation and Interior Design

# **Program Descriptions**

Purdue University Fort Wayne is accredited by the Higher Learning Commission. Information about North Central accreditation is available from the vice chancellor for academic affairs (KT 170, 260-481-6116). You may also contact the Higher Learning Commission directly at <a href="https://www.ncahle.org">www.ncahle.org</a>; or by writing to 230 South LaSalle St., Suite 7-500, Chicago, IL 60604-1411; or by phone at 800-621-7440.

The following is an alphabetical list of all undergraduate degree, certificate, minor, and transfer programs available at Purdue University Fort Wayne.

- A degree is an award earned by satisfactorily completing a specified program of courses and adhering to the applicable academic regulations. Each degree includes one or more major fields of study. Completion of a degree program is acknowledged by receipt of a diploma. The most common degree earned by Purdue University Fort Wayne students is the bachelor's degree (abbreviated B.A. for Bachelor of Arts and B.S. for Bachelor of Science).
- A certificate is not a college degree, but is composed of a series of courses that focus on a specialized area of knowledge or specific skills. The university recognizes completion of the required courses and satisfaction of applicable academic regulations by awarding a certificate.
- A *minor* is a less comprehensive program of study that is chosen in conjunction with a major field of study. To earn a minor, the student must complete a degree program in a different subject area.
- A transfer program is a series of courses that will apply toward a degree to be awarded by another campus of IU or Purdue. Credits for these courses can be transferred to the other campus, but students are required to satisfy the admission and graduation requirements of the campus to which they transfer.

Baccalaureate Framework

# **Category (General Education Courses)**

# **Category A Courses: Foundational Intellectual Skills**

Students must earn a grade of C- or better in each course used to satisfy the Purdue University Fort Wayne general education requirements.

	General l	Education Courses											
Course Number and/or Title	Category	Competency	1	2	3		Outco 5	omes 6	7	8	9	10	Course Meets All Outcomes
ENGL 13100 (ENG W131) - Reading, Writing and Inquiry I	A	1	1.1	1.2	1.3	1.4	1.5	1.6	1.7				YES
ENGL 14000 (ENG W140) - Reading, Writing and Inquiry I - Honors	A	1	1.1	1.2	1.3	1.4	1.5	1.6	1.7				YES
ENGL 23202 (ENG W232) - Introduction To Business Writing	A	1	1.1	1.2	1.3	1.4	1.5	1.6	1.7	2.1	5.5		YES
ENGL 23301 (ENG W233) - Intermediate Expository Writing	A	1	1.1	1.2	1.3	1.4	1.5	1.6	1.7				YES
ENGL 23401 (ENG W234) - Technical Report Writing	A	1	1.1	1.2	1.3	1.4	1.5	1.6	1.7	3.1	3.2	4.3	YES
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GER 31100 (GER E311) VT - Traditions and Innovations in German Literature	A	1	1.1	1.2	1.3	1.4	1.5	1.6	1.7			YES
GER 32000 (GER G320) VT - Special Topics In German	A	1	1.1	1.2	1.3	1.4	1.5	1.6	1.7			YES
COM 11400 - Fundamentals of Speech Communication	A	2	2.1	2.2	2.3	2.4	2.5	2.6	2.7			YES
EALC 20102 (EALC J201) - Second Year Japanese I	A	2	2.1	2.2	2.3	2.4	2.5	2.6	2.7			YES
EALC 20203 (EALC J202) - Second Year Japanese II	A	2	2.1	2.2	2.3	2.4	2.7					NO
FR 20301 (FREN F203) - Second Year French I	A	2	2.1	2.2	2.3	2.4	2.5	2.6	2.7			YES
FR 20401 (FREN F204) - Second Year French II	A	2	2.1	2.2	2.3	2.4	2.7	K				NO
GER 20301 (GER G203) - Second Year German I	A	2	2.1	2.2	2.3	2.4	2.5	2.6	2.7			YES
GER 20401 (GER G204) - Second-Year German II	A	2	2.1	2.2	2.3	2.4	2.7					NO
HIST 12500 (HIST H125) - Great Debates: Introduction to Historical Communication	A	2	2.1	2.2	2.3	2.4	2.5	2.6	2.7			YES
NELC 20000 (NELC A200) - Intermediate Arabic I	A	2	2.1	2.2	2.3	2.4	2.5	2.6	2.7			YES
NELC 25000 (NELC A250) - Intermediate Arabic II	A	2	2.1	2.2	2.3	2.4	2.7					NO
SPAN 20301 (SPAN S203) - Second-Year Spanish I	A	2	2.1	2.2	2.3	2.4	2.5	2.6	2.7			YES
SPAN 20401 (SPAN S204) - Second-Year Spanish II	A	2	2.1	2.2	2.3	2.4	2.5	2.6	2.7			YES
THTR 11400 - Interpretation for Performance and Presentation	A	2	2.1	2.2	2.3	2.4	2.5	2.6	2.7			YES
ECON 20101 (ECON E201) - Introduction to Microeconomics	A	3	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8		YES
IET 20500 - Applied Statistics for Engineering Technology	A	3	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8		YES
IET 35000 - Engineering Economy	A	3	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8		YES
MA 10100 - Mathematics for Elementary Teachers I	A	3	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8		YES
MA 14000 - Practical Quantitative Reasoning	A	3	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8		YES
MA 15300 - Algebra and Trigonometry I	A	3	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8		YES
MA 15900 - Precalculus	A	3	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8		YES
MA 16500 - Analytic Geometry and Calculus I	A	3	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8		YES
MA 16600 - Analytic Geometry and Calculus II	A	3	3.1	3.2	3.3	3.4	3.5	3.6	.37	3.8		YES
MA 22700 - Calculus for Technology I	A	3	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8		YES
MA 22900 - Calculus for the Managerial, Social, and Biological Sciences I	A	3	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8		YES
PHIL 25200 - Intermediate Logic	A	3	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8		YES
STAT 12500 - Communicating with Statistics	A	3	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8		YES

# **Category B Courses: Ways Of Knowing**

Students must earn a grade of C- or better in each course used to satisfy the Purdue University Fort Wayne general education requirements.

	General	Education Courses											
						C	Outco	mes					Course Meets
Course Number and/or Title	Category	Competency	1	2	3	4	5	6	7	8	9	10	All Outcomes
ANTH 20001 (ANTH B200) - Bioanthropology	В	4	1.5	3.1	3.3	4.1	4.2	4.3	4.4	4.5	4.6		YES
ASTR 10000 (AST A100) - The Solar System / EAPS 12100 (GEOL G121) - Meteorites and Planets	В	4	3.1	4.1	4.2	4.3	4.4	4.5	4.6				YES
ASTR 10500 - Descriptive Astronomy: Stars And Galaxies	В	4	1.5	1.7	3.1	3.2	3.3	4.1	4.2	4.3	4.4	4.5	NO
BIOL 10000 - Introduction to the Biological World	В	4	1.3	4.1	4.2	4.3	4.4	4.5	4.6				YES

BIOL 12600 - Human Biology	В	4	1.7	4.1	4.2	4.3	4.6						NO
BIOL 20300 - Human Anatomy and Physiology	В	4	3.2	4.2	4.3	4.4	4.5						NO
BIOL 25000 - Women and Biology	В	4	1.7	4.1	4.2	4.3	4.6						NO
BIOL 30400 - Major Ideas in Biology	В	4	2.1	4.1.4.2	4.3	4.6							
BIOL 31700 - Addictions: Biology, Psychology and Society/PSY 31700 - Additions: Biology, Psychology and Society	В	4	1.7	4.1	4.2	4.3	4.6						NO
BIOL 32700 - Biology of Aging	В	4	1.1	1.3	1.5	1.7	4.1	4.2	4.3	4.4	4.5	4.6	YES
CE 36500 - Environmental Engineering	В	4	4.1	4.2	4.3	4.4	4.5	4.6					YES
CHM 10400 - Living Chemistry	В	4	3.3	4.1	4.2	4.3	4.5	4.6					NO
CHM 11100 - General Chemistry	В	4	3.3	4.1	4.2	4.3	4.4	4.5	4.6				YES
CHM 11500 - General Chemistry	В	4	3.2	4.1	4.2	4.3	4.4	4.5	4.6				YES
CHM 12000 - Chemistry and Art	В	4	1.3	4.1	4.2	4.3	4.4	4.5	4.6				YES
EAPS 10001 (GEOL G100) - General Geology	В	4	3.1	4.1	4.2	4.3	4.4	4.5	4.6				YES
EAPS 10300 (GEOL G103) - Earth Science: Materials and Processes	В	4	3.1	4.1	4.2	4.3	4.4	4.5	4.6				YES
EAPS 10401 (GEOL G104) - Earth Science: Evolution of the Earth	В	4	3.1	4.1	4.2	4.3	4.4	4.5	4.6				YES
EAPS 21000 (GEOL G210) - Oceanography	В	4	3.1	4.1	4.2	4.3	4.4	4.5	4.6				YES
FNN 30300 - Essentials of Nutrition	В	4	1.7	3.1	4.1	4.2	4.3	4.4	4.5	4.6			YES
FNR 10300 - Introduction to Environmental Conservation	В	4	1.3	4.1	4.2	4.3	4.5	4.6					NO
GEOG 10700 (GEOG G107) - Physical Systems of the Environment	В	4	3.1	4.1	4.2	4.3	4.4	4.5	4.6				YES
GEOG 10900 (GEOG G109) - Weather and Climate	В	4	3.1	4.1	4.2	4.3	4.4	4.5	4.6				YES
HORT 10100 - Fundamentals of Horticulture	В	4	3.1	3.2	4.1	4.2	4.3	4.4	4.5	4.6			YES
PHYS 10500 - Sound and Music	В	4	3.1	3.2	4.1	4.2	4.3	4.4	4.5	4.6			YES
PHYS 11500 - Introduction to Lasers	В	4	3.1	3.2	3.4	3.5	4.1	4.2	4.3	4.4	4.5	4.6	YES
PHYS 12000 - Physics of Sports	В	4	3.1	3.2	4.1	4.2	4.3	4.4	4.5	4.6			YES
PHYS 12500 - Light and Color	В	4	3.1	3.2	4.1	4.2	4.4	4.5					NO
PHYS 12700 - Physics for Computer Graphics and Animation	В	4	3.1	3.2	4.1	4.2	4.4	4.5					NO
PHYS 12900 - Physics of War	В	4	3.1	3.2	3.5	3.6	4.1	4.2	4.3	4.4			NO
PHYS 13100 - Concepts in Physics I	В	4	3.1	3.2	4.1	4.2	4.3	4.4	4.5				NO
PHYS 13500 - The First Three Minutes	В	4	1.5	1.7	3.1	3.2	4.1	4.2	4.4	4.5			NO
PHYS 15200 - Mechanics	В	4	3.1	3.4	3.5	3.6	4.1	4.2	4.3	4.4	4.5	4.6	YES
PHYS 21800 - General Physics	В	4	3.1	3.4	3.5	3.6	4.1	4.2	4.3	4.4	4.5	4.6	YES
PHYS 22000 - General Physics	В	4	3.1	3.4	3.5	3.6	4.1	4.2	4.3	4.4	4.5	4.6	YES
PHYS 22300 - X-Ray Physics	В	4	3.1	3.2	3.3	3.6	4.1	4.2	4.3	4.4	4.5	4.6	YES
ANTH 10501 (ANTH E105) - Culture and Society	В	5	1.1	1.6	5.1	5.2	5.3	5.4	5.5	5.6	6.3	6.7	YES
ANTH 20002 (ANTH L200) - Language and Culture	В	5	1.1	1.2	5.1	5.2	5.3	5.4	5.5	5.6			YES
ANTH 20003 (ANTH P200) - Introduction to Prehistoric Archaeology	В	5	1.1	1.2	4.1	4.2	5.1	5.2	5.3	5.4	5.5	5.6	YES
ANTH 44500 (ANTH E445) - Medical Anthropology	В	5	1.1	1.3	1.4	1.5	5.1	5.2	5.3	5.4	5.5	5.6	YES
ANTH 47000 (ANTH E470) - Psychological Anthropology	В	5	1.1	1.3	1.6	5.1	5.2	5.3	5.4	5.5	5.6		YES
COM 21200 - Approaches to the Study of Interpersonal Communication	В	5	2.3	5.1	5.2	5.3	5.4	5.5	5.6				YES
COM 25000 - Mass Communication and Society	В	5	1.1	5.1	5.2	5.3	5.4	5.5			_		YES

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COM 30300 - Intercultural Communication	В	5	1.3	5.1	5.2	5.3	5.4	5.5	5.6				YES
CDFS 25500 - Introduction to Couple and Family Relationships	В	5	1.3	1.4	1.6	1.7	5.1	5.2	5.3	5.4	5.5	5.6	YES
CSD 11500 - Introduction to Communication Disorders	В	5	1.3	5.1	5.2	5.3	5.4	5.5	5.6				YES
ECON 10101 (ECON E101) - Survey of Economic Issues and Problems	В	5	2.5	5.1	5.2	5.3	5.4	5.5	5.6		/		YES
ECON 20000 (ECON E200) - Fundamentals of Economics	В	5	3.1	5.1	5.2	5.3	5.4	5.5	5.6		/		YES
EDU 34001 (EDUC H340) - Education and American Culture	В	5	1.3	5.1	5.2	5.3	5.4	5.5	5.6	6.3	6.7		YES
FOLK 23000 (FOLK F230) - Music in Social Movements	В	5	1.3	1.5	1.6	5.1	5.2	5.4	5.5	5.6			NO
FOLK 25400 (FOLK F254) - The Social History of Rock & Roll	В	5	1.3	1.5	1.6	5.1	5.2	5.4	5.5	5.6	/		NO
GERN 23100 (GERN G231) - Introduction to Gerontology	В	5	1.6	5.1	5.2	5.2	5.3	5.4	5.5	5.6	/		YES
IET 10500 - Industrial Management	В	5	1.4	3.2	5.1	5.2	5.3	5.4	5.5	5.6	/		YES
ILCS 35000 (ILCS I350) - International Communication	В	5	1.1	1.3	1.7	2.1	2.3	2.5	5.1	5.4	5.5	5.6	NO
LING 10300 (LING L103) - Introduction to the Study of Language	В	5	1.6	5.1	5.2	5.3	5.4	5.5	5.6		/		YES
OLS 25200 - Human Relations in Organizations	В	5	1.2	1.5	1.7	5.1	5.2	5.3	5.4	5.5	5.6		YES
OLS 26800 - Elements of Law	В	5	1.4	1.7	5.1	5.2	5.3	5.4	5.5	5.6	/		YES
POL 10001 (POLS Y100) VT - American Political Controversies	В	5	1.1	1.3	1.5	1.7	5.1	5.2	5.3	5.4	5.5	5.6	YES
POL 10101 (POLS Y101) - Introduction to Political Science	В	5	1.1	1.3	1.5	1.7	5.1	5.2	5.3	5.4	5.5	5.6	YES
POL 10300 (POLS Y103) - Introduction to American Politics	В	5	1.1	1.3	1.5	5.1	5.2	5.3	5.4	5.5	5.6		YES
POL 10500 (POLS Y105) - Introduction to Political Theory	В	5	1.3	1.4	5.1	5.2	5.5	5.6	6.1	6.3	6.4	6.7	NO
POL 10700 (POLS Y107) - Introduction to Comparative Politics	В	5	1.1	1.3	1.5	5.1	5.2	5.3	5.4	5.5	5.6		YES
POL 10900 (POLS Y109) - Introduction to International Relations	В	5	1.1	1.3	1.5	5.1	5.2	5.3	5.4	5.5	5.6		YES
POL 20001 (POLS Y200) VT - Contemporary Political Topics	В	5	1.3	5.1	5.2	5.4	5.5						NO
POL 20300 (POLS Y203) - The Promise and Problems of Democracy	В	5	1.1	1.3	1.4	1.5	5.1	5.2	5.4	5.6	6.3	6.7	NO
POL 20800 (POLS Y208) - Scandals and Conspiracy Theories	В	5	1.1	1.3	1.5	1.7	5.1	5.2	5.3	5.4	5.5	5.6	YES
POL 21200 (POLS Y212) - Making Democracy Work	В	5	1.1	1.3	1.5	2.1	5.1	5.2	5.3	5.4	5.5	5.6	YES
POL 21300 (POLS Y213) - Introduction to Public Policy	В	5	1.1	1.3	1.5	1.7	5.1	5.2	5.3	5.4	5.5	5.6	YES
POL 25200 (POLS Y252) - Sports and Public Policy	В	5	1.1	1.3	1.5	5.1	5.2	5.3	5.4	5.5	5.6		YES
POL 30101 (POLS Y301) - Political Parties and Interest Groups	В	5	1.3	1.4	1.5	5.1	5.2	5.3	5.4	5.5	5.6		YES
POL 31900 (POLS Y319) - The United States Congress	В	5	1.2	1.3	1.5	5.1	5.2	5.3	5.4	5.5	5.6		YES
PPOL 12000 (PPOL H120) - Contemporary Health Issues	В	5	1.1	1.3	1.5	2.1	2.3	5.1	5.2	5.3	5.4	5.5	NO
PPOL 10100 (PPOL J101) - The American Criminal Justice System	В	5	1.3	1.5	5.1	5.2	5.4	5.5	5.6				NO
PPOL 17000 (PPOL V170) - Introduction to Public Affairs	В	5	1.1	1.3	1.5	5.1	5.2	5.3	5.4	5.5	5.6		YES
PSY 12000 - Elementary Psychology	В	5	3.1	4.1	4.2	4.3	5.1	5.2	5.3	5.4	5.5	5.6	YES
PSY 23500 - Child Psychology	В	5	1.7	4.2	4.3	4.5	5.1	5.2	5.3	5.4	5.5	5.6	YES
PSY 24000 - Introduction to Social Psychology	В	5	3.1	4.1	4.2	4.3	5.1	5.2	5.3	5.4	5.5	5.6	YES
PSY 33500 - Stereotyping and Prejudice	В	5	3.1	4.1	4.2	5.1	5.2	5.3	5.4	5.5	5.6		YES
PSY 35000 - Abnormal Psychology	В	5	3.1	5.1	5.2	5.3	5.4	5.5	5.6				YES
PSY 36900 - Development Across the Lifespan	В	5	3.1	4.2	4.3	4.5	5.1	5.2	5.3	5.4	5.5	5.6	YES
SOC 16101 (SOC S161) - Principles of Sociology	В	5	1.4	1.5	1.7	5.1	5.2	5.3	5.4	5.5	5.6		YES
SOC 16300 (SOC S163) - Social Problems	В	5	1.1	1.3	1.7	5.1	5.2	5.3	5.4	5.5	5.6		YES

SOC 31701 (SOC S317) - Social Stratification	В	5	1.1	1.3	1.6	1.7	5.1	5.2	5.3	5.4	5.5	5.6	YES
SOC 32501 (SOC S325) - Criminology	В	5	1.1	1.3	1.7	_	5.2	5.3	5.4	5.5	5.6		YES
SOC 36000 (SOC S360) VT - Topics in Social Policy	В	5	1.1	5.1	5.2	5.3	5.4	5.5	5.6		┢		YES
WOST 21000 (WOST W210) - Introduction to Women's Studies	В	5	1.3	1.5	5.1	5.2	5.3	5.4	5.5	5.6	6.1	6.3	YES
AD 10101 (FINA H101) - Art Appreciation	В	6	1.2	1.4	1.7	6.1	6.2	6.3	6.4	6.5	6.6	6.7	YES
AD 11100 (FINA H111) - History Of Art I: Prehistoric to	В	6	1.2	1.4	1.7	6.1	6.2	6.3	6.4	┢		6.7	YES
Medieval AD 11201 (FINA H112) - History Of Art II: Renaissance to	В	6	1.2	1.4	1.7	6.1	6.2	6.3	6.4	6.5	6.6	6.7	YES
Contemporary CLCS 20500 (CLAS C205) - Classical Mythology	В	6	1.3	1.5	6.1	6.2	6.3	6.4	6.5	6.6	6.7		YES
CMPL 21700 (CMLT C217) - Detective and Mystery Literature	В	6	1.1	1.3	1.4	1.5	1.6	6.1	6.3	6.4	6.5	6.7	NO
COM 21000 - Debating Public Issues	В	6	1.3	1.5	1.7	6.1	6.2	6.3	6.4	6.5	6.6	6.7	YES
COM 24800 - Introduction to Media Criticism and Analysis	В	6	1.3	1.5	1.7	6.1	6.2	6.3	6.4	6.5	6.6	6.7	YES
ENGL 10101 (ENG L101) - Western World Masterpieces Ancient and Medieval World Lit	В	6	1.3	1.5	6.1	6.2	6.3	6.4	6.5	6.6	6.7		YES
ENGL 20201 (ENG L202) VT - Literary Interpretation	В	6	1.5	1.7	6.1	6.2	6.3	6.4	6.5	6.6	6.7		YES
ENGL 25001 (ENG L250) - American Literature Before 1865	В	6	1.3	1.5	1.7	6.1	6.2	6.3	6.4	6.5	6.6	6.7	YES
ENGL 25100 (ENG L251) - American Literature Since 1865	В	6	1.1	1.3	1.5	6.1	6.2	6.3	6.4	6.5	6.6	6.7	YES
ENGL 10201 (ENG L102) - Western World Masterpieces II: Renaissance to Modern	В	6	1.3	1.5	6.1	6.2	6.3	6.4	6.5	6.6	6.7		YES
FOLK 10100 (FOLK F101) - Introduction to Folklore	В	6	1.3	1.5	1.6	6.1	6.2	6.3	6.4	6.5	6.6	6.7	YES
FOLK 11100 (FOLK F111) - Introduction to World Folk Music	В	6	1.3	1.5	1.6	6.1	6.2	6.3	6.4	6.5	6.6	6.7	YES
FVS 10100 (FILM K101) - Introduction to Film	В	6	1.1	1.7	6.1	6.2	6.3	6.4	6.5	6.6	6.7		YES
GER 37100 (GER E371) VT - Special Topics In Germanic Studies	В	6	1.5	6.1	6.2	6.3	6.4	6.5	6.6	6.7			YES
HIST 10501 (HIST H105) VT - American History I	В	6	1.1	1.5	1.6	6.1	6.2	6.3	6.4	6.5	6.6	6.7	YES
(HIST 10601 (HIST H106) VT - American History II	В	6	1.3	1.5	5.5	6.1	6.2	6.3	6.4	6.5	6.6	6.7	YES
HIST 11300 (HIST H113) VT - History of Western Civilization I	В	6	1.3	5.4	5.5	6.1	6.2	6.3	6.4	6.5	6.6	6.7	YES
HIST 11400 (HIST H114) VT - History of Western Civilization II	В	6	1.3	1.5	5.5	6.1	6.2	6.3	6.4	6.5	6.6	6.7	YES
HIST 20101 (HIST H201) - History of Russia I	В	6	1.1	1.3	5.5	6.1	6.2	6.3	6.4	6.5	6.6	6.7	YES
HIST 22500 (HIST H225) VT - Special Topics in History	В	6	1.3	1.5	5.5	6.1	6.2	6.3	6.4	6.5	6.6	6.7	YES
HIST 23200 (HIST H232) - The World in the 20th Century	В	6	1.1	1.3	5.5	6.1	6.2	6.3	6.4	6.5	6.6	6.7	YES
ILCS 20800 (ILCS I208) VT - International Cinema	В	6	1.1	1.3	1.5	1.6	6.1	6.3	6.4	6.5	6.6		NO
MUSC 10101 (MUS Z101) - Music for the Listener	В	6	1.1	1.7	5.6	6.1	6.2	6.3	6.4	6.5	6.6	6.7	YES
MUSC 10500 (MUS Z105) - Traditions in World Music	В	6	1.1	1.6	1.7	6.1	6.2	6.3	6.4	6.5	6.6	6.7	YES
MUSC 20103 (MUS Z201) - History of Rock and Roll Music	В	6	1.5	1.7	6.1	6.3	6.4	6.5	6.7				NO
MUSC 39300 (MUS Z393) - History of Jazz	В	6	1.5	1.7	6.1	6.3	6.4	6.5	6.7				NO
PHIL 11000 - Introduction to Philosophy	В	6	1.1	1.5	1.6	6.1	6.2	6.3	6.4	6.5	6.6	6.7	YES
PHIL 11009 - Introduction to Philosophical Topics	В	6	1.3	1.5	5.6	6.1	6.2	6.3	6.4	6.5	6.6	6.7	YES
PHIL 11100 - Ethics	В	6	1.3	1.5	5.6	6.1	6.2	6.3	6.4	6.5	6.6	6.7	YES
PHIL 11101 - Contemporary Moral Problems	В	6	1.1	1.3	1.5	6.1	6.2	6.3	6.4	6.5	6.6	6.7	YES
PHIL 24000 - Social and Political Philosophy	В	6	1.3	1.5	5.2	6.1	6.2	6.3	6.4	6.5	6.6	6.7	YES
PHIL 30100 - History of Ancient Philosophy	В	6	1.3	1.5	5.5	6.1	6.2	6.3	6.4	6.5	6.6	6.7	YES
PHIL 30200 - History of Medieval Philosophy	В	6	1.3	1.5	5.5	6.1	6.2	6.3	6.4	6.5	6.6	6.7	YES

PHIL 30300 - History of Modern Philosophy	В	6	1.3	1.5	4.2	6.1	6.2	6.3	6.4	6.5	6.6	6.7	YES
PHIL 30400 - 19th Century Philosophy	В	6	1.3	1.5	5.1	6.1	6.2	6.3	6.4	6.5	6.6	6.7	YES
PHIL 30500 - Philosophical Theories of Feminism	В	6	1.1	1.3	1.5	6.1	6.2	6.3	6.4	6.5	6.6	6.7	YES
PHIL 31200 - Medical Ethics	В	6	1.3	1.5	5.6	6.1	6.2	6.3	6.4	6.5	6.6	6.7	YES
PHIL 32700 - Environmental Ethics	В	6	1.1	1.3	1.5	6.1	6.2	6.3	6.4	6.5	6.6	6.7	YES
PHIL 32800 - Ethics and Animals	В	6	1.1	1.3	1.5	6.1	6.2	6.3	6.4	6.5	6.6	6.7	YES
REL 23000 - Religions of the East	В	6	1.3	1.7	5.4	6.1	6.2	6.3	6.4	6.5	6.6	6.7	YES
REL 23100 - Religions of the West	В	6	1.1	1.6	5.5	6.1	6.2	6.3	6.4	6.5	6.6	6.7	YES
REL 30100 - Islam	В	6	1.3	1.5	5.5	6.1	6.2	6.3	6.4	6.5	6.6	6.7	YES
SPAN 27500 (SPAN S275) - Hispanic Culture and Conversation	В	6	1.3	6.1	6.2	6.3	6.4	6.5	6.6	6.7			YES
THTR 20100 - Theatre Appreciation	В	6	1.1	6.1	6.2	6.3	6.4	6.5	6.6	6.7			YES
WOST 22500 (WOST W225) - Gender, Sexuality, and Popular Culture	В	6	1.3	5.4	5.5	6.1	6.2	6.3	6.4	6.5	6.6	6.7	YES
AD 10801 (FINA N108) - Introduction to Drawing for Nonmajors	В	7	1.1	1.6	2.7	6.4	6.5	7.1	7.2	7.3			YES
AD 13300 (FINA P133) - Metalsmithing for Nonmajors	В	7	2.7	6.1	6.3	6.4	6.5	7.1	7.2	7.3			YES
AD 16500 (FINA S165) - Ceramics for Nonmajors	В	7	2.7	6.1	6.3	6.4	6.5	7.1	7.2	7.3	/		YES
AD 23900 (FINA S239) - Painting for Nonmajors	В	7	1.1	1.6	2.7	6.4	6.5	7.1	7.2	7.3	/		YES
ANTH 37001 (ANTH P370) - Ancient Cultures of South America	В	7	1.1	1.3	1.4	1.5	5.1	5.4	5.5	6.1	6.3	6.7	YES
ANTH 42100 (ANTH P421) - Moche Archaeology Seminar	В	7	1.3	1.4	1.5	2.1	2.5	5.1	5.2	5.4	6.1	6.2	YES
ANTH 42600 (ANTH B426) - Human Oseology	В	7	1.3	1.5	3.1	3.2	3.3	3.7	4.3	4.4	5.4	5.5	YES
ARET 12300 - Digital Graphics For Built Environment I	В	7	5.6	6.6	7.1	7.2	7.3				/		YES
ARET 21000 - Architecture and Urban Form	В	7	1.5	1.7	2.7	3.2	5.1	5.6	6.1	6.4	/		YES
ARET 22300 - Digital Graphics for Built Environment II	В	7	5.6	6.6	7.1	7.2	7.3						YES
ARET 22500 - Creative House Design	В	7	5.6	6.6	7.1	7.2	7.3						YES
ARET 31000 - Architecture and Urban Form in the Modern World	В	7	1.7	2.7	3.2	5.1	5.6	6.1	6.4				YES
BUS 10001 (BUS W100) - Principles of Business Administration	В	7	1.3	1.5	1.7	2.1	4.3	4.4	5.1	5.2	5.4	5.6	YES
CE 23600 - Introduction to Transportation Policy, Planning, and Implementation	В	7	3.1	3.2	3.3	3.5	4.4	4.6	5.1	5.4			YES
COM 21001 (JOUR J210) - Visual Communication	В	7	2.1	6.1	6.4	6.5	7.1	7.2	7.3				YES
CS 11200 - Survey of Computer Science	В	7	3.1	3.2	4.3	4.4	5.1	5.5	7.1	7.2	7.3		YES
DANC 39000 - Introduction To Dance	В	7	1.1	1.2	7.1	7.2	7.3				/		YES
EALC 10101 (EALC J101) - Elementary Japanese I	В	7	2.1	2.3	2.7	5.5	5.6	6.1	6.3		/		YES
EALC 10201 (EALC J102) - Elementary Japanese II	В	7	2.1	2.3	2.7	5.5	5.6	6.1	6.3				YES
EAPS 30000 (GEOG G300) - Environmental and Urban Geology	В	7	1.3	2.1	3.2	4.1	4.4	5.4	5.5				YES
EAPS 30500 (GEOG G305) - Geologic Fundamentals in Earth Science	В	7	1.3	2.1	3.2	4.1	4.4	5.4	5.5		/		YES
ENGL 10302 (ENG W103) - Introductory Creative Writing	В	7	1.1	1.2	1.6	6.5	7.1	7.2	7.3				YES
ENGL 20301 (ENG W203) VT - Creative Writing	В	7	1.6	6.1	6.4	6.5	6.7	7.1	7.2	7.3			YES
ENGL 20302 (ENG W203) VT - Fiction	В	7	1.6	6.1	6.4	6.5	6.7	7.1	7.2	7.3			YES
FNN 40300 - Advanced Nutrition: Food from Farm to Fork	В	7	1.5	2.4	2.5	4.2	4.3	4.6	5.4	5.6			YES
FR 11100 (FREN F111) - Elementary French I	В	7	2.1	2.3	2.7	5.5	5.6	6.1	6.3				YES
FR 11201 (FREN F112) - Elementary French II	В	7	2.1	2.3	2.7	5.5	5.6	6.1	6.3				YES
GEOG 31500 (GEOG G315) - Environmental Conservation	В	7	1.3	2.1	3.2	4.1	4.4	5.4	5.5				YES

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GER 11100 (GER G111) - Elementary German I	В	7	2.1	2.3	2.7	5.5	5.6	6.1	6.3	_			YES
GER 11201 (GER G112) - Elementary German II	В	7	2.1	2.3	2.7	5.5	5.6	6.1	6.3				YES
INTL 20000 (INTL 1200) - Introduction to International Studies: Emerging Global Visions	В	7	1.1	1.3	1.5	1.6	5.1	5.4	6.1	6.3			YES
INTR 33000 - Culture and Design: A Cross-Culture Comparison of Architecture	В	7	1.3	1.4	1.7	2.3	5.1	5.2	5.5	5.6	6.3	6.4	YES
LGBT 20000 - Introduction to Scholarship on Lesbian, Gay, Bisexual, and Transgender Issues	В	7	1.1	1.2	1.5	4.1	4.2	5.1	5.2	5.3	5.4	5.5	YES
LING 46000 (LING L360) - Language in Society	В	7	1.1	1.3	2.1	2.7	4.2	4.6	5.1	5.3			YES
MARS 20100 (MEST M201) - Medieval Encounters	В	7	1.1	1.3	2.1	5.4	5.5	6.1	6.3	6.4	6.7		YES
MUSC 14000 (MUS Z140) - Introduction to Musical Expression	В	7	6.4	6.5	7.1	7.2	7.3						YES
MUSC 15300 (MUSC L153) - Introduction to Music Therapy	В	7	1.7	5.4	5.5	7.1	7.2	7.3					YES
NELC 10000 (NELC A100) - Elementary Arabic I	В	7	2.1	2.3	2.7	5.5	5.6	6.1	6.3				YES
NELC 15000 (NELC A150) - Elementary Arabic II	В	7	2.1	2.3	2.7	5.5	5.6	6.1	6.3				YES
OLS 45400 - Gender and Diversity in Management	В	7	1.4	1.5	1.7	4.3	4.5	5.1	5.4	5.5	5.6		YES
PACS 20000 (PACS P200) - Introduction to Peace and Conflict Studies	В	7	1.1	1.5	1.6	5.1	5.4	5.5	5.6	6.3	6.6	6.7	YES
PHIL 12000 - Critical Thinking	В	7	1.3	1.5	1.7	2.4	2.5	4.1	4.2	5.2	6.1	6.2	YES
PHIL 15000 - Principles of Logic	В	7	3.1	3.2	3.3	3.4	3.7	3.8	4.2	4.3	6.2	6.3	YES
PHIL 27500 - The Philosophy of Art	В	7	1.1	1.3	1.4	1.7	5.2	5.5	6.1	6.3			YES
PHIL 32600 - Business Ethics	В	7	1.2	1.3	1.4	51.	5.6	6.3	6.4				YES
PHIL 35100 - Philosophy of Science	В	7	1.3	1.5	2.1	2.4	4.1	4.2	4.4	5.2	6.3	6.5	YES
PHIL 35200 - Topics in the History and Philosophy of Science	В	7	1.3	1.5	2.1	2.4	4.1	4.2	4.4	6.3	6.5	6.6	YES
PHIL 43500 - Philosophy of Mind	В	7	1.3	1.5	2.1	2.4	4.3	4.5	4.6	6.3	6.5	6.6	YES
PHIL 46500 - Philosophy of Language	В	7	1.3	1.5	2.1	2.4	5.1	5.2	5.6	6.3	6.5	6.6	YES
PHYS 13600 - Chaos and Fractals	В	7	1.3	3.1	3.2	4.1	4.5	5.1	5.2				YES
PHYS 25100 - Heat, Electricity and Optics	В	7	2.4	2.5	3.1	3.2	4.3	4.4	5.2	5.5			YES
PHYS 30200 - Puzzles, Strategy Games, and Problem Solving in the Physical Sciences	В	7	1.3	1.5	2.1	2.4	2.5	2.7	4.1	4.4	5.1	5.4	YES
POL 27500 (POLS Y275) - Politics and Film	В	7	1.1	1.3	1.5	1.7	5.1	5.4	5.5	6.3	6.5	6.6	YES
POL 30701 - Indiana State Government and Politics	В	7	1.1	1.5	2.5	2.6	5.1	5.4	6.1	6.3			YES
POL 28500 (POLS Y285) - Science and Politics	В	7	1.1	1.3	1.5	1.6	4.1	4.2	4.5	5.1	5.4	5.6	YES
PPOL 16200 (PPOL E162) - Environment and People	В	7	1.3	1.4	1.7	4.5	4.6	5.1	5.2	5.4	6.3	6.6	YES
PSY 42600 - Language Development	В	7	1.4	1.7	3.1	4.3	4.6	5.1	5.3				YES
PSY 44400 - Human Sexual Behavior	В	7	1.1	1.2	1.5	4.1	4.2	5.1	5.2	5.3	5.4	5.5	YES
REL 11200 - Religion and Culture	В	7	1.3	1.5	1.7	5.1	5.2	5.4	5.5	5.6	6.1	6.6	YES
REL 30000 - Religions of the Ancient World	В	7	1.2	1.4	2.1	5.1	5.3	6.2	6.3	6.4	6.5	6.7	YES
SOC 20900 (SOC S109) - Community and the Built Environment	В	7	1.3	1.7	2.7	5.5	5.6	6.1	6.7				YES
SOC 31401 (SOC S314) - Social Aspects of Health and Medicine	В	7	1.1	1.3	1.7	4.1	4.3	5.2	5.5				YES
SPAN 11101 (SPAN S111) - Elementary Spanish I	В	7	2.1	2.3	2.7	5.5	5.6	6.1	6.3				YES
SPAN 11201 (SPAN S112) - Elementary Spanish II	В	7	2.1	2.3	2.7	5.5	5.6	6.1	6.3				YES
SPAN 11300 (SPAN S113) - Accelerated First Year Spanish	В	7	2.1	2.3	2.7	5.5	5.6	6.1	6.3				YES
THTR 13400 - Fundamentals of Performance	В	7	1.1	1.2	1.5	2.7	7.1	7.2	7.3				YES
THTR 32510 - History of Modern Drama	В	7	1.1	1.3	2.1	5.1	5.6	6.1	6.5	十	$\vdash$	$\vdash$	YES

WOST 24000 (WOST W240) VT - Topics in Feminism	В	7	1.1	1.3	1.5	5.2	5.4	5.5	6.1	6.3	6.7	YES

# **Category C Courses: Capstone**

Students must earn a grade of C- or better in each course used to satisfy the Purdue University Fort Wayne general education requirements.

	General I	Education Courses											
Course Number and/or Title	Category	Competency	1	2	3	4	Outco 5	mes 6	7	8	9	10	Course Meets All Outcomes
AD 46700 - Entrepreneurship In The Arts	С	8	8.1	8.2	8.3	8.4							YES
ANTH 44501 (ANTH H445) - History and Theory in Anthropology	С	8	8.1	8.2	8.3	8.4							YES
BIOL 49100 - Senior Biology Seminar	С	8	8.1	8.2	8.3	8.4							YES
CE 48700 - Civil Engineering Design Project	С	8	8.1	8.3	8.2	8.4							YES
COM 31600 - Controversy in American Society	С	8	8.1	8.2	8.3	8.4							YES
COM 47100 - Communicating Peace	С	8	8.1	8.2	8.3	8.4							YES
CS 30600 - Computers in Society	С	8	8.1	8.2	8.3	8.4			Г				YES
CSD 40500 - Augmentative and Computer Application in Speech and Language	С	8	8.1	8.2	8.3	8.4							YES
EAPS 41000 (GEOL G410) - Undergraduate Research in Geology	С	8	8.1	8.2	8.3	8.4							YES
ECE 40500 - Senior Capstone Engineering Design I	С	8	8.1	8.2	8.3	8.4							YES
EDU 34600 (EDUC E346) - Discipline/Parenting for Young Children	С	8	8.1	8.3	8.2	8.4							YES
ENGL 37101 (ENG L371) - Critical Practice	С	8	8.1	8.2	8.3	8.4							YES
ENGL 42101 (ENG W421) - Technical Writing Projects	С	8	8.1	8.2	8.3	8.4							YES
ENGL 42202 (ENG W422) - Creativity and Community	С	8	8.1	8.2	8.3	8.4							YES
ENGR 41000 - Interdisciplinary Senior Engineering Design I	С	8	8.1	8.2	8.3	8.4							YES
HIST 30302 (HIST A303) VT - The United States from 1789 to 1865 1	С	8	8.1	8.2	8.3	8.4							YES
HIST 30502 (HIST H305) - The Cold War	С	8	8.1	8.2	8.3	8.4							YES
HIST 31002 (HIST D310) - Russian Revolutions and Soviet Regime	С	8	8.1	8.2	8.3	8.4							YES
HIST 31102 (HIST B311) - Holocaust and Modern Genocides	С	8	8.1	8.2	8.3	8.4							YES
HIST 35102 (HIST B351) - Western Europe in the Early Middle Ages	С	8	8.1	8.2	8.3	8.4							YES
HIST 35202 (HIST B352) VT - Western Europe in the High/Late Middle Ages	С	8	8.1	8.2	8.3	8.4							YES
HIST 36001 (HIST H360) - Atlantic World, 1400-1900	С	8	8.1	8.2	8.3	8.4							YES
HIST 38601 (HIST C386) - Greek History	С	8	8.1	8.2	8.3	8.4							YES
HIST 38801 (HIST C388) - Roman History	С	8	8.1	8.2	8.3	8.4							YES
MA 31400 - Introduction to Mathematical Modeling	С	8	8.1	8.2	8.3	8.4							YES
ME 48700 - Mechanical Engineering Design I	С	8	8.1	8.2	8.3	8.4				Π			YES
MUSC 41003 (MUS U410) - Creative Arts, Health, and Wellness	С	8	8.1	8.2	8.3	8.4							YES
MUSC 41800 (MUS L418) - Psychology of Music	С	8	8.1	8.2	8.3	8.4							YES
MUSC 46700 - Entrepreneurship In the Arts	С	8	8.1	8.2	8.3	8.4							YES
OLS 49600 - Leading Change: Theory and Practice	С	8	8.1	8.2	8.3	8.4							YES
PHIL 32900 Professional Ethics	С	8	8.1	8.2	83.	8.4							YES

PHIL 45100 - The Gödel Theorems: Their Logic and Applications	С	8	8.1	8.2	8.3	8.4			YES
PHYS 48001 - Senior Thesis I	С	8	8.1	8.2	8.3	8.4			YES
POL 30301 - Policy Making in the United States	С	8	8.1	8.2	8.3	8.4			YES
POL 31300 (POLS Y313) - Environmental Policy	С	8	8.1	8.2	8.3	8.4			YES
POL 32800 (POLS Y328) - Women and the Law	С	8	8.1	8.2	8.3	8.4			YES
POL 33101 - British Politics	С	8	8.1	8.2	8.3	8.4			YES
POL 33501 (POLS Y335) - Western European Politics	С	8	8.1	8.2	8.3	8.4			YES
POL 33900 (POLS Y339) - Middle Eastern Politics	С	8	8.1	8.2	8.3	8.4			YES
POL 35001 (POLS Y350) - Politics of the European Union	С	8	8.1	8.2	8.3	8.4			YES
POL 35501 (POLS Y355) - Ethnic Conflict and Nationalism	С	8	8.1	8.2	8.3	8.4			YES
POL 36001 (POLS Y360) - U.S. Foreign Policy	С	8	8.1	8.2	8.3	8.4			YES
POL 37500 (POLS Y375) - War and International Conflict	С	8	8.1	8.2	8.3	8.4			YES
POL 37600 (POLS Y376) - International Political Economy	С	8	8.1	8.2	8.3	8.4			YES
POL 39700 (POLS Y397) - Intervention, Peace, and War	С	8	8.1	8.2	8.3	8.4			YES
POL 40101 (POLS Y401) - Studies in Political Science	С	8	8.1	8.2	8.3	8.4			YES
PPOL 32000 (PPOL H320) - Health Systems Administration	С	8	8.1	8.2	8.3	8.4			YES
PPOL 41600 (PPOL H416) - Environmental Health Policy	С	8	8.1	8.2	8.3	8.4			YES
PPOL 43900 (PPOL J439) - Crime& Public Policy (HYBRID)	С	8	8.1	8.2	8.3	8.4			YES
PSY 33400 - Cross Cultural Psychology	C	8	8.1	8.2	8.3	8.4			YES
PSY 34500 - Psychology of Women	C	8	8.1	8.2	8.3	8.4			YES
PSY 35300 - Social and Personality Development in Children	C	8	8.1	8.2	8.3	8.4			YES
PSY 36200 - Human Development II: Adolescence	С	8	8.1	8.2	8.3	8.4			YES
PSY 36500 - Development of Gender Roles in Children	C	8	8.1	8.2	8.3	8.4			YES
PSY 36700 - Adult Development and Aging	C	8	8.1	8.2	8.3	8.4			YES
PSY 37100 - Death and Dying	С	8	8.1	8.2	8.3	8.4			YES
PSY 46000 - Advanced Abnormal Psychology	С	8	8.1	8.2	8.3	8.4			YES
THTR 37500 - Theatrical Composition	С	8	8.1	8.2	8.3	8.4			YES
THTR 46700 - Entrepreneurship In the Arts	C	8	8.1	8.2	8.3	8.4			YES
WOST 30100 (WOST W301) VT - International Perspectives on Women	С	8	8.1	8.2	8.3	8.4			YES

# **General Education Courses**

	General	Education Courses											
Course Number and/or Title	Category	Competency	1	2	3	4	Outco 5		7	8	9	10	Course Meets All Outcomes
ENGL 13100 - Reading, Writing, and Inquiry I	A	1	1.1	1.2	1.3	1.4	1.5	1.6	1.7				YES
ENG W140 - Elementary Composition Honors	A	1	1.1	1.2	1.3	1.4	1.5	1.6	1.7				YES
ENG W232 - Introduction To Business Writing	A	1	1.1	1.2	1.3	1.4	1.5	1.6	1.7	2.1	5.5		YES
ENG W233 - Intermediate Expository Writing	A	1	1.1	1.2	1.3	1.4	1.5	1.6	1.7				YES

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ENG W234 - Technical Report Writing	A	1	1.1	1.2	1.3	1.4	1.5	1.6	1.7	3.1	3.2	4.3	YES
GER 31100 - Traditions and Innovations in German Literature	A	1	1.1	1.2	1.3	1.4	1.5	1.6	1.7				YES
GER 32000 - Special Topics In German	A	1	1.1	1.2	1.3	1.4	1.5	1.6	1.7				YES
COM 11400 - Fundamentals of Speech Communication	A	2	2.1	2.2	2.3	2.4	2.5	2.6	2.7				YES
EALC C201 - Second-Year Chinese I	A	2	2.1	2.2	2.3	2.4	2.5	2.6	2.7				YES
EALC 20201 - Second-Year Chinese II	A	2	2.1	2.2	2.3	2.4	2.7						NO
EALC J201 - Second Year Japanese I	A	2	2.1	2.2	2.3	2.4	2.5	2.6	2.7				YES
EALC J202 - Second Year Japanese II	A	2	2.1	2.2	2.3	2.4	2.7						NO
FREN F203 - Second Year French I	A	2	2.1	2.2	2.3	2.4	2.5	2.6	2.7				YES
FREN F204 - Second Year French II	A	2	2.1	2.2	2.3	2.4	2.7						NO
GER G203 - Second Year German I	A	2	2.1	2.2	2.3	2.4	2.5	2.6	2.7				YES
GER G204 - Second-Year German II	A	2	2.1	2.2	2.3	2.4	2.7						NO
HIST 12500 - Great Debates: Introduction to Historical Communication	A	2	2.1	2.2	2.3	2.4	2.5	2.6	2.7				YES
NELC A200 - Intermediate Arabic I	A	2	2.1	2.2	2.3	2.4	2.5	2.6	2.7				YES
NELC A250 - Intermediate Arabic II	A	2	2.1	2.2	2.3	2.4	2.7						NO
SPAN S203 - Second-Year Spanish I	A	2	2.1	2.2	2.3	2.4	2.5	2.6	2.7				YES
SPAN S204 - Second-Year Spanih II	A	2	2.1	2.2	2.3	2.4	2.5	2.6	2.7				YES
THTR 11400 - Interpretation for Performance and Presentation	A	2	2.1	2.2	2.3	2.4	2.5	2.6	2.7				YES
ECON 20101 - Introduction to Microeconomics	A	3	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8			YES
IET 20500 - Applied Statistics for Engineering Technology	A	3	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8			YES
IET 35000 - Engineering Economy	A	3	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8			YES
MA 10100 - Mathematics for Elementary Teachers I	A	3	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8			YES
MA 15300 - Algebra and Trigonometry I	A	3	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8			YES
MA 15900 - Precalculus	A	3	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8			YES
MA 16500 - Analytic Geometry and Calculus I	A	3	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8			YES
MA 22700 - Calculus for Technology I	A	3	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8			YES
MA 22900 - Calculus for the Managerial, Social, and Biological Sciences I	A	3	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8			YES
PHIL 25200 - Intermediate Logic	A	3	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8			YES
PHYS 22300 - X-Ray Physics	A	3	3.1	3.2	3.3	3.4	3.5	3.6	4.1	4.2	4.3	4.4	NO
STAT 12500 - Communicating with Statistics	A	3	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8			YES
ANTH 20001 - Bioanthropology	В	4	1.5	3.1	3.3	4.1	4.2	4.3	4.4	4.5	4.6		YES
AST A100 - The Solar System / EAPS 12100 - Journey To Mars	В	4	3.1	4.1	4.2	4.3	4.4	4.5	4.6				YES
ASTR 26400 - Descriptive Astronomy: Stars And Galaxies	В	4	1.5	1.7	3.1	3.2	3.3	4.1	4.2	4.3	4.4	4.5	NO
BIOL 10000 - Introduction To The Biological World	В	4	1.3	4.1	4.2	4.3	4.4	4.5	4.6				YES
BIOL 12600 - Human Biology	В	4	1.7	4.1	4.2	4.3	4.6						NO
BIOL 25000 - Women and Biology	В	4	1.7	4.1	4.2	4.3	4.6						NO
BIOL 31700 - Addictions: Biology, Psychology and Society/PSY 31700 - Addictions: Biology, Psychology and Society	В	4	1.7	4.1	4.2	4.3	4.6						NO
BIOL 32700 - Biology Of Aging	В	4	1.1	1.3	1.5	1.7	4.1	4.2	4.3	4.4	4.5	4.6	YES

BIOL 31700 - Addictions: Biology, Psychology, And Society/PSY 31700 - Addictions: Biology, Psychology and Society	В	4	1.7	4.1	4.2	4.3	4.6						NO
CE 36500 - Environmental Engineering	В	4	4.1	4.2	4.3	4.4	4.5	4.6					YES
CHM 10400 - Living Chemistry	В	4	3.3	4.1	4.2	4.3	4.5	4.6					NO
CHM 11100 - General Chemistry	В	4	3.3	4.1	4.2	4.3	4.4	4.5	4.6				YES
CHM 11500 - General Chemistry	В	4	3.2	4.1	4.2	4.3	4.4	4.5	4.6				YES
CHM 12000 - Chemistry And Art	В	4	1.3	4.1	4.2	4.3	4.4	4.5	4.6				YES
FNR 10300 - Introduction to Environmental Conservation	В	4	1.3	4.1	4.2	4.3	4.5	4.6		П			NO
GEOG 10700 - Physical Systems of the Environment	В	4	3.1	4.1	4.2	4.3	4.4	4.5	4.6				YES
GEOG 10900 - Weather and Climate	В	4	3.1	4.1	4.2	4.3	4.4	4.5	4.6				YES
EAPS 10001 - General Geology	В	4	3.1	4.1	4.2	4.3	4.4	4.5	4.6	П			YES
HORT 10100 - Fundamentals of Horticulture	В	4	3.1	3.2	4.1	4.2	4.3	4.4	4.5	4.6			YES
NUTR 30300 - Essentials of Nutrition	В	4	1.7	3.1	4.1	4.2	4.3	4.4	4.5	4.6			YES
PHYS 10500 - Sound and Music	В	4	3.1	3.2	4.1	4.2	4.3	4.4	4.5	4.6			YES
PHYS 11500 - Introduction to Lasers	В	4	3.1	3.2	3.4	3.5	4.1	4.2	4.3	4.4	4.5	4.6	YES
PHYS 12000 - Physics of Sports	В	4	3.1	3.2	3.3	4.1	4.2	4.3	4.4	4.5			NO
PHYS 12500 - Light and Color	В	4	3.1	3.2	4.1	4.2	4.4	4.5		П			NO
PHYS 12700 - Physics for Computer Graphics and Animation	В	4	3.1	3.2	4.1	4.2	4.4	4.5					NO
PHYS 12900 - Physics of War	В	4	3.1	3.2	3.5	3.6	4.1	4.2	4.3	4.4			NO
PHYS 13100 - Concepts in Physics I	В	4	3.1	3.2	4.1	4.2	4.3	4.4	4.5				NO
PHYS 13500 - The First Three Minutes	В	4	1.5	1.7	3.1	3.2	4.1	4.2	4.4	4.5			NO
PHYS 15200 - Mechanics	В	4	3.1	3.4	3.5	3.6	4.1	4.2	4.3	4.4	4.5	4.6	YES
PHYS 21800 - General Physics	В	4	3.1	3.4	3.5	3.6	4.1	4.2	4.3	4.4	4.5	4.6	YES
PHYS 22000 - General Physics	В	4	3.1	3.4	3.5	3.6	4.1	4.2	4.3	4.4	4.5	4.6	YES
ANTH 10501 - Culture And Society	В	5	1.1	1.6	5.1	5.2	5.3	5.4	5.5	5.6	6.3	6.7	YES
ANTH 20002 - Language And Culture	В	5	1.1	1.2	5.1	5.2	5.3	5.4	5.5	5.6			YES
ANTH 20003 - Introduction To Prehistoric Archaeology	В	5	1.1	1.2	1.7	4.1	4.2	4.6	5.1	5.3	5.5	5.6	NO
COM 21200 - Approaches To The Study Of Interpersonal Communication	В	5	2.3	5.1	5.2	5.5	5.6			П			NO
COM 25000 - Mass Communication And Society	В	5	1.1	5.1	5.2	5.3	5.4	5.5					YES
COM 30300 - Intercultural Communication	В	5	1.3	5.1	5.2	5.3	5.4	5.5	5.6				YES
CDFS 25500 - Introduction To Couple And Family Relationships	В	5	1.3	1.4	1.6	1.7	5.1	5.2	5.3	5.4	5.5	5.6	YES
ECON 20000 - Fundamentals of Economics	В	5	3.1	5.1	5.2	5.3	5.4	5.5	5.6	П			YES
EDU 34001 - Education And American Culture	В	5	1.3	5.1	5.2	5.5	5.6	6.3	6.7				NO
GERN 23100 - Introduction to Gerontology	В	5	1.6	5.1	5.2	5.2	5.3	5.4	5.5	5.6			YES
HTM 10000 - Introduction to the Hospitality and Tourism Industry	В	5	2.7	5.1	5.4	5.5	5.6						NO
IET 10500 - Industrial Management	В	5	1.4	3.2	5.1	5.2	5.3	5.4	5.5	5.6			YES
LING 10300 - Introduction to the Study of Language	В	5	1.6	5.1	5.2	5.3	5.4	5.5	5.6				YES
ILCS 35000 - International Communication	В	5	1.1	1.3	1.7	2.1	2.3	2.5	5.1	5.4	5.5	5.6	NO
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OLS 26800 - Elements of Law	В	5	1.4	1.7	5.1	5.2	5.3	5.4	5.5	5.6	ı		YES
POL 10101 - Introduction to Political Science	В	5	1.1	1.3	1.5	1.7	ĺ	5.2		5.4	ĺ	5.6	YES
POL 10300 - Introduction to American Politics	В	5	1.1	1.3	1.5	5.1	5.2	5.3	5.4	5.5	5.6		YES
POL 10500 - Introduction to Political Theory	В	5	1.3	1.4	5.1	5.2	5.5	5.6	6.1	6.3	6.4	6.7	NO
POL 10700 - Introduction to Comparative Politics	В	5	1.1	1.3	1.5	5.1	5.2	5.3	5.4	5.5	5.6		YES
POL 10900 - Introduction to International Relations	В	5	1.1	1.3	1.5	5.1	5.2	5.3	5.4	5.5	5.6		YES
POL 20001 - Contemporary Political Topics	В	5	1.3	5.1	5.2	5.4	5.5		K				NO
POL 20300 - The Promise and Problems of Democracy	В	5	1.1	1.3	1.4	1.5	5.1	5.2	5.4	5.6	6.3	6.7	NO
POL 21200 - Making Democracy Work	В	5	1.1	1.3	1.5	2.1	5.1	5.2	5.3	5.4	5.5	5.6	YES
POL 25200 - Sports and Public Policy	В	5	1.1	1.3	1.5	5.1	5.2	5.3	5.4	5.5	5.6		YES
POL 30101 - Political Parties and Interest Groups	В	5	1.3	1.4	1.5	5.1	5.2	5.3	5.4	5.5	5.6		YES
POL 31900 - The United States Congress	В	5	1.2	1.3	1.5	5.1	5.2	5.3	5.4	5.5	5.6		YES
PSY 12000 - Elementary Psychology	В	5	3.1	4.1	4.2	4.3	5.1	5.2	5.3	5.4	5.5	5.6	YES
PSY 23500 - Child Psychology	В	5	1.7	4.2	4.3	4.5	5.1	5.2	5.3	5.4	5.5	5.6	YES
PSY 24000 - Introduction to Social Psychology	В	5	3.1	4.1	4.2	4.3	5.1	5.2	5.3	5.4	5.5	5.6	YES
PSY 33500 - Stereotyping and Prejudice	В	5	3.1	4.1	4.2	5.1	5.2	5.3	5.4	5.5	5.6		YES
PSY 35000 - Abnormal Psychology	В	5	3.1	5.1	5.2	5.3	5.4	5.5	5.6				YES
PSY 36900 - Development Across the Lifespan	В	5	3.1	4.2	4.3	4.5	5.1	5.2	5.3	5.4	5.5	5.6	YES
SOC 16101 - Principles of Sociology	В	5	1.4	1.5	1.7	5.1	5.2	5.3	5.4	5.5	5.6		YES
SOC 16300 - Social Problems	В	5	1.1	1.3	1.7	5.1	5.2	5.3	5.4	5.5	5.6		YES
SOC 31701 - Social Stratification	В	5	1.1	1.3	1.6	1.7	5.1	5.2	5.3	5.4	5.5	5.6	YES
SOC 32501 - Criminology	В	5	1.1	1.3	1.7	5.1	5.2	5.3	5.4	5.5	5.6		YES
SOC 36000 - Topics in Social Policy	В	5	1.1	5.1	5.2	5.3	5.4	5.5	5.6				YES
WOST 21000 - Introduction To Women's And Gender Studies	В	5	1.3	1.5	5.1	5.2	5.3	5.4	5.5	5.6	6.1	6.3	YES
COM 24800 - Introduction To Media Criticism and Analysis	В	6	1.3	1.5	1.7	6.1	6.2	6.3	6.4	6.5	6.6	6.7	YES
ENGL 10101 - Ancient And Medieval World Literature	В	6	1.3	1.5	6.1	6.2	6.3	6.4	6.5	6.6	6.7		YES
ENGL 20201 - Literary Interpretation	В	6	1.5	1.7	6.1	6.2	6.3	6.4	6.5	6.6	6.7		YES
ENGL 25001 - American Literature Before 1865	В	6	1.3	1.5	1.7	6.1	6.2	6.3	6.4	6.5	6.6	6.7	YES
ENGL 25100 - American Literature Since 1865	В	6	1.1	1.3	1.5	6.1	6.2	6.3	6.4	6.5	6.6	6.7	YES
FVS 10100 - Introduction to Film	В	6	1.1	1.7	6.1	6.2	6.3	6.4	6.5	6.6	6.7		YES
AD 10101 - Art Appreciation	В	6	1.2	1.4	1.7	6.1	6.2	6.3	6.4	6.5	6.6	6.7	YES
AD 11100 - History Of Art I: Prehistoric To Medieval	В	6	1.2	1.4	1.7	6.1	6.2	6.3	6.4	6.5	6.6	6.7	YES
AD 11201 - History Of Art II: Renaissance To Contemporary	В	6	1.2	1.4	1.7	6.1	6.2	6.3	6.4	6.5	6.6	6.7	YES
GER 37100 - Special Topics In Germanic Studies	В	6	1.5	6.1	6.2	6.3	6.4	6.5	6.6	6.7			YES
HIST 10501 - American History I	В	6	1.1	1.5	1.6	6.1	6.2	6.3	6.4	6.5	6.6	6.7	YES
HIST 10601 - American History II	В	6	1.3	1.5	5.5	6.1	6.2	6.3	6.4	6.5	6.6	6.7	YES
HIST 11300 - History of Western Civilization I	В	6	1.3	5.4	5.5	6.1	6.2	6.3	6.4	6.5	6.6	6.7	YES
HIST 11400 - History of Western Civilization II	В	6	1.3	1.5	5.5	6.1	6.2	6.3	6.4	6.5	6.6	6.7	YES
HIST 20101 - Russian Civilization I	В	6	1.1	1.3	5.5	6.1	6.2	6.3	6.4	6.5	6.6	6.7	YES
HIST H225 - Special Topics in History	В	6	1.3	1.5	5.5	6.1	6.2	6.3	6.4	6.5	6.6	6.7	YES

HIST 23200 - The World in the 20th Century	В	6	1.1	1.3	5.5	6.1	6.2	6.3	6.4	6.5	6.6	6.7	YES
•	В	6	1.1	1.3	1.5	1.6	6.1	6.3		6.5		0.7	NO
ILCS 20800 - International Cinema  MUSC 10101 - Music for the Listener	В	6	1.1	1.6	1.7	5.6	6.1	6.3		6.6	6.7		NO NO
MUSC 10500 - Traditions in World Music	В	6	1.1	1.6	1.7	6.1	6.2	6.3		6.5		6.7	YES
	В	6	1.5	1.7	6.1	6.3	6.4	6.5	6.7	0.0	0.0	0.7	NO NO
MUSC 20103 - History of Rock and Roll Music	В	6	1.5	1.7	6.1	6.3	6.4	6.5	6.7	Н		$\vdash\vdash$	NO NO
MUSC 39300 - History of Jazz	В		$\vdash$	Н	Н	6.1	6.2	6.3	_	<i>( =</i>	6.6	6.7	YES
PHIL 11000 - The Big Questions: Introduction to Philosophy		6	1.1	1.5	1.6	Н	6.2	_	_	6.5		6.7	-
PHIL 11100 - Introduction To Ethics	В	6	1.3	1.5	5.6 5.5	6.1	6.2	6.3		6.5 6.5		6.7	YES YES
PHIL 30100 - History of Ancient Philosophy				_	Щ	-				-		$\blacksquare$	
PHIL 30200 - History of Medieval Philosophy	В	6	1.3	1.5	5.5	6.1	6.2	6.3		6.5	6.6	6.7	YES
PHIL 30300 - History of Modern Philosophy	В	6	1.3	1.5	4.2	6.1	6.2	6.3		6.5	6.6	6.7	YES
PHIL 30400 - 19th Century Philosophy	В	6	1.3	1.5	5.1	6.1	6.2	6.3		6.5		6.7	YES
PHIL 31200 - Medical Ethics	В	6	1.3	1.5	5.6	6.1	6.2	6.3	6.4	6.5		6.7	YES
REL 23000 - Religions of the East	В	6	1.3	1.7	5.4	6.1	6.2	6.3	6.4	6.5	6.6	6.7	YES
REL 23100 - Religions of the West	В	6	1.1	1.6	5.5	6.1	6.2	6.3	6.4	6.5	6.6	6.7	YES
REL 30100 - Islam	В	6	1.3	1.5	5.5	6.1	6.2	6.3	6.4	6.5	6.6	6.7	YES
SPAN 27500 - Hispanic Culture and Conversation	В	6	1.3	6.1	6.2	6.3	6.4	6.5	6.6	6.7			YES
THTR 20100 - Theatre Appreciation	В	6	1.1	6.1	6.2	6.3	6.4	6.5	6.6	Щ			YES
WOST 22500 - Gender, Sexuality, and Popular Culture	В	6	1.3	5.4	5.5	6.1	6.2	6.3	6.4	6.5	6.6	6.7	YES
ANTH 42600 - Human Osteology	В	7	1.3	1.5	3.1	3.2	3.3	3.7	4.3	4.4	5.4	5.5	N/A
ANTH 37001 - Ancient Civilizations Of The Andes	В	7	1.1	1.3	1.4	1.5	5.1	5.4	5.5	6.1	6.3	6.7	N/A
ANTH 42100 - Moche Archaeology Seminar	В	7	1.3	1.4	1.5	2.1	2.5	5.1	5.2	5.4	6.1	6.2	N/A
ARET 12300 - Digital Graphics For Built Environment I	В	7	5.6	6.6	7.1	7.2	7.3						N/A
ARET 21000 - Architecture And Urban Form	В	7	1.5	1.7	2.7	3.2	5.1	5.6	6.1	6.4			N/A
ARET 22300 - Digital Graphics For Built Environment II	В	7	5.6	6.6	7.1	7.2	7.3						N/A
ARET 22500 - Creative House Design	В	7	5.6	6.6	7.1	7.2	7.3						N/A
ARET 31000 - Architecture And Urban Form In The Modern World	В	7	1.7	2.7	3.2	5.1	5.6	6.1	6.4				N/A
ASTR 36400 - Stars And Galaxies	В	7	1.5	3.1	3.2	3.3	3.4	4.3	4.4	4.5	5.1	5.4	N/A
BUS 10001 - Principles Of Business Administration	В	7	1.3	1.5	1.7	2.1	4.3	4.4	5.1	5.2	5.4	5.6	YES
CS 11200 - Computer Science For Everyone	В	7	3.1	3.2	4.3	4.4	5.1	5.5	7.1	7.2	7.3	П	N/A
DANC 39000 - Introduction To Dance	В	7	1.1	1.2	7.1	7.2	7.3			П			N/A
EALC 10100 - Elementary Chinese I	В	7	2.1	2.3	2.7	5.5	5.6	6.1	6.3	П			N/A
EALC 10200 - Elementary Chinese II	В	7	2.1	2.3	2.7	5.5	5.6	6.1	6.3				N/A
EALC 10101 - Elementary Japanese I	В	7	2.1	2.3	2.7	5.5	5.6	6.1	6.3	П			N/A
EALC 10201 - Elementary Japanese II	В	7	2.1	2.3	2.7	5.5	5.6	6.1	6.3	П		П	N/A
ENGL 19000 - Rhetorical Reading	В	7	1.1	1.3	1.5	1.7	5.2	5.4	6.2	6.3	6.4	6.6	N/A
ENGL 10302 - Introductory Creative Writing	В	7	1.1	1.2	1.6	6.5	7.1	7.2	7.3	П			N/A
ENGL 20301 - Creative Writing - Poetry	В	7	1.6	6.1	6.4	6.5	6.7	7.1	7.2	7.3		П	N/A
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AD 10801 - Introduction To Drawing for Non-Majors	В	7	1.1	1.6	2.7	6.4	6.5	7.1	7.2	7.3			N/A
AD 16500 - Ceramics for Non-Majors	В	7	2.7	6.1	6.3	6.4	6.5	7.1	7.2	7.3			N/A
AD 23900 - Painting For Non-Majors	В	7	1.1	1.6	2.7	6.4	6.5	7.1	7.2	7.3			N/A
NUTR 40300 - Advanced Nutrition: Food from Farm to Fork	В	7	1.5	2.4	2.5	4.2	4.3	4.6	5.4	5.6			NO
FR 11100 - Elementary French I	В	7	2.1	2.3	2.7	5.5	5.6	6.1	6.3				N/A
FR 11201 - Elementary French II	В	7	2.1	2.3	2.7	5.5	5.6	6.1	6.3				N/A
GEOG 31500 - Environmental Conservation	В	7	1.3	2.1	3.2	4.1	4.4	5.4	5.5	П		K	N/A
EAPS 30000 - Environmental And Urban Geology	В	7	1.3	2.1	3.2	4.1	4.4	5.4	5.5	П		K	N/A
EAPS 30500 - Geologic Fundamentals In Earth Science	В	7	1.3	2.1	3.2	4.1	4.4	5.4	5.5				N/A
GER 11100 - Elementary German I	В	7	2.1	2.3	2.7	5.5	5.6	6.1	6.3	П		K	N/A
GER 11201 - Elementary German II	В	7	2.1	2.3	2.7	5.5	5.6	6.1	6.3	П		K	N/A
INTL 20000 - Introduction to International Studies: Emerging Global Visions	В	7	1.1	1.3	1.5	1.6	5.1	5.4	6.1	6.3		K	N/A
COM 21001 - Visual Communication	В	7	2.1	6.1	6.4	6.5	7.1	7.2	7.3			K	N/A
LGBT 20000 - Introduction to Scholarship on Lesbian, Gay, Bisexual, and Transgender Issues	В	7	1.1	1.2	1.5	4.1	4.2	5.1	5.2	5.3	5.4	5.5	N/A
LING 46000 - Language in Society	В	7	1.1	1.3	2.1	2.7	4.2	4.6	5.1	5.3			N/A
MUSC 15300 - Introduction to Music Therapy	В	7	1.7	5.4	5.5	7.1	7.2	7.3					N/A
MUSC 14000 - Introduction to Musical Expression	В	7	6.4	6.5	7.1	7.2	7.3		/			/	N/A
NELC 10000 - Elementary Arabic I	В	7	2.1	2.3	2.7	5.5	5.6	6.1	6.3	П		i.	N/A
NELC 15000 - Elementary Arabic II	В	7	2.1	2.3	2.7	5.5	5.6	6.1	6.3	П		i.	N/A
OLS 45400 - Gender and Diversity in Management	В	7	1.4	1.5	1.7	4.3	4.5	5.1	5.4	5.5	5.6		N/A
PACS 20000 - Introduction to Peace and Conflict Studies	В	7	1.1	1.5	1.6	5.1	5.4	5.5	5.6	6.3	6.6	6.7	YES
PHIL 12000 - Critical Thinking	В	7	1.3	1.5	1.7	2.4	2.5	4.1	4.2	5.2	6.1	6.2	N/A
PHIL 15000 - Principles of Logic	В	7	3.1	3.2	3.3	3.4	3.7	3.8	4.2	4.3	6.2	6.3	N/A
PHIL 27500 - The Philosophy of Art	В	7	1.1	1.3	1.4	1.7	5.2	5.5	6.1	6.3			N/A
PHIL 35100 - Philosophy of Science	В	7	1.3	1.5	2.1	2.4	4.1	4.2	4.4	5.2	6.3	6.5	N/A
PHIL 35200 - Topics in the History and Philosophy of Science	В	7	1.3	1.5	2.1	2.4	4.1	4.2	4.4	6.3	6.5	6.6	N/A
PHIL 43500 - Philosophy of Mind	В	7	1.3	1.5	2.1	2.4	4.3	4.5	4.6	6.3	6.5	6.6	N/A
PHIL 46500 - Philosophy of Language	В	7	1.3	1.5	2.1	2.4	5.1	5.2	5.6	6.3	6.5	6.6	N/A
PHYS 13600 - Chaos and Fractals	В	7	1.3	3.1	3.2	4.1	4.5	5.1	5.2				N/A
POL 27500 - Politics and Film	В	7	1.1	1.3	1.5	1.7	5.1	5.4	5.5	6.3	6.5	6.6	N/A
POL 28500 - Science and Politics	В	7	1.1	1.3	1.5	1.6	4.1	4.2	4.5	5.1	5.4	5.6	N/A
PSY 42600 - Language Development	В	7	1.4	1.7	3.1	4.3	4.6	5.1	5.3	П		i.	N/A
PSY 44400 - Human Sexual Behavior	В	7	1.1	1.2	1.5	4.1	4.2	5.1	5.2	5.3	5.4	5.5	N/A
REL 11200 - Religion and Culture	В	7	1.3	1.5	1.7	5.1	5.2	5.4	5.5	5.6	6.1	6.6	N/A
REL 30000 - Religions of the Ancient World	В	7	1.2	1.4	2.1	5.1	5.3	6.2	6.3	6.4	6.5	6.7	N/A
SOC 20900 - Community and the Built Environment	В	7	1.3	1.7	2.7	5.5	5.6	6.1	6.7	П			N/A
SOC 31401 - Social Aspects of Health and Medicine	В	7	1.1	1.3	1.7	4.1	4.3	5.2	5.5	П			N/A
SPAN 11101 - Elementary Spanish I	В	7	2.1	2.3	2.7	5.5	5.6	6.1	6.3	П			N/A
SPAN 11201 - Elementary Spanish II	В	7	2.1	2.3	2.7	5.5	5.6	6.1	6.3	П			N/A
SPAN 11300 - Accelerated First Year Spanish	В	7	2.1	2.3	2.7	5.5	5.6	6.1	6.3	П			N/A

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THTR 13400 - Fundamentals of Performance	В	7	1.1	1.2	1.5	2.7	7.1	7.2	7.3				N/A
THTR 32510 - History of Modern Drama	В	7	1.1	1.3	2.1	5.1	5.6	6.1	6.5				N/A
WOST 24000 - Topics in Feminism	В	7	1.1	1.3	1.5	5.2	5.4	5.5	6.1	6.3	6.7		N/A
BIOL 49100 - Senior Biology Seminar	C	8	8.1	8.2	8.3	8.4							YES
CE 48700 - Civil Engineering Design Project	C	8	8.1	8.3	8.2	8.4							YES
COM 31600 - Controversy In American Society	C	8	8.1	8.2	8.3	8.4							YES
COM 47100 - Communicating Peace	C	8	8.1	8.2	8.3	8.4							YES
CS 30600 - Computers In Society	C	8	8.1	8.2	8.3	8.4							YES
CSD 40500 - Augmentative and Computer Applications in Speech and Language	C	8	8.1	8.2	8.3.	8.4							YES
ECE 40500 - Senior Engineering Design I	С	8	8.1	8.3	8.2	8.4			K				YES
ECE 40600 - Senior Engineering Design II	С	8	8.1	8.3	8.2	8.4			K				YES
EDU 34600 - Discipline/Parenting For Young Children	С	8	8.1	8.3	8.2	8.4			K				YES
ENGL 42101 - Technical Writing Projects	С	8	8.1	8.2	8.3	8.4							YES
ENGR 41000 - Interdisciplinary Senior Engineering Design I	C	8	8.1	8.2	8.3	8.4			K				YES
HIST 30302 - The United States from 1789 to 1865 I	C	8	8.1	8.2	8.3	8.4			K				YES
HIST 31102 - Holocaust and Modern Genocides	C	8	8.1	8.2	8.3	8.4		/	f			/	YES
HIST 35102 - Western Europe in the Early Middle Ages	C	8	8.1	8.2	8.3	8.4			/			/	YES
HIST 35202 - Western Europe in the High And Later Middle Ages	C	8	8.1	8.2	8.3	8.4		/	/			/	YES
HIST 38601 - Greek History	С	8	8.1	8.2	8.3	8.4				Г			YES
HIST 38801 - Roman History	C	8	8.1	8.2	8.3	8.4				Г			YES
HIST 31002 - Russian Revolutions and Soviet Regime	С	8	8.1	8.2	8.3	8.4		/	/			/	YES
HIST 36001 - Atlantic World, 1400-1900	C	8	8.1	8.2	8.3	8.4		<i>(</i>	f			/	YES
MA 31400 - Introduction to Mathematical Modeling	C	8	8.1	8.2	8.3	8.4				Г			YES
ME 48700 - Mechanical Engineering Design I	C	8	8.1	8.2	8.3	8.4				Г			YES
MUSC 41800 - Psychology of Music	C	8	8.1	8.2	8.3	8.4		/	/			/	YES
MUSC 41003 - Creative Arts, Health, and Wellness	C	8	8.1	8.2	8.3	8.4		/	/			/	YES
PHIL 45100 - The Gödel Theorems: Their Logic and Applications	C	8	8.1	8.2	8.3	8.4				Г			YES
PHYS 48001 - Senior Thesis I	C	8	8.1	8.2	8.3	8.4		/	/			/	YES
POL 32800 - Women and the Law	С	8	8.1	8.2	8.3	8.4		/	/			/	YES
POL 33501 - Western European Politics	С	8	8.1	8.2	8.3	8.4		/	/			/	YES
POL 33900 - Middle Eastern Politics	С	8	8.1	8.2	8.3	8.4		/	/			/	YES
POL 35001 - Politics of the Euoropean Union	C	8	8.1	8.2	8.3	8.4							YES
POL 35501 - Ethnic Conflict and Nationalism	С	8	8.1	8.2	8.3	8.4							YES
POL 36001 - U.S. Foreign Policy	C	8	8.1	8.2	8.3	8.4		/				/	YES
POL 37600 - International Political Economy	C	8	8.1	8.2	8.3	8.4			f			f	YES
POL 39700 - Intervention, Peace, and War	C	8	8.1	8.2	8.3	8.4		/				/	YES
POL 40101 - Studies in Political Science	C	8	8.1	8.2	8.3	8.4		/				/	YES
PSY 33400 - Cross Cultural Psychology	C	8	8.1	8.2	8.3	8.4				Г	Г		YES
PSY 34500 - Psychology of Women	C	8	8.1	8.2	8.3	8.4				Г	Т		YES

PSY 35300 - Social and Personality Development in Children	С	8	8.1	8.2	8.3	8.4					YES
PSY 36200 - Human Development II: Adolescence	С	8	8.1	8.2	8.3	8.4					YES
PSY 36500 - Development of Gender Roles in Children	С	8	8.1	8.2	8.3	8.4					YES
PSY 36700 - Adult Development and Aging	С	8	8.1	8.2	8.3	8.4					YES
PSY 37100 - Death and Dying	С	8	8.1	8.2	8.3	8.4					YES
PSY 46000 - Advanced Abnormal Psychology	С	8	8.1	8.2	8.3	8.4			K		YES
THTR 37500 - Theatrical Composition	С	8	8.1	8.2	8.3	8.4	/	h.	/	/	YES
WOST 30100 - International Perspectives on Women	С	8	8.1	8.2	8.3	8.4					YES

#### **Associate**

# **Chemical Methods (A.S.)**

Program: A.S.
Department of Chemistry
College of Arts and Sciences

Science Building 496 ~ 260-481-6289

The Associate of Science with a major in Chemical Methods program helps you prepare for a career as a chemical technician. Many industries have found it desirable to employ persons with a basic knowledge of chemistry. Such industries may be concerned with implementing or monitoring safe waste-disposal procedures, conducting standardized testing that uses routine chemical procedures, observing and measuring properties of materials following some type of compounding procedure, or recording data and making calculations that require some knowledge of chemistry. The A.S. with the major in Chemical Methods is a technical degree designed to meet such needs and is not recommended for students who wish to pursue a bachelor's program in Chemistry; however, it can serve as a second degree for another bachelor's degree program.

#### The Student Learning Outcomes:

#### · Mathematical and quantitative reasoning:

Students will be able to analyze, synthesize, and comprehend experimental and computational data describing the physical universe.

### • Classical and instrumental laboratory techniques: both analytical and synthetic:

Students will learn precise measuring techniques as well as careful and meticulous record keeping. They will master the use of a variety of modern instruments and will become proficient in fundamental organic synthetic methods.

#### · Individual and collaborative problem-solving:

The student will develop independent problem-solving skills as well as the ability to work collaboratively in a term environment.

#### · Summary of key concepts:

In the teaching of Chemistry from the point-of-view of various sub-disciplines, the following concepts form the core course content. It should be noted that courses offered by the Purdue University Fort Wayne Department of Chemistry will include, but are not limited to, the following points of emphasis:

#### · Analytical Chemistry

- -- Analytical methods (classical and instrumental)
- -- Sensitivity and detection limits
- -- Statistical treatment of data

#### · General Chemistry

- -- Semi-quantitative microscopic model of the physical universe based on macroscopic observations
- -- Terminology
- -- Periodic relationships
- -- Elementary computational skills
- -- Introductory laboratory skills

#### Organic Chemistry

- -- Chemical bonding and structure including valence bond and molecular orbital theories
- -- Reactivity, reaction mechanisms, and properties of the important functional groups
- -- Synthesis
- -- Spectroscopic determination of structure
- -- Material science and bio-organic chemistry

### **Program Delivery:**

• This program is available on-campus.

#### Declaring this Major:

· Declare this major within the Department of Chemistry.

#### **General Requirements:**

- · Degree Requirements
- General Education Requirements
- · College Requirements
- Overlapping Course Content
- · Academic Regulations

### **Program Requirements:**

Chemical Methods A.S. 2-Year Plan:

· A grade of C- or higher in each of the chemistry core courses.

To earn the A.S. with a major in Chemical Methods, you must fulfill the following requirements in addition to the General Requirements noted above:

### General Education Requirements: Credits 30

- · Click on the Purdue Fort Wayne General Education Requirements link above for details.
- Some majors may require particular General Education courses as specified in their program description. Up to six credits of approved General Education courses satisfying requirements in Area A and B, and three credits satisfying requirements in Area C, may originate in the major. A grade of C- or higher in each course, and an overall GPA of 2.0 is required to satisfy the Purdue Fort Wayne General Education Requirements.

## College of Arts and Sciences Requirements

- Click on the Purdue Fort Wayne College Requirements link above. See Requirements for the Associate of Science Degree.
- Writing and Communication:
- ENGL 13100 Reading, Writing, and Inquiry I Cr. 3.
- ENGL 23301 Intermediate Expository Writing Cr. 3.
- COM 11400 Fundamentals Of Speech Communication Cr. 3.

## Chemistry Core: Credits 20

- CHM 11500 General Chemistry Cr. 4.
- CHM 11600 General Chemistry Cr. 4.
- CHM 25400 Organic Chemistry Laboratory Cr. 1.
- CHM 25500 Organic Chemistry Cr. 3.
- CHM 25600 Organic Chemistry Cr. 3.
- CHM 25800 Organic Chemistry Laboratory Cr. 1.
- CHM 32100 Analytical Chemistry I Cr. 4.

or

- CHM 33300 Principles Of Biochemistry Cr. 3. and
- CHM 33500 Biochemistry Lab Cr. 1.

## Supporting Courses: Credits 14-15

- ENGL 23301 Intermediate Expository Writing Cr. 3.
- MA 22700 Calculus for Technology I Cr. 4.

or

• MA 22900 - Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.

- PHYS 21800 General Physics Cr. 4. and
- PHYS 21900 General Physics II Cr. 4.

or

- PHYS 22000 General Physics Cr. 4. and
- PHYS 22100 General Physics Cr. 4.

### **Electives Credits**

· Sufficient additional credits to bring the total to 60

Total Credits: 60

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

## Additional Course Use

Courses listed below may also be considered in meeting specific degree requirements.

CHM 25400 required, CHM 26500 accepted

CHM 25500 required, CHM 26100 accepted

CHM 25600 required, CHM 26200 accepted

CHM 25800 required, CHM 26600 accepted

CHM 32100 required, CHM 22400 accepted

CHM 33300 required, CHM 43300 and CHM 53300 accepted

MA 22700 or 22900 required, MA 16500 accepted

PHYS 21800 or PHYS 22000 required, PHYS 15200 accepted

PHYS 21900 or PHYS 22100 required, PHYS 25100 accepted

# **Electrical Engineering Technology (A.S.)**

Program: A.S. School of Polytechnic College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 205 ~ 260-481-4127

Electrical Engineering Technology is part of the School of Polytechnic. Electrical Engineering Technology (EET) prepares students for the application of engineering principles and technological developments for the creation of useful products and process in electrical and electronic systems. Similar to electrical engineering, EET deals with the implementation design, application, installation, manufacturing, operation or maintenance of electrical/electronic(s) systems.

#### **Program Educational Objectives:**

Upon completion of the Electrical Engineering Technology (A.S.) students will:

- Demonstrate fundamental and emerging mathematical, scientific, engineering, and technical skills necessary to function as an electrical, electronic, computer, or engineering technician.
- · Demonstrate knowledge, skills, and techniques in the building, testing, operation, and maintenance of electronic/computer systems.
- Demonstrate continuous learning, either on the job or in a B.S. degree program.
- Demonstrate communications skills necessary to function effectively as a member of an engineering team.

· Demonstrate an awareness of the social, ethical, and global impact of their work upon the profession and society.

#### Student outcomes for the degree are:

- an ability to apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve well-defined engineering problems appropriate to the discipline
- an ability to design solutions for well-defined technical problems and assist with the engineering design of systems, components, or processes appropriate to the discipline
- an ability to apply written, oral, and graphical communication in well-defined technical and non-technical environments; and an ability to identify and use appropriate technical literature
- · an ability to conduct standard tests, measurements, and experiments and to analyze and interpret the results; and
- · an ability to function effectively as a member of a technical team.

#### Accreditation:

- The Electrical Engineering Technology degree is accredited by the Engineering Technology Accreditation Commission of ABET, http://www.abet.org.
- The two-year A.S. Electrical Engineering Technology (EET) program is a combination of courses in electricity, electronics, computers, mathematics, science, and general academic areas. The program helps students prepare for employment as electrical/electronic or computer technicians, and provides knowledge in fields such as computer electronics, local area networking, industrial electronics, communication electronics, military electronics, automation, electronics servicing, and electrical power. Upon completion of the A.S. EET, all credits can be applied to B.S. EET.

#### **Program Delivery:**

 POLYTECHNIC programs emphasize practice-based learning via hands-on laboratory applications using state-of-the-art equipment. Some courses are available through online, distance, and hybrid learning, however many incorporate an on-campus laboratory element.

#### **Declaring This Major:**

Students interested in declaring Electrical Engineering Technology as their major may do so in one of two ways:

- · On their application when they first apply to the university.
- · After meeting with a faculty advisor, a change of major can be declared.

#### **General Requirements:**

- · Regulations, Policies, Rights, & Responsibilities
- General Education Requirements
- · Overlapping Course Content
- · Regulations, Policies, Rights, & Responsibilities

#### **Program Requirements:**

### Electrical Engineering Technology AS 2-Year Plan:

- Students must coplete all coures in the degree with a grade of C- or better.
- Student Responsibilities: You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair.
- · Transfer credit limits, see Academic Regulations above.
- General Education and Major courses as listed below.

### General Education Requirements: Credits 31

- ENGL 13100 Reading, Writing, and Inquiry I Cr. 3.
- COM 11400 Fundamentals Of Speech Communication Cr. 3.
- MA 15900 Precalculus Cr. 5.
- MA 22700 Calculus for Technology I Cr. 4.
- CHM 11100 General Chemistry Cr. 3.
- IET 10500 Industrial Management Cr. 3.
- PHYS 21800 General Physics Cr. 4. or
- PHYS 22000 General Physics Cr. 4.

B6 (Humanistic and Artistic Ways of Knowing) that meets ALL outcomes for that competency Cr.3 B7 (Interdisciplinary Ways of Knowing) Cr. 3

# Computer, Electrical & Information Technology Core Technical Courses: Credits 29

- ECET 10200 Electrical Circuits I Cr. 4. or
- CPET 10100 Electrical Circuits Cr. 4.

- · ECET 11100 Digital Circuits Cr. 4.
- ECET 11400 Introduction to Visual Basic Cr. 3.
- ECET 14600 Digital Circuits II Cr. 4.
- ECET 15200 Electrical Circuits II Cr. 4.
- ECET 20400 Analog Electronics II Cr. 4.
- ECET 29600 Electronic System Fabrication Cr. 2-3.
- CPET 19000 Problem Solving with MATLAB Cr. 1-4.

Total Credits: 60

#### Additional Course Use

- MA 153 and MA 154 Required, MA 159 acceptable
- MA 22700 required, MA 16500 accepted
- CHM 11100 required, CHM 11500 accepted
- PHYS 21800 or 22000 required, PHYS 15200 accepted
- · CPET 19000 required, ENGR 12800 accepted
- EPET 10200 and ECET 152 required, ECE 20100 + ECE 20200 + ECE 20700 accepted
- ECET 10200 required, CPET 10100 accepted

### Student Responsibility

All dual degree students are responsible for satisfying the graduation requirements specified for their selected programs. Thus, it is essential that they develop a thorough understanding of the required courses, academic policies, and procedures governing their academic career.

All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# **Industrial Engineering Technology (A.S.)**

Program: A.S. School of Polytechnic College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 221 ~ 260-481-6338

Industrial Engineering Technology is part of the School of Polytechnic. Industrial Engineering Technology (IET) prepares students for existing and emerging careers in improving the bottom-line of manufacturing and service industries. Industrial engineers solve the problems of industry by improving quality, productivity, and utilizing resources efficiently. The need for industrial engineers is growing, as companies adopt industrial engineering principles such as, six sigma and lean manufacturing, to survive in the competitive world.

### IET A.S. Program Objectives

- To prepare graduates with knowledge, technical, analytical, and managerial skills necessary to develop, implement, and improve integrated systems in manufacturing and service industries that include people, materials, equipment, information, and energy.
- To develop a respect for diversity and a knowledge of contemporary professional, societal, and global issues with an understanding of professional and ethical responsibilities.
- To prepare graduates for both immediate employment and continuation in the BS program.

### Student outcomes for the degree are as follows:

- an ability to apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve well-defined engineering problems
  appropriate to the discipline.
- an ability to design solutions for well-defined technical problems and assist with the engineering design of systems, components, or processes appropriate to the discipline.
- an ability to apply written, oral, and graphical communication in well-defined technical and non-technical environments; and an ability to identify and use appropriate technical literature
- · an ability to conduct standard tests, measurements, and experiments and to analyze and interpret the results.
- an ability to function effectively as a member of a technical team.

#### Accreditation:

The Industrial Engineering Technology degree is accredited by the Engineering Technology Accreditation Commission of ABET, http://www.abet.org.

#### **Program Delivery:**

POLYTECHNIC programs emphasize practice-based learning via hands-on laboratory applications using state-of-the-art equipment. Some courses are available through online, distance, and hybrid learning, however many incorporate an on-campus laboratory element.

#### **Declaring This Major:**

Students interested in declaring Industrial Engineering Technology as their major may do so in one of two ways:

- 1. On their application when they first apply to the university.
- 2. After meeting with a faculty advisor, a change of major can be declared.

#### **General Requirements:**

- 1. Degree Requirements
- 2. General Education Requirements
- 3. Overlapping Content
- 4. Academic Regulations

## **Program Requirements:**

Industrial Engineering Technology 2-Yr. Plan:

- Students must complete all courses earning grades of C- or better.
- Student Responsibilities: You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair.
- · Transfer credit limits, see Academic Regulations above.
- · General Education and Major courses as listed below.

## General Education Requirements

#### **Additional Required Technical Courses**

- MA 15900 Precalculus Cr. 5. or
- MA 15300 College Algebra Cr. 3. and
- MA 15400 Trigonometry Cr. 3.
- OLS 25200 Human Relations in Organizations Cr. 3. (or any approved Gen Ed B5 Elective)
- PHYS 21800 General Physics Cr. 4.
  - Gen Ed Elective Category B7 (Cr. 3)
- COM 11400 Fundamentals Of Speech Communication Cr. 3.
- ENGL 13100 Reading, Writing, and Inquiry I Cr. 3.
- PHIL 11100 Introduction To Ethics Cr. 3. (or any approved Gen Ed B6 Elective)

## Core and Concentration (Major) Courses

- ET 10600 Introduction to Engineering Technology Cr. 3.
- IET 10500 Industrial Management Cr. 3.
- · IET 20400 Techniques of Maintaining Quality Cr. 3.
- IET 20500 Applied Statistics for Engineering Technology Cr. 3.
- IET 22400 Production Planning and Control Cr. 3.
- $\bullet~$  IET 25700 - Ergonomics Cr. 3.
- IET 26700 Work Methods Design Cr. 3.
- IET 31000 Plant Layout and Material Handling Cr. 3.
- MET 10400 Technical Graphics Communications Cr. 3.
- · MET 18000 Materials and Processes Cr. 3.
- MET 22300 Introduction to Computer- Aided Modeling and Design Cr. 3.
- MET 33500 Basic Machining Cr. 3.

Total Credits: 60

### Additional Course Use

- MA 153 and MA 154 Required, MA 159 acceptable
- · PHYS 21800 required, PHYS 15200 accepted
- ET 10600 + MET 10400 + MET 22300 required, ENGR 12700+ENGR 12800+ME 16000 accepted
- MET 18000 required, ME 303000 + ME 30400 accepted
- PHIL 11100 required, any B6 General Education Elective accepted
- · OLS 25200 required, PSY 120000 accepted

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

## **Information Systems (A.S.)**

Program: A.S.

**Department of Computer Science** 

College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 125 ~ 260-481-6803

The Minor in Information Systems provides a fundamental background for students interested in designing, developing, and managing software for business/organization systems and applications.

#### **Student Learning Outcomes**

- Analyze a complex computing problem and apply principles of computing and other relevant disciplines to identify solutions
- Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline
- · Communicate effectively in a variety of professional contexts
- Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles
- · Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline
- Support the delivery, use, and management of information systems within an information systems environment.

#### **Program Delivery**

· On-campus and distance

#### **Declaring This Major**

· Procedure to declare major

#### **General Requirements:**

- · Degree Requirements
- General Education Requirements
- Overlapping Content
- Academic Regulations

This program is focused on fundamental computing courses in programming utilizing two programming languages for problem-solving solutions and the basic foundation courses in Information Systems. Additional focus is on the basic business knowledge courses as well as the use of information technology, such as SAP, in business management software, solutions and applications for the business process. All requirements may be applied to the B.S. program in Information Systems. Graduates of the A.S. program typically continue in the B.S. program, although they are qualified for employment opportunities in the computer field.

Program Requirements:
Information Systems (A.S.) 2-Yr Plan
General Education Requirements Credits: 30
General Education Requirements  Contact the Department of Computer Science for more information.
Category A: Foundational Intellectual Skills
1. Written Communication Credits: 6 Cr. Hrs.
<ul> <li>ENGL 13100 - Reading, Writing, and Inquiry I Cr. 3.</li> <li>ENGL 23401 - Technical Report Writing Cr. 3.</li> </ul>
2. Speaking and Listening Credits: 3
• COM 11400 - Fundamentals Of Speech Communication Cr. 3.
3. Quantitative Reasoning Credits: 3 Cr. Hrs.
• MA 15300 - College Algebra Cr. 3. or MA 15900 or a high math course:
Category B: Interdisciplinary or Creative Ways of Knowing
4. Scientific Ways of Knowing Credits: 3 Cr. Hrs.

General Education Requirements

- At least 3 credits in Category B Competency 4 meeting all outcomes. See the approved list of in approved courses on the Purdue Fort Wayne General Education Program
- 5. Social and Behavioral Ways of Knowing Credits: 6

General Education Requirements

- At least 3 credits in Category B Competency 5 meeting all outcomes. See the approved list of in approved courses on the Purdue Fort Wayne General Education Program web page.

  OLS 25200 recommended
- COM 30300 Intercultural Communication Cr. 3.

Note: COM 30300 - Intercultural Communication also satisfies Advanced Communication (Cr. 3.)

### 6. Humanistic and Artistic Ways of Knowing Credits: 3 Cr. Hrs.

#### General Education Requirements

- At least 3 credits in Category B Competency 6 meeting all outcomes. See the approved list of in approved courses on the Purdue Fort Wayne General Education Program
  web page
- PHIL 11100 recommended

#### 7. Interdisciplinary or Creative Ways of Knowing Credits: 3 Cr. Hrs.

#### General Education Requirements

- At least 3 credits in Category B Competency 7 meeting all outcomes. See the approved list of in approved courses on the Purdue Fort Wayne General Education Program web page
- BUS 10001 recommended

#### 8. General Education Electives Credits: 3 Cr. Hrs.

- · At least 3 credits in any Category B or A general education course
- CS 11200 recommended

## Core Requirements Credits: 19 Cr. Hrs.

- IST 14000 Introduction To Visual Programming Cr. 3.
- IST 16000 Foundation And Role Of Information Systems Cr. 3.
- IST 20300 Advanced Visual Programming Cr. 3.
- IST 26500 Enterprise Systems Cr. 3.
- IST 27000 Data And Information Management Cr. 3.
- CS 16000 Introduction To Computer Science I Cr. 4.

## Supporting Courses Credits: 6 Cr. Hrs.

• BUS 20100 - Principles Of Financial Accounting Cr. 3.

## One of the following Credits: 3

- ECON 20101 Introduction to Microeconomics Cr. 3. (recommended) OR
- ECON 20000 Fundamentals of Economics Cr. 3.

# Approved Elective Credits: 5

Any course(s) approved by the advisor

## **GPA Requirement**

You must satisfy the Purdue Fort Wayne and the College of Engineering, Technology, and Computer Science Cumulative GPA requirement for graduation.

## Academic Regulations

- · Only computer science courses in which you have earned a grade of C or better can be applied to the degree or used to satisfy prerequisites.
- Only courses with a grade of C- or better count to satisfy the Purdue Fort Wayne general education requirements.
- · A maximum of 10 credits with a grade of D will be accepted in non-CS courses.
- No credit toward graduation will be given for courses or sequences with overlapping content.

Total Credits: 60

### Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

#### Additional Course Use:

- IST 14000 required, CS 11400, ECET 11400, ITC 13000 accepted
- IST 16000 required, ITC 11000, BUS 32100 accepted
- · IST 20300 required, CS 20300 accepted
- · IST 26500 required, IST 36000 accepted
- · IST 27000 required, ITC 35000 accepted
- MA 15300 or MA 15900 required, MA 15400,16500, 16600, 22700, 22900 accepted

# **Mechanical Engineering Technology (A.S.)**

Program: A.S. School of Polytechnic College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 221 ~ 260-481-6338

Mechanical Engineering Technology is part of the School of Polytechnic. Mechanical Engineering Technology (MET) prepares students for the application of engineering principles and technological developments for the creation of useful products and/or production machinery. The MET program teaches you how to analyze and design machine systems used in many industries, including automotive, biomedical, aerospace, robotics, steelmaking, HVAC, consumer products and etc.

#### MET A.S. Program Objectives:

- To prepare graduates with knowledge, problem solving ability and hands-on skills to enter careers in installation, manufacturing, testing, evaluation, computer-aided design, or maintenance of basic mechanical systems.
- To develop a respect for diversity and a knowledge of contemporary professional, societal, and global issues with an understanding of professional and ethical responsibilities.
- To prepare graduates for both immediate employment and continuation in the BS program.

#### Student outcomes for the degree are as follows:

- an ability to apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve well-defined engineering problems
  appropriate to the discipline;
- an ability to design solutions for well-defined technical problems and assist with the engineering design of systems, components, or processes appropriate to the discipline;
- an ability to apply written, oral, and graphical communication in well-defined technical and non-technical environments; and an ability to identify and use appropriate technical literature
- an ability to conduct standard tests, measurements, and experiments and to analyze and interpret the results; and
- · an ability to function effectively as a member of a technical team.

#### Accreditation:

• The Mechanical Engineering Technology degree is accredited by the Engineering Technology Accreditation Commission of ABET, http://www.abet.org.

#### **Program Delivery:**

 POLYTECHNIC programs emphasize practice-based learning via hands-on laboratory applications using state-of-the-art equipment. Some courses are available through online, distance, and hybrid learning, however many incorporate an on-campus laboratory element.

#### **Declaring This Major:**

Students interested in declaring Mechanical Engineering Technology as their major may do so in one of two ways:

- 1. On their application when they first apply to the university.
- 2. After meeting with a faculty advisor, a change of major can be declared.

#### **General Requirements:**

- 1. Degree Requirements
- 2. General Education Requirements
- 3. Overlapping Content
- 4. Academic Regulations

## **Program Requirements:**

Mechanical Engineering Technology A.S. 2-Yr. Plan:

- Students must complete all courses earning grades of C- or better.
- Student Responsibilities: You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair.
- Transfer credit limits, see Academic Regulations above.
- · General Education and Major courses as listed below.

## General Education Requirements: Credits 30

General Education Requirements

### Category A - Foundational Intellectual Skills

- COM 11400 Fundamentals Of Speech Communication Cr. 3.
- ENGL 13100 Reading, Writing, and Inquiry I Cr. 3.
- MA 15900 Precalculus Cr. 5. or
- MA 15300 College Algebra Cr. 3. and
- MA 15400 Trigonometry Cr. 3.

### Category B4 - Scientific Ways of Knowing

- CHM 11100 General Chemistry Cr. 3. PHYS 21800 General Physics Cr. 4.

### Category B5 - Social and Behavioral Ways of Knowing

- IET 10500 Industrial Management Cr. 3.
- ECON 20000 Fundamentals of Economics Cr. 3.

• OLS 25200 - Human Relations in Organizations Cr. 3.

## Category B6 - Humanistic and Artistic Ways of Knowing

- \* Any B6 course approved by the MET program, including the following:
  - COM 24800 Introduction To Media Criticism and Analysis Cr. 3.
  - COM 21000 Debating Public Issues Cr. 3.

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• ENGL 25001 - American Literature Before 1865 Cr. 3.
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- ENGL 25100 American Literature Since 1865 Cr. 3.
- ENGL 20201 Literary Interpretation Cr. 3.
- ENGL 10101 Ancient And Medieval World Literature Cr. 3.
- ENGL 10201 Modern World Literature Cr. 3.
- FVS 10100 Introduction to Film Cr. 3.
- AD 10101 Art Appreciation Cr. 3.
- AD 11100 History Of Art I: Prehistoric To Medieval Cr. 3.
- AD 11201 History Of Art II: Renaissance To Contemporary Cr. 3.
- FOLK 10100 Introduction to Folklore Cr. 3.
- FOLK 11100 World Music And Culture Cr. 3.
- GER 37100 Special Topics In Germanic Studies Cr. 1-3.
- HIST 20101 Russian Civilization I Cr. 3.
- HIST 23200 The World in the 20th Century Cr. 3.
- HIST 10501 American History I Cr. 3.
- HIST 10601 American History II Cr. 3.
- HIST 11300 History of Western Civilization I Cr. 3.
- HIST 11400 History of Western Civilization II Cr. 3.
- MUSC 10101 Music for the Listener Cr. 3.

- MUSC 10101 Music for the Listener Cr. 3.

  MUSC 10500 Traditions in World Music Cr. 3.

  MUSC 20103 History of Rock and Roll Music Cr. 3.

  PHIL 30100 History of Ancient Philosophy Cr. 3.

  PHIL 30200 History of Medieval Philosophy Cr. 3.

  PHIL 30300 History of Modern Philosophy Cr. 3.

  PHIL 30400 19th Century Philosophy Cr. 3.

  PHIL 30500 Philosophical Theories of Feminism Cr. 3.

  PHIL 31200 Medical Ethics Cr. 3.

  PHIL 32700 Environmental Ethics Cr. 3.

- PHIL 32800 Ethics and Animals Cr. 3.
  PHIL 24000 Social and Political Philosophy Cr. 3.
- PHIL 11000 The Big Questions: Introduction to Philosophy Cr. 3.
- PHIL 11100 Introduction To Ethics Cr. 3.
  PHIL 11101 Contemporary Moral Problems Cr. 3.
  REL 23000 Religions of the East Cr. 3.
- REL 23100 Religions of the West Cr. 3.
- REL 30100 Islam Cr. 3
- SPAN 27500 Hispanic Culture and Conversation Cr. 3.
- THTR 20100 Theatre Appreciation Cr. 3.
- WOST 22500 Gender, Sexuality, and Popular Culture Cr. 3.

## Category B7 - Interdisplinary or Creative Ways of Knowing

- \* Any <u>B7 course</u> approved by the MET Program including the following: Cr. 3
  - ARET 12300 Digital Graphics For Built Environment I Cr. 3.
  - ARET 12300 Digital Graphics For Built Environment II Cr. 3.
     DANC 39000 Introduction To Dance Cr. 3.
     ENGL 10302 Introductory Creative Writing Cr. 3.

  - ENGL 20301 Creative Writing Poetry Cr. 3.
    AD 16500 Ceramics for Non-Majors Cr. 3.
  - AD 23900 Painting For Non-Majors Cr. 3.

  - AD 10801 Introduction To Drawing for Non-Majors Cr. 3.
     AD 13300 Metalsmithing Fundamentals for Non-Art Majors Cr. 3.
  - COM 21001 Visual Communication Cr. 3.
  - MUSC 14000 Introduction to Musical Expression Cr. 3.
  - MUSC 15300 Introduction to Music Therapy Cr. 3.
  - THTR 13400 Fundamentals of Performance Cr. 3.

### Core and Concentration (Major) Courses

- ET 10600 Introduction to Engineering Technology Cr. 3.
- ET 19000 Statics Cr. 3.
- ET 20000 Strength of Materials Cr. 3.
- MET 10400 Technical Graphics Communications Cr. 3.
   MET 18000 Materials and Processes Cr. 3.
- MET 22300 Introduction to Computer- Aided Modeling and Design Cr. 3.
- MET 33500 Basic Machining Cr. 3.

## Additional Required Technical Courses

- ECET 11400 Introduction to Visual Basic Cr. 3. or
- ITC 13000 Programming Fundamentals I Cr. 3.
- · IET 20400 Techniques of Maintaining Quality Cr. 3.
- IET 20500 Applied Statistics for Engineering Technology Cr. 3. or
- STAT 30100 Elementary Statistical Methods I Cr. 3.

Total: Credits 60

#### Additional Course Use

- · MA 153 and MA 154 Required, MA 159 acceptable
- CHM 11100 required, CHM 11500 accepted
- PHYS 21800 required, PHYS 15200 accepted
- ET 10600 + MET 10400 + MET 22300 required, ENGR 12700+ENGR 12800+ME 16000 accepted
- ET 19000 required, ME 25000 accepted
- ET 20000 required, MET 25200 accepted
- MET 18000 required, ME 303000 + ME 30400 accepted

### Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# Organizational Leadership (A.S.)

Program: A.S.

Department of Organizational Leadership College of Engineering, Technology, and Computer Science

Neff Hall 288 ~ 260-481-6420

#### The student learning outcomes for the degree are as follows:

- Students will show an awareness of the cultural context of organizations and demonstrate their ability to work with diverse others.
- Students will be able to design, lead and participate in a multi-disciplinary team environment.
- Students will demonstrate an understanding of the professional and ethical implications and responsibilities of leadership.
- Students will be able to communicate effectively in written, verbal and technological environments.
- Students will be able to engage in self-reflection for professional and personal development.

This program helps you prepare for leadership positions or for advancement in a wide variety of organizations. The A.S. with a major in organizational leadership is of particular benefit to individuals who already possess technical skills and work experience and to students who complete the program along with a bachelor's degree in a technical or behavioral-science area.

To earn the A.S. with a major in organizational leadership, you must satisfy the requirements of Purdue University Fort Wayne (Regulations) and the College of Engineering, Technology, and Computer Science, Department of Organizational Leadership (Colleges); earn a grade of C- or better in ENGL 13100, ENGL 23301, required General Education courses with a cumulative 2.0 GPA in this area, and each OL course with a 2.5 cumulative GPA in this area. Regardless if you are able to enroll in a course, you must obtain a C- or better before advancing into the next course that requires the prerequisite. A student must also complete the following requirements:

## **Program Requirements:**

Organizational Leadership A.S. 2-Yr. Plan:

General Education Requirements
Category A: Foundational Intellectual Skills
1. Written Communication Credits: 3
• ENGL 13100 - Reading, Writing, and Inquiry I Cr. 3.
2. Speaking and Listening Credits: 3
COM 11400 - Fundamentals Of Speech Communication Cr. 3.
3. Quantitative Reasoning Credits: 3
<ul> <li>MA 14000 - Practical Quantitative Reasoning Cr. 3. or</li> <li>MA 15300 - College Algebra Cr. 3.</li> </ul>
Category B: Interdisciplinary or Creative Ways of Knowing
4. Scientific Ways of Knowing Credits: 3
General Education Requirements
5. Social and Behavioral Ways of Knowing Credits: 6
<ul> <li>PSY 12000 - Elementary Psychology Cr. 3.</li> <li>SOC 16101 - Principles of Sociology Cr. 3.</li> </ul>
6. Humanistic and Artistic Ways of Knowing Credits: 3
General Education Requirements
7. Interdisciplinary or Creative Ways of Knowing Credits: 3

General Education Requirements

General Education Requirements Credits: 30

## General Education Requirement, Category A or B Credits: 6

Must take an additional 6 credits chosen from Category A or B of General Education Requirements.

#### OL Core Classes: Credits 15

- OLS 25200 Human Relations in Organizations Cr. 3.
- · OLS 26800 Elements of Law Cr. 3.
- OLS 27400 Applied Leadership Cr. 3.
- OLS 37500 Training Methods Cr. 3.
- OLS 37600 Human Resources Issues Cr. 3.

## Technical Support Requirements: Credits 15

- BUS 20000 Foundations Of Accounting Cr. 3. or
- BUS 20100 Principles Of Financial Accounting Cr. 3.
- ECON 20000 Fundamentals of Economics Cr. 3. or
- ECON 20101 Introduction to Microeconomics Cr. 3.
- ENGL 23301 Intermediate Expository Writing Cr. 3.
- OLS 28000 Computer Applications for Supervisors Cr. 3.
- OLS 32400 Advanced Word Processing, Desktop Publishing, Presentation Graphics Cr. 3. or
- · OLS 32600 Comprehensive Spreadsheet Concepts, Cr. 3. or
- OLS 32900 Comprehensive Database Management Concepts, Cr. 3. or
- CS 30600 Computers In Society Cr. 3.

## Special Academic Regulations for Organizational Leadership Degree Programs

To graduate with an OL A.S. degree, students must have a cumulative GPA of 2.0 or above and a major GPA of 2.5 or above. OL, business, and technical courses taken more than 10 years ago will not count towards your degree requirements.

If you have not registered for degree-applicable courses as a Purdue Fort Wayne OL major for two consecutive semesters (excluding summer), you must satisfy the degree requirements specified in the Purdue Fort Wayne catalog that includes your year of re-entry.

Total: Credits 60

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

### Additional Course Use:

Courses listed below may also be considered in meeting specific degree requirements:

MA 14000, 15300 required, MA 15400, 16500, 22900 accepted

### **Baccalaureate**

These programs are offered by Indiana University.

## Accounting (B.S.B.)

Program: B.S.B. - Accounting Department of Accounting

Richard T. Doermer School of Business

Neff Hall 350 ~ 260-481-6471

**Doermer School of Business Undergraduate Student Success Center** 

Neff Hall 366 ~ 260-481-6472

### Doermer School of Business Overview

#### The student learning outcomes for the degree are as follows:

- Upon completion of the Bachelor of Science in Business (B.S.B) Degree, students will:
- · Be able to integrate fundamental principles of business theory and practice.
- Be able to solve problems by modeling, analyzing data (qualitative and numeric), and using critical thinking skills.
- · Be able to understand the global and cultural implications of business decisions.
- · Be able to understand ethical considerations in business decision.
- · Be able to understand the relationship between the community and business.
- · Be able to demonstrate the effective communication and teamwork skills.
- · Be prepared for life-long learning in a dynamic environment.

The Bachelor of Science in Business (B.S.B.) program is accredited by The Association to Advance Collegiate Schools of Business (AACSB), which provides a voluntary mechanism of quality control. AACSB is the most prestigious business accrediting body in the nation. Only about one-quarter of all business schools in the nation possess this

Your initial courses are selected from introductory-level general education, business, and economics subjects. When you have qualified for admission to the B.S.B. program, additional opportunities are provided for in-depth studies in a variety of advanced business, management, and analytical subjects. These advanced studies help you prepare for positions of increasing executive responsibility in the business community.

At the time you are admitted to the B.S.B. program, you must declare a specialization in one of five majors: accounting, business economics, finance, management, or marketing.

#### Admission

Students are admitted as pre-business students until they have completed the specific pre-business requirements needed for admission to the Bachelor's degree program.

To be admitted to the B.S.B. program, applicants must have a cumulative GPA of 2.00 or higher and will have completed at least 45 credits that apply toward the degree, including the courses listed below. Within this course listing, successful applicants will have (1) a grade of C- or better in each course and (2) a GPA of 2.50 or better within

#### Courses Required for Admission to the B.S.B. Program

Course Number and Title		Credits
COM 11400	Fundamentals of Speech Communication	3
MA 22900	Calculus for the Managerial, Social, and Biological Sciences I	3
PSY 12000 <u>or</u> SOC 16101	Elementary Psychology or Principles of Sociology	3
BUS 10001	Principles of Business Administration	3
ENGL 23301	Intermediate Expository Writing	3
BUS 20401	Business Communication	3
BUS 10000	Introduction to College and Business Careers	1
BUS 20100	Principles of Financial Accounting	3
BUS 20101	Computers in Business	3
ECON 20101	Introduction to Microeconomics	3
BUS 20001	Business Degree Seminar	0

Three additional rules apply for admission to the B.S.B. program:

1. No more than 6 credits of these courses may be repeated, and no course may be repeated more than once.

- Both the original and the repeat grades earned in the above courses will be used to compute the admission GPA. This includes courses that you have taken or repeated at Purdue Fort Wayne and other Purdue campuses.
- 3. Students must earn a minimum of 300 points in the Passport to Success program, including at least two high impact events, before they can be admitted to any of the majors. Passport to Success is a program required of all business majors that emphasizes participation in activities outside the classroom. Details of the Passport to Success program may be found on the Doermer School of Business website.

#### Note:

Bachelor's degree programs in business are offered at other Purdue University campuses. Since admission and graduation requirements vary among these campuses, you must meet the admission and graduation requirements of the campus from which you intend to graduate.

#### **Enrollment in Business Courses Numbered 30100 and Above**

Unless you have met at least one of the following conditions, you are not permitted to enroll in a business course numbered 30100 or above:

- · You have been admitted to the B.S.B. program at Purdue Fort Wayne.
- · The course is a specified requirement for another bachelor's degree program or minor in which you are enrolled and you have completed all course prerequisites.
- · You have obtained written permission from the department through which the course is offered.

If you have enrolled and are not eligible, you will be withdrawn from the course.

**B.S.B. REQUIREMENTS** To earn the B.S.B., you must complete a minimum of 120 credits as specified below and obtain an overall cumulative GPA of at least 2.30. You must satisfy the requirements of Purdue Fort Wayne (see Regulations) and the Richard T. Doermer School of Business, including completion of the Passport to Success program, and earn a grade of C- or better in each BUS and ECON course. Developmental courses do not apply to degree requirements.

Your final consecutive 30 credits must be taken at Purdue Fort Wayne after you have been formally admitted to the B.S.B. program. Business majors may not count BUS, ECON or OLS courses towards their general education requirements (unless noted).

Special Academic Regulations for Students in Undergraduate Business Programs Following are the general policies and procedures for students enrolled in business undergraduate programs. In addition to the policies of Purdue Fort Wayne (see Regulations), these are intended to maintain the historically high academic standards of undergraduate business programs at Purdue Fort Wayne.

The Student's Responsibility You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

Academic Renewal Option The school participates in the Academic Renewal Option for eligible students returning to Purdue Fort Wayne after an absence of five or more years. (see Regulations)

Time Limit. To ensure that you will be professionally competitive with other members of your graduating class, you may complete the degree requirements specified in the catalog in effect at the time you were formally admitted to the degree program only if

- Progress toward your degree objective has been continuous. If you have not registered for degree-applicable courses as a Purdue Fort Wayne business major for a period
  of one calendar year, you will be considered as not progressing toward your original degree objective. Subsequently, if you qualify for re-entry to an undergraduate
  business program at Purdue Fort Wayne, you must satisfy the admission and degree requirements specified in the Purdue Fort Wayne catalog that includes your year of
  re-entry.
- No more than five years have elapsed since your admission to the business degree program. If more than five years have elapsed, your cumulative academic record will be reviewed by the appropriate business or economics department, and you will be required to meet the degree criteria specified in the current Purdue Fort Wayne catalog. This may result in your having to repeat those courses in which the original content is determined to be outdated.
- The necessary courses or degree programs are available. If the courses that were required at the time of your formal admission to the business degree program are no longer available, you must complete the current replacements for those courses. Should these newer courses require prerequisites you have not taken, you must also enroll for these prerequisites in the appropriate sequence.

Overlapping Courses You may not count toward graduation any courses or sequences considered to have overlapping content.

Academic Probation You are placed on academic probation whenever your semester or cumulative GPA at the end of any fall or spring semester falls below 2.0.

Repeat Limits To remain eligible for the B.S.B. program, a student may not retake any of the 30000 or 40000-level BUS or ECON courses more than twice. An appeal may be made by the student to the Undergraduate Policy Committee (UPC) in the case of extenuating circumstances.

Transfer Credit Generally, courses in basic business and economics subjects (10000-20000 level) will be accepted as equivalent if they are being transferred from regionally accredited institutions. Courses in advanced business and economics (30000-40000 level) will only be considered equivalent if they are from another business school accredited by The Association to Advance Collegiate Schools of Business (AACSB), were taken within the past five years, and were taken as a junior or senior class standing.

At least 50 percent of required business and economics courses must be completed at Purdue Fort Wayne in order for a B.S.B. degree to be awarded.

Credit by Examination Under very limited circumstances and subject to the following policies, you may be permitted to earn credit by means of a special examination:

- 1. In all cases, your eligibility for a credit examination; the type of examination; testing procedures, date, time, and location; and evaluation of your performance are the decision of the appropriate Purdue Fort Wayne business or economics department. The decision of the department is final.
- 2. Credits earned by examination cannot exceed 10 percent of your total degree requirements.
- 3. You may attempt an authorized credit examination only once.
- 4. Only those examination scores that equate to a C- grade or better will be considered. Only the grade P will be reported for credit earned by examination.

#### Bachelor of Science in Business with a major in Accounting

The accounting major provides you with academic preparation for careers in auditing, corporate accounting and management services, governmental and nonprofit organizations, public accounting, and taxation. In addition, it equips you with a management tool for intelligent analysis, prediction, decision making, and control.

Upon successfully completing the B.S.B. and accounting major requirements, you may be eligible to sit for various professional certification examinations. Students interested in sitting for these examinations should check with the Department of Accounting (Neff 350) for further information.

You are encouraged to inquire about accounting internships that may be available to you through the co-op program.

## **Program Requirements:**

Accounting 4-Year Plan

## General Education Requirements Credits: 33

A grade of C- or better is required in each course used to satisfy the Purdue Fort Wayne general education requirements.

## Category A: Foundational Intellectual Skills

- 1. Written Communication Credits: 3
  - ENGL 13100 Reading, Writing, and Inquiry I Cr. 3.
- 2. Speaking and Listening Credits: 3
  - COM 11400 Fundamentals Of Speech Communication Cr. 3.
- 3. Quantitative Reasoning Credits: 3
  - MA 22900 Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.

#### **Additional Course Use**

Courses listed below may also be considered in meeting specific degree requirements.

MA 22900 required, MA 16300, MA 16500, MA 22700 or MATH M119 accepted

## Category B: Ways of Knowing

#### 4. Scientific Ways of Knowing Credits: 3

Select one of the following:

- ANTH 20001 Bioanthropology Cr. 3.
- ASTR 10000 The Solar System Cr. 3.
- BIOL 10000 Introduction To The Biological World Cr. 3.
- BIOL 32700 Biology Of Aging Cr. 3.
- CHM 11100 General Chemistry Cr. 3. required lab
- CHM 11500 General Chemistry Cr. 4. required lab
- CHM 12000 Chemistry And Art Cr. 3.
- EAPS 10001 General Geology Cr. 3-5.
- EAPS 12100 Journey To Mars Cr. 3.
- NUTR 30300 Essentials of Nutrition Cr. 3.
- · GEOG 10700 Physical Systems of the Environment Cr. 3.
- GEOG 10900 Weather and Climate Cr. 3.
- HORT 10100 Fundamentals of Horticulture Cr. 3.
- · PHYS 10500 Sound and Music Cr. 3.
- PHYS 11500 Introduction to Lasers Cr. 3.
- PHYS 12000 Physics of Sports Cr. 3.
- PHYS 15200 Mechanics Cr. 5. required lab
- PHYS 21800 General Physics Cr. 4. required lab

- PHYS 22000 General Physics Cr. 4. required lab
- PHYS 22300 X-Ray Physics Cr 3.

Business majors are not required to take a lab class but if you choose to take a class with a required lab, you must complete the required lab. If you opt to take a science class that is not on the list above, then you will have to take another Scientific Ways of Knowing class as a general education elective that satisfies any missing outcomes.

#### 5. Social and Behavioral Ways of Knowing Credits: 3

Select one of the following:

- PSY 12000 Elementary Psychology Cr. 3. or
- SOC 16101 Principles of Sociology Cr. 3.

### 6. Humanistic and Artistic Ways of Knowing Credits: 3

• PHIL 11100 - Introduction To Ethics Cr. 3.

### 7. Interdisciplinary Ways of Knowing Credits: 6

Must complete

• BUS 10001 - Principles Of Business Administration Cr. 3.

and select one of the following:

- INTL 20000 Introduction to International Studies: Emerging Global Visions Cr. 3.
- LGBT 20000 Introduction to Scholarship on Lesbian, Gay, Bisexual, and Transgender Issues Cr. 3.
- · LING 46000 Language in Society Cr. 3.
- OLS 45400 Gender and Diversity in Management Cr. 3.
- PACS 20000 Introduction to Peace and Conflict Studies Cr. 3.
- PPOL 16200 Environment and People Cr. 3.
- REL 11200 Religion and Culture Cr. 3.
- SOC 20900 Community and the Built Environment Cr. 3.
- WOST 24000 Topics in Feminism Cr. 3.
- EALC 10101 Elementary Japanese I Cr. 4.
- EALC 10201 Elementary Japanese II Cr. 4.
- FR 11100 Elementary French I Cr. 3. • FR 11201 - Elementary French II Cr. 3.
- GER 11100 Elementary German I Cr. 3.
- GER 11201 Elementary German II Cr. 3.
- NELC 10000 Elementary Arabic I Cr. 3.
- NELC 15000 Elementary Arabic II Cr. 3.
- SPAN 11101 Elementary Spanish I Cr. 3.
  SPAN 11201 Elementary Spanish II Cr. 3.
- SPAN 11300 Accelerated First Year Spanish Cr. 3.

### Category C: Capstone

#### 8. Capstone Experience Credits: 3

General Education Requirements

### General Education Electives Credits: 6

General Education Requirements

## DSB Additional Requirements Credits: 6

You must earn a grade of C- or better in each of the following courses:

- ENGL 23301 Intermediate Expository Writing Cr. 3.
- BUS 20401 Business Communication Cr. 3.

### Business and Economics Core Credits: 46

You must earn a grade of C- or better in each of the following courses:

#### **Business Principles Credits: 13**

- BUS 10000 Introduction To College And Business Careers Cr. 1.
- BUS 20100 Principles Of Financial Accounting Cr. 3.
- BUS 20200 Principles Of Managerial Accounting Cr. 3.
- BUS 20101 The Computer In Business Cr. 3
- BUS 20300 Commercial Law I Cr. 3.
- BUS 20001 Business Degree Seminar Cr. 0.

### **Economics Principles Credits: 9**

- ECON 20101 Introduction to Microeconomics Cr. 3.
- ECON 20201 Introduction to Macroeconomics Cr. 3.
- ECON 27000 Introduction to Statistical Theory in Economics and Business I Cr. 3.

Courses listed below may also be considered in meeting specific degree requirements.

ECON 27000 required, STAT 30100, STAT 51100 accepted

### Management Processes Credits: 15

A student may not retake any of the 30000-40000 level BUS or ECON courses more than twice. An appeal may be made by the student to the Undergraduate Policy Committee (UPC) in the case of extenuating circumstances.

- BUS 30100 Financial Management Cr. 3.
- BUS 30101 Introduction To Marketing Cr. 3.
- BUS 30102 Operations Management Cr. 3.
- BUS 30200 Management And Behavior In Organizations Cr. 3
- BUS 32100 Management Of Information Systems Cr. 3.

## Management Policy and Strategy Credits: 9

- BUS 40400 Social, Legal, And Ethical Implications Of Business Decisions Cr. 3.
- BUS 43000 Organizations And Organizational Change Cr. 3.
- BUS 40100 Administrative Policy Cr. 3.
- BUS 40000 Business Senior Seminar Cr. 0-3.

A grade of P' will be posted for BUS 40000 when a student successfully earns all of the Passport to Success points required for graduation.

## Accounting Major Requirements Credits: 24

A student may not retake any of the 30000-40000 level BUS or ECON courses more than twice. An appeal may be made by the student to the Undergraduate Policy Committee (UPC) in the case of extenuating circumstances.

You must earn a grade of C- or better in each of the following courses:

- BUS 31100 Intermediate Accounting I Cr. 3.
- BUS 31200 Intermediate Accounting II Cr. 3.
- BUS 31700 Computer-Based Accounting Systems Cr. 3.
- BUS 32500 Cost Accounting Cr. 3.
- BUS 32800 Introduction To Taxation Cr. 3.
- BUS 42400 Auditing & Assurance Services Cr. 3.

### Accounting Electives

#### Choose two of the following:

- BUS 31800 Fraud Examination I Cr. 3. \*\*
- BUS 33100 Taxation Of Business Entities Cr. 3. \*
- BUS 42200 Advanced Financial Accounting Cr. 3. \*
- BUS 43700 Advanced Management Accounting Cr. 3. \*\*
- BUS 44100 Special Topics In Assurance Services Cr. 3. \*
- BUS 49000 Independent Study In Accounting Cr. 1-3.

NOTE: BUS 49000 is a topics course and may be taken more than once, with different topics.

\*NOTE: The faculty recommends that students take the three single asterisked (\*) courses if they plan on taking the CPA exam or working in public accounting. Two of these courses can count as accounting electives. The third course could count as a free elective to reach the total of 120 required hours for the Bachelor of Science in Business degree.

\*\*NOTE: The faculty recommends that students take the two double asterisked (\*\*) course if they plan on working in the corporate accounting sector. These two courses can count as accounting electives.

Free Electives: 11 Credits

11 credits from either business or non-business courses to complement your professional and educational objectives, and bring your degree total to at least 120 credits.

Total Credits: 120

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

## **Actuarial Science (B.S.A.S.)**

Program: B.S.A.S. Department of Mathematical Sciences College of Arts and Sciences

Kettler Hall 200 ~ 260-481-6821

Programs leading to the Bachelor of Science in Actuarial Science help you prepare for employment in business and industry, or study for advanced degrees.

#### **Student Learning Outcomes:**

Upon completion of this degree, students will:

- have sufficient preparation in calculus, linear algebra, probability, statistics, financial mathematics, and financial economics to pass the preliminary Actuarial Science examinations (P, FM, IFM)
- obtain VEE credit from the Society of Actuaries in Economics, Accounting & Finance, and Mathematical Statistics

#### **Program Delivery:**

· This program is available on-campus

#### Declaring this Major:

· Declare this major within the Department of Mathematical Sciences

#### **General Requirements:**

- · Degree Requirements
- · General Education Requirements
- · College Requirements
- · Overlapping Course Content
- · Academic Regulations

To earn a Bachelor's Degree in Actuarial Science, you must fulfill the following requirements in addition to the General Requirements noted above:

## Program Requirements:

Actuarial Science 4-Year Plan

- · A GPA of 2.00 or higher for all department courses taken for the major with at most one passing grade less than 1.50 in courses used to fulfill the major requirements
- Of the mathematics courses numbered below 26100, only MA 16500, MA 16600, and MA 17500 apply toward a mathematics major
- Statistics courses must be numbered 49000 or higher to count toward a mathematics major

### General Education Requirements: Credits 33

- · Click on the Purdue Fort Wayne General Education Requirements link above for details.
- Some majors may require particular General Education courses as specified in their program description. Up to six credits of approved General Education courses satisfying requirements in Area A and B, and three credits satisfying requirements in Area C, may originate in the major. A grade of C- or higher in each course, and an overall GPA of 2.0 is required to satisfy the Purdue Fort Wayne General Education Requirements.

## College of Arts and Sciences Requirements

• Click on the Purdue Fort Wayne College Requirements link above. Go to Arts and Sciences Requirements for the Bachelor of Science Degree

#### English Writing and Speaking: Credits 6

- See Part A in Arts and Sciences Requirements for the Bachelor of Science Degree for Speaking Requirement
- ENGL 23301 Intermediate Expository Writing Cr. 3.

(or other approved writing course)

### International Language: Credits 6-8

• See Part B in Arts and Sciences Requirements for the Bachelor of Science Degree

### Core and Concentration (Major) Courses

### Student Success Seminar: Credit 1

• MA 19000 - Topics In Mathematics For Undergraduates Cr. 1-5.

### Basic Mathematics Core: Credits 18

Must earn a grade of C- or higher in the following courses:

- MA 16500 Analytic Geometry and Calculus I Cr. 4.
- MA 16600 Analytic Geometry and Calculus II Cr. 4.
- MA 26100 Multivariate Calculus Cr. 4.
- MA 35100 Elementary Linear Algebra Cr. 3.
- MA 36300 Differential Equations Cr. 3.

### Actuarial Exams: Credits 18 + 6 recommended

### **EXAM FM: (Financial Mathematics)**

- · MA 27300 Financial Mathematics Cr. 3.
  - o MA 27302 Financial Math Practicum Cr. 1 optional but recommended

### EXAM IFM: (Investments & Financial Markets)

- BUS 30500 Intermediate Corporate Finance Cr. 3.
- STAT 47301 Introduction To Arbitrage-Free Pricing Of Financial Derivatives Cr. 3.

## EXAM P: (Probability)

- STAT 49000 Topics in Statistics for Undergraduates Cr. 1-5. taken as: Exam P Practicum Cr.1. optional but recommended
- STAT 51600 Basic Probability and Applications Cr. 3.

#### EXAM SRM: (Statistics for Risk Modeling)

- STAT 49000 Topics in Statistics for Undergraduates Cr. 1-5. taken as: Introduction to Statistical Computing with R Cr.1 optional but recommended
- STAT 51200 Applied Regression Analysis Cr. 3.
- STAT 51800 Introduction To Statistical Learning Cr. 3 optional but recommended
- STAT 52000 Time Series And Applications Cr. 3.

## Validation by Educational Experience (VEE): Credits 15

- · A grade of B- or higher in the following STAT, ECON, and BUS courses is required to receive VEE credit from the Society of Actuaries.
- NOTE: A grade of C- or higher is required in these courses for graduation, but you will <u>not</u> receive VEE credit from the Society of Actuaries with less than a B- grade in each.

#### **VEE Mathematical Statistics:**

• STAT 51700 - Statistical Inference Cr. 3.

### **VEE Economics:**

- ECON 20101 Introduction to Microeconomics Cr. 3.
- ECON 20201 Introduction to Macroeconomics Cr. 3.

## VEE Accounting & Finance:

- BUS 20100 Principles Of Financial Accounting Cr. 3.
- BUS 30100 Financial Management Cr. 3.

## Additional Required Courses: Credits 6

#### Must earn a C- or higher in each course:

- CS 11400 Introduction To Visual Programming Cr. 3.
   STAT 51100 Statistical Methods Cr. 3.

### Science Courses: Credits 7

Choose two science courses from the list below; one of the courses chosen must include a lab. Check with the Department of Mathematical Sciences for updates to this

## Astronomy

- ASTR 26400 Descriptive Astronomy: Stars And Galaxies Cr. 3.
- ASTR 36400 Stars And Galaxies Cr. 3.
- ASTR 40100 Introduction To Astrophysics Cr. 3.

### Biology

- ANTH 20001 Bioanthropology Cr. 3.
- BIOL 10000 Introduction To The Biological World Cr. 3.
- BIOL 10001 Introduction To The Biological World Laboratory Cr. 1.
- BIOL 11700 Principles Of Ecology And Evolution Cr. 4.
- BIOL 11900 Principles Of Structure And Function Cr. 4.
- BIOL 12600 Human Biology Cr. 3.
- BIOL 12700 Introduction To Human Diseases Cr. 3.
- BIOL 14000 Marine Biology Cr. 3.
- BIOL 19500 Special Assignments Cr.0-4.
  - a BIOL course at the 2000+ level or higher

## Chemistry

- CHM 10200 Lectures In Chemical Science for Engineers Cr. 3.
- CHM 11100 General Chemistry Cr. 3. (credit given for CHM 11100 or CHM 11500)
- CHM 11200 General Chemistry Cr. 3.
- CHM 11500 General Chemistry Cr. 4. (credit given for CHM 11100 or CHM 11500)
- CHM 11600 General Chemistry Cr. 4.

### Earth, Atmospheric, and Planetary Sciences

- EAPS 10001 General Geology Cr. 3-5.
- EAPS 10300 Earth Science: Materials And Processes Cr. 3.
- EAPS 10401 Earth Science: Evolution Of The Earth Cr. 3.
- EAPS 11301 Directed Study in Earth Science Cr. 1-2.
  - o an EAPS course at the 2000+ level or higher

### Geography

- GEOG 10700 Physical Systems of the Environment Cr. 3.
- GEOG 10900 Weather and Climate Cr. 3.
- GEOG 23700 Mapping Our World Cr. 3.
- GEOG 31500 Environmental Conservation Cr. 3-5.

### **Physics**

- PHYS 12700 Physics for Computer Graphics and Animation Cr. 3.
- PHYS 15200 Mechanics Cr. 5.
  - a PHYS course at the 2000+ level or higher

#### General Electives

· Sufficient additional credits to bring the total to 120.

Total Credits: 120

### Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

## Summer Internships

It is recommended that all students participate in a summer internship. These are offered on a competitive basis and are not guaranteed. Good internships tend to pay well and provide valuable experience that future employers look for in a good job candidate. Completion of at least one actuarial exam is helpful in acquiring a summer internship.

## Anthropology (B.A.)

Program: B.A.
Department of Anthropology and Sociology
College of Arts and Sciences

Kettler Hall G11A ~ 260-481-6272

Courses in anthropology provide an understanding of the nature of cultures and help you assess various explanations of human behavior. They also assist in the development of analytical and critical abilities. The curriculum is structured to include studies in the history and theory of anthropology in four anthropological fields: ethnology, archeology, bioanthropology, and linguistics; in at least two different world ethnographic areas; and in topical specializations. This program helps you prepare for graduate study, for teaching, and for careers in which the understanding of cultures is an asset.

Although a minor is not required for the Bachelor's degree in Anthropology, an outside concentration is recommended. Fifteen credits in history, political science, psychology, or sociology support the concentration.

#### **Student Learning Outcomes:**

Upon completion of this degree, students will:

- · Achieve familiarity with different cultures in at least two regions of the world
- · Know the major anthropological approaches to understanding the human condition
- · Be able to explain societies in a holistic manner
- · Achieve competency in writing
- · Demonstrate critical thinking
- · Acquire quantitative skills for analysis
- · Demonstrate a willingness to engage learning and scholarship as a life-long endeavor

#### **Program Delivery:**

· This program is available on-campus.

#### Declaring this Major:

• Declare this major within the Department of Anthropology and Sociology

#### **General Requirements:**

- · Degree Requirements
- · General Education Requirements
- · College Requirements
- · Overlapping Course Content
- Academic Regulations

### **Program Requirements:**

#### Anthropology 4-Year Plan

- · A grade of C- or higher in all department courses required for the major and an overall GPA of 2.00 or higher for all courses required in the major.
- ENGL 20201 does not satisfy the writing requirement for the BA in Anthropology.

To earn the B.A. with a major in Anthropology, you must fulfill the following requirements in addition to the General Requirements noted above:

## General Education Requirements: Credits 33

- Click on the Purdue Fort Wayne General Education Requirements link above for details.
- Some majors may require particular General Education courses as specified in their program description. Up to six credits of approved General Education courses satisfying requirements in Area A and B, and three credits satisfying requirements in Area C, may originate in the major. A grade of C- or higher in each course, and an overall GPA of 2.0 is required to satisfy the Purdue Fort Wayne General Education Requirements.

## College of Arts and Sciences Requirements

• Click on the Purdue Fort Wayne College Requirements link above for details. Go to Requirements for the Bachelor of Arts Degree.

## English Writing and Speaking: Credits 6

- See Part A in Arts and Sciences Requirements for the Bachelor of Arts Degree for Speaking requirement.
- ENGL 23301 Intermediate Expository Writing Cr. 3.

01

• ENGL 23401 - Technical Report Writing Cr. 3.

(or see Additional Course Use section below)

### International Language: Credits 12-14

• See Part B in Arts and Sciences Requirements for the Bachelor of Arts Degree.

#### Distribution: Credits 9

- See Part C in Arts and Sciences Requirements for the Bachelor of Arts Degree
- · Choose courses other than ANTH

#### Cultural Studies: Credits 6

• See Part D in Arts and Sciences Requirements for the Bachelor of Arts Degree.

# Core and Concentration (Major) Courses:

#### Required Courses: Credits 19

- ANTH 10005 Anthropology And Sociology Student Success Seminar Cr. 1.
- ANTH 10501 Culture And Society Cr. 3.
- · ANTH 20001 Bioanthropology Cr. 3.
- ANTH 20002 Language And Culture Cr. 3.
- ANTH 20003 Introduction To Prehistoric Archaeology Cr. 3.
- ANTH 44501 History And Theory Of Anthropology Cr. 3.
- STAT 30100 Elementary Statistical Methods I Cr. 3.

### Group A Regional Ethnography Credits: 6

- · Choose two courses from the following list:
- ANTH 31001 Introduction To The Cultures Of Africa Cr. 3.
- ANTH 33000 Indians Of South America Cr. 3.
- ANTH 35001 European Ethnography Cr. 3.
- ANTH 35600 Polynesian Cultures Cr. 3.
- ANTH 39800 Peoples And Cultures Of Central Asia Cr. 3.
- SOC 21100 Topics in Social Organization Cr. 3. (Contemporary Japanese Culture)

## Group B Topics in Anthropology Credits: 6

- · Choose two courses from the following list:
- ANTH 30000 Topics In Prehistory Cr. 3.
- ANTH 31300 Archaeology Of North America Cr. 3. ANTH 35002 - Archaeology Of Ancient Mexico Cr. 3.
- ANTH 37001 Ancient Civilizations Of The Andes Cr. 3.
- ANTH 37500 Cultural Psychiatry Cr. 3.
- · ANTH 37600 Archaeology Of Death Cr. 3.
- · ANTH 38501 Topics In Anthropology Cr. 3.
- ANTH 40001 Seminar In The Ethnography Of Communication Cr. 3.
- ANTH 40002 Archaeological Methods And Techniques Cr. 2-4.
- ANTH 40200 Gender In Cross-Cultural Perspective Cr. 3.
- ANTH 40500 Ethnographic Methods Cr. 3.
- ANTH 40501 Fieldwork In Archaeology Cr. 1-8.
- ANTH 40600 Visual Anthropology Cr. 3.
- ANTH 42100 Moche Archaeology Seminar Cr. 3.
- ANTH 42600 Human Osteology Cr. 3.
- ANTH 43000 Archaeology Of Violence And Conflict Cr. 3.
- ANTH 44500 Seminar In Medical Anthropology Cr. 3.
- ANTH 45500 Anthropology Of Religion Cr. 3.
- ANTH 45700 Ethnic Identity Cr. 3.

- ANTH 47000 Psychological Anthropology Cr. 3.
- ANTH 49000 Development And Anthropology Cr. 3.
- ANTH 49500 Individual Readings In Anthropology Cr. 1-4.
- ANTH 49600 Field Study In Anthropology Cr. 3-8.
- LING 10300 Introduction to the Study of Language Cr. 3.
- · LING 46000 Language in Society Cr. 3.

### **General Electives**

· Sufficient additional credits to bring the total to 120

Total Credits: 120

### Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

#### Additional Course Use:

Courses listed below may also be considered in meeting specific degree requirements.

COM 11400 is required, HIST 12500 is accepted

ENGL 23301 or ENGL 23401 is required, the following are accepted:

- HIST 21700
- · POLS 20500
- POLS 20700
- Note: ENGL 20201 does not satisfy the writing requirement for the BA in Anthropology

STAT 30100 is required, the following are accepted:

- ECON 27000
- POLS 39500
- PPOL 30000
- PSY 20100
- · SOC 35100
- or any STAT course 24000 or higher

# **Applied Science (B.A.S.)**

Program: B.A.S. **Department of General Studies** College of Arts and Sciences

Kettler Hall 144 ~ 260-481-6828

The Bachelor of Applied Science was developed at Purdue University Fort Wayne for students who have acquired their Associate of Applied Science (A.A.S.) from an accredited institution. The B.A.S. provides Applied Science graduates with an opportunity to further their education, filling a need for students whose A.A.S degrees previously have not articulated well into four-year institutions. The B.A.S. degree can be adapted toward several career fields, including general supervision, or entry level administration or management. Developed to provide a broad knowledge of skills needed to manage an organization, the B.A.S. provides students with in-depth knowledge in one of five academic concentration areas (Business Specialty, Leadership and Supervision, Interdisciplinary, Information Systems, Information Technology). While not intended to prepare students for traditional graduate degree programs, the program builds on the foundation of the Associate of Applied Science and meets state and university general education and degree credit hour requirements.

#### **Student Learning Outcomes:**

Upon successful completion of this degree, students will have:

- · Acquisition of Knowledge: Explain breadth of knowledge across disciplines and depth of knowledge in their chosen discipline.
- Acquisition of Knowledge: Demonstrate ability to know when there is a need for information. Identify, locate, evaluate, and effectively and responsibly use and share
  that information for the problem at hand.
- · Application of Knowledge: Demonstrate the ability to integrate and apply that knowledge, and in so doing, demonstrate the skills necessary for life-long learning.
- Personal and Professional Values: Exhibit the highest levels of personal integrity and professional ethics.
- A Sense of Community: Discuss the knowledge and skills necessary to be productive and responsible citizens and leaders in local, regional, national, and international communities.
- · A Sense of Community: Display a commitment to free and open inquiry and mutual respect across multiple cultures and perspectives.
- · Critical Thinking and Problem Solving: Show facility and adaptability in their approach to problem solving.
- · Critical Thinking and Problem Solving: Display critical-thinking abilities and familiarity with quantitative and qualitative reasoning.
- · Communication: Demonstrate the written, oral, and multimedia ski ls necessary to communicate effectively in diverse settings.

#### **Program Delivery:**

• The B.A.S. can be completed through on-campus, hybrid, and/or online course delivery options.

#### Declaring a B.A.S. Major:

• In order to declare a B.A.S. major, you MUST have already completed an Associate of Applied Science (A.A.S.) degree.

#### **General Requirements:**

- · Degree Requirements
- · General Education Requirements
- · Overlapping Course Content
- · Academic Regulations

## **Program Requirements**

- An Associate of Applied Science (A.A.S.) is required to be accepted into this program. Submit an official transcript showing a completed A.A.S. to the Office of Admissions.
- Students must have a 2.0 GPA or higher to graduate.
- · 32 hours of course credit at the 200 level or higher must be taken at Purdue Fort Wayne.
- For information on a Plan of Study for the Bachelor of Applied Science degree, check with an advisor.

#### Upper Level Requirement

A minimum of 30 credit hours must be taken at the 30000-40000 level.

For a list of 20000 level courses that also count as upper level, please go to College of Arts and Sciences for more information.

General Education Requirement: 33 Credits

General Education Requirements

# Applied Science Technical Transfer Coursework: 1-45 Credits

Up to 45 technical Applied Science credit hours (TECH UND) can be transferred in as determined by a credit evaluation.

Concentration: 27-30 Credits

B.A.S. students are required to select a concentration. If an A.A.S. in business was completed, then the Leadership and Supervision Concentration or Interdisciplinary Concentration is recommended. All A.A.S. graduates must select one of the following five concentrations. All coursework in the concentration must be completed with a grade of C- or higher.

## Business Specialty Concentration with Small Business Management Certification: Credits 27

- BUS 10001 Principles Of Business Administration Cr. 3.
- BUS 20102 Marketing For The Small Business Cr. 3.
- BUS 20103 Small Business Management Capstone Cr. 3.
- OLS 25200 Human Relations in Organizations Cr. 3.
- PHIL 11100 Introduction To Ethics Cr. 3.

Choose one from the following two courses:

- BUS 20000 Foundations Of Accounting Cr. 3.
- BUS 20100 Principles Of Financial Accounting Cr. 3.

Choose one from the following three courses:

- COM 30300 Intercultural Communication Cr. 3.
- COM 32300 Business And Professional Speaking Cr. 3.
- COM 32400 Introduction To Organizational Communication Cr. 3.

Choose one from the following two courses:

- ECON 20000 Fundamentals of Economics Cr. 3.
- ECON 20101 Introduction to Microeconomics Cr. 3.

Choose one from the following two courses:

- ENGL 23202 Introduction to Business Writing Cr. 3.
- ENGL 23301 Intermediate Expository Writing Cr. 3.

### Leadership and Supervision Concentration with Organizational Leadership Minor: Credits 30

OLS 26800 Elements of Law (Cr 3) is required for the Leadership and Supervision Concentration and the Organizational Leadership minor if the student does not transfer in, as a part of their Associate of Applied Science degree, a three-credit-hour course in business law.

- OLS 25200 Human Relations in Organizations Cr. 3.
- OLS 27400 Applied Leadership Cr. 3.
- OLS 37500 Training Methods Cr. 3.
- OLS 37600 Human Resources Issues Cr. 3.
- PHIL 11100 Introduction To Ethics Cr. 3.

Choose two from the following three courses:

- OLS 32000 Customer Service and Commitment Cr. 3.
- OLS 33100 Occupational Safety and Health Cr. 3.
- OLS 34200 Interviewing Strategies in Organizations Cr. 3.

Choose one from the following three courses:

- COM 30300 Intercultural Communication Cr. 3.
- COM 32300 Business And Professional Speaking Cr. 3.
- COM 32400 Introduction To Organizational Communication Cr. 3.

Choose one from the following two courses:

- ENGL 23202 Introduction to Business Writing Cr. 3.
- ENGL 23301 Intermediate Expository Writing Cr. 3.

## Interdisciplinary Concentration: Credits 27

Students must choose one of the following:

- ENGL 23202 Introduction to Business Writing Cr. 3.
- ENGL 23301 Intermediate Expository Writing Cr. 3.

The additional required 24 credit hours for the concentration may be in any subject. With the assistance of an academic advisor, students may identify a set of courses which will meet a specific career objectives, including upper level course work, to satisfy the Interdisciplinary Concentration.

## Information Technology Credits: 30

- ENGL 23401 Technical Report Writing Cr. 3.
- ITC 33100 Networks I Cr. 3.
- ITC 35000 Databases Cr. 3.
- ITC 37000 Human Computer Interaction Cr. 3.
- ITC 38000 Project Analysis Design And Implementation Cr. 3.
- ITC 11000 Information Technology Fundamentals Cr. 3.
- ITC 13000 Programming Fundamentals I Cr. 3.
- ITC 21000 Information Technology Systems Cr. 3.
- PHIL 11100 Introduction To Ethics Cr. 3.

Choose one of the following courses: Credits 3

- COM 30300 Intercultural Communication Cr. 3.
- COM 32300 Business And Professional Speaking Cr. 3.
- COM 32400 Introduction To Organizational Communication Cr. 3.

### Information Systems: Credits 30

#### Choose One:

- COM 30300 Intercultural Communication Cr. 3.
- COM 32300 Business And Professional Speaking Cr. 3.
- COM 32400 Introduction To Organizational Communication Cr. 3.
- ENGL 23401 Technical Report Writing Cr. 3.
- IST 14000 Introduction To Visual Programming Cr. 3.
- IST 16000 Foundation And Role Of Information Systems Cr. 3.
- IST 20300 Advanced Visual Programming Cr. 3.
- IST 26500 Enterprise Systems Cr. 3.
- IST 27000 Data And Information Management Cr. 3.
- PHIL 11100 Introduction To Ethics Cr. 3.

#### Choose Two:

- IST 34000 Business Process Management Cr. 3.
- IST 46700 Information Systems Project Management Cr. 3.
   IST 49200 Topics In Information Systems Cr. 3.

#### Additional Electives: Minimum of 12-15 Credits

A minimum of 12 credits are required, if the Leadership and Supervision or Information Systems or Information Technology concentrations were completed. Otherwise, a minimum of 15 credits are required to reach the minimum 120 total credit hour requirement.

Total Credits: 120

### Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions/waivers to any requirement must be petitioned in writing and approved by the appropriate Dean or Director of the General Studies program.

# Art And Design (B.A.)

Program: B.A.
Department of Art and Design
College of Visual and Performing Arts

Visual Arts Building 117 ~ 260-481-6709

The Bachelors of Art with a major in Art and Design program is appropriate for students interested in a general art degree. This degree also serves as the foundation of our department's other degree offerings of the B.F.A. and B.A. in Art Education. Students will develop fundamental technical skills in 2D and 3D art media to successfully express ideas and develop an artistic awareness through visual expression. Students who pursue a B.A. degree commonly explore advanced general education study in such areas as anthropology, english, languages, and psychology towards future graduate degrees in art history, art management, and art therapy.

#### Student Learning Outcomes - Upon completion of their degrees, all B.A. students should be able to:

- · Develop creative ways to solve problems in art and design media and competency in drawing in order to visualize ideas.
- · Develop an ability to enhance their own artwork through an understanding of the major movements in art history.
- Effectively analyze and critique artwork in spoken and written forms, using sophisticated vocabulary and making appropriate references to contemporary and historical circumstances.
- · Work effectively in an organized and incremental way, managing time and resources in order to successfully complete projects and meet deadlines.
- Implement 2D design principles in order to create compelling and effective artwork in a variety of media, including black and white, color, and digital imagery.
   Implement 3D design principles in a variety of media to articulate form and space.
- · Develop verbal and written communication skills.
- · Develop fundamental visual literacy skills and gain aptitude in applying those skills.

#### **Program Description**

Take the next step in your development as an artist. Join our successful alumni who have developed their creativity by graduation from our B.A. program. Art and Design B.A. students have the option of choosing multiple studio courses, beginning with solid and diverse foundation curriculum for the first two years. You'll be free also to take 21 General Liberal Arts courses in an area which interests you - students have the option to complete a minor in a totally different area.

You will also receive lots of personal attention and experience from our expert faculty and small studio classes. After the first two years, you could also apply for one of our other degree options like the Bachelor of Fine Arts (B.F.A.) or Art Education Bachelor of Arts (B.A.) programs.

#### Accreditation:

• The Department of Art and Design is accredited by the National Association of Schools of Art and Design (NASAD).

### Program Delivery:

· Department of Art and Design courses are offered on campus, with some distance and hybrid course offerings.

### Admission to B.A. Program with a Major in Art and Design

To earn the B.A., you must fulfill the requirements of Purdue University Fort Wayne (Regulations) and the College of Visual and Performing Arts (Colleges). Students within the Art and Design B.A. must maintain a minimum 2.0 GPA within the Content Field (see below). Students who wish to pursue the B.A. Art and Design can declare this major during the admissions process, or inquire within the Department of Art and Design if they wish to change to this major. Additionally, students who wish to pursue the following degrees will enter their program as B.A. students, until successful completion of their Foundation Courses, and passing the Second Year Portfolio Review:

- · B.A. Art Education
- B.F.A.

The Bachelor of Arts degree is divided into three parts; 33 credit hours of General Studies, 66 credit hours of Content Field (First Year Foundation Studio (18 CR), Second Year Foundation Studio (18 CR), Advanced Art and Design Studio (18 CR), and Art History (12 CR), also 21 credit hours of General Liberal Arts classes. A total of 120 credit hours of study is required for graduation. Students in the Department of Art and Design B.A. program must maintain a minimum 2.0 cumulative GPA.

Components	Credits
I. General Education	33
II. Content Field	66
III. General Liberal Arts	21
Total	120

# **Program Requirements:**

Art and Design 4-Year Plan

## **General Requirements**

• Degree Requirements

- · General Education Requirements
- · Overlapping Course Content
- · Academic Regulations

# General Education Requirements: Credits 33

General Education Requirements

A grade of C- or better is required in each course used to satisfy the Purdue Fort Wayne general education requirements.

B.F.A. students may not take any Art and Design courses for General Education credits; this includes AD 11100, AD 11201, AD 10101, AD 10801, AD 13300, AD 16500, AD 19600, AD 23900

- Cat A STAT 12500 Communicating with Statistics \*recommended for Art and Design students
- Cat A ENGL 13100 Reading, Writing, and Inquiry I
- Cat A COM 11400 Fundamentals of Speech Communication or THTR 11400 Interpretation for Performance and Presentation
- Cat A ENGL 23301 Intermediate Expository Writing

Future Art Education B.A. students - Please note that AD 11100 - History Of Art I, AD 11201 - History of Art II, and EDU 34001 - Education and American Culture will count as both General Education credits and also towards Art History and Education credit requirements.

Careful advising in the General Education area is required in Category B6 (fulfilled by AD 11100), and in the additional A or B Course areas (fulfilled by AD 11201 and EDU 34001).

# College of Visual and Performing Arts Requirements

Content Field: Credits 66

Students must complete four (4) classes in Art History (12 cr.) plus 54 credit hours of studio work to fulfill the Content Field.

## Art History Requirements: Credits 12

Art and Design B.A. students are required to take 12 credit hours of Art History courses, including AD 11100 History of Art I and AD 11201 History of Art II. This is followed by two additional advanced Art History electives, or 6 credits. AD 11100 and AD 11201 are pre-requisites for advanced Art History courses.

- AD 11100 History Of Art I: Prehistoric To Medieval
- AD 11201 History Of Art II: Renaissance To Contemporary

# AD Advanced Art History Electives: Credits 6

- \* AD 20101 History Of Graphic Design I Cr. 3.
- \* AD 20501 History Of Photography Cr. 3.
- AD 32301 Ancient Greek Art Cr. 3.
- AD 32401 Roman Art Cr. 3
- AD 34101 Italian Renaissance Art Cr. 3.
- AD 34201 Northern Renaissance Art Cr. 3.
- AD 35101 Nineteenth-Century Art Cr. 3.
- AD 35200 Twentieth-Century Art Cr. 3.
- AD 36301 African Art Cr. 3.
- AD 49001 Topics In Art History Cr. 3.
- AD 49500 Readings And Research In Art History Cr. 1-4

### First Year Studio Foundation Requirements: Credits 18

<sup>\*</sup>AD 20101 - History Of Graphic Design I and AD 20501 - History Of Photography are only recommended for students pursuing a Design Art Major.

- · AD 10502 Digital Imaging Cr. 3.
- AD 12100 Drawing Fundamentals I Cr. 3.
- AD 15200 Introduction To 3-D Design Cr. 3.
- AD 22301 Figure Drawing I Cr. 3.
- AD 22501 Painting Fundamentals I Cr. 3.

## First Year Foundation Portfolio Review Checkpoint

All students in the Department of Art and Design must submit a portfolio of their first year foundation course work to be reviewed by department faculty at the end of all completed first year foundation courses, usually in the spring semester. Work from outside of Art and Design foundation classes will not be accepted for consideration, therefore careful storage and documentation of student work is essential for success. The review is a checkpoint to assure that students have met adequate quality standards in the first year of their foundation program. Upon a satisfactory portfolio review, students will continue in the second year foundation courses.

The Department of Art and Design will send out detailed information regarding the portfolio review process.

# Second Year Foundation Studio Requirements: Credits 18

- AD 20201 Introduction To Photography Cr. 3.
- AD 20301 Web Design I: Introduction to Web Design Cr. 3.
- AD 20502 Graphic Design I: Introduction To Graphic Design Cr. 3.

#### AD 3-D Studio Electives - Cr.6 Choose two:

- AD 23101 Sculpture Fundamentals Cr. 3.
- AD 23301 Metalsmithing Fundamentals Cr. 3.
- AD 23501 Ceramics Fundamentals Cr. 3.
- AD 31001 Introduction To 3D Computer Modeling Cr. 3.
- AD 40401 Game And Virtual Worlds Cr. 3.

Art and Design Studio Electives - courses have pre-requisites; students should work with their advisor on course progression. Credits/Units 3

- AD 10401 Introduction To Typography Cr. 3.
- AD 20601 Illustration I: Dry Media Cr. 3.
- AD 20701 Photography I: Portraiture Cr. 3.
- AD 20801 Video And Inter-Media I Cr. 3.
- AD 30901 Video And Intermedia II Cr. 3.
- AD 24101 Printmaking Fundamentals Cr. 3.
  AD 30103 Photography II: Applied Imaging Cr. 3.
- AD 30103 Photography II. Applied imaging Cr. 3.
   AD 30201 Photography III: Conceptual Imaging Cr. 3.
- AD 30301 Graphic Design II: Identity and Branding Cr. 3.
- AD 30301 Graphic Design II: Identity and Branding Cr. 3.
   AD 30401 Graphic Design III: Publication Design Cr. 3.
- AD 30702 Photography IV: Editorial Imaging Cr. 3.
- AD 32101 Advanced Drawing I Cr. 3.
- AD 32501 Advanced Painting I Cr. 3.
- AD 33101 Advanced Sculpture I Cr. 3.
- AD 33302 Advanced Metalsmithing I Cr. 3.
- AD 33501 Advanced Ceramics I Cr. 3.
- AD 34102 Advanced Printmaking I Cr. 3.
- AD 40301 Graphic Design V: Digital Prepress/Portfolio Cr. 3.

# Second Year Foundation Portfolio Review Checkpoint

At the end of sophmore year, or upon completion of all first and second year Art and Design foundation studio courses, students will submit their portfolio for review. Student portfolios should consist of work from the first and second year foundation studio classes, including at least one piece of work from each class. Work from outside of these classes will not be accepted for consideration, therefore careful storage and documentation of student work is essential for success. Detailed information is available from the Department of Art and Design, and is sent to eligible students each semester.

## Advanced Studio Courses: Credits 18

### Studio Electives

Six studio classes can be taken at the Advanced Studio level. Advanced Studio classes have pre-requisites, therefore students should work with their advisors on course progression.

- AD 40401 Game And Virtual Worlds Cr. 3. AD 40401 is taught for both art and design majors and non-majors.
- AD 33501 Advanced Ceramics I Cr. 3.
- AD 33601 Advanced Ceramics II Cr. 3.
- AD 43501 Advanced Ceramics III Cr. 3
- AD 43600 Advanced Ceramics IV Cr. 3.

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• AD 32201 - Advanced Drawing II Cr. 3.
• AD 42101 - Advanced Drawing III Cr. 3.
· AD 42201 - Advanced Drawing IV Cr. 3.
• AD 30301 - Graphic Design II: Identity and Branding Cr. 3.
• AD 30401 - Graphic Design III: Publication Design Cr. 3.
• AD 40201 - Graphic Design IV: Packaging And Display Cr. 3.

    AD 40301 - Graphic Design V: Digital Prepress/Portfolio Cr. 3.

  AD 20601 - Illustration I: Dry Media Cr. 3.
  AD 30501 - Illustration II: Wet Media Cr. 3.
· AD 30601 - Illustration III: Vector Cr. 3.

    AD 40101 - Illustration IV: Raster Cr. 3.

  AD 31001 - Introduction To 3D Computer Modeling Cr. 3.

    AD 33302 - Advanced Metalsmithing I Cr. 3.

• AD 33401 - Advanced Metalsmithing II Cr. 3.

    AD 43300 - Advanced Metalsmithing III Cr. 3.

  AD 43401 - Advanced Metalsmithing IV Cr. 3.
  AD 20701 - Photography I: Portraiture Cr. 3.
  AD 30103 - Photography II: Applied Imaging Cr. 3.
 AD 30703 - Photography II: Applied Inlaging Cr. 3.
AD 30201 - Photography III: Conceptual Imaging Cr. 3.
AD 30702 - Photography IV: Editorial Imaging Cr. 3.
AD 30801 - Photography V: Special Projects/Portfolio Cr. 3.
AD 32501 - Advanced Painting I Cr. 3.

    AD 32601 - Advanced Painting II Cr. 3.

  AD 42501 - Advanced Painting III Cr. 3.

    AD 42601 - Advanced Painting IV Cr. 3.

• AD 34102 - Advanced Printmaking I Cr. 3.
• AD 34202 - Advanced Printmaking II Cr. 3.
  AD 44100 - Advanced Printmaking III Cr. 3.
• AD 44201 - Advanced Printmaking IV Cr. 3.
• AD 33101 - Advanced Sculpture I Cr. 3.

    AD 33202 - Advanced Sculpture II Cr. 3.

  AD 43202 - Advanced Sculpture IV Cr. 3.
• AD 43102 - Advanced Sculpture III Cr. 3.
• AD 20801 - Video And Inter-Media I Cr. 3.
• AD 30901 - Video And Intermedia II Cr. 3.
• AD 39002 - Topics In Studio Fine Art Cr. 1-6.
• AD 40801 - Independent Study Cr. 3.
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· AD 32101 - Advanced Drawing I Cr. 3.

# Art And Design BA Exhibition Requirement

AD 49002 - Topics In Studio Fine Arts Cr. 1-6.
AD 49003 - Topics In Studio Fine Arts Cr. 1-6.
AD 49501 - Independent Study In Fine Arts Cr. 3.

Art and Design Bachelor of Art (B.A.) students must submit work during their final year of course work for the Art and Design B.A./B.A. Art Education Exhibition. The exhibition is curated by the Department Chair and consists of artwork produced by B.A. students in Art and Design junior and senior year studio classes, or at the discretion of the chair of the department.

## Liberal Arts Electives Courses: Credits 21

Twenty-one (21) credits of liberal arts courses in addition to General Education requirements are needed to fulfill the B.A. requirements. Liberal Arts classes are defined as any Purdue Fort Wayne class counted towards a degree (does not include remedial courses). An option of pursuing a minor in an outside field is encouraged within these credits.

# First Year GPA Requirements

Students must have a minimum cumulative GPA of 2.0. Successful students will progress with the second year courses.

# GPA Requirements For The Remainder Of Degree

Students must have a minimum cumulative GPA of 2.0 and maintain this minimum cumulative 2.0 GPA until graduation. Students must also earn a grade of C- or better for all Art and Design and Art History classes after the first year, and for the remainder of the degree.

## Minimum Grade Requirements

Students must have a minimum grade of C- or better on all AD classes, including Art History, for credit towards their degree. Classes below a C- grade may be retaken for a qualifying grade as needed.

# Credit By Self-Acquired Competency

Credit by Self-Acquired Competency is at the discretion of the department and evaluated on an individual basis.

## Repeat Limits

Some advanced level studio courses may be repeated up to a maximum of 18 credits, however, financial aid may not cover the cost of a class beyond two enrollments.

No courses may be repeated in Graphic Design or Imaging and Photography concentrations.

## **Self-Paced Courses:**

Independent study classes are sometimes available and at the discretion of both the course instructor and chair of the department.

## Recommendations, Requirements, Transfers, and Policies

#### Recommendations

Students should schedule classes within the B.A. program under the guidance of the official departmental advisor.

#### Residence Requirements

For a bachelor's degree, registration in and completion of at least 33 credits of resident course credit at the Second Year Studio Foundation level or above, including at least 15 credits at the Junior level or above, in courses applicable to the major.

### **Transfer and Returning Student Credit**

All studio and art history courses transferred from another institution or former Indiana-Purdue Fort Wayne art programs must be evaluated by appropriate faculty in the Department of Art and Design program before they may be applied to a student's degree requirements. See Transfer and Returning Student Credit Review.

### Transfer and Returning Student Credit Review

Courses in studio art that have been transferred to Purdue Fort Wayne from another institution or former Indiana-Purdue Fort Wayne art programs are not counted as part of the Art and Design major unless they have been reviewed by the Art and Design faculty. For a review of transferred studio credit, the student should provide the viewer with a portfolio consisting of representative work in each area (e.g. painting, sculpture, etc.) for which the transfer credit is desired. The portfolio should include both studies and finished work and be as encompassing as possible.

### Academic Probation/Dismissal Policies

If a student does not meet the university's GPA standard, they will be notified that they have been placed on academic probation and will be asked to make progress towards meeting campus standards. Department of Art and Design programs have their own academic standards as stated above. If a student is not meeting these standards, they will be notified and placed on departmental academic probation. If a student does not make positive progress towards meeting the academic standards of the department within twelve (12) credit hours of study, they will be subject to dismissal from the Department of Art and Design program.

Total Credits: 120

## Student Responsibilities

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All request for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# Art And Design (B.F.A.)

Bachelor of Fine Arts Department of Art and Design College of Visual and Performing Arts

Visual Arts Building 117 ~ 260-481-6709

#### Upon completion of their degree, B.F.A. students will be able to demonstrate the following learning outcomes:

- Develop creative ways to solve problems in Fine Arts, Graphic Design, and Photography media, mastery in their chosen area of concentration, and competency in drawing visualize ideas.
- · Develop an ability to enhance their artwork through an understanding of the major movements in art history and awareness in a student's area of concentration.
- Analyze and critique artwork in spoken and written forms, using sophisticated vocabulary and making appropriate references to contemporary and historical circumstances.
- · Work on large projects in an organized and incremental way, managing time and resources .
- Implement 2D design principles compelling and effective artwork in a variety of media, including black and white, color, and digital imagery. 3D design principles in a variety of media to articulate form and space.
- · Develop verbal and written communication visual literacy skills for effective professional communication for artwork.
- . Develop fundamental visual literacy skills and gain aptitude in applying those skills, leading to a heightened ability to communicate to a given audience.
- Demonstrate functional knowledge of basic Fine Arts, Graphic Design, and Photography business practices and opportunities, as well as professional ethical practices.
- Demonstrate the ability to apply their learning to become oriented to the working profession through activities such as exhibitions, field experience (museum, gallery and curatorial), artists residencies and workshops, internships, community art organizations, working as an arts educator, the pursuit of graduate education in the Visual Arts, or another arts-related degree.
- · Develop an ambitious body of original artwork to for Thesis Seminar I and II (capstone) Exhibition.

### **Program Description**

The Bachelor of Fine Arts program offers a high-level studio experience that allows you to develop your creativity and prepares you for a professional career in the visual arts. You will benefit from working with our accomplished studio faculty as well as our partnerships with Fort Wayne design firms.

Courses offer multifaceted experiences in art and design creation, flowing from a solid and diverse foundation curriculum for the first two years. From this base, students have the latitude to sample various areas of creative endeavor before selecting an area of studio concentration. When you complete the degree, you will be ready to continue study in prestigious graduate programs or continue to be an active artist/designer in the business world.

#### Accreditation:

• The Department of Art and Design is accredited by the National Association of Schools of Art and Design (NASAD).

### **Program Delivery:**

· Department of Art and Design courses are offered on campus, with some distance and hybrid course offerings.

### Declaring this major (Studio Art or Design Art) - B.F.A. Portfolio Review:

Each student enters the program as a Bachelor of Art student. Students wishing to pursue the B.F.A. degree must submit a portfolio of their first and second year work to attain formal acceptance into the B.F.A. program. Each petitioning student must apply to present their work through the Department of Art & Design in the semester in which they complete all second year classes. Each student applying for acceptance into the B.F.A. program will declare their area of studio concentration, i.e., painting, graphic design, etc. with the understanding that areas of art can be interdisciplinary and flexible. There are Studio Art Concentrations (Ceramics, Drawing, Metalsmithing, Painting, Printmaking, and Sculpture), and Design Art Concentrations (Graphic Design and Imaging and Photography).

The Art and Design Department will notify students of this requirement, along with instructions on the portfolio review process.

### **B.F.A. Portfolio Review Outcome**

A student applying for acceptance into the B.F.A. program from the B.A. program may be accepted, deferred or denied. A student's acceptance into the B.F.A. program will allow them to advance into junior and senior level studio classes as a declared B.F.A. major. A deferred student will be asked to re-submit their portfolio for B.F.A. consideration after re-taking requested classes. A student denied entry into the B.F.A. program will continue in the B.A. program. Denied students can apply one additional time for review into the B.F.A. program with permission from the department chair.

## **General Requirements**

- · Degree Requirements
- General Education Requirements
- Overlapping Course Content
- · Academic Regulations

Specific admission requirements for program - See "Declaring this major" above for portfolio review requirements.

## **General Education Requirements Credits: 33**

- Click on the Purdue University Fort Wayne General Education Requirements link above for a listing of all general education requirements.
- A grade of C- or higher is required in each course used to satisfy the Purdue Fort Wayne General Education Requirements. Courses may be retaken if minimum grade requirement is not met.
- B.F.A. students may not take any Art and Design courses for General Education credits; this includes AD 11100, AD 11201, AD 10101, AD 10801, AD 13300, AD 16500, AD 19600, AD 23900
- Cat A1 Written Communication -ENGL 13100 and ENGL 23301 Cr. 6.
- Cat A2 Speaking and Listening COM 11400 or THTR 11400 \* (recommended for Art and Design students) or other approved A2 course Cr. 3
- Cat A3 Quantitative Reasoning STAT 12500 \* (recommended for Art and Design students) or other approved A3 course Cr. 3

# **Program Requirements:**

Art and Design B.F.A. 4-Year Plan

# Art and Design Content Field: Credits 87 (either studio or design art majors)

## Art History Course Requirements: Credits 12

Art and Design B.F.A. students are required to take 12 credit hours of Art History courses, including AD 11100 History of Art I and AD 11201 History of Art II.

This is followed by two additional advanced Art History electives, or 6 credits. AD 11100 and AD 11201 are pre-requisites for most advanced Art History courses.

- AD 11100 History Of Art I: Prehistoric To Medieval Cr. 3.
- AD 11201 History Of Art II: Renaissance To Contemporary Cr. 3.

## AD Advanced Art History Elective for all Studio Art majors: Credits 6

\*Studio Art majors include Ceramics, Drawing, Metalsmithing, Painting, Printmaking and Sculpture.

- · AD 32301 Ancient Greek Art Cr. 3.
- AD 32401 Roman Art Cr. 3
- AD 34101 Italian Renaissance Art Cr. 3.
- AD 34201 Northern Renaissance Art Cr. 3.
- AD 35101 Nineteenth-Century Art Cr. 3.
- AD 35200 Twentieth-Century Art Cr. 3.
- AD 36301 African Art Cr. 3.
- AD 49001 Topics In Art History Cr. 3.
- · AD 49500 Readings And Research In Art History Cr. 1-4

## Graphic Design Advanced Art History: Credits 6

• Students entering into the Graphic Design concentration will choose one 3 credit upper-level Art History elective from the list above and will take AD 20101 - History Of Graphic Design I for the remaining 3 credits.

## Imaging and Photography Advanced Art History: Credits 6

• Students entering into the Imaging and Photography Concentration will choose one 3 credit upper-level Art History elective from the list above and will take AD 20501 - History Of Photography for the remaining 3 credits.

# First Year Art and Design Studio Foundation Courses: Credits 18

- AD 10202 Introduction To 2-D Design Cr. 3.
- AD 10502 Digital Imaging Cr. 3.
- AD 12100 Drawing Fundamentals I Cr. 3.
- AD 15200 Introduction To 3-D Design Cr. 3.
- AD 22301 Figure Drawing I Cr. 3.
- AD 22501 Painting Fundamentals I Cr. 3.

## First Year Portfolio Review Checkpoint

All students in the Department of Art and Design must submt a portfolio of their first year foundation course work to be reviewed by department faculty at the end of all completed first year foundation courses, usually in the spring semester. Work from outside of Art and Design foundation classes will not be accepted for consideration, therefore

careful storage and documentation of student work is essential for success. The review is a checkpoint to assure that students have met adequate quality standards in the first year of their foundation program. Upon a satisfactory portfolio review, students will continue in the second year foundation courses.

The Department of Art and Design will send out detailed information regarding the portfolio review process.

### Second Year Foundation Studio Courses: Credits 18

- AD 20201 Introduction To Photography Cr. 3.
- AD 20301 Web Design I: Introduction to Web Design Cr. 3.
- AD 20502 Graphic Design I: Introduction To Graphic Design Cr. 3.

### AD 3D Studio Elective 6 Cr. - Choose two:

- AD 23101 Sculpture Fundamentals Cr. 3.
- · AD 23301 Metalsmithing Fundamentals Cr. 3.
- AD 23501 Ceramics Fundamentals Cr. 3.
- AD 31001 Introduction To 3D Computer Modeling Cr. 3.
- AD 40401 Game And Virtual Worlds Cr. 3.

#### AD Studio Electives 3 Cr. - Choose one:

Art and Design Studio Electives - courses have pre-requisites; students should work with their advisors on course progression.

- AD 10401 Introduction To Typography
- AD 20601 Illustration I: Dry Media
- AD 20701 Photography I: Portraiture
- AD 20801 Video and Intermedia I
- AD 30901 Video And Intermedia II
- AD 24101 Printmaking Fundamentals
- AD 30103 Photography II: Applied Imaging
  AD 30201 Photography III: Conceptual Imaging
- AD 30301 Graphic Design II: Identity and Branding
- AD 30401 Graphic Design III: Publication Design
- AD 30702 Photography IV: Editorial Imaging
- AD 32101 Advanced Drawing I
- AD 32501 Advanced Painting I
- AD 33101 Advanced Sculpture I
- AD 33302 Advanced Metalsmithing I
- AD 33501 Advanced Ceramics I
- AD 34102 Advanced Printmaking I
- · AD 40301 Graphic Design V: Digital Prepress/Portfolio

# Second Year Foundation Portfolio Review - Petition For Entrance Into The BFA program (either major)

Students who wish to enter the BFA program must submit a portfolio of their second year foundation course work to be reviewed by department faculty at the end of all completed second year foundation courses, usually in the spring. Student portfolios should consist of 18 examples of work from the second year foundation studio classes, including at least one piece of work from each class. Work from outside of these classes will not be accepted for consideration, therefore careful storage and documentation of student work is essential for success. Detailed information is available by contacting the Department of Art and Design.

See B.F.A. Portfolio Review Outcome above for more information on the results of the review.

## Third Year Portfolio Review

Students at the end of their junior year, or upon completion of 84 credit hours, of which 48 credit hours must be studio courses, will submit a third portfolio for review. The portfolio must contain work representing the best and fullest range of work completed in the freshman, sophomore, and junior Art and Design courses. The department will send out detailed information regarding this review to students prior to the review. Successful students will be allowed to enroll in their remaining coursework in both advanced studio and senior thesis and exhibition courses. Students whose work does not meet the standards of the department reviewers may be required to change their degree program back to the Art and Design Bachelor of Arts (B.A.) program.

## Studio Art Concentrations: Credits 39

### Ceramics:

## Studio Requirements - Cr. 15

- AD 24101 Printmaking Fundamentals Cr. 3.
- AD 33501 Advanced Ceramics I Cr. 3.
- AD 33601 Advanced Ceramics II Cr. 3.
- AD 43501 Advanced Ceramics III Cr. 3.
- AD 43600 Advanced Ceramics IV Cr. 3.

#### AD 3D Studio Electives - Cr. 3 Choose one:

- AD 23101 Sculpture Fundamentals Cr. 3.
- AD 23301 Metalsmithing Fundamentals Cr. 3.
- AD 23501 Ceramics Fundamentals Cr. 3.
- AD 31001 Introduction To 3D Computer Modeling Cr. 3.

#### Advanced Level Studio Elective - Cr. 15

- AD 32101 Advanced Drawing I Cr. 3.
- AD 32201 Advanced Drawing II Cr. 3.
- · AD 42101 Advanced Drawing III Cr. 3.
- · AD 42201 Advanced Drawing IV Cr. 3.
- AD 30301 Graphic Design II: Identity and Branding Cr. 3.
- AD 30401 Graphic Design III: Publication Design Cr. 3.
- AD 40201 Graphic Design IV: Packaging And Display Cr. 3.
- AD 40301 Graphic Design V: Digital Prepress/Portfolio Cr. 3.
- AD 20601 Illustration I: Dry Media Cr. 3.
- AD 30501 Illustration II: Wet Media Cr. 3.
- AD 30601 Illustration III: Vector Cr. 3.
- AD 40101 Illustration IV: Raster Cr. 3.
- AD 33302 Advanced Metalsmithing I Cr. 3.
- AD 33401 Advanced Metalsmithing II Cr. 3.
- AD 43300 Advanced Metalsmithing III Cr. 3.
- AD 43401 Advanced Metalsmithing IV Cr. 3.
- AD 32501 Advanced Painting I Cr. 3. AD 32601 - Advanced Painting II Cr. 3.
- AD 42501 Advanced Painting III Cr. 3. AD 42601 Advanced Painting IV Cr. 3.
- AD 20701 Photography I: Portraiture Cr. 3.
- AD 30103 Photography II: Applied Imaging Cr. 3.
  AD 30201 Photography III: Conceptual Imaging Cr. 3.
  AD 30702 Photography IV: Editorial Imaging Cr. 3.
- AD 34102 Advanced Printmaking I Cr. 3.
- AD 34202 Advanced Printmaking II Cr. 3.
- AD 44100 Advanced Printmaking III Cr. 3.
- AD 44201 Advanced Printmaking IV Cr. 3.
- AD 33101 Advanced Sculpture I Cr. 3. AD 33202 - Advanced Sculpture II Cr. 3.
- AD 43102 Advanced Sculpture III Cr. 3.
- AD 43202 Advanced Sculpture IV Cr. 3.
- AD 20801 Video And Inter-Media I Cr. 3.
- AD 30901 Video And Intermedia II Cr. 3.
- AD 39002 Topics In Studio Fine Art Cr. 1-6.
- AD 40401 Game And Virtual Worlds Cr. 3.
- AD 49002 Topics In Studio Fine Arts Cr. 1-6.
- · AD 49003 Topics In Studio Fine Arts Cr. 1-6.

### Senior Thesis - Cr. 6

- AD 49502 Thesis Seminar And Exhibition I Cr. 3.
- · AD 49600 Thesis Seminar And Exhibition II Cr. 3.

Students may repeat AD 49600 two times; students who do not meet the minimum grade requirement of C- or better on both attempts will automatically be transferred to the Art and Design B.A. program, and are not eligible to reapply for the Art and Design B.F.A. program.

## Drawing:

### Studio Requirements - Cr. 15

- AD 24101 Printmaking Fundamentals Cr. 3.
- AD 32101 Advanced Drawing I Cr. 3.
- AD 32201 Advanced Drawing II Cr. 3.
- AD 42101 Advanced Drawing III Cr. 3.
- AD 42201 Advanced Drawing IV Cr. 3.

#### AD 3D Studio Elective - Cr. 3 Choose one:

- AD 23101 Sculpture Fundamentals Cr. 3.
- AD 23301 Metalsmithing Fundamentals Cr. 3.
- AD 23501 Ceramics Fundamentals Cr. 3.
- AD 31001 Introduction To 3D Computer Modeling Cr. 3.

#### Advanced Level Studio Elective - Cr. 15

- AD 33501 Advanced Ceramics I Cr. 3.
- AD 33601 Advanced Ceramics II Cr. 3.
- AD 43501 Advanced Ceramics III Cr. 3.
- AD 43600 Advanced Ceramics IV Cr. 3.
- · AD 30301 Graphic Design II: Identity and Branding Cr. 3.
- AD 30401 Graphic Design III: Publication Design Cr. 3.
- · AD 40201 Graphic Design IV: Packaging And Display Cr. 3.
- AD 40301 Graphic Design V: Digital Prepress/Portfolio Cr. 3.
- · AD 20601 Illustration I: Dry Media Cr. 3.
- AD 30501 Illustration II: Wet Media Cr. 3.
- · AD 30601 Illustration III: Vector Cr. 3.
- AD 40101 Illustration IV: Raster Cr. 3.
- AD 33302 Advanced Metalsmithing I Cr. 3.
- AD 33401 Advanced Metalsmithing II Cr. 3.
- AD 43300 Advanced Metalsmithing III Cr. 3.
- · AD 43401 Advanced Metalsmithing IV Cr. 3.
- AD 32501 Advanced Painting I Cr. 3.
- AD 32601 Advanced Painting II Cr. 3.
- · AD 42501 Advanced Painting III Cr. 3.
- AD 42601 Advanced Painting IV Cr. 3.
- AD 20701 Photography I: Portraiture Cr. 3.
- AD 30103 Photography II: Applied Imaging Cr. 3.
- AD 30201 Photography III: Conceptual Imaging Cr. 3.
- AD 30702 Photography IV: Editorial Imaging Cr. 3.
- AD 34102 Advanced Printmaking I Cr. 3.
- AD 34202 Advanced Printmaking II Cr. 3. AD 44100 - Advanced Printmaking III Cr. 3.
- AD 44201 Advanced Printmaking IV Cr. 3.
- AD 33101 Advanced Sculpture I Cr. 3.
  AD 33202 Advanced Sculpture II Cr. 3.
- AD 43102 Advanced Sculpture III Cr. 3.
  AD 43202 Advanced Sculpture IV Cr. 3.
- AD 20801 Video And Inter-Media I Cr. 3. AD 30901 Video And Intermedia II Cr. 3.
- AD 39002 Topics In Studio Fine Art Cr. 1-6.
- AD 40401 Game And Virtual Worlds Cr. 3.
- AD 49002 Topics In Studio Fine Arts Cr. 1-6.
- AD 49003 Topics In Studio Fine Arts Cr. 1-6.

### Senior Thesis - Cr. 6

- AD 49502 Thesis Seminar And Exhibition I Cr. 3.
- · AD 49600 Thesis Seminar And Exhibition II Cr. 3.

Students may repeat AD 49600 two times; students who do not meet the minimum grade requirement of C- or better on both attempts will automatically be transferred to the Art and Design B.A. program, and are not eligible to reapply for the Art and Design B.F.A. program.

## Metalsmithing:

## Studio Requirements - Cr. 15

- AD 24101 Printmaking Fundamentals Cr. 3.
- AD 33302 Advanced Metalsmithing I Cr. 3.
- AD 33401 Advanced Metalsmithing II Cr. 3. • AD 43300 - Advanced Metalsmithing III Cr. 3.
- · AD 43401 Advanced Metalsmithing IV Cr. 3.

#### AD 3D Studio Elective - Cr. 3 Choose one:

- AD 23101 Sculpture Fundamentals Cr. 3.
- AD 23301 Metalsmithing Fundamentals Cr. 3.
- AD 23501 Ceramics Fundamentals Cr. 3.
- AD 31001 Introduction To 3D Computer Modeling Cr. 3.

## Advanced Level Studio Elective - Cr. 15

- AD 20701 Photography I: Portraiture Cr. 3.
- AD 33501 Advanced Ceramics I Cr. 3.
- AD 33601 Advanced Ceramics II Cr. 3.
- AD 43501 Advanced Ceramics III Cr. 3.
- AD 43600 Advanced Ceramics IV Cr. 3.
- AD 32101 Advanced Drawing I Cr. 3.
- AD 32201 Advanced Drawing II Cr. 3.
- AD 42101 Advanced Drawing III Cr. 3.
  AD 42201 Advanced Drawing IV Cr. 3.
- AD 20601 Illustration I: Dry Media Cr. 3. AD 30501 Illustration II: Wet Media Cr. 3.
- AD 30601 Illustration III: Vector Cr. 3. AD 40101 Illustration IV: Raster Cr. 3.
- AD 30301 Graphic Design II: Identity and Branding Cr. 3.
- AD 30401 Graphic Design III: Publication Design Cr. 3.
- AD 40301 Graphic Design IV: Digital Prepress/Portfolio Cr. 3. AD 40201 Graphic Design IV: Packaging And Display Cr. 3.
- AD 32501 Advanced Painting I Cr. 3.
- AD 32601 Advanced Painting II Cr. 3.
- AD 42501 Advanced Painting III Cr. 3.
- AD 42601 Advanced Painting IV Cr. 3.
- AD 30103 Photography II: Applied Imaging Cr. 3.
  AD 30201 Photography III: Conceptual Imaging Cr. 3.
- AD 30702 Photography IV: Editorial Imaging Cr. 3.
- · AD 34102 Advanced Printmaking I Cr. 3.
- AD 34202 Advanced Printmaking II Cr. 3.
- AD 44100 Advanced Printmaking III Cr. 3.
- AD 44201 Advanced Printmaking IV Cr. 3.
- AD 33101 Advanced Sculpture I Cr. 3.
- · AD 33202 Advanced Sculpture II Cr. 3.
- AD 43102 Advanced Sculpture III Cr. 3. • AD 43202 - Advanced Sculpture IV Cr. 3.
- AD 20801 Video And Inter-Media I Cr. 3.
- AD 30901 Video And Intermedia II Cr. 3.
- AD 39002 Topics In Studio Fine Art Cr. 1-6.
- AD 40401 Game And Virtual Worlds Cr. 3.
- · AD 49002 Topics In Studio Fine Arts Cr. 1-6.
- · AD 49003 Topics In Studio Fine Arts Cr. 1-6.

## Senior Thesis - Cr. 6

- AD 49502 Thesis Seminar And Exhibition I Cr. 3.
- AD 49600 Thesis Seminar And Exhibition II Cr. 3.

Students may repeat AD 49600 two times; students who do not meet the minimum grade requirement of C- or better on both attempts will automatically be transferred to the Art and Design B.A. program, and are not eligible to reapply for the Art and Design B.F.A. program.

## Painting:

### Studio Requirements - Cr. 15

- AD 24101 Printmaking Fundamentals Cr. 3.
- AD 32501 Advanced Painting I Cr. 3.
- · AD 32601 Advanced Painting II Cr. 3. • AD 42501 - Advanced Painting III Cr. 3.
- AD 42601 Advanced Painting IV Cr. 3.

### AD 3D Studio Electives - Cr. 3 Choose one:

- AD 23101 Sculpture Fundamentals Cr. 3.
- · AD 23301 Metalsmithing Fundamentals Cr. 3.
- AD 23501 Ceramics Fundamentals Cr. 3.
- · AD 31001 Introduction To 3D Computer Modeling Cr. 3.

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• AD 33601 - Advanced Ceramics II Cr. 3.
· AD 43501 - Advanced Ceramics III Cr. 3.
  AD 43600 - Advanced Ceramics IV Cr. 3.
· AD 32101 - Advanced Drawing I Cr. 3.
· AD 32201 - Advanced Drawing II Cr. 3.
· AD 42101 - Advanced Drawing III Cr. 3.
  AD 42201 - Advanced Drawing IV Cr. 3.
  AD 20601 - Illustration I: Dry Media Cr. 3.
  AD 30501 - Illustration II: Wet Media Cr. 3.
  AD 30601 - Illustration III: Vector Cr. 3.
  AD 40101 - Illustration IV: Raster Cr. 3.
   AD 30301 - Graphic Design II: Identity and Branding Cr. 3.
  AD 30401 - Graphic Design III: Publication Design Cr. 3.
   AD 40201 - Graphic Design IV: Packaging And Display Cr. 3.
  AD 40301 - Graphic Design V: Digital Prepress/Portfolio Cr. 3.
AD 33302 - Advanced Metalsmithing I Cr. 3.
  AD 33401 - Advanced Metalsmithing II Cr. 3.
   AD 43300 - Advanced Metalsmithing III Cr. 3.
  AD 43401 - Advanced Metalsmithing IV Cr. 3.
 AD 43401 - Advanced Metaismining IV C.1. 3.

AD 20701 - Photography II: Portraiture Cr. 3.

AD 30103 - Photography III: Applied Imaging Cr. 3.

AD 30201 - Photography III: Conceptual Imaging Cr. 3.

AD 30702 - Photography IV: Editorial Imaging Cr. 3.
  AD 34102 - Advanced Printmaking I Cr. 3.
AD 34202 - Advanced Printmaking II Cr. 3.
  AD 44100 - Advanced Printmaking III Cr. 3.
  AD 44201 - Advanced Printmaking IV Cr. 3.
  AD 33101 - Advanced Sculpture I Cr. 3.
  AD 33202 - Advanced Sculpture II Cr. 3.
  AD 43102 - Advanced Sculpture III Cr. 3.

    AD 43202 - Advanced Sculpture IV Cr. 3.

  AD 20801 - Video And Inter-Media I Cr. 3.
• AD 30901 - Video And Intermedia II Cr. 3.
  AD 39002 - Topics In Studio Fine Art Cr. 1-6.
• AD 40401 - Game And Virtual Worlds Cr. 3.
  AD 49002 - Topics In Studio Fine Arts Cr. 1-6.
• AD 49003 - Topics In Studio Fine Arts Cr. 1-6.
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• AD 33501 - Advanced Ceramics I Cr. 3.

# Senior Thesis - Cr. 6

- AD 49502 Thesis Seminar And Exhibition I Cr. 3.
- AD 49600 Thesis Seminar And Exhibition II Cr. 3.

Students may repeat AD 49600 two times; students who do not meet the minimum grade requirement of C- or better on both attempts will automatically be transferred to the Art and Design B.A. program, and are not eligible to reapply for the Art and Design B.F.A. program.

## Printmaking:

## Studio Requirements - Cr. 15

- AD 24101 Printmaking Fundamentals Cr. 3.
- AD 34102 Advanced Printmaking I Cr. 3.
- AD 34202 Advanced Printmaking II Cr. 3.
- AD 44100 Advanced Printmaking III Cr. 3.
- AD 44201 Advanced Printmaking IV Cr. 3.

### AD 3D Studio Elective - Cr. 3 Choose one:

- AD 23101 Sculpture Fundamentals Cr. 3.
- AD 23301 Metalsmithing Fundamentals Cr. 3.
- · AD 23501 Ceramics Fundamentals Cr. 3.
- AD 31001 Introduction To 3D Computer Modeling Cr. 3.

## Advanced Level Studio Elective - Cr. 15

- AD 33501 Advanced Ceramics I Cr. 3.
- AD 33601 Advanced Ceramics II Cr. 3.
- AD 43501 Advanced Ceramics III Cr. 3.
- AD 43600 Advanced Ceramics IV Cr. 3.
- AD 32101 Advanced Drawing I Cr. 3.
- AD 32201 Advanced Drawing II Cr. 3.
- AD 42101 Advanced Drawing III Cr. 3.
- AD 42201 Advanced Drawing IV Cr. 3.
  AD 30301 Graphic Design II: Identity and Branding Cr. 3.
- AD 30401 Graphic Design III: Publication Design Cr. 3.
- AD 40201 Graphic Design IV: Packaging And Display Cr. 3.

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• AD 40301 - Graphic Design V: Digital Prepress/Portfolio Cr. 3.

    AD 20601 - Illustration I: Dry Media Cr. 3.

· AD 30501 - Illustration II: Wet Media Cr. 3.
• AD 30601 - Illustration III: Vector Cr. 3.
• AD 40101 - Illustration IV: Raster Cr. 3.
• AD 33302 - Advanced Metalsmithing I Cr. 3.
• AD 33401 - Advanced Metalsmithing II Cr. 3.
• AD 43300 - Advanced Metalsmithing III Cr. 3.

    AD 43401 - Advanced Metalsmithing IV Cr. 3.

· AD 32501 - Advanced Painting I Cr. 3.
· AD 32601 - Advanced Painting II Cr. 3.
 AD 42501 - Advanced Painting III Cr. 3.
  AD 42601 - Advanced Painting IV Cr. 3.
 AD 20701 - Photography I: Portraiture Cr. 3.
  AD 30103 - Photography II: Applied Imaging Cr. 3.
 AD 30201 - Photography III: Conceptual Imaging Cr. 3.
 AD 30702 - Photography IV: Editorial Imaging Cr. 3.
AD 33101 - Advanced Sculpture I Cr. 3.
 AD 33202 - Advanced Sculpture II Cr. 3.
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- AD 43102 Advanced Sculpture III Cr. 3.
- AD 43102 Advanced Sculpture IV Cr. 3.
  AD 20801 Video And Inter-Media I Cr. 3.
- AD 30901 Video And Intermedia II Cr. 3.
- AD 39002 Topics In Studio Fine Art Cr. 1-6.
- AD 40401 Game And Virtual Worlds Cr. 3.
- AD 49002 Topics In Studio Fine Arts Cr. 1-6.
- AD 49003 Topics In Studio Fine Arts Cr. 1-6.

#### Senior Thesis - Cr. 6

- AD 49502 Thesis Seminar And Exhibition I Cr. 3.
- · AD 49600 Thesis Seminar And Exhibition II Cr. 3.

Students may repeat AD 49600 two times; students who do not meet the minimum grade requirement of C- or better on both attempts will automatically be transferred to the Art and Design B.A. program, and are not eligible to reapply for the Art and Design B.F.A. program.

### Sculpture:

### Studio Requirements - Cr. 15

- AD 24101 Printmaking Fundamentals Cr. 3.
- · AD 33101 Advanced Sculpture I Cr. 3.
- AD 33202 Advanced Sculpture II Cr. 3.
- AD 43102 Advanced Sculpture III Cr. 3. • AD 43202 - Advanced Sculpture IV Cr. 3.
  - AD 3D Studio Elective Cr. 3 Choose one:
- AD 23101 Sculpture Fundamentals Cr. 3.
- AD 23301 Metalsmithing Fundamentals Cr. 3.
- · AD 23501 Ceramics Fundamentals Cr. 3.
- AD 31001 Introduction To 3D Computer Modeling Cr. 3.

### Advanced Level Studio Elective Cr. 15

- AD 33501 Advanced Ceramics I Cr. 3.
- AD 33601 Advanced Ceramics II Cr. 3.
- AD 43501 Advanced Ceramics III Cr. 3.
- AD 43600 Advanced Ceramics IV Cr. 3.
- AD 32101 Advanced Drawing I Cr. 3.
- AD 32201 Advanced Drawing II Cr. 3.
- AD 42101 Advanced Drawing III Cr. 3. AD 42201 - Advanced Drawing IV Cr. 3.
- AD 30301 Graphic Design II: Identity and Branding Cr. 3.
- AD 30401 Graphic Design III: Publication Design Cr. 3.
- AD 40201 Graphic Design IV: Packaging And Display Cr. 3. AD 40301 Graphic Design V: Digital Prepress/Portfolio Cr. 3.
- AD 20601 Illustration I: Dry Media Cr. 3. AD 30501 Illustration II: Wet Media Cr. 3.
- AD 30601 Illustration III: Vector Cr. 3.
- AD 40101 Illustration IV: Raster Cr. 3.
- AD 33302 Advanced Metalsmithing I Cr. 3.
- AD 33401 Advanced Metalsmithing II Cr. 3.
- AD 43300 Advanced Metalsmithing III Cr. 3. • AD 43401 - Advanced Metalsmithing IV Cr. 3.
- AD 32501 Advanced Painting I Cr. 3.
- AD 32601 Advanced Painting II Cr. 3.

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AD 42501 - Advanced Painting III Cr. 3.
AD 42601 - Advanced Painting IV Cr. 3.
AD 20701 - Photography I: Portraiture Cr. 3.
AD 30103 - Photography II: Applied Imaging Cr. 3.
AD 30201 - Photography III: Conceptual Imaging Cr. 3.
AD 30702 - Photography IV: Editorial Imaging Cr. 3.
AD 34102 - Advanced Printmaking I Cr. 3.
AD 34202 - Advanced Printmaking III Cr. 3.
AD 44100 - Advanced Printmaking III Cr. 3.
AD 44201 - Advanced Printmaking IV Cr. 3.
AD 20801 - Video And Inter-Media I Cr. 3.
AD 30901 - Video And Intermedia II Cr. 3.
AD 40401 - Game And Virtual Worlds Cr. 3.
AD 49002 - Topics In Studio Fine Arts Cr. 1-6.
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#### Senior Thesis - Cr. 6

• AD 49502 - Thesis Seminar And Exhibition I Cr. 3.

• AD 49003 - Topics In Studio Fine Arts Cr. 1-6.

· AD 49600 - Thesis Seminar And Exhibition II Cr. 3.

Students may repeat AD 49600 two times; students who do not meet the minimum grade requirement of C- or better on both attempts will automatically be transferred to the Art and Design B.A. program, and are not eligible to reapply for the Art and Design B.F.A. program.

# **Design Art Concentrations:**

# Graphic Design:

AD 10401 - Introduction To Typography Cr. 3.
AD 20601 - Illustration I: Dry Media Cr. 3.
AD 20801 - Video And Inter-Media I Cr. 3.
AD 30301 - Graphic Design II: Identity and Branding Cr. 3.
AD 30401 - Graphic Design III: Publication Design Cr. 3.
AD 30601 - Illustration III: Vector Cr. 3.
AD 40101 - Illustration IV: Raster Cr. 3.
AD 40201 - Graphic Design IV: Packaging And Display Cr. 3.
AD 40301 - Graphic Design V: Digital Prepress/Portfolio Cr. 3.
AD 40701 - Professional Practice Internship Cr. 3.
AD 47100 - Web Design II: Intermediate Web Design Cr. 3.

### Senior Thesis - Cr. 6

- AD 49502 Thesis Seminar And Exhibition I Cr. 3.
- AD 49600 Thesis Seminar And Exhibition II Cr. 3.

Students may repeat AD 49600 two times; students who do not meet the minimum grade requirement of C- or better on both attempts will automatically be transferred to the Art and Design B.A. program, and are not eligible to reapply for the Art and Design B.F.A. program.

## Imaging and Photography:

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AD 10401 - Introduction To Typography Cr. 3.
AD 20601 - Illustration I: Dry Media Cr. 3.
AD 20701 - Photography I: Portraiture Cr. 3.
AD 20801 - Video And Inter-Media I Cr. 3.
AD 30103 - Photography II: Applied Imaging Cr. 3.
AD 30201 - Photography III: Conceptual Imaging Cr. 3.
AD 30702 - Photography IV: Editorial Imaging Cr. 3.
AD 30801 - Photography V: Special Projects/Portfolio Cr. 3.
AD 40701 - Professional Practice Internship Cr. 3.
AD 47100 - Web Design II: Intermediate Web Design Cr. 3.
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### Art and Design Elective Cr. 3 - Choose one:

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AD 30301 - Graphic Design II: Identity and Branding Cr. 3.
AD 30401 - Graphic Design III: Publication Design Cr. 3.
AD 30601 - Illustration III: Vector Cr. 3.
AD 30901 - Video And Intermedia II Cr. 3.
AD 32101 - Advanced Drawing I Cr. 3.
AD 32501 - Advanced Painting I Cr. 3.
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AD 33101 - Advanced Sculpture I Cr. 3.

- AD 33302 Advanced Metalsmithing I Cr. 3.
- AD 33501 Advanced Ceramics I Cr. 3.
- AD 34102 Advanced Printmaking I Cr. 3
- AD 40101 Illustration IV: Raster Cr. 3.
- AD 40401 Game And Virtual Worlds Cr. 3.
- AD 40201 Graphic Design IV: Packaging And Display Cr. 3.
- AD 40301 Graphic Design V: Digital Prepress/Portfolio Cr. 3.
  - AD 49003 Topics in Studio Fine Arts Cr. 3

### Senior Thesis - Cr. 6

- AD 49502 Thesis Seminar And Exhibition I Cr. 3.
- · AD 49600 Thesis Seminar And Exhibition II Cr. 3.

Students may repeat AD 49600 two times; students who do not meet the minimum grade requirement of C- or better on both attempts will automatically be transferred to the Art and Design B.A. program, and are not eligible to reapply for the Art and Design B.F.A. program.

# First Year GPA Requirements

Students must have a minimum cumulative GPA of 2.0. Successful students will progress with the second year courses.

# GPA Requirements For The Remainder Of Degree

Students must have a minimum cumulative GPA of 2.5 and maintain this minimum cumulative 2.5 GPA until graduation. Successful students will progress with the third and fourth year coursework.

# Minimum Grade Requirements

Students must have a minimum grade of C- or better on all AD classes for credit towards their degree. Classes below a C- grade may be retaken for a qualifying grade as needed.

# Credit By Self-Acquired Competency

Credit by Self-Acquired Competency is at the discretion of the department and evaluated on an individual basis.

# Repeat Limits

All advanced level studio courses may be repeated up to a maximum of 18 credits. No courses may be repeated in Graphic Design or Imaging and Photography concentrations.

### **Self-Paced Courses:**

Independent study classes are sometimes available and at the discretion of both the course instructor and chair of the department.

Total Credits: 120

# Student Responsibilities

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All request for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# **Art Education (B.A.)**

Program: B.A. Art Education (All-Grade Education Program) Department of Art and Design College of Visual and Performing Arts

Visual Arts Building 117 ~ 260-481-6709 ~ Art and Design

#### Upon completion of their degrees, all B.A in Art Education students should be able to demonstrate learning outcomes:

- · Develop creative ways to solve problems in arts and crafts media and competency in drawing in order to visualize ideas.
- Develop an ability to enhance their own artwork through an understanding of the major movements in art history and awareness of major contemporary artists in a
  student's area of concentration; develop an ability to lead students through museum settings to enhance their understanding of art history.
- Effectively analyze and critique artwork in spoken and written forms, using sophisticated vocabulary and making appropriate references to contemporary and historical circumstances.
- Implement 2D design principles in order to create compelling and effective artwork in a variety of media, including black and white, color, and digital imagery. Implement 3D design principles in a variety of media to articulate form and space.
- · Develop verbal and written communication visual literacy skills for effective professional communication for presentation of artwork.
- Develop an understanding of the significance of art education in the classroom and the community, as well as the history of education in the United States.
- Develop an understanding of the language of art, how it relates to the social and cultural experiences of K-12 students, and how it is best taught in schools.
- · Develop a working knowledge of state and national standards and how they are connected to learning experiences in the art curriculum.
- Develop knowledge of teaching methods, learning strategies, art processes and materials for teaching art in the classroom, elementary through secondary.
- Develop an understanding of a theme-based, interdisciplinary approach to art education.
- · Develop an understanding of child development, special needs, and how these topics relate to approaches to teaching art in the inclusive classroom.
- · Develop knowledge about art and its significance in a variety of cultures and how a multicultural approach operates in the art curriculum.
- Demonstrate artistic ability in portfolio reviews and the senior exhibition.
- Demonstrate proficiency in teaching through observations and the capstone student teaching semester.

#### **Program Description**

You can become an art educator in four years by following the curriculum listed in the catalog. Students will take a substantial number of visual arts courses in a variety of media in order to be licensed to teach grades PreK-12 in Indiana and across the nation in reciprocal states. The curriculum plan allows for immediate access to art courses taught by nationally respected professors as well as courses in current educational theories and practices in both the Department of Art and Design and the School of Education.

Exciting general education offerings round out the educational experience at Purdue University Fort Wayne. You will make friends and follow each other through the required courses, reaching the student teaching semester in the final and fourth year of school. Most importantly, you will graduate with a teaching license that will help you gain the career you've always wanted, that of teaching young children and young adults to share your love of the visual arts.

#### Accreditation:

• The Department of Art and Design is accredited by the National Association of Schools of Art and Design (NASAD).

### **Program Delivery:**

• Department of Art and Design courses are offered on campus, with some distance and hybrid course offerings.

### Declaring this major:

Each student enters the program as a Pre-Art Education student. Students wishing to pursue the B.A. in Art Education degree must submit a portfolio of their work to attain formal acceptance into the program. Each petitioning student must apply to present their work through the Department of Art & Design in the semester in which they complete all first-year classes. The portfolio should consist of eighteen works, with at least three pieces of work from each of the first-year foundation studio courses. It is mandatory that students seek faculty advice on which works to submit for review, especially from faculty who specialize in media the student is strongest in.

Second and third year reviews are also required as a checkpoint to evaluate that a student is continuing to produce high quality artwork as they progress in their degree program. Student's whose work does not continue to meet the standards of the Department of Art and Design may be moved back to the Art and Design B.A. degree program.

### B.A. in Art Education Portfolio Review Outcome:

A student applying for acceptance into the B.A. in Art Education program from the B.A. program may be accepted, deferred or denied. A student's acceptance into the B.A. in Art Education program will allow them to advance into advanced studio classes as a declared Art Education major. A deferred student will be asked to re-submit their portfolio for B.A. in Art Education consideration after re-taking requested classes. A student denied entry into the B.A. in Art Education will continue in the B.A. program. Denied students can apply one additional time for review into the B.A. in Art Education program with permission from the department chair.

The Bachelor of Art in Art Education degree is divided into three parts; 33 credit hours of General Education, 63 credit hours of Content Field (12 credits of art history, 45 credits of art studio courses, and 6 credits of art education methods courses), and 24 credit hours of Professional Education classes. A 3.00 GPA in the Content Field and a 3.0 cumulative GPA is required for this license. A total of 120 credits is required for graduation.

Components:		Credits
I. General Education		33
II. Content Field		60
III. Professional Education		27
	Total	120

# General Requirements

- · Degree Requirements
- General Education Requirements
- Overlapping Course Content
- Academic Regulations

# **Program Requirements:**

Art Education 4-Year Plan

# General Education Requirements Credits: 33

General Education Requirements

- A grade of C- or better is required in each course used to satisfy the Purdue University Fort Wayne general education requirements.
   Includes AD 11100 & AD 11201 & EDU 34001; these courses double-count in both Art History/Professional Education and General Education requirements.
- Remedial courses that do not count towards a degree are not allowed to fulfill any General Education requirements.
- Art Education majors may not take Art and Design non-majors courses for general education credits; includes AD 10101, AD 10801, AD 13300, AD 16500, AD 19600, AD 23900, and AD 25501.

# Category A1 Written Communication: Credits 6

- ENGL 13100 Reading, Writing, and Inquiry I Cr. 3.
- ENGL 23301 Intermediate Expository Writing Cr. 3.

# Category A2 Speaking and Listening: Credits 3

- COM 11400 Fundamentals Of Speech Communication Cr. 3. or
- THTR 11400 Interpretation for Performance and Presentation Cr. 3.

# Category A3 Quantitative Reasoning

STAT 12500 is the recommended course.

• STAT 12500 - Communicating with Statistics Cr. 3.

STAT 12500 is the recommended A3 Quantitative Reasoning course.

# Category B5 Social & Behavioral Ways of Knowing

EDU 34001 Education and American Culture

EDU 34001 Education and American Culture counts twice in the Art Education degree; once in general education, and a second time in the Professional Education

• EDU 34001 - Education And American Culture Cr. 3.

# Category B6 Humanistic & Artistic Ways of Knowing

AD 11100 History of Art I:Prehist Medieval and AD 11201 History of Art II:Renaissance Contemporary fulfill general education B6 area requirements.

AD 11100 and AD 11201 both count twice in the Art Education degree; once in the general education area, and a second time in the Art History requirements.

- AD 11100 History Of Art I: Prehistoric To Medieval Cr. 3.
- AD 11201 History Of Art II: Renaissance To Contemporary Cr. 3.

Content Area Credits: 60

## Art History Requirements Credits: 12

AD 11100 - History of Art I: Prehistoric to Medieval and AD 11201 - History of Art II: Renaissance to Contemporary both count twice; once for Art History requirements, and again as General Education requirements.

AD 11100 and AD 11201 are both pre-requisites for Advanced Art History courses.

- AD 11100 History Of Art I: Prehistoric To Medieval Cr. 3.
- AD 11201 History Of Art II: Renaissance To Contemporary Cr. 3.

Please see notes on Pearson Content Area Exam below regarding AD 11100 and AD 11201.

#### Advanced Art History Electives Cr. 6

Course offerings vary by semester. Choose two of the courses from the following:

- · AD 35101 Nineteenth-Century Art
- AD 35200 Twentieth-Century Art
- AD 39003 Topics In Art History
- AD 49500 Readings And Research In Art History

Other course offerings could include: AD 32301, AD 32401, AD 34101, AD 34201, AD 36301, AD 39001, AD 49001.

## First Year Foundation Studio Requirements Credits: 18

- AD 10202 Introduction To 2-D Design Cr. 3.
- AD 10502 Digital Imaging Cr. 3.
- AD 12100 Drawing Fundamentals I Cr. 3.
- AD 15200 Introduction To 3-D Design Cr. 3.
- AD 22301 Figure Drawing I Cr. 3.
- AD 22501 Painting Fundamentals I Cr. 3.

### First Year Foundation Portfolio Review - Entrance Into the Art Education Program

Students who wish to enter the B.A. in Art Education program must submit a portfolio of their first-year foundation course work to be reviewed by department faculty at the end of all completed first-year foundation studio courses, usually in the spring. Student portfolios should consist of eighteen examples of work from the first year foundation studio classes, including at least three examples of work from each class. Work from outside of these classes will not be accepted for consideration, therefore careful storage and documentation of student work is essential for success.

It is mandatory that students seek faculty advice on which works to submit for review. Faculty evaluations will be based on a student's strong knowledge and skills in:

- showing competence in representational drawing of volume, pictorial space, and the depiction of the human figure. An understanding of linear perspective should be evident
- the ability to compose aesthetic element of line, tone/value, shape, texture, color, and 3D form in space.
- · demonstrating technical and aesthetic excellence (for the 60 credit level) in your chosen major; i.e. drawing, ceramics, metalsmithing, painting, printmaking, or sculpture.
- (for 2D majors) drawing, painting, printmaking as well as the demonstration of competence and serious investigation in 3D media.
- (for 3D majors) ceramics, metalsmithing, and sculpture with competence and serious investigation in 2D media.
- · Interview with faculty required.

### B.A. in Art Education Portfolio Review Outcome

A student applying for acceptance into the B.A. in Art Education program from the Pre-Art Education program may be accepted, deferred or denied. A student's acceptance into the B.A. in Art Education program will allow them to advance into the second year foundation studio classes as a declared Art Education major after successful completion of the first year review. A deferred student will be asked to re-submit their portfolio for B.A. in Art Education consideration after re-taking requested classes. A student denied entry into the B.A. in Art Education will continue in the B.A. program. Denied students can apply one additional time for review into the B.A. in Art Education program with permission from the department chair.

Students accepted into the B.A. Art Education program must maintain a 2.7 GPA.

### Second and Third Year Portfolio Review Checkpoints - for continuation in the B.A. Art Education program

Students at the end of their sophomore and junior years, or upon completion of the requisite studio courses, will submit portfolios for review. The portfolios must show work representing the best and fullest range of work completed in required Art and Design courses. The Department will send out detailed information regarding these reviews to students in each fall and spring semester. Successful students will be allowed to enroll in their remaining coursework in both advanced studio and professional education requirements.

#### Second and Third Year Portfolio Review Outcomes

Students whose work does not meet the standards of the Department of Art and Design faculty may have their degree changed back to the Art and Design B.A. instead of the B.A. Art Education at either the second or third year portfolio checkpoints. Contact the Department of Art and Design for more information.

## Second Year Foundation Studio Requirements: Credits 21

- AD 20201 Introduction To Photography Cr. 3.
- AD 20301 Web Design I: Introduction to Web Design Cr. 3.
- AD 20502 Graphic Design I: Introduction To Graphic Design Cr. 3.
- AD 24101 Printmaking Fundamentals Cr. 3.

## AD 3-D Studio Requirements 9 Cr.

Required AD 3-D studio courses can not be repeated for credit towards the Art Education B.A. degree.

- AD 23101 Sculpture Fundamentals Cr. 3.
- AD 23301 Metalsmithing Fundamentals Cr. 3.
- AD 23501 Ceramics Fundamentals Cr. 3.

One of the studio courses listed in the second year foundation may be taken during a student's fifth semester, depending on their graduation plan.

## Advanced Studio Requirements Credits: 15

Advanced Art and Design Studio Electives:

- Five(5) advanced studio courses need to be fulfilled in this area.
- · Advanced Studio courses have pre-requisites; students should work with their advisors to determine course progression.
- AD 32101 Advanced Drawing I Cr. 3.
- AD 32201 Advanced Drawing II Cr. 3.
- AD 42101 Advanced Drawing III Cr. 3.
- AD 42201 Advanced Drawing IV Cr. 3.
- AD 20601 Illustration I: Dry Media Cr. 3.
   AD 20501 Illustration II: Wet Media Cr. 3.
- AD 30501 Illustration II: Wet Media Cr. 3.
- AD 30601 Illustration III: Vector Cr. 3.
  AD 40101 Illustration IV: Raster Cr. 3.
- AD 32501 Advanced Painting I Cr. 3.
- AD 32601 Advanced Painting II Cr. 3.
- AD 42501 Advanced Painting III Cr. 3.
- AD 42601 Advanced Painting IV Cr. 3.
- AD 33101 Advanced Sculpture I Cr. 3.
- AD 33202 Advanced Sculpture II Cr. 3.
  AD 43102 Advanced Sculpture III Cr. 3.
- AD 43202 Advanced Sculpture IV Cr. 3.
- AD 33302 Advanced Metalsmithing I Cr. 3.
- · AD 33401 Advanced Metalsmithing II Cr. 3.
- AD 43300 Advanced Metalsmithing III Cr. 3.
- AD 43401 Advanced Metalsmithing IV Cr. 3.
- AD 33501 Advanced Ceramics I Cr. 3.
- AD 33601 Advanced Ceramics II Cr. 3.
- AD 43501 Advanced Ceramics III Cr. 3.
  AD 43600 Advanced Ceramics IV Cr. 3.
- AD 43000 Advanced Ceramics IV Cr. 3.
   AD 34102 Advanced Printmaking I Cr. 3.
- AD 34202 Advanced Printmaking II Cr. 3.

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    AD 44100 - Advanced Printmaking III Cr. 3.
    AD 44201 - Advanced Printmaking IV Cr. 3.
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- AD 30103 Photography II: Applied Imaging Cr. 3.
- AD 30201 Photography III: Conceptual Imaging Cr. 3.
- AD 30702 Photography IV: Editorial Imaging Cr. 3.
- AD 30801 Photography V: Special Projects/Portfolio Cr. 3.
- AD 30301 Graphic Design II: Identity and Branding Cr. 3.
- AD 30401 Graphic Design III: Publication Design Cr. 3.
- AD 40201 Graphic Design IV: Packaging And Display Cr. 3.
- AD 40301 Graphic Design V: Digital Prepress/Portfolio Cr. 3.
- AD 39002 Topics In Studio Fine Art Cr. 1-6.
- AD 49002 Topics In Studio Fine Arts Cr. 1-6.
- AD 49003 Topics In Studio Fine Arts Cr. 1-6.
- · AD 49501 Independent Study In Fine Arts Cr. 3.

## Content Field Methods Credits: 6

• EDU 33001 - Foundations Of Art Education And Methods I Cr. 3

Field experience required; students must enroll in EDU 30100 concurrently with EDU 33001. Students must earn a B- or higher to earn credit towards the Art Education degree; course may be repeated to obtain a satisfactory grade.

- EDU 30100 Laboratory/Field Experience Cr. 0-3.
- EDU 43000 Foundations Of Art Education And Methods II Cr. 3

Field experience required; students must enroll in EDU 40100 concurrently with EDU 43000. Students must earn a B- or higher to earn credit towards the Art Education degree; course may be repeated to obtain a satisfactory grade.

• EDU 40100 - Laboratory/Field Experience Cr. 0-3.

# Professional Education Requirements Credits: 21

- EDU 25000 General Educational Psychology Cr. 1-4.
- EDU 30600 Teaching Students With Special Needs In Secondary Classrooms Cr. 3.
- EDU 34001 Education And American Culture Cr. 3.

Credits for EDU 34001 count in the general education requirements, not in the total for professional education courses.

• EDU 47500 - Adolescent Development And Classroom Management Cr. 3.

## Pearson Content Area Exam (Art Education Exam)

The Pearson Content Area exam must be passed and recorded prior to student teaching.

# Student Teaching Credits: 12

- Student must complete an application for student teaching one year before intended student teaching semester.
- · Pass the Pearson Content Area exam Prior to student teaching.
- Student teaching consists of a 10 week placement in one school setting plus a 6 week placement in another school setting.
- Students must have a 3.0 GPA in order to student teach.
- · Pedagogy test to be taken during student teaching semester.
- EDU 40100 Laboratory/Field Experience Cr. 0-3.
- EDU 48200 Student Teaching: All Grades Cr. 1-16.

Credits: 13

## Art Education BA Exhibition Requirement

Art Education Bachelor of Art (B.A.) students must submit work during their final year of course work for the Art and Design B.A./B.A. Art Education Exhibition. The exhibition is curated by the Department Chair and consists of artwork produced by B.A. students in Art and Design junior and senior year studio classes, or at the discretion of the chair of the department.

# Recommendations, Requirements, Transfers, and Policies

#### Recommendations

Students should schedule classes within the B.A. program under the guidance of the official departmental advisor.

### **Residence Requirements**

For a bachelor's degree, registration in and completion of at least 33 credits of resident course credit at the 200 level or above, including at least 15 credits at the 300 level or above, in courses applicable to the major.

### **Transfer and Returning Student Credit**

All studio and art history courses transferred from another institution or former Purdue Fort Wayne art programs must be evaluated by appropriate faculty in the Department of Art and Design program before they may be applied to a major in Art and Design. See Transfer and Returning Student Credit Review.

### **Transfer and Returning Student Credit Review**

Courses in studio art that have been transferred to Purdue Fort Wayne from another institution or former Purdue Fort Wayne art programs are not counted as part of the Art and Design major unless they have been reviewed by the Art and Design faculty. For a review of transferred studio credit, the student should provide the viewer with a portfolio consisting of representative work in each area (e.g. painting, sculpture, etc.) for which the transfer credit is desired. The portfolio should include both studies and finished work and be as encompassing as possible.

### **Academic Probation/Dismissal Policies**

If a student does not meet the university's GPA standard, they will be notified that they have been placed on academic probation and will be asked to make progress towards meeting campus standards. Department of Art and Design programs have their own academic standards as stated above. If a student is not meeting these standards, they will be notified and placed on departmental academic probation. If a student does not make positive progress towards meeting the academic standards of the department within twelve (12) credit hours of study, they will be subject to dismissal from the Department of Art and Design program.

Total Credits: 120

## Student Responsibilities

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All request for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# **Biochemistry (B.S.)**

Program: B.S.
Department of Chemistry
College of Arts and Sciences

Science Building 496 ~ 260-481-6289

The Bachelor of Science major program in biochemistry is an excellent choice for pursuing premedical, predental, and other preprofessional interests. With carefully chosen electives and possible opportunities for further education, this program allows you to combine chemistry with other fields of study in support of career paths such as biochemist, forensic chemist, biomedical or healthcare scientist, analytical chemist, pharmacologist, nutritionist or toxicologist, dentist, pharmacist, and medical doctor/physician.

For details on pursuing a secondary education second degree (BSEd) to teach Biochemistry in middle school/high school, click on the links to the Secondary Education - Second Degree Program and the School of Education page in this catalog. Note: The BSEd as a second degree in these programs cannot be earned without completion of the bachelor's degree in the content area from the College of Arts and Sciences. See Program Requirements below for a link to the Secondary Education - Second Degree 4-Year Plan.

### **Student Learning Outcomes:**

· Acquisition of Knowledge

The student will demonstrate the knowledge and skills necessary for the biochemistry profession.

· Application of Knowledge

The student will use their biochemistry knowledge to make sound decisions and solve problems in their discipline while demonstrating skills for life-long learning.

#### · Personal and Professional Values

The student will exhibit high levels of personal integrity and professional ethics in their undergraduate careers.

### · A Sense of Community

The student will demonstrate the skills and knowledge needed to be responsible and productive in various community settings.

### · Critical Thinking and Problem Solving

The student will demonstrate critical thinking skills through both qualitative and quantitative problem solving.

#### Communication

The student will demonstrate effective oral and written communication of biochemical principles.

#### **Program Delivery:**

· This program is available on-campus

### Declaring this Major:

• Declare this major within the Department of Chemistry

## **General Requirements:**

- · Degree Requirements
- · General Education Requirements
- College Requirements
- · Overlapping Content
- Academic Regulations

To earn a B.S. with a major in Biochemistry, you must fulfill the following requirements in addition to the General Requirements noted above.

# **Program Requirements:**

### Biochemistry BS 4-Year Plan:

• A GPA of 2.00 or higher for all major department courses taken and all CHM courses numbered 300xx and above.

### **Biochemistry with Secondary Education 4-Year Plan:**

# PFW General Education Requirements: Credits 33

- Click on the Purdue Fort Wayne General Education Requirements link above for details.
- Some majors may require particular General Education courses as specified in their program description. Up to six credits of approved General Education courses satisfying requirements in Areas A and B, and three credits satisfying requirements in Area C, may originate in the major. A grade of C- or higher in each course, and an overall GPA of 2.0 is required to satisfy the Purdue Fort Wayne General Education Requirements.

# College of Arts and Sciences Requirements

• Click on the Purdue Fort Wayne College Requirements link above. Go to Arts and Sciences Requirements for the Bachelor of Science Degree

## English Writing and Speaking: Credits 6

- See Part A in Arts and Sciences Requirements for the Bachelor of Science Degree for Speaking requirement
- ENGL 23301 Intermediate Expository Writing Cr. 3.

## International Language: Credits 6-8

• See Part B in Arts and Sciences Requirements for the Bachelor of Science Degree

# Core and Concentration (Major) Courses: Credits 47

• CHM 11500 - General Chemistry Cr. 4. • CHM 11600 - General Chemistry Cr. 4. • CHM 19400 - Freshman Chemistry Orientation Cr. 1. • CHM 24100 - Introductory Inorganic Chemistry Cr. 4. • CHM 26100 - Organic Chemistry Cr. 3. • CHM 26200 - Organic Chemistry Cr. 3. • CHM 26500 - Organic Chemistry Laboratory Cr. 2. • CHM 26600 - Organic Chemistry Laboratory Cr. 2. • CHM 28000 - Chemical Literature Cr. 1. • CHM 32100 - Analytical Chemistry I Cr. 4. • CHM 33300 - Principles Of Biochemistry Cr. 3. • CHM 33500 - Biochemistry Lab Cr. 1. • CHM 37200 - Physical Chemistry Cr. 4. • CHM 49600 - Senior Seminar I Cr. 0. • CHM 49700 - Senior Seminar II Cr. 1. • CHM 53300 - Introductory Biochemistry Cr. 3. • CHM 53400 - Introductory Biochemistry Cr. 3. • CHM 53500 - Biochemistry Laboratory Cr. 1.

• CHM 53800 - Molecular Biotechnology Cr. 3.

# **Supporting Courses**

# Biology: Credits 19

BIOL 11700 - Principles Of Ecology And Evolution Cr. 4.
BIOL 11900 - Principles Of Structure And Function Cr. 4.
BIOL 21800 - Genetics And Molecular Biology Cr. 4.
BIOL 43700 - General Microbiology Cr. 4.
BIOL 53700 - Immunobiology Cr. 3.

# Math: Credits 12

- MA 15400 Trigonometry Cr. 3.
- MA 22900 Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.
- MA 23000 Calculus for the Managerial, Social, and Biological Sciences II Cr. 3.
- STAT 24000 Statistical Methods for Biology Cr. 3.

OR

• STAT 30100 - Elementary Statistical Methods I Cr. 3.

# Physics: Credits 8

- PHYS 22000 General Physics Cr. 4.
- PHYS 22100 General Physics Cr. 4.

# **Recommended Courses**

Students interested in attending medical or dental school should take, at least, the following courses in addition to the B.S. Biochemistry degree requirements:

## Pre Medical Additional Courses: Credits 6

- PSY 12000 Elementary Psychology Cr. 3.
- · SOC 16101 Principles of Sociology Cr. 3.

## Pre Dental Additional Courses: Credits 15

- PSY 12000 Elementary Psychology Cr. 3.
- BIOL 21900 Principles Of Functional Biology Cr. 4.
- BIOL 40600 Human Anatomy Cr. 4.
- · BIOL 40900 Human Physiology Cr. 4.

# General Electives

· Sufficient additional credits to bring the total to 120

Total Credits: 120

# Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# Additional Course Use

Courses listed below may also be considered in meeting specific degree requirements.

MA 22900 required, MA 16500 accepted

MA 23000 required, MA 16600 accepted

CHM 53300 required, CHM 43300 accepted

CHM 53800 required, CHM 43800 accepted

PHYS 22000 required, PHYS 21800 and PHYS 15200 accepted

PHYS 22100 required, PHYS 21900 and 25100 accepted

# Biology (B.S.)

Program: B.S.
Department of Biology
College of Arts and Sciences

Science Building  $330 \sim 260\text{-}481\text{-}6305$ 

Biology is one of the most interdisciplinary of all the sciences. In addition to biology, the discipline requires a broad background in chemistry, physics, and mathematics. This background enables the biologist to study the evolution of life; manifestations of life from the level of viruses, bacteria, and individual cells to the structure and function of organisms; and interactions of living organisms with each other and their environment.

For details on pursuing a secondary education second degree (BSEd) to teach Biology in middle school/high school, click on the links to the Secondary Education - Second Degree Program and the School of Education page in this catalog. Note: The BSEd as a second degree in these programs cannot be earned without completion of the bachelor's degree in the content area from the College of Arts and Sciences. See Program Requirements below for a link to the Secondary Education - Second Degree 4-Year Plan.

#### **Student Learning Outcomes:**

Upon completion of this degree, students will:

- · demonstrate comprehension of basic biological principles and theories, and an ability to apply those theories and principles to problem solving
- · demonstrate knowledge of the scientific method, and be able to apply that knowledge to problem solving
- demonstrate the ability to critically evaluate biological information
- · demonstrate the basic knowledge and experience of field and laboratory work, and be able to communicate the results of an investigation

#### **Program Delivery:**

· This program is available on-campus

#### Declaring this Major:

· Declare this major within the Department of Biology

#### **General Requirements:**

- · Degree Requirements
- General Education Requirements
- College Requirements
- Overlapping Course Content
- · Academic Regulations

To earn a B.S. with a major in Biology, you must fulfill the following requirements in addition to the General Requirements noted above. To become eligible for the Biology Honors Program, see requirements listed below under Honors in Biology.

# **Program Requirements:**

### Biology BS 4-Year Plan:

- A GPA of 2.00 or higher for all courses required for the major.
- A GPA of 2.30 or higher in biology core and biology elective/concentration courses.
- A maximum of 6 credits in BIOL 29500 or 59500.
- · All biology courses applied toward graduation must be completed within 10 years from the time the first biology course was completed.

### Biology BS with Secondary Education 4-Year Plan:

# General Education Requirements: Credits 33

- Cick on the Purdue Fort Wayne General Education Requirements link above for details.
- Some majors may require particular General Education courses as specified in their program description. Up to six credits of approved General Education courses satisfying requirements in Area A and B, and three credits satisfying requirements in Area C, may originate in the major. A grade of C- or higher in each course, and an overall GPA of 2.0 is required to satisfy the Purdue Fort Wayne General Education Requirements.

# College of Arts and Sciences Requirements

• Click on the Purdue Fort Wayne College Requirements link above. Go to Arts and Sciences Requirements for the Bachelor of Science Degree

# English Writing and Speaking: Credits 6

- See Part A in Arts and Sciences Requirements for the Bachelor of Science Degree for Speaking requirement
- ENGL 23301 Intermediate Expository Writing Cr. 3.

## International Language: Credits 6-8

• See Part B in Arts and Sciences Requirements for the Bachelor of Science Degree

# Core (Major) Courses: Credits 23

- BIOL 11700 Principles Of Ecology And Evolution Cr. 4.
- BIOL 11900 Principles Of Structure And Function Cr. 4.
- BIOL 12000 Biology Resource Seminar Cr. 1.
- BIOL 21700 Intermediate Ecology Cr. 3.
- BIOL 21800 Genetics And Molecular Biology Cr. 4.
- BIOL 21900 Principles Of Functional Biology Cr. 4.
   BIOL 49100 Senior Biology Seminar Cr. 1-3. Note: Effective Fall 2014, 3 credits are required

# **Supporting Courses**

Calculus and Statistics: Credits 9

The following calculus and statistics course pattern is typical. Course substitutions are possible with advisor approval. Please note that most graduate programs require a full year of calculus.

- MA 16500 Analytic Geometry and Calculus I Cr. 4. or
- MA 22900 Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.
- STAT 24000 Statistical Methods for Biology Cr. 3.
- STAT 34000 Elementary Statistical Methods II Cr. 3.

# Chemistry: Credits 16

- CHM 11500 General Chemistry Cr. 4.
- CHM 11600 General Chemistry Cr. 4.

# One of the following sequences

- CHM 25400 Organic Chemistry Laboratory Cr. 1.
- CHM 25500 Organic Chemistry Cr. 3.

- CHM 25600 Organic Chemistry Cr. 3.
- CHM 25800 Organic Chemistry Laboratory Cr. 1.

## OR

- CHM 25400 Organic Chemistry Laboratory Cr. 1.
- CHM 26100 Organic Chemistry Cr. 3.

- CHM 25800 Organic Chemistry Laboratory Cr. 1. CHM 26200 Organic Chemistry Cr. 3.

## Physics: Credits 8

- PHYS 22000 General Physics Cr. 4.
- PHYS 22100 General Physics Cr. 4.

# Biology Elective Courses: Credits 16

Take at least one course with a laboratory from each of the A and B elective course lists below.

- The A elective courses focus on topics regarding the intact organism and its interaction with the environment, and so are organismal, population, community, and
- The B elective courses focus on processes acting within the organism, and thus detail molecular, cellular, and organ-system mechanisms.

## A-Electives

(organismal, population, community, and ecosystem)

- BIOL 33500 Animal Behavior Cr. 3.
  BIOL 34500 Vertebrate Biology Cr. 4.

includes laboratory

• BIOL 43400 - Marine Community Ecology Cr. 3.

includes laboratory

• BIOL 44500 - Aquatic Biology Cr. 3.

includes laboratory

· BIOL 50100 - Field Botany Cr. 4.

includes laboratory

- BIOL 50200 Conservation Biology Cr. 3.
- BIOL 50500 Biology Of Invertebrate Animals Cr. 3.

includes laboratory

- BIOL 52000 Contemporary Parasitology Cr. 3.
- BIOL 54110 Invasion Biology Cr. 3.
- · BIOL 54300 Population Ecology Cr. 4.

includes laboratory

- BIOL 55600 Physiology I Cr. 3.
  BIOL 57810 Biology Of Disease Vectors Cr. 3.
- BIOL 58000 Evolution Cr. 3.
- BIOL 58200 Ecotoxicology Cr. 3.
- BIOL 58600 Topics In Behavior And Ecology Cr. 3.
   ENTM 20600 General Applied Entomology Cr. 2.

separate laboratory available (ENTM 20700)

- ENTM 20700 General Applied Entomology Laboratory Cr. 1.
- FNR 50500 Molecular Ecology and Evolution Cr. 3.
   FNR 22500 Dendrology Cr. 3.

includes laboratory

• FNR 52300 - Aquaculture Cr. 3.

# **B-Electives**

(molecular, cellular, and organ-system)

• BIOL 31500 - Developmental Anatomy Cr. 4.

includes laboratory

• BIOL 35000 - Introduction To Plant Physiology Cr. 4.

includes laboratory

- BIOL 38100 Cell Biology Cr. 3.
- BIOL 30100 Cert Blengy
  BIOL 40600 Human Anatomy Cr. 4.
  BIOL 40900 Human Physiology Cr. 4.

• BIOL 43700 - General Microbiology Cr. 4.

includes laboratory

• BIOL 50600 - Human Molecular Genetics Cr. 3.

- BIOL 50900 Molecular Biology And Applications Cr. 3.
  - separate laboratory available (BIOL 58400)
- BIOL 51600 Molecular Biology Of Cancer Cr. 3.
- BIOL 51810 Biomedicine Cr. 3.
- BIOL 52410 Bacterial Diversity And Systematics Cr. 3.
- BIOL 53300 Medical Microbiology Cr. 3.
- BIOL 53700 Immunobiology Cr. 3.
- BIOL 54000 Biotechnology Cr. 3. • BIOL 54400 - Principles Of Virology Cr. 3.
- BIOL 55110 Proteins: Structure And Functions Cr. 3.
- BIOL 55900 Endocrinology Cr. 3.
- BIOL 56500 Immunobiology Lab Cr. 1. • BIOL 56600 - Developmental Biology Cr. 3.

separate laboratory available (BIOL 56700)

- BIOL 56700 Laboratory In Developmental Biology Cr. 1.
- BIOL 57710 Emerging Infectious Diseases Cr. 3.
- BIOL 58400 Molecular Biology And Applications Laboratory Cr. 1.

## **General Electives**

· Sufficient additional credits to bring the total to 120.

## Honors in Biology

You may earn an Honors Degree in Biology by achieving an overall GPA of 3.00 or higher and a Biology GPA of 3.50 or higher while completing at least 6 research credits. Research credits should be composed of BIOL 59500, although BIOL 29500 credits will be accepted if it can be demonstrated that the BIOL 29500 research was conducted on the same topic as the BIOL 59500 research. A senior thesis committee of three faculty members must be established at least one semester before graduation. Students must prepare a plan of research, senior thesis, and give a public oral presentation of the thesis research for review by the thesis committee. Students earning the Departmental Honors Degree in Biology are not eligible for the Biology Research Certificate.

## Time Limit

All Biology courses applied toward graduation must be completed within ten (10) years from the time the first Biology course was completed.

Total Credits: 120

# Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

## Additional Course Use

Courses listed below may also be considered in meeting specific degree requirements.

CHM 25400 and CHM 26100 required; CHM 26500 and CHM 26100 accepted

COM 11400 required; HIST 12500 accepted

STAT 24000 required; STAT 30100 accepted

# Biology (B.S.) With Concentration In Ecology And Evolutionary Biology

Program: B.S.
Department of Biology
Ecology and Evolutionary Biology Concentration
College of Arts and Sciences

Science Building 330 ~ 260-481-6305

This concentration within the Biology B.S. serves students with an interest in the complex interactions between organisms and the surrounding environment. It provides preparation for professions in environmental monitoring, research, and education for positions within governmental agencies, academic institutions, nongovernmental organizations, and private industry. This concentration also provides students with fundamental knowledge and skills in preparation for graduate study in the area. There is an emphasis on terrestrial and aquatic ecosystems in the curriculum, as well as theoretical and applied ecology.

### **Student Learning Outcomes:**

Upon completion of this degree, students will:

- demonstrate comprehension of basic biological principles and theories, and an ability to apply those theories and principles to problem solving
- demonstrate knowledge of the scientific method, and be able to apply that knowledge to problem solving
- · demonstrate the ability to critically evaluate biological information
- · demonstrate the basic knowledge and experience of field and laboratory work, and be able to communicate the results of an investigation

#### **Program Delivery:**

· This program is available on-campus

#### Declaring this Major:

• Declare this major within the Department of Biology

#### **General Requirements:**

- · Degree Requirements
- · General Education Requirements
- College Requirements
- Overlapping Course Content
- Academic Regulations

# **Program Requirements:**

Biology (Ecology and Evolutionary) 4-Year Plan

- A GPA of 2.00 or higher for all courses required for the major.
- A GPA of 2.30 or higher in biology core and biology elective/concentration courses.
- A maximum of 6 credits in BIOL 29500 or 59500.
- · All biology courses applied toward graduation must be completed within 10 years from the time the first biology course was completed.

To earn a B.S. with a major in Biology and the concentration in Ecology and Evolutionary Biology, you must fulfill the following requirements in addition to the General Requirements noted above:

# General Education Requirements: Credits 33

- Click on the  $Purdue\ Fort\ Wayne\ General\ Education\ Requirements$  link above for details.
- Some majors may require particular General Education courses as specified in their program description. Up to six credits of approved General Education courses satisfying requirements in Areas A and B, and three credits satisfying requirements in Area C, may originate in the major. A grade of C- or higher in each course, and an overall GPA of 2.0 is required to satisfy the Purdue Fort Wayne General Education Requirements.

# College of Arts and Sciences Requirements

• Click on the Purdue Fort Wayne College Requirements link above. Go to Arts and Sciences Requirements for the Bachelor of Science Degree

# English Writing and Speaking: Credits 6

- See Part A in Arts and Sciences Requirements for the Bachelor of Science Degree for Speaking requirement
- ENGL 23301 Intermediate Expository Writing Cr. 3.

## International Language: Credits 6-8

· See Part B in Arts and Sciences Requirements for the Bachelor of Science Degree

# Core (Major) Courses: Credits 23

```
• BIOL 11700 - Principles Of Ecology And Evolution Cr. 4.
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- BIOL 11900 Principles Of Structure And Function Cr. 4.
- BIOL 12000 Biology Resource Seminar Cr. 1.
- BIOL 21700 Intermediate Ecology Cr. 3.
- BIOL 21800 Genetics And Molecular Biology Cr. 4.
- BIOL 21900 Principles Of Functional Biology Cr. 4.
- BIOL 49100 Senior Biology Seminar Cr. 1-3. Note: Effective Fall 2014, 3 credits are required

# **Supporting Courses**

## Calculus and Statistics: Credits 9

The following calculus and statistics course pattern is typical. Course substitutions are possible with advisor approval. Please note that most graduate programs require a full year of calculus.

- MA 16500 Analytic Geometry and Calculus I Cr. 4. or
- MA 22900 Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.
- STAT 24000 Statistical Methods for Biology Cr. 3.
- STAT 34000 Elementary Statistical Methods II Cr. 3.

# Chemistry: Credits 16

- CHM 11500 General Chemistry Cr. 4.
- CHM 11600 General Chemistry Cr. 4.

## One of the following sequences: Credits 8

```
• CHM 25400 - Organic Chemistry Laboratory Cr. 1.
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• CHM 25500 - Organic Chemistry Cr. 3.

and

- CHM 25600 Organic Chemistry Cr. 3.
- CHM 25800 Organic Chemistry Laboratory Cr. 1.

## OR

- CHM 25400 Organic Chemistry Laboratory Cr. 1.
- CHM 26100 Organic Chemistry Cr. 3.

and

• CHM 25800 - Organic Chemistry Laboratory Cr. 1.

• CHM 26200 - Organic Chemistry Cr. 3.

# Physics: Credits 8

- PHYS 22000 General Physics Cr. 4.
- PHYS 22100 General Physics Cr. 4.

## Elective Courses in the Concentration Credits: 15

To complete the concentration, take:

- · at least one course in the area of evolution and systematics
- two courses with a laboratory are required from the list of Ecology and Behavior courses
- the remainder of the elective credit hours within the concentration may be filled by choice from the full list of courses

# **Evolution and Systematics**

- BIOL 52410 Bacterial Diversity And Systematics Cr. 3.
- BIOL 58000 Evolution Cr. 3.
- FNR 50500 Molecular Ecology and Evolution Cr. 3.

# **Ecology and Behavior**

- BIOL 33500 Animal Behavior Cr. 3.
- BIOL 34500 Vertebrate Biology Cr. 4.

includes laboratory

• BIOL 43400 - Marine Community Ecology Cr. 3.

includes laboratory

- BIOL 43700 General Microbiology Cr. 4.
- BIOL 44500 Aquatic Biology Cr. 3.

includes laboratory

• BIOL 50100 - Field Botany Cr. 4.

includes laboratory

- BIOL 50200 Conservation Biology Cr. 3.
- BIOL 50500 Biology Of Invertebrate Animals Cr. 3.

includes laboratory

- BIOL 52000 Contemporary Parasitology Cr. 3.
  BIOL 54110 Invasion Biology Cr. 3.
  BIOL 54300 Population Ecology Cr. 4.

includes laboratory

- BIOL 55600 Physiology I Cr. 3.
- BIOL 58200 Ecotoxicology Cr. 3.
- BIOL 58600 Topics In Behavior And Ecology Cr. 3.
- ENTM 20600 General Applied Entomology Cr. 2.
- ENTM 20700 General Applied Entomology Laboratory Cr. 1.
- FNR 22500 Dendrology Cr. 3.

includes laboratory

• FNR 52300 - Aquaculture Cr. 3.

# **General Electives**

· Sufficient additional credits to bring the total to 120.

# Honors in Biology

You may earn an Honors Degree in Biology by achieving an overall GPA of 3.00 or higher and a Biology GPA of 3.50 or higher while completing at least 6 research credits. Research credits should be composed of BIOL 59500, although BIOL 29500 credits will be accepted if it can be demonstrated that the BIOL 29500 research was conducted on the same topic as the BIOL 59500 research. A senior thesis committee of three faculty members must be established at least one semester before graduation. Students must prepare a plan of research, senior thesis, and give a public oral presentation of the thesis research for review by the thesis committee. **Students earning the Departmental Honors Degree in Biology are not eligible for the Biology Research Certificate**.

### Time Limit

All Biology courses applied toward graduation must be completed within ten (10) years from the time the first Biology course was completed.

Total Credits: 120

# Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

## Additional Course Use

Courses listed below may also be considered in meeting specific degree requirements.

CHM 25400 and CHM 26100 required; CHM 26500 and CHM 26100 accepted

COM 11400 required; HIST 12500 accepted STAT 24000 required; STAT 30100 accepted

# Biology (B.S.) With Concentration In Genetics, Cellular, And Molecular Biology

Program: B.S.
Department of Biology
Genetics, Cellular, and Molecular Biology Concentration
College of Arts and Sciences

Science Building 330 ~ 260-481-6305

This concentration within the Biology B.S. degree prepares students to be at the forefront of genetics, cellular and molecular biology. Students share a common curriculum of traditional biology coursework along with in-depth training in the aforementioned areas. Students not only learn basic concepts, but also the most up-to-date laboratory and bioinformatics techniques employed in genetics, cellular and molecular biology. This in-depth education and training enables students to be highly competitive for entry into graduate, medical and other professional schools as well as for securing jobs in health care, pharmaceutical and drug discovery, biotechnology, agriculture, and environmental fields.

# **Student Learning Outcomes:**

Upon completion of this degree, students will:

- · demonstrate comprehension of basic biological principles and theories, and an ability to apply those theories and principles to problem solving
- · demonstrate knowledge of the scientific method, and be able to apply that knowledge to problem solving

- · demonstrate the ability to critically evaluate biological information
- · demonstrate the basic knowledge and experience of field and laboratory work, and be able to communicate the results of an investigation

#### **Program Delivery:**

· This program is available on-campus

### Declaring this Major:

• Declare this major within the Department of Biology

#### **General Requirements:**

- · Degree Requirements
- General Education Requirements
- · College Requirements
- · Overlapping Course Content
- Academic Regulations

# **Program Requirements:**

Biology (Genetics, Cellular and Molecular) 4-Year Plan

- A GPA of 2.00 or higher for all courses required for the major.
  - A GPA of 2.30 or higher in biology core and biology elective/concentration courses.
     A maximum of 6 credits in BIOL 29500 or 59500.

  - · All biology courses applied toward graduation must be completed within 10 years from the time the first biology course was completed.

To earn a B.S. with a major in Biology and the concentration in Genetics, Cellular, and Molecular Biology, you must fulfill the following requirements in addition to the General Requirements noted above

# General Education Requirements: Credits 33

- Click on the Purdue Fort Wayne General Education Requirements link above for details.
- · Some majors may require particular General Education courses as specified in their program description. Up to six credits of approved General Education courses satisfying requirements in Areas A and B, and three credits satisfying requirements in Area C, may originate in the major. A grade of C- or higher in each course, and an overall GPA of 2.0 is required to satisfy the Purdue Fort Wayne General Education Requirements.

# College of Arts and Sciences Requirements

· Click on the Purdue Fort Wayne College Requirements link above. Go to Arts and Sciences Requirements for the Bachelor of Science Degree

## English Writing and Speaking: Credits 6

- · See Part A in Arts and Sciences Requirements for the Bachelor of Science Degree for Speaking requirement
- ENGL 23301 Intermediate Expository Writing Cr. 3.

## International Language: Credits 6-8

· See Part B in Arts and Sciences Requirements for the Bachelor of Science Degree

# Core (Major) Courses: Credits 23

- BIOL 11700 Principles Of Ecology And Evolution Cr. 4.
- BIOL 11900 Principles Of Structure And Function Cr. 4.
- BIOL 12000 Biology Resource Seminar Cr. 1.

- BIOL 21700 Intermediate Ecology Cr. 3.
- BIOL 21800 Genetics And Molecular Biology Cr. 4.
- BIOL 21900 Principles Of Functional Biology Cr. 4.
- BIOL 49100 Senior Biology Seminar Cr. 1-3. Note: Effective Fall 2014, 3 credits are required

# **Supporting Courses**

## Calculus and Statistics: Credits 9

The following calculus and statistics course pattern is typical. Course substitutions are possible with advisor approval. Please note that most graduate programs require a full year of calculus.

- MA 16500 Analytic Geometry and Calculus I Cr. 4. or
- MA 22900 Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.
- STAT 24000 Statistical Methods for Biology Cr. 3.
- STAT 34000 Elementary Statistical Methods II Cr. 3.

# Chemistry: Credits 16

- CHM 11500 General Chemistry Cr. 4.
- CHM 11600 General Chemistry Cr. 4.

Note: CHM 53300 Introductory Biochemistry is a requirement for this concentration (see below)

# One of the following sequences: Credits 8

- CHM 25400 Organic Chemistry Laboratory Cr. 1.
- CHM 25500 Organic Chemistry Cr. 3.

and

- CHM 25600 Organic Chemistry Cr. 3.
- CHM 25800 Organic Chemistry Laboratory Cr. 1.

## OR

- CHM 25400 Organic Chemistry Laboratory Cr. 1.
- CHM 26100 Organic Chemistry Cr. 3.

and

- CHM 25800 Organic Chemistry Laboratory Cr. 1.
- CHM 26200 Organic Chemistry Cr. 3.

# Physics: Credits 8

- PHYS 22000 General Physics Cr. 4.
- PHYS 22100 General Physics Cr. 4.

# Required Courses in the Concentration: Credits 13

- BIOL 38100 Cell Biology Cr. 3.
- BIOL 50600 Human Molecular Genetics Cr. 3.
- BIOL 50900 Molecular Biology And Applications Cr. 3.
- BIOL 58400 Molecular Biology And Applications Laboratory Cr. 1.
- CHM 53300 Introductory Biochemistry Cr. 3.

## Elective Courses in the Concentration: Credits 6

Choose six credits from the following list:

- BIOL 40600 Human Anatomy Cr. 4.
- BIOL 40900 Human Physiology Cr. 4.
- BIOL 43700 General Microbiology Cr. 4.

#### includes laboratory

- BIOL 51600 Molecular Biology Of Cancer Cr. 3.
- BIOL 51810 Biomedicine Cr. 3.
- BIOL 52000 Contemporary Parasitology Cr. 3.
- BIOL 52410 Bacterial Diversity And Systematics Cr. 3.
- BIOL 53300 Medical Microbiology Cr. 3.
- BIOL 53700 Immunobiology Cr. 3.
   BIOL 54400 Principles Of Virology Cr. 3.
- BIOL 55110 Proteins: Structure And Functions Cr. 3.
- BIOL 56500 Immunobiology Lab Cr. 1.
- BIOL 56600 Developmental Biology Cr. 3.
- BIOL 50000 Developmental Biology Cr. 1.
   BIOL 56700 Laboratory In Developmental Biology Cr. 1.
   BIOL 57710 Emerging Infectious Diseases Cr. 3.
- FNR 50500 Molecular Ecology and Evolution Cr. 3.

# General Electives

· Sufficient additional credits to bring the total to 120.

# Honors in Biology

You may earn an Honors Degree in Biology by achieving an overall GPA of 3.00 or higher and a Biology GPA of 3.50 or higher while completing at least 6 research credits. Research credits should be composed of BIOL 59500, although BIOL 29500 credits will be accepted if it can be demonstrated that the BIOL 29500 research was conducted on the same topic as the BIOL 59500 research. A senior thesis committee of three faculty members must be established at least one semester before graduation. Students must prepare a plan of research, senior thesis, and give a public oral presentation of the thesis research for review by the thesis committee. Students earning the Departmental Honors Degree in Biology are not eligible for the Biology Research Certificate.

# Time Limit

All Biology courses applied toward graduation must be completed within ten (10) years from the time the first Biology course was completed.

Total Credits: 120

# Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

## Additional Course Use

Courses listed below may also be considered in meeting specific degree requirements.

CHM 25400 and CHM 26100 required; CHM 26500 and CHM 26100 accepted

COM 11400 required; HIST 12500 accepted

# Biology (B.S.) With Concentration In Microbiology And Immunology

Program: B.S.
Department of Biology
Microbiology and Immunology Concentration
College of Arts and Sciences

Science Building 330 ~ 260-481-6305

This concentration within the Biology B.S. serves students with an interest in microbiology and immunology. It provides preparation for those students who plan to further their education in a professional program, such as medical school or medical technology, as well as those pursuing a graduate program in basic or applied research. Furthermore, the program equips students with wet lab knowledge and experiences that are fundamental to many jobs in industry and public health.

### **Student Learning Outcomes:**

Upon completion of this degree, students will:

- · demonstrate comprehension of basic biological principles and theories, and an ability to apply those theories and principles to problem solving
- · demonstrate knowledge of the scientific method, and be able to apply that knowledge to problem solving
- · demonstrate the ability to critically evaluate biological information
- · demonstrate the basic knowledge and experience of field and laboratory work, and be able to communicate the results of an investigation

### **Program Delivery:**

· This program is available on-campus

#### Declaring this Major:

• Declare this major within the Department of Biology

### **General Requirements:**

- · Degree Requirements
- · General Education Requirements
- College Requirements
- · Overlapping Course Content
- Academic Regulations

## **Program Requirements:**

Biology (Microbiology and Immunology) 4-Yr Plan

- A GPA of 2.00 or higher for all courses required for the major.
- A GPA of 2.30 or higher in biology core and biology elective/concentration courses.
- A maximum of 6 credits in BIOL 29500 or 59500.
- · All biology courses applied toward graduation must be completed within 10 years from the time the first biology course was completed.

To earn a B.S. with a major in Biology and the concentration in Microbiology and Immunology, you must fulfill the following requirements in addition to the General Requirements noted above:

# General Education Requirements: Credits 33

- Click on the Purdue Fort Wayne General Education Requirements link above for details.
- Some majors may require particular General Education courses as specified in their program description. Up to six credits of approved General Education courses satisfying requirements in Areas A and B, and three credits satisfying requirements in Area C, may originate in the major. A grade of C- or higher in each course, and an overall GPA of 2.0 is required to satisfy the Purdue Fort Wayne General Education Requirements.

# College of Arts and Sciences Requirements

• Click on the Purdue Fort Wayne College Requirements link above. Go to Arts and Sciences Requirements for the Bachelor of Science Degree

# English Writing and Speaking: Credits 6

- See Part A in Arts and Sciences Requirements for the Bachelor of Science Degree for Speaking requirement
- ENGL 23301 Intermediate Expository Writing Cr. 3.

#### International Language: Credits 6-8

· See Part B in Arts and Sciences Requirements for the Bachelor of Science Degree

# Core (Major) Courses: Credits 23

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• BIOL 11700 - Principles Of Ecology And Evolution Cr. 4.
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- BIOL 11900 Principles Of Structure And Function Cr. 4.
- BIOL 12000 Biology Resource Seminar Cr. 1.
- BIOL 21700 Intermediate Ecology Cr. 3.
- BIOL 21800 Genetics And Molecular Biology Cr. 4.
- BIOL 21900 Principles Of Functional Biology Cr. 4.
- BIOL 49100 Senior Biology Seminar Cr. 1-3. Note: Effective Fall 2014, 3 credits are required

# **Supporting Courses**

#### Calculus and Statistics: Credits 9

The following calculus and statistics course pattern is typical. Course substitutions are possible with advisor approval. Please note that most graduate programs require a full year of calculus.

- MA 16500 Analytic Geometry and Calculus I Cr. 4. or
- MA 22900 Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.
- STAT 24000 Statistical Methods for Biology Cr. 3.
- STAT 34000 Elementary Statistical Methods II Cr. 3.

## Chemistry: Credits 16

(CHM 53300 is also required and listed in Required Courses in the Concentration below)

- CHM 11500 General Chemistry Cr. 4.
- CHM 11600 General Chemistry Cr. 4.

#### One of the following sequences: Credits 8

```
• CHM 25400 - Organic Chemistry Laboratory Cr. 1.
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• CHM 25500 - Organic Chemistry Cr. 3.

- CHM 25600 Organic Chemistry Cr. 3.
  CHM 25800 Organic Chemistry Laboratory Cr. 1.

# OR

- CHM 25400 Organic Chemistry Laboratory Cr. 1.
- · CHM 26100 Organic Chemistry Cr. 3.

- CHM 25800 Organic Chemistry Laboratory Cr. 1.
- CHM 26200 Organic Chemistry Cr. 3.

## Physics: Credits 8

- PHYS 22000 General Physics Cr. 4.
- PHYS 22100 General Physics Cr. 4.

# Required Courses in the Concentration: Credits 11

• BIOL 43700 - General Microbiology Cr. 4.

includes laboratory

- BIOL 53700 Immunobiology Cr. 3.
- BIOL 56500 Immunobiology Lab Cr. 1.
- CHM 53300 Introductory Biochemistry Cr. 3.

## Elective Courses in the Concentration: Credits 8

Choose eight credits from the following list:

- BIOL 38100 Cell Biology Cr. 3.
- BIOL 40600 Human Anatomy Cr. 4.
  BIOL 40900 Human Physiology Cr. 4.
- BIOL 50600 Human Molecular Genetics Cr. 3.
- BIOL 50900 Molecular Biology And Applications Cr. 3.
- BIOL 51600 Molecular Biology Of Cancer Cr. 3.
- BIOL 51810 Biomedicine Cr. 3.
- BIOL 52000 Contemporary Parasitology Cr. 3.
- BIOL 52410 Bacterial Diversity And Systematics Cr. 3.
- BIOL 53300 Medical Microbiology Cr. 3.
- BIOL 54300 Population Ecology Cr. 4.

#### includes laboratory

- BIOL 54400 Principles Of Virology Cr. 3.
- BIOL 55110 Proteins: Structure And Functions Cr. 3.
- BIOL 57710 Emerging Infectious Diseases Cr. 3.
- BIOL 57810 Biology Of Disease Vectors Cr. 3.
- BIOL 58000 Evolution Cr. 3.
- BIOL 58400 Molecular Biology And Applications Laboratory Cr. 1.

#### General Electives

· Sufficient additional credits to bring the total to 120.

## Honors in Biology

You may earn an Honors Degree in Biology by achieving an overall GPA of 3.00 or higher and a Biology GPA of 3.50 or higher while completing at least 6 research credits. Research credits should be composed of BIOL 59500, although BIOL 29500 credits will be accepted if it can be demonstrated that the BIOL 29500 research was conducted on the same topic as the BIOL 59500 research. A senior thesis committee of three faculty members must be established at least one semester before graduation. Students must prepare a plan of research, senior thesis, and give a public oral presentation of the thesis research for review by the thesis committee. Students earning the Departmental Honors Degree in Biology are not eligible for the Biology Research Certificate.

## Time Limit

All Biology courses applied toward graduation must be completed within ten (10 years from the time the first Biology course was completed.

Total Credits: 120

# Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

#### Additional Course Use

Courses listed below may also be considered in meeting specific degree requirements.

CHM 25400 and CHM 26100 required; CHM 26500 and CHM 26100 accepted

COM 11400 required; HIST 12500 accepted STAT 24000 required; STAT 30100 accepted

# **Business (B.S.B.)**

Program: B.S.B. with majors in Accounting, Business Economics, Finance, Management and Marketing **Undergraduate Student Success Center** Richard T. Doermer School of Business

Neff Hall 366 ~ 260-481-6472

### Doermer School of Business Overview

#### The student learning outcomes for the degree are as follows:

- Upon completion of the Bachelor of Science in Business (B.S.B) Degree, students will:
- Be able to integrate fundamental principles of business theory and practice.
- Be able to solve problems by modeling, analyzing data (qualitative and numeric), and using critical thinking skills.
  Be able to understand the global and cultural implications of business decisions.
- Be able to understand ethical considerations in business decision.
- Be able to understand the relationship between the community and business.
- · Be able to demonstrate the effective communication and teamwork skills.
- · Be prepared for life-long learning in a dynamic environment.

The Bachelor of Science in Business (B.S.B.) program is accredited by The Association to Advance Collegiate Schools of Business (AACSB), which provides a voluntary mechanism of quality control. AACSB is the most prestigious business accrediting body in the nation. Only about one-quarter of all business schools in the nation possess this

Your initial courses are selected from introductory-level general education, business, and economics subjects. When you have qualified for admission to the B.S.B. program, additional opportunities are provided for in-depth studies in a variety of advanced business, management, and analytical subjects. These advanced studies help you prepare for positions of increasing executive responsibility in the business community.

At the time you are admitted to the B.S.B. program, you must declare a specialization in one of five majors: accounting, business economics, finance, management, or marketing.

#### Admission

Students are admitted as pre-business students until they have completed the specific pre-business requirements needed for admission to the Bachelor's degree program.

To be admitted to the B.S.B. program, applicants must have a cumulative GPA of 2.00 or higher and will have completed at least 45 credits that apply toward the degree, including the courses listed below. Within this course listing, successful applicants will have (1) a grade of C- or better in each course and (2) a GPA of 2.50 or better within these courses

#### Courses Required for Admission to the B.S.B. Program

Course Number and Title		Credits
COM 11400	Fundamentals of Speech Communication	3
MA 22900	Calculus for the Managerial, Social, and Biological Sciences I	3
PSY 12000 <u>or</u> SOC 16101	Elementary Psychology or Principles of Sociology	3
BUS 10001	Principles of Business Administration	3
ENGL 23301	Intermediate Expository Writing	3
BUS 20401	Business Communication	3
BUS 10000	Introduction to College and Business Careers	1
BUS 20100	Principles of Financial Accounting	3
BUS 20101	Computers in Business	3
ECON 20101	Introduction to Microeconomics	3
BUS 20001	Business Degree Seminar	0

Three additional rules apply for admission to the B.S.B. program:

- 1. No more than 6 credits of these courses may be repeated, and no course may be repeated more than once.
- Both the original and the repeat grades earned in the above courses will be used to compute the admission GPA. This includes courses that you have taken or repeated at Purdue Fort Wayne and other Purdue campuses.
- 3. Students must earn a minimum of 300 points in the Passport to Success program, including at least two high impact events, before they can be admitted to any of the majors. Passport to Success is a program required of all business majors that emphasizes participation in activities outside the classroom. Details of the Passport to Success program may be found on the Doermer School of Business website.

#### Note:

Bachelor's degree programs in business are offered at other Purdue University campuses. Since admission and graduation requirements vary among these campuses, you must meet the admission and graduation requirements of the campus from which you intend to graduate.

#### **Enrollment in Business Courses Numbered 30100 and Above**

Unless you have met at least one of the following conditions, you are not permitted to enroll in a business course numbered 30100 or above:

- You have been admitted to the B.S.B. program at Purdue Fort Wayne.
- The course is a specified requirement for another bachelor's degree program or minor in which you are enrolled and you have completed all course prerequisites.
- You have obtained written permission from the department through which the course is offered.

If you have enrolled and are not eligible, you will be withdrawn from the course.

**B.S.B. REQUIREMENTS** To earn the B.S.B., you must complete a minimum of 120 credits as specified below and obtain an overall cumulative GPA of at least 2.30. You must satisfy the requirements of Purdue Fort Wayne (see Regulations) and the Richard T. Doermer School of Business, including completion of the Passport to Success program, and earn a grade of C- or better in each BUS and ECON course. Developmental courses do not apply to degree requirements.

Your final consecutive 30 credits must be taken at Purdue Fort Wayne after you have been formally admitted to the B.S.B. program. Business majors may not count BUS, ECON or OLS courses towards their general education requirements (unless noted).

Special Academic Regulations for Students in Undergraduate Business Programs Following are the general policies and procedures for students enrolled in business undergraduate programs. In addition to the policies of Purdue Fort Wayne (see Regulations), these are intended to maintain the historically high academic standards of undergraduate business programs at Purdue Fort Wayne.

The Student's Responsibility You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

Academic Renewal Option The school participates in the Academic Renewal Option for eligible students returning to Purdue Fort Wayne after an absence of five or more years. (see Regulations)

Time Limit. To ensure that you will be professionally competitive with other members of your graduating class, you may complete the degree requirements specified in the catalog in effect at the time you were formally admitted to the degree program only if

- Progress toward your degree objective has been continuous. If you have not registered for degree-applicable courses as a Purdue Fort Wayne business major for a period
  of one calendar year, you will be considered as not progressing toward your original degree objective. Subsequently, if you qualify for re-entry to an undergraduate
  business program at Purdue Fort Wayne, you must satisfy the admission and degree requirements specified in the Purdue Fort Wayne catalog that includes your year of
  re-entry.
- No more than five years have elapsed since your admission to the business degree program. If more than five years have elapsed, your cumulative academic record will be reviewed by the appropriate business or economics department, and you will be required to meet the degree criteria specified in the current Purdue Fort Wayne catalog. This may result in your having to repeat those courses in which the original content is determined to be outdated.
- The necessary courses or degree programs are available. If the courses that were required at the time of your formal admission to the business degree program are no longer available, you must complete the current replacements for those courses. Should these newer courses require prerequisites you have not taken, you must also enroll for these prerequisites in the appropriate sequence.

Overlapping Courses You may not count toward graduation any courses or sequences considered to have overlapping content.

Academic Probation You are placed on academic probation whenever your semester or cumulative GPA at the end of any fall or spring semester falls below 2.0.

Repeat Limits To remain eligible for the B.S.B. program, a student may not retake any of the 30000 or 40000-level BUS or ECON courses more than twice. An appeal may be made by the student to the Undergraduate Policy Committee (UPC) in the case of extenuating circumstances.

Transfer Credit Generally, courses in basic business and economics subjects (10000-20000 level) will be accepted as equivalent if they are being transferred from regionally accredited institutions. Courses in advanced business and economics (30000-40000 level) will only be considered equivalent if they are from another business school accredited by The Association to Advance Collegiate Schools of Business (AACSB), were taken within the past five years, and were taken as a junior or senior class standing.

#### At least 50 percent of required business and economics courses must be completed at Purdue Fort Wayne in order for a B.S.B. degree to be awarded.

Credit by Examination Under very limited circumstances and subject to the following policies, you may be permitted to earn credit by means of a special examination:

- 1. In all cases, your eligibility for a credit examination; the type of examination; testing procedures, date, time, and location; and evaluation of your performance are the decision of the appropriate Purdue Fort Wayne business or economics department. The decision of the department is final.
- 2. Credits earned by examination cannot exceed 10 percent of your total degree requirements.
- 3. You may attempt an authorized credit examination only once.
- 4. Only those examination scores that equate to a C- grade or better will be considered. Only the grade P will be reported for credit earned by examination.

# General Education Requirements Credits: 33

A grade of C- or better is required in each course used to satisfy the Purdue Fort Wayne general education requirements.

# Category A: Foundational Intellectual Skills

- 1. Written Communication Credits: 3
  - ENGL 13100 Reading, Writing, and Inquiry I Cr. 3.
- 2. Speaking and Listening Credits: 3
  - COM 11400 Fundamentals Of Speech Communication Cr. 3.
- 3. Quantitative Reasoning Credits: 3
  - MA 22900 Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.

Additional Course Use

Courses listed below may also be considered in meeting specific degree requirements.

MA 22900 required, MA 16300, MA 16500, MA 22700 or MATH M119 accepted

# Category B: Ways of Knowing

#### 4. Scientific Ways of Knowing Credits: 3

Select one of the following:

- ANTH 20001 Bioanthropology Cr. 3.
- ASTR 10000 The Solar System Cr. 3.
- · BIOL 10000 Introduction To The Biological World Cr. 3.
- BIOL 32700 Biology Of Aging Cr. 3.
- CHM 11100 General Chemistry Cr. 3. required lab
- · CHM 11500 General Chemistry Cr. 4. required lab
- · CHM 12000 Chemistry And Art Cr. 3.
- EAPS 10001 General Geology Cr. 3-5. • EAPS 12100 - Journey To Mars Cr. 3.
- NUTR 30300 Essentials of Nutrition Cr. 3.
- · GEOG 10700 Physical Systems of the Environment Cr. 3.
- GEOG 10900 Weather and Climate Cr. 3.

- HORT 10100 Fundamentals of Horticulture Cr. 3.
- PHYS 10500 Sound and Music Cr. 3.
- PHYS 11500 Introduction to Lasers Cr. 3.
- PHYS 12000 Physics of Sports Cr. 3.
- PHYS 15200 Mechanics Cr. 5. required lab
- PHYS 21800 General Physics Cr. 4. required lab
- PHYS 22000 General Physics Cr. 4. required lab
- PHYS 22300 X-Ray Physics Cr 3.

Business majors are not required to take a lab class but if you choose to take a class with a required lab, you must complete the required lab. If you opt to take a science class that is not on the list above, then you will have to take another Scientific Ways of Knowing class as a general education elective that satisfies any missing outcomes.

### 5. Social and Behavioral Ways of Knowing Credits: 3

Select one of the following:

- PSY 12000 Elementary Psychology Cr. 3. or
- SOC 16101 Principles of Sociology Cr. 3.

# 6. Humanistic and Artistic Ways of Knowing Credits: 3

• PHIL 11100 - Introduction To Ethics Cr. 3.

## 7. Interdisciplinary Ways of Knowing Credits: 6

Must complete

• BUS 10001 - Principles Of Business Administration Cr. 3.

and select one of the following:

- INTL 20000 Introduction to International Studies: Emerging Global Visions Cr. 3.
- LGBT 20000 Introduction to Scholarship on Lesbian, Gay, Bisexual, and Transgender Issues Cr. 3.
- LING 46000 Language in Society Cr. 3.
- OLS 45400 Gender and Diversity in Management Cr. 3.
- PACS 20000 Introduction to Peace and Conflict Studies Cr. 3.
- PPOL 16200 Environment and People Cr. 3.
- REL 11200 Religion and Culture Cr. 3.
- SOC 20900 Community and the Built Environment Cr. 3.
- WOST 24000 Topics in Feminism Cr. 3.
- EALC 10101 Elementary Japanese I Cr. 4.
- EALC 10201 Elementary Japanese II Cr. 4.
- FR 11100 Elementary French I Cr. 3.
- FR 11201 Elementary French II Cr. 3.
- GER 11100 Elementary German I Cr. 3. GER 11201 Elementary German II Cr. 3.
- NELC 10000 Elementary Arabic I Cr. 3.
- NELC 15000 Elementary Arabic II Cr. 3.

- SPAN 11101 Elementary Spanish I Cr. 3.
  SPAN 11201 Elementary Spanish II Cr. 3.
  SPAN 11300 Accelerated First Year Spanish Cr. 3.

# Category C: Capstone

### 8. Capstone Experience Credits: 3

General Education Requirements

# General Education Electives Credits: 6

General Education Requirements

# DSB Additional Requirements Credits: 6

You must earn a grade of C- or better in each of the following courses:

- ENGL 23301 Intermediate Expository Writing Cr. 3.
- BUS 20401 Business Communication Cr. 3.

# **Business and Economics Core Credits: 46**

You must earn a grade of C- or better in each of the following courses:

#### **Business Principles Credits: 13**

- BUS 10000 Introduction To College And Business Careers Cr. 1.
- BUS 20100 Principles Of Financial Accounting Cr. 3.
- BUS 20200 Principles Of Managerial Accounting Cr. 3.
- BUS 20101 The Computer In Business Cr. 3
- BUS 20300 Commercial Law I Cr. 3.
- BUS 20001 Business Degree Seminar Cr. 0.

## **Economics Principles Credits: 9**

- ECON 20101 Introduction to Microeconomics Cr. 3.
- ECON 20201 Introduction to Macroeconomics Cr. 3.
- ECON 27000 Introduction to Statistical Theory in Economics and Business I Cr. 3.

Courses listed below may also be considered in meeting specific degree requirements.

ECON 27000 required, STAT 30100, STAT 51100 accepted

## Management Processes Credits: 15

A student may not retake any of the 30000-40000 level BUS or ECON courses more than twice. An appeal may be made by the student to the Undergraduate Policy Committee (UPC) in the case of extenuating circumstances.

- BUS 30100 Financial Management Cr. 3.
- BUS 30101 Introduction To Marketing Cr. 3.
- BUS 30102 Operations Management Cr. 3.
- BUS 30200 Management And Behavior In Organizations Cr. 3
- BUS 32100 Management Of Information Systems Cr. 3.

## Management Policy and Strategy Credits: 9

- BUS 40400 Social, Legal, And Ethical Implications Of Business Decisions Cr. 3.
- BUS 43000 Organizations And Organizational Change Cr. 3.
- BUS 40100 Administrative Policy Cr. 3.
- BUS 40000 Business Senior Seminar Cr. 0-3.

A grade of 'P' will be posted for BUS 40000 when a student successfully earns all of the Passport to Success points required for graduation.

Major Credits: 18-24

18-24 credits in major courses: Upon admission to the B.S.B. program, you will select one of the five majors: Accounting, Finance, Business Economics, Management or Marketing. While you may change your major at any time during your degree program, changes made after your junior year may result in exceeding the 120 credits required to complete your degree.

Free Elective Credits: 11-17

11-17 credits from either business or non-business courses to complement your professional and educational objectives, and bring your degree total to at least 120 credits.

Total Credits: 120

# Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# **Business Economics (B.S.B.)**

Program: B.S.B. - Business Economics Department of Economics Richard T. Doermer School of Business

Neff Hall 340 ~ 260-481-6794

**Doermer School of Business Undergraduate Student Success Center** 

Neff Hall 366 ~ 260-481-6742

## Doermer School of Business Overview

#### The student learning outcomes for the degree are as follows:

- Upon completion of the Bachelor of Science in Business (B.S.B) Degree, students will:
- Be able to integrate fundamental principles of business theory and practice.
- · Be able to solve problems by modeling, analyzing data (qualitative and numeric), and using critical thinking skills.
- Be able to understand the global and cultural implications of business decisions.
- Be able to understand ethical considerations in business decision.
- Be able to understand the relationship between the community and business.
- Be able to demonstrate the effective communication and teamwork skills.
- · Be prepared for life-long learning in a dynamic environment.

The Bachelor of Science in Business (B.S.B.) program is accredited by The Association to Advance Collegiate Schools of Business (AACSB), which provides a voluntary mechanism of quality control. AACSB is the most prestigious business accrediting body in the nation. Only about one-quarter of all business schools in the nation possess this distinction.

Your initial courses are selected from introductory-level general education, business, and economics subjects. When you have qualified for admission to the B.S.B. program, additional opportunities are provided for in-depth studies in a variety of advanced business, management, and analytical subjects. These advanced studies help you prepare for positions of increasing executive responsibility in the business community.

At the time you are admitted to the B.S.B. program, you must declare a specialization in one of five majors: accounting, business economics, finance, management, or marketing.

#### Admission

Students are admitted as pre-business students until they have completed the specific pre-business requirements needed for admission to the Bachelor's degree program.

To be admitted to the B.S.B. program, applicants must have a cumulative GPA of 2.00 or higher and will have completed at least 45 credits that apply toward the degree, including the courses listed below. Within this course listing, successful applicants will have (1) a grade of C- or better in each course and (2) a GPA of 2.50 or better within these courses.

#### Courses Required for Admission to the B.S.B. Program

Course Number and Title		Credits
COM 11400	Fundamentals of Speech Communication	3
MA 22900	Calculus for the Managerial, Social, and Biological Sciences I	3
PSY 12000 <u>or</u> SOC 16101	Elementary Psychology or Principles of Sociology	3
BUS 10001	Principles of Business Administration	3
ENGL 23301	Intermediate Expository Writing	3
BUS 20401	Business Communication	3
BUS 10000	Introduction to College and Business Careers	1
BUS 20100	Principles of Financial Accounting	3
BUS 20101	Computers in Business	3
ECON 20101	Introduction to Microeconomics	3
BUS 20001	Business Degree Seminar	0

Three additional rules apply for admission to the B.S.B. program:

- 1. No more than 6 credits of these courses may be repeated, and no course may be repeated more than once.
- 2. Both the original and the repeat grades earned in the above courses will be used to compute the admission GPA. This includes courses that you have taken or repeated at Purdue Fort Wayne and other Purdue campuses.
- 3. Students must earn a minimum of 300 points in the Passport to Success program, including at least two high impact events, before they can be admitted to any of the majors. Passport to Success is a program required of all business majors that emphasizes participation in activities outside the classroom. Details of the Passport to Success program may be found on the Doermer School of Business website.

#### Note:

Bachelor's degree programs in business are offered at other Purdue University campuses. Since admission and graduation requirements vary among these campuses, you must meet the admission and graduation requirements of the campus from which you intend to graduate.

#### **Enrollment in Business Courses Numbered 30100 and Above**

Unless you have met at least one of the following conditions, you are not permitted to enroll in a business course numbered 30100 or above:

- You have been admitted to the B.S.B. program at Purdue Fort Wayne.
- . The course is a specified requirement for another bachelor's degree program or minor in which you are enrolled and you have completed all course prerequisites.
- · You have obtained written permission from the department through which the course is offered.

If you have enrolled and are not eligible, you will be withdrawn from the course.

**B.S.B. REQUIREMENTS** To earn the B.S.B., you must complete a minimum of 120 credits as specified below and obtain an overall cumulative GPA of at least 2.30. You must satisfy the requirements of Purdue Fort Wayne (see Regulations) and the Richard T. Doermer School of Business, including completion of the Passport to Success program, and earn a grade of C- or better in each BUS and ECON course. Developmental courses do not apply to degree requirements.

Your final consecutive 30 credits must be taken at Purdue Fort Wayne after you have been formally admitted to the B.S.B. program. Business majors may not count BUS, ECON or OLS courses towards their general education requirements (unless noted).

Special Academic Regulations for Students in Undergraduate Business Programs Following are the general policies and procedures for students enrolled in business undergraduate programs. In addition to the policies of Purdue Fort Wayne (see Regulations), these are intended to maintain the historically high academic standards of undergraduate business programs at Purdue Fort Wayne.

The Student's Responsibility You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

Academic Renewal Option The school participates in the Academic Renewal Option for eligible students returning to Purdue Fort Wayne after an absence of five or more years. (see Regulations)

Time Limit. To ensure that you will be professionally competitive with other members of your graduating class, you may complete the degree requirements specified in the catalog in effect at the time you were formally admitted to the degree program only if

- Progress toward your degree objective has been continuous. If you have not registered for degree-applicable courses as a Purdue Fort Wayne business major for a period
  of one calendar year, you will be considered as not progressing toward your original degree objective. Subsequently, if you qualify for re-entry to an undergraduate
  business program at Purdue Fort Wayne, you must satisfy the admission and degree requirements specified in the Purdue Fort Wayne catalog that includes your year of
  re-entry.
- No more than five years have elapsed since your admission to the business degree program. If more than five years have elapsed, your cumulative academic record will
  be reviewed by the appropriate business or economics department, and you will be required to meet the degree criteria specified in the current Purdue Fort Wayne
  catalog. This may result in your having to repeat those courses in which the original content is determined to be outdated.
- The necessary courses or degree programs are available. If the courses that were required at the time of your formal admission to the business degree program are no longer available, you must complete the current replacements for those courses. Should these newer courses require prerequisites you have not taken, you must also enroll for these prerequisites in the appropriate sequence.

Overlapping Courses You may not count toward graduation any courses or sequences considered to have overlapping content.

Academic Probation You are placed on academic probation whenever your semester or cumulative GPA at the end of any fall or spring semester falls below 2.0.

Repeat Limits To remain eligible for the B.S.B. program, a student may not retake any of the 30000 or 40000-level BUS or ECON courses more than twice. An appeal may be made by the student to the Undergraduate Policy Committee (UPC) in the case of extenuating circumstances.

**Transfer Credit** Generally, courses in basic business and economics subjects (10000-20000 level) will be accepted as equivalent if they are being transferred from regionally accredited institutions. Courses in advanced business and economics (30000-40000 level) will only be considered equivalent if they are from another business school accredited by The Association to Advance Collegiate Schools of Business (AACSB), were taken within the past five years, and were taken as a junior or senior class standing.

At least 50 percent of required business and economics courses must be completed at Purdue Fort Wayne in order for a B.S.B. degree to be awarded.

Credit by Examination Under very limited circumstances and subject to the following policies, you may be permitted to earn credit by means of a special examination:

- 1. In all cases, your eligibility for a credit examination; the type of examination; testing procedures, date, time, and location; and evaluation of your performance are the decision of the appropriate Purdue Fort Wayne business or economics department. The decision of the department is final.
- 2. Credits earned by examination cannot exceed 10 percent of your total degree requirements.
- 3. You may attempt an authorized credit examination only once.
- 4. Only those examination scores that equate to a C- grade or better will be considered. Only the grade P will be reported for credit earned by examination.

#### Bachelor of Science in Business with a major in Business Economics

The business economics major explores the economic environments in which businesses must operate, as well as the interrelationships among micro-and macroeconomic conditions, private-sector decision making, and governmental programs. You have opportunities to study economic problems and their alternative solutions. You may also study aspects of employment, inflation, international trade, and other economics subject areas.

If you wish to become a professional economist, you should prepare for graduate study by taking additional courses in mathematics, statistics, computer science, and/or research methods.

#### **Program Requirements:**

Business Economics and Public Policy 4-Year Plan

#### General Education Requirements Credits: 33

A grade of C- or better is required in each course used to satisfy the Purdue Fort Wayne general education requirements.

#### Category A: Foundational Intellectual Skills

- 1. Written Communication Credits: 3
  - ENGL 13100 Reading, Writing, and Inquiry I Cr. 3.
- 2. Speaking and Listening Credits: 3
  - COM 11400 Fundamentals Of Speech Communication Cr. 3.
- 3. Quantitative Reasoning Credits: 3
  - MA 22900 Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.

#### **Additional Course Use**

Courses listed below may also be considered in meeting specific degree requirements.

MA 22900 required, MA 16300, MA 16500, MA 22700 or MATH M119 accepted

#### Category B: Ways of Knowing

#### 4. Scientific Ways of Knowing Credits: 3

Select one of the following:

- · ANTH 20001 Bioanthropology Cr. 3.
- ASTR 10000 The Solar System Cr. 3.
- BIOL 10000 Introduction To The Biological World Cr. 3.
- · BIOL 32700 Biology Of Aging Cr. 3.
- CHM 11100 General Chemistry Cr. 3. required lab
- · CHM 11500 General Chemistry Cr. 4. required lab
- CHM 12000 Chemistry And Art Cr. 3.
- EAPS 10001 General Geology Cr. 3-5.
- EAPS 12100 Journey To Mars Cr. 3.
- NUTR 30300 Essentials of Nutrition Cr. 3.
- GEOG 10700 Physical Systems of the Environment Cr. 3.
- · GEOG 10900 Weather and Climate Cr. 3.
- HORT 10100 Fundamentals of Horticulture Cr. 3.
- PHYS 10500 Sound and Music Cr. 3.
- PHYS 11500 Introduction to Lasers Cr. 3.
- PHYS 12000 Physics of Sports Cr. 3.
- PHYS 15200 Mechanics Cr. 5. required lab
- PHYS 21800 General Physics Cr. 4. required lab
   PHYS 22000 General Physics Cr. 4. required lab
- PHYS 22300 X-Ray Physics Cr 3.

Business majors are not required to take a lab class but if you choose to take a class with a required lab, you must complete the required lab. If you opt to take a science class that is not on the list above, then you will have to take another Scientific Ways of Knowing class as a general education elective that satisfies any missing outcomes.

# 5. Social and Behavioral Ways of Knowing Credits: 3

Select one of the following:

- PSY 12000 Elementary Psychology Cr. 3. or
- SOC 16101 Principles of Sociology Cr. 3.

#### 6. Humanistic and Artistic Ways of Knowing Credits: 3

• PHIL 11100 - Introduction To Ethics Cr. 3.

#### 7. Interdisciplinary Ways of Knowing Credits: 6

Must complete

• BUS 10001 - Principles Of Business Administration Cr. 3.

and select one of the following:

- INTL 20000 Introduction to International Studies: Emerging Global Visions Cr. 3.
- LGBT 20000 Introduction to Scholarship on Lesbian, Gay, Bisexual, and Transgender Issues Cr. 3.
- LING 46000 Language in Society Cr. 3.
  OLS 45400 Gender and Diversity in Management Cr. 3.
- PACS 20000 Introduction to Peace and Conflict Studies Cr. 3.
- PPOL 16200 Environment and People Cr. 3.
- REL 11200 Religion and Culture Cr. 3.
  SOC 20900 Community and the Built Environment Cr. 3.
- WOST 24000 Topics in Feminism Cr. 3.
  EALC 10101 Elementary Japanese I Cr. 4.
- EALC 10201 Elementary Japanese II Cr. 4.
- FR 11100 Elementary French I Cr. 3.
- FR 11201 Elementary French II Cr. 3. • GER 11100 - Elementary German I Cr. 3.
- NELC 10000 Elementary Arabic I Cr. 3.
- NELC 15000 Elementary Arabic II Cr. 3.
- SPAN 11101 Elementary Spanish I Cr. 3.

- SPAN 11201 Elementary Spanish II Cr. 3.
- SPAN 11300 Accelerated First Year Spanish Cr. 3.

# Category C: Capstone

#### 8. Capstone Experience Credits: 3

General Education Requirements

## General Education Electives Credits: 6

General Education Requirements

# DSB Additional Requirements Credits: 6

You must earn a grade of C- or better in each of the following courses:

- ENGL 23301 Intermediate Expository Writing Cr. 3.
- BUS 20401 Business Communication Cr. 3.

### Business and Economics Core Credits: 46

You must earn a grade of C- or better in each of the following courses:

#### **Business Principles Credits: 13**

- BUS 10000 Introduction To College And Business Careers Cr. 1.
- BUS 20100 Principles Of Financial Accounting Cr. 3.
- BUS 20200 Principles Of Managerial Accounting Cr. 3.
- BUS 20101 The Computer In Business Cr. 3
- BUS 20300 Commercial Law I Cr. 3.
- BUS 20001 Business Degree Seminar Cr. 0.

# **Economics Principles Credits: 9**

- ECON 20101 Introduction to Microeconomics Cr. 3.
- ECON 20201 Introduction to Macroeconomics Cr. 3.
- ECON 27000 Introduction to Statistical Theory in Economics and Business I Cr. 3.

Courses listed below may also be considered in meeting specific degree requirements.

ECON 27000 required, STAT 30100, STAT 51100 accepted

# Management Processes Credits: 15

A student may not retake any of the 30000-40000 level BUS or ECON courses more than twice. An appeal may be made by the student to the Undergraduate Policy Committee (UPC) in the case of extenuating circumstances.

- BUS 30100 Financial Management Cr. 3.
- BUS 30101 Introduction To Marketing Cr. 3.
- BUS 30102 Operations Management Cr. 3.
- BUS 30200 Management And Behavior In Organizations Cr. 3
- BUS 32100 Management Of Information Systems Cr. 3.

# Management Policy and Strategy Credits: 9

- BUS 40400 Social, Legal, And Ethical Implications Of Business Decisions Cr. 3.
- BUS 43000 Organizations And Organizational Change Cr. 3.
- BUS 40100 Administrative Policy Cr. 3.
- BUS 40000 Business Senior Seminar Cr. 0-3.

A grade of 'P' will be posted for BUS 40000 when a student successfully earns all of the Passport to Success points required for graduation.

# Business Economics Major Requirements Credits: 18

A student may not retake any of the 30000-40000 level BUS or ECON courses more than twice. An appeal may be made by the student to the Undergraduate Policy Committee (UPC) in the case of extenuating circumstances.

You must earn a grade of C- or better in each of the following courses:

- ECON 32100 Intermediate Microeconomic Theory Cr. 3.
- ECON 32201 Intermediate Macroeconomic Theory Cr. 3.
- ECON 40601 Senior Seminar Cr. 3.

#### **Business Economics Electives**

9 credits in three additional 30000 or 40000-level ECON classes, selected from the following:

- ECON 30600 Undergraduate Seminar in Economics Cr. 3.
- ECON 32800 Game Theory Goes to the Movies Cr. 3.
- ECON 34001 Introduction to Labor Economics Cr. 3.
- ECON 35000 Money and Banking Cr. 3.
   ECON 36001 Public Finance: Survey Cr. 3.
- ECON 40800 Undergraduate Readings In Economics Cr. 1-6.
- ECON 43000 Introduction to International Economics Cr. 3.
- ECON 44500 Collective Bargaining: Practice and Problems Cr. 3.
- ECON 47101 Econometric Theory And Practice I Cr. 3.
- ECON 47201 Econometric Theory& Practice II Cr. 3.
- ECON 47700 Korean Economy And Culture Cr. 3.

NOTE: ECON 30600 and 40800 are topics courses and may be taken more than once, with different topics.

Free Elective Credits: 17

17 credits from either business or non-business courses to complement your professional and educational objectives, and bring your degree total to at least 120 credits.

Total Credits: 120

# Chemistry (B.S.)

Program: B.S. Department of Chemistry College of Arts and Sciences

Science Building 496 ~ 260-481-6289

The Bachelor of Science major program in chemistry program is an excellent choice for pursuing a wide range of chemistry-related careers. With carefully chosen electives and possible opportunities for further education, this program allows you to combine chemistry with other fields of study in support of career paths such as high school teacher, geochemist, environmental engineer, crime lab analyst, lab technician, metallurgist, patent attorney, science writer, science librarian, chemical salesperson, dentist, pharmacist, and medical doctor/physician.

For details on pursuing a secondary education second degree (BSEd) to teach Chemistry in middle school/high school, click on the links to the Secondary Education - Second Degree Program and the School of Education page in this catalog. Note: The BSEd as a second degree in these programs cannot be earned without completion of the bachelor's degree in the content area from the College of Arts and Sciences. See Program Requirements below for a link to the Secondary Education - Second Degree 4-Year Plan.

#### **Student Learning Outcomes:**

#### · Mathematical and quantitative reasoning

Students will be able to analyze, synthesize, and comprehend experimental and computational data describing the physical universe. This skill requires knowledge of mathematical and statistical techniques that can be used analytically.

#### · Classical and instrumental laboratory techniques: both analytical and synthetic

Students will learn precise measuring techniques as well as careful and meticulous record-keeping. They will master the use of variety of modern instruments and will become proficient in fundamental organic synthetic methods.

#### · Individual and collaborative problem-solving

The student will develop independent problem-solving skills as well as the ability to work collaboratively in a team environment on complex chemical systems.

#### · Chemical literature

The student will learn basic tools and concepts for efficient use of chemical literature, including multiple computerized databases. The student will also be expected to analyze sources for relevance and authority and to learn how scientific writings are constructed according to style.

#### · Summary of key concepts

In the teaching of Chemistry from the point-of-view of various sub-disciplines, the following concepts form the core course content. It should be noted that courses offered by the Purdue University Fort Wayne Department of Chemistry will include, but are not simply limited to, the following points of emphasis:

#### · Analytical Chemistry

- -- Analytical methods (classical and instrumental)
- -- Sensitivity and detection limits
- -- Statistical treatment of data
- · Biochemistry (for premedicine and predental options)
  - -- Structure, metabolic relationships, and regulation of biomolecules

#### · General Chemistry

- -- Semi-quantitative microscopic model of the physical universe based on macroscopic observations
- -- Terminology
- -- Periodic relationships
- -- Elementary computational skills
- -- Introductory laboratory skills

#### · Inorganic Chemistry

- -- Chemical bonding and structure
- -- Reactivity, reaction mechanisms, and properties
- -- Solid state and material science
- -- Organometallic chemistry
- -- Spectroscopic determination of structure

#### · Organic Chemistry

- -- Chemical bonding and structure including valence bond and molecular orbital theories
- -- Reactivity, reaction mechanisms, and properties of the important functional groups
- -- Synthesis
- -- Spectroscopic determination of structure
- -- Material science and bio-organic chemistry

### · Physical Chemistry

- -- Mathematical and physical principles that underlie modern Chemistry
- -- Detailed understanding of the modern microscopic model of the universe
- -- The principal topic areas are:
  - 1. Quantum Chemistry
  - 2. Thermodynamics
  - 3. Statistical mechanics
  - 4. Spectroscopy
  - 5. Kinetics

#### **Program Delivery:**

• This program is available on-campus

#### Declaring this Major:

· Declare this major within the Department of Chemistry

#### **General Requirements:**

- · Degree Requirements
- General Education Requirements
- · College Requirements
- · Overlapping Course Content
- · Academic Regulations

To earn a B.S. with a major in Chemistry, you must fulfill the following requirements in addition to the General Requirements noted above.

# **Program Requirements:**

#### Chemistry BS 4-Year Plan:

· A GPA of 2.00 or higher for all major department courses taken and in all CHM courses numbered 300xx and above

Chemistry BS with Secondary Education 4-Year Plan:

# General Education Requirements: Credits 33

- Click on the Purdue Fort Wayne General Education Requirements link above for details
- Some majors may require particular General Education courses as specified in their program description. Up to six credits of approved General Education courses satisfying requirements in Areas A and B, and three credits satisfying requirements in Area C, may originate in the major. A grade of C- or higher in each course, and an overall GPA of 2.0 is required to satisfy the Purdue Fort Wayne General Education Requirements.

# College of Arts and Sciences Requirements

• Click on the Purdue Fort Wayne College Requirements link above. Go to Arts and Sciences Requirements for the Bachelor of Science Degree

## English Writing and Speaking: Credits 6

- See Part A in Arts and Sciences Requirements for the Bachelor of Science Degree for Speaking requirement
- ENGL 23301 Intermediate Expository Writing Cr. 3.

#### International Language: Credits 6-8

• See Part B in Arts and Sciences Requirements for the Bachelor of Science Degree

## Core and Concentration (Major) Courses: Credits 44

- CHM 11500 General Chemistry Cr. 4.
- CHM 11600 General Chemistry Cr. 4.
- CHM 19400 Freshman Chemistry Orientation Cr. 1.
- CHM 24100 Introductory Inorganic Chemistry Cr. 4.
- CHM 26100 Organic Chemistry Cr. 3.
- CHM 26200 Organic Chemistry Cr. 3.
- CHM 26500 Organic Chemistry Laboratory Cr. 2.
- CHM 26600 Organic Chemistry Laboratory Cr. 2.
- CHM 28000 Chemical Literature Cr. 1.
- CHM 32100 Analytical Chemistry I Cr. 4.
- CHM 34200 Inorganic Chemistry Cr. 3.
- CHM 37600 Physical Chemistry Laboratory Cr. 2.
- CHM 38300 Physical Chemistry Cr. 4.
- CHM 38400 Physical Chemistry Cr. 2.
- CHM 42400 Analytical Chemistry II Cr. 4.

- CHM 49600 Senior Seminar I Cr. 0.
- CHM 49700 Senior Seminar II Cr. 1.

# Supporting Courses: Credits 22

- MA 16500 Analytic Geometry and Calculus I Cr. 4.
- MA 16600 Analytic Geometry and Calculus II Cr. 4.
- MA 26100 Multivariate Calculus Cr. 4.
- PHYS 15200 Mechanics Cr. 5.
- PHYS 25100 Heat, Electricity, and Optics Cr. 5.

#### General Electives

· Sufficient additional credits to bring the total to 120.

Total Credits: 120

# Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# **Chemistry (B.S.C.)**

Program: B.S.C. Department of Chemistry College of Arts and Sciences

Science Building 496 ~ 260-481-6289

The Bachelor of Science in Chemistry (B.S.C.) program helps you prepare for graduate study in chemistry and chemistry-related careers in industry or government. Providing the best preparation for any career involving chemical research, this program fulfills recommendations of the Committee on Professional Training of the American Chemical Society (ACS), and graduates are certified as having fulfilled its requirements.

#### **Student Learning Outcomes:**

#### · Mathematical and quantitative reasoning

The student will be able to analyze, synthesize, and comprehend experimental and computational data describing the physical universe. This skill requires knowledge of mathematical and statistical techniques that can be used analytically and computationally.

#### · Classical and instrumental laboratory techniques: both analytical and synthetic

Students will learn precise measuring techniques as well as careful and meticulous record-keeping. They will master the use of variety of modern instruments and will become proficient in fundamental organic synthetic methods.

#### · Individual and collaborative problem-solving

The student will develop independent problem-solving skills as well as the ability to work collaboratively in a team environment on complex chemical systems.

#### · Chemical literature

The student will learn basic tools and concepts for efficient use of chemical literature, including multiple computerized databases. The student will also be expected to analyze sources for relevance and authority and to learn how scientific writings are constructed according to style.

#### · Summary of key concepts

In the teaching of Chemistry from the point-of-view of various sub-disciplines, the following concepts form the core course content. It should be noted that courses offered by the Purdue University Fort Wayne Department of Chemistry will include, but are not simply limited to, the following points of emphasis:

#### · Analytical Chemistry

- -- Analytical methods (classical and instrumental)
- -- Sensitivity and detection limits
- -- Statistical treatment of data

-- Structure, metabolic relationships, and regulation of biomolecules

#### · General Chemistry

- -- Semi-quantitative microscopic model of the physical universe based on macroscopic observations
- -- Periodic relationships
- -- Elementary computational skills
- -- Introductory laboratory skills

#### · Inorganic Chemistry

- -- Chemical bonding and structure
- -- Reactivity, reaction mechanisms, and properties
- -- Solid state and material science
- -- Organometallic chemistry
- -- Spectroscopic determination of structure

#### · Organic Chemistry

- -- Chemical bonding and structure including valence bond and molecular orbital theories
- -- Reactivity, reaction mechanisms, and properties of the important functional groups
- -- Synthesis
- -- Spectroscopic determination of structure
- -- Material science and bio-organic chemistry

#### · Physical Chemistry

- -- Mathematical and physical principles that underlie modern Chemistry
  -- Detailed understanding of the modern microscopic model of the universe
- -- The principal topic areas are:
  - 1. Quantum Chemistry
  - 2. Thermodynamics
  - 3. Statistical mechanics
  - 4. Spectroscopy
  - 5. Kinetics

#### **Program Delivery:**

· This program is available on-campus

#### Declaring this Major:

· Declare this major within the Department of Chemistry

### **General Requirements:**

- · Degree Requirements
- General Education Requirements
- · College Requirements
- Overlapping Course Content
   Academic Regulations

To earn a B.S.C with a major in Chemistry and be ACS certified, you must fulfill the following requirements in addition to the General Requirements noted above.

## **Program Requirements:**

#### Chemistry BSC 4-Year Plan:

· A GPA of 2.00 or higher for all major department courses taken and in all CHM courses numbered 300xx and above.

# General Education Requirements: Credits 33

- · Click on the Purdue Fort Wayne General Education Requirements link above for details
- Some majors may require particular General Education courses as specified in their program description. Up to six credits of approved General Education courses satisfying requirements in Areas A and B, and three credits satisfying requirements in Area C, may originate in the major. A grade of C- or higher in each course, and an overall GPA of 2.0 is required to satisfy the Purdue Fort Wayne General Education Requirements.

# College of Arts and Sciences Requirements

· Click on the Purdue Fort Wayne College Requirements link above. Go to Arts and Sciences Requirements for the Bachelor of Science Degree

## English Writing and Speaking: Credits 6

- · See Part A in Arts and Sciences Requirements for the Bachelor of Science Degree for Speaking requirement
- ENGL 23301 Intermediate Expository Writing Cr. 3.

## International Language: Credits 6-8

· See Part B in Arts and Sciences Requirements for the Bachelor of Science Degree

# Core and Concentration (Major) Courses: Credits 44

- CHM 11500 General Chemistry Cr. 4.
- CHM 11600 General Chemistry Cr. 4.
- CHM 19400 Freshman Chemistry Orientation Cr. 1.
- CHM 24100 Introductory Inorganic Chemistry Cr. 4.
- CHM 26100 Organic Chemistry Cr. 3.
- CHM 26200 Organic Chemistry Cr. 3.
- CHM 26500 Organic Chemistry Laboratory Cr. 2.
- CHM 26600 Organic Chemistry Laboratory Cr. 2.
- CHM 28000 Chemical Literature Cr. 1.
- CHM 32100 Analytical Chemistry I Cr. 4
- CHM 34200 Inorganic Chemistry Cr. 3.
- CHM 37600 Physical Chemistry Laboratory Cr. 2.
- CHM 38300 Physical Chemistry Cr. 4.
- CHM 38400 Physical Chemistry Cr. 2.
- CHM 42400 Analytical Chemistry II Cr. 4.
- CHM 49600 Senior Seminar I Cr. 0. • CHM 49700 - Senior Seminar II Cr. 1.

# Supporting Courses: Credits 22

- MA 16500 Analytic Geometry and Calculus I Cr. 4.
- MA 16600 Analytic Geometry and Calculus II Cr. 4.
- MA 26100 Multivariate Calculus Cr. 4.
- PHYS 15200 Mechanics Cr. 5.
- PHYS 25100 Heat, Electricity, and Optics Cr. 5.

# **BSC Requirements: Credits 14**

- CHM 33300 Principles Of Biochemistry Cr. 3.
- CHM 34300 Inorganic Chemistry Laboratory Cr. 1.
- MA 35100 Elementary Linear Algebra Cr. 3.
- MA 36300 Differential Equations Cr. 3.

- PHYS 34200 Modern Physics Cr. 3.
- PHYS 34300 Modern Physics Laboratory Cr. 1.

# Additional Course Requirement: Credits 3

Choose three credits from the list below, or other departmentally approved advanced courses in chemical engineering, computer science, geochemistry, surface chemistry, mathematics, molecular biology, physics, or other allied fields

- · CHM course numbered 300xx or above
- CS 38400 Numerical Analysis Cr. 3.
- PHYS 55000 Introduction to Quantum Mechanics Cr. 3.

#### **General Electives**

· Sufficient additional credits to bring the total to 120.

Total Credits: 120

### Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# Additional Course Use

Courses listed below may also be considered in meeting specific degree requirements.

CHM 33300 required, CHM 43300 and CHM 53300 accepted

# **Civil Engineering (B.S.C.E.)**

Program: B.S.C.E.
Department of Civil and Mechanical Engineering
College of Engineering, Technology, and Computer Science

Civil engineers design, construct, manage, and improve the built environment that is all around us. Purdue University Fort Wayne offers a four-year civil engineering undergraduate program leading to a Bachelor of Science (B.S.) degree.

The program is designed to give students a broad exposure to all areas of engineering; to develop a sound understanding of the science that underlies civil engineering; and to foster students' creativity and professional skills through design and project work.

Our students, while drawn from diverse backgrounds, are all extremely able and committed to learning. Purdue University Fort Wayne delivers an exceptional educational experience to engineering students, encouraging collaboration and teamwork throughout the curriculum. In addition to coursework, the department supports and encourage student participation in undergraduate research, co-op and internships, and several very active student organizations.

In its recently (2020) released rankings of the best colleges and universities in the United States, U.S. News & World Report deemed the engineering programs at Purdue Fort Wayne to be among the best in the country.

#### **Educational Objectives:**

As a framework for the continuous improvement policy, the Civil Engineering program has adopted a set of program educational objectives that describe the anticipated accomplishments of our graduates within a few years after graduation.

The Civil Engineering program educational objectives are to produce graduates who:

- Advance professionally to roles of greater Civil Engineering technical responsibilities, and/or by transitioning into leadership position in business, government, and/or education.
- Participate in life-long learning through the successful completion of advanced degree(s), continuing education, and/or engineering certification(s)/licensure or other
  professional development.
- Demonstrate a commitment to community by applying technical skills and knowledge to support various service activities.

#### **Student Learning Outcomes:**

The graduates from the Civil Engineering Program will demonstrate that they have:

- · The ability to identify, formulate, solve complex engineering problems by applying principles of engineering, science, and mathematics.
- The ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
- · The ability to communicate effectively with a range of audiences.
- The ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
- The ability to function effectively on a team whose members together provide leadership, create collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
- · The ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
- · The ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

#### Accreditation:

• The Civil Engineering program is accredited by the Engineering Accreditation Commission of ABET, www.abet.org.

#### **Program Delivery:**

The B.S.C.E. program is delivered primarily through on-campus courses; however, some of the required General Education courses are available as hybrid and/or on-line courses and those can be used to satisfy the program requirements.

#### Declaring this Major:

Students interested in declaring Civil Engineering as their major may do so in one of two ways:

- · On their application when they first apply to Purdue Fort Wayne
- · After meeting with an CE facutly advisor, who will determine that the student has the requireed math and chemistry background to begin our program

#### **General Requirements:**

- Degree Requirements
- General Education Requirements
- · Overlapping Course Content
- Academic Regulations

## **Program Requirements:**

Civil Engineering 4-Yr Plan:

In order to start in the Civil Engineering program, a student must meet the following criteria:

Math Placement at or above MA 15400

#### **General Education Requirements**

A student must earn a grade of C- or better in each course used to satisfy the Purdue Fort Wayne general education requirements. A student must also have a GPA of at least 2.0 in all general education courses. Students in the civil engineering program will satisfy the Purdue Fort Wayne General Education Requirements in the following manner:

Category	Competency	Course	Credit Hours
A	1	ENGL 13100 Elementary Composition	3
A	2	COM 11400 Fundamentals of Speech	3
A	3	MA 16500 Analytical Geometry and Calculus I	4
A	3	MA 16600 Analytical Geometry and Calculus II	4
В	4	CHM 11500 General Chemistry I	4

#### Select one course from list of approved courses, all Competency 5 outcomes must be met

ANTH 10501- Culture and Society

ANTH 20002 - Language and Culture

CDFS 25500 - Intro. to Couple & Family Relation.

COM 25000 - Mass Communication and Society \*\*

COM 30300 - Intercultural Communication

ECON 20000 - Fundamentals of Economics \*\*

GERN 23100 - Introduction to Gerontology

IET 10500 - Industrial Management \*\*

LING 10300 - Introduction to the Study of Language

OLS 25200 - Human Relations in Organizations

OLS 26800 - Elements of Law \*\*

POL 10101 - Introduction to Political Science \*\*

POL 10300 - Introduction to American Politics

POL 10700 - Introduction to Comparative Politics

POL 10900 - Introduction to International Relations

POL 21200 - Making Democracy Work

5

POL 25200 - Sports and Public Policy

POL 30101 - Political Parties and Interest Groups

POL 31900 - The United States Congress

PSY 12000 - Elementary Psychology \*\*

PSY 23500 - Child Psychology

PSY 24000 - Introduction to Social Psychology

PSY 33500 - Stereotyping and Prejudice

PSY 35000 - Abnormal Psychology

PSY 36900 - Development Across the Lifespan

SOC 16101 - Principles of Sociology \*\*

SOC 16300 - Social Problems

SOC 31701 - Social Stratification

SOC 32501 - Criminology

SOC 36000 - Topics in Social Policy

WOST 21000 - Introduction to Women's Studies

# 6 Select one course from list of approved courses, all Competency 6 outcomes must be met

AD 10101 - Art Appreciation \*\*

AD 11100 - History Of Art I: Prehistoric To Medieval

AD 11201 - History Of Art II

COM 24800 - Introduction to Media Criticism & Analysis

ENGL 10101 - Western World Masterpieces I

ENGL 20201 - Literary Interpretation

ENGL 25001 - American Literature Before 1865

ENGL 25100 - American Literature Since 1865

FVS 10100 - Introduction to Film

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GER 37100 - Special Topics In Germanic Studies
HIST 10501 - American History I**
HIST 10601 - American History II
HIST 11300 - History of Western Civilization I
HIST 11400 - History of Western Civilization II
HIST 20101 - Russian Civilization I-II
HIST 23200 - The World in the 20th Century**
MUSC 10500 - Traditions in World Music
PHIL 11000 - Introduction to Philosophy **
PHIL 11100 - Ethics **
PHIL 30100 - History of Ancient Philosophy
PHIL 30200 - History of Medieval Philosophy
PHIL 30300 - History of Modern Philosophy
PHIL 30400 - 19th Century Philosophy
PHIL 31200 - Medical Ethics **
REL 23000 - Religions of the East
REL 23100 - Religions of the West
REL 30100 - Islam
SPAN 27500 - Hispanic Culture and Conversation
THTR 20100 - Theatre Appreciation **
WOST 22500 - Gender, Sexuality, and Popular Culture
Select one course from list of approved courses
ARET 21000- Architecture and Urban Form **
EAPS 30000- Environmental and Urban Geology**
EAPS 30500- Geologic Fund. in Earth Science **
ENGL 10302- Introductory Creative Writing **
ENGL 20301- Creative Writing **
GEOL 31500- Environmental Conservation **
MUSC 15300- Introduction to Music Therapy
OLS 45400- Gender and Diversity in Management
PHIL 12000- Critical Thinking **
PHIL 15000- Principles of Logic **
PHIL 27500- The Philosophy of Art
PHYS 13600- Chaos and Fractals
PHYS 30200- Puzzles, Games, & Prob. Solving **
SOC 10900- Community and the Built Environment
SOC 31401- Social Aspects of Health and Medicine
SPAN 11101- Elementary Spanish I
SPAN 11201- Elementary Spanish II
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\*\*PHYS 25100 is not accepted as a B7 General Elective Course\*\*

SPAN 11300- Accelerated First Year Spanish THTR 13400- Fundamentals of Performance

8 Senior Design I (CE 48700)

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- 1) This plan satisfies the competency requirements and the credit hour requirement.
- 2) This list of CE approved courses is posted at www.pfw.edu/cme.
- \*\* Recommended courses for Civil Engineering students.

# Major and Supporting Courses Required for the B.S.C.E.

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• ENGR 12700 - Engineering Fundamentals I Cr. 4.
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- ENGR 12800 Engineering Fundamentals II Cr. 4.
- MA 26100 Multivariate Calculus Cr. 4.
- MA 35100 Elementary Linear Algebra Cr. 3.
- MA 36300 Differential Equations Cr. 3.
- PHYS 25100 Heat, Electricity, and Optics Cr. 5.
- STAT 51100 Statistical Methods Cr. 3.

# Core and Concentration Courses Required for the B.S.C.E.

- CE 21000 Introduction To Geomatics Cr. 3.
- CE 25000 Statics Cr. 3.
- CE 25100 Dynamics Cr. 3.
- CE 25200 Strength Of Materials Cr. 3.
- CE 31500 Civil Engineering Materials Cr. 3.
- CE 31600 Civil Engineering Materials Laboratory Cr. 1.
- CE 31800 Fluid Mechanics Cr. 3.
- CE 31900 Fluid Mechanics Laboratory Cr. 1.
- CE 33000 Construction Management Cr. 3.
- CE 34500 Transportation Engineering Cr. 3.
- CE 36500 Environmental Engineering Cr. 3.
- CE 36600 Environmental Engineering Laboratory Cr. 1.
- CE 37500 Structural Analysis Cr. 3.
- CE 38000 Soil Mechanics Cr. 3.
- CE 38100 Soil Mechanics Laboratory Cr. 1.
- CE 41800 Hydraulics Engineering Cr. 3.
- CE 47800 Design Of Concrete Structures Cr. 3.
- CE 48100 Foundation Engineering Cr. 3,

## **Technical Elective Courses Credits: 12**

Students must select 12 credit hours from the following sections. Students may choose from different areas.

A maximum of two courses can be taken from non-civil engineering courses.

Other courses may be approved with the consent of the advisor with consultation with the civil engineering curriculum committee

## Construction Management and Transportation Courses

- CE 45000 Transportation Policy And Planning Cr. 3.
- CE 45100 Traffic Engineering Cr. 3.
- BUS 30102 Operations Management Cr. 3.
- BUS 30200 Management And Behavior In Organizations Cr. 3
- PPOL 34800 Management Science Cr. 3.

### **Environmental and Water Resources Courses**

- CE 46500 Water And Wastewater Engineering Cr. 3.
- CHM 11600 General Chemistry Cr. 4.
- CHM 24100 Introductory Inorganic Chemistry Cr. 4.
- CHM 26100 Organic Chemistry Cr. 3.

## Geotechnical and Geo-environmental Courses

- CE 44800 Geotechnical Investigations And Site Characterization Cr. 3.
- EAPS 30000 Environmental And Urban Geology Cr. 3.
- EAPS 32300 Structural Geology Cr. 3-4.
- EAPS 45100 Principles Of Hydrogeology Cr. 3.

#### Structural and Materials Courses

- CE 47500 Design Of Steel Structures Cr. 3.
- CE 48000 Finite Element Analysis Cr. 3.

## **Special Topics**

- CE 48400 Research In Civil Engineering Cr. 3,
- CE 48800 Civil Engineering Design Project II Cr. 3.
- CE 49000 Selected Topics In Civil Engineering Cr. 1-6.
- ME 20000 Thermodynamics I Cr. 3.
- ME 47100 Vibration Analysis Cr. 3.
- ME 50900 Intermediate Fluid Mechanics Cr. 3.
- CET 20900 Land Surveying And Subdivision Cr. 3.
- PPOL 46500 Geographic Information Systems for Public and Environmental Affairs Cr. 3.
- SE 52000 Engineering Economics Cr. 3.
- STAT 51200 Applied Regression Analysis Cr. 3.

# **GPA Requirement**

The required courses (ENGR and CE) and technical elective courses must have a combined minimum GPA of 2.0.

For latest information please visit www.pfw.edu/cme.

Total Credits: 120

# Student Responsibilities

All Civil Engineering students are responsible for satisfying the graduation requirements specified for the B.S.C.E. program. Thus, it is essential that they develop a thorough understanding of the required courses, academic policies, and procedures governing their academic career.

# **Communication (B.A.)**

Program: B.A.
Department of Communication
College of Arts and Sciences

Neff Hall 230 ~ 260-481-6825

The Department of Communication strives to prepare undergraduate and graduate students to be critically engaged citizens. Our program of study develops students' theoretical, technological, and rhetorical skills needed to achieve their professional and personal goals. Moreover, the interdisciplinary nature of our department reflects the complexity of a world facing challenges best addressed by skilled communicators.

#### **Student Learning Outcomes:**

Upon completion of this degree, students will:

- · Articulate the historical traditions of the discipline
- · Demonstrate an awareness and skillful use of the use of new technologies relevant to their major
- · Explain communication concepts and theories relevant to the major.
- Explain, evaluate and apply the processes involved in productive conflict in the contexts (interpersonal, small group, organizational, mediated, public) relevant to their major
- · Demonstrate awareness of diverse perspectives
- · Read, speak, write and listen competently
- · Demonstrate the ability to be a critically engaged citizen

#### **Program Delivery:**

· This program is available on-campus

#### Declaring this Major:

• Declare this major within the Department of Communication

#### **General Requirements:**

- · Degree Requirements
- General Education Requirements
- · College Requirements
- Overlapping Course Content
- Academic Regulations

#### **Program Requirements:**

- A grade of C- or higher in all department courses required for the major, and for courses in the minor; and an overall GPA of 2.00 or higher for courses required in the
  major, the minor, and the concentration.
- · A concentration in one of four areas is required. Links to these concentrations are in the Area of Concentration section below.
- A minor in an appropriate discipline or a second major outside the department is required (Information for minors and majors can be found in the Program
  Descriptions section in this Catalog).
- Up to two courses in the major offered through the Department of Communication can be counted in the required minor.
- · Students in the Journalism concentration and the Media Production minor may count up to three departmental courses in their major toward their minor.
- COM 32300 is not available for credit toward any Communication major or minor.

In addition to the General Requirements noted above, to earn the B.A. with a major in Communication you must:

- · fulfill the following core requirements
- · choose and fulfill the requirements of a concentration listed in the Area of Concentration section below

#### General Education Requirements: Credits 33

- Click on the Purdue Fort Wayne General Education Requirements link above for details
- Some majors may require particular General Education courses as specified in their program description. Up to six credits of approved General Education courses satisfying requirements in Areas A and B, and three credits satisfying requirements in Area C, may originate in the major. A grade of C- or higher in each course, and an overall GPA of 2.0 is required to satisfy the Purdue Fort Wayne General Education Requirements.

## College of Arts and Sciences Requirements

· Click on the Purdue Fort Wayne College Requirements link above for details. Go to Requirements for the Bachelor of Arts Degree.

# English Writing and Speaking: Credits 6

- See Part A in Arts and Sciences Requirements for the Bachelor of Arts Degree for Speaking requirement
- ENGL 23301 Intermediate Expository Writing Cr. 3. (or other approved writing course)

# International Language: Credits 12-14

· See Part B in Arts and Sciences Requirements for the Bachelor of Arts Degree

#### Distribution: Credits 9

- · See Part C in Arts and Sciences Requirements for the Bachelor of Arts Degree
- · Choose courses other than COM

#### Cultural Studies: Credits 6

• See Part D in Arts and Sciences Requirements for the Bachelor of Arts Degree

## Core and Concentration Courses

#### Communication Core: Credits 15

- COM 10100 Introduction To Communication Cr. 3.
- COM 12000 Introduction To Communication Technology And Communication Fields Cr. 1.
- COM 20300 Communication Theory Cr. 3.
- COM 30000 Introduction To Communication Research Methods Cr. 3.
- COM 30800 Applied Communication Cr. 1.
- COM 49000 Internship In Communication Cr. 1-3.
- COM 49900 Capstone Seminar In Communication Cr. 3.

# Area of Concentration

Choose one area of concentration from the list below. Click link for details of each concentration.

- Interpersonal and Organizational Concentration: Credits 21
   Media and Culture Concentration: Credits 24
- Journalism Concentration: Credits 24
- Rhetoric and Public Advocacy Concentration: Credits 21

# **General Electives**

· Sufficient additional credits to bring the total to 120.

Total Credits: 120

# Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# **Communication Interpersonal And Organizational Concentration**

Interpersonal and Organizational Communication Concentration Department of Communication College of Arts and Sciences

Neff Hall 230 ~ 260-481-6825

The Interpersonal and Organizational area of concentration is designed to educate students to become better communicators in both personal and professional contexts. Students learn about conflict management, group interaction, leadership, gender communication and intercultural communication, as well as organizational practices and relational dynamics. The concentration prepares students to work in a variety of areas (depending on the minor chosen) including: government, not-for-profit, sales, law, public and social service, public relations, human resources, business communication, and industry communication.

Suggested Minors: Anthropology, applied ethics, business studies, creative writing, criminal justice, economics, English, film and media studies, fine arts history, French, German, history, human services, journalism, linguistics, media production, organizational leadership supervision, philosophy, political science, professional writing, psychology, public affairs, public relations, religious studies, sociology, Spanish, theatre, and women's studies.

#### Student Leaning Outcomes for the Interpersonal and Organizational Communication Concentration:

Upon completion of this concentration, students will be able to:

- Evaluate interpersonal and / or group interactions
- Communicate competently (effectively, appropriately, ethically) interpersonally and /or in groups

# **Program Requirements:**

Communication B.A. (Interpersonal and Organizational) 4-Year Plan:

- A grade of C- or higher for all courses required in the concentration and an overall GPA of 2.00 or higher.
- COM 32300 is not available for credit toward any Communication major, minor or concentration.

To earn the B.A. in Communication with a concentration in Interpersonal and Organizational Communication, students must fulfill the General Requirements and Communication core requirements as outlined in the Program Description of the Communication B.A. in this catalog, and the following concentration requirements:

## Interpersonal and Organizational Core: Credits 18

- COM 21200 Approaches To The Study Of Interpersonal Communication Cr. 3.
- COM 31800 Principles Of Persuasion Cr. 3.
- COM 32000 Small Group Communication Cr. 3.
- COM 32400 Introduction To Organizational Communication Cr. 3.
- COM 37200 Communication In Relationships Cr. 3.
- COM 42401 Advanced Organizational Communication 3.00

# Supporting Courses: Credits 3

- · Choose one additional course from the following list:
- COM 30300 Intercultural Communication Cr. 3.
- · COM 31000 Family Communication Cr. 3.
- COM 31300 Introduction To Health Communication Cr. 3.
- COM 40101 Nonverbal Communication Cr. 3.
- COM 41000 Gender Roles and Communication Cr. 3.
- COM 42801 Communication Consulting Cr. 3.
- COM 47100 Communicating Peace Cr. 3.
- COM 49100 Special Topics In Communication Cr. 1-3.

Concentration Total: Credits 21

# Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# **Communication Journalism Concentration**

Communication Journalism Concentration Department of Communication College of Arts and Sciences

Neff Hall 230 ~ 260-481-6825

This area is designed to provide students with theoretical, conceptual and practical skills that they will need as a consumer and practitioner of journalism, and to enable students to fulfill their responsibilities as citizens in a self-governing democracy. The area will prepare students with essential skills for today's digital media environment. Students will learn how to research, write, interview and produce news content, including written, audio and video components, for newspapers, magazines, television, radio and the Internet, including Web sites and social media.

Suggested minors: Biology, business studies, criminal justice, economics, labor studies, political science, psychology, public affairs and sociology.

#### Student Learning Outcomes for the Journalism Concentration:

Upon completion of this concentration, students will be able to:

- Understand and apply the principles and laws of freedom of speech and press and understand the range of systems of freedom of expression around the world, including the right to dissent, to monitor and criticize power, and to assemble and petition for redress of grievances
- Demonstrate an understanding of the history and role of professionals and institutions in shaping communications
- Understand concepts and apply theories in the use and presentation of images and information
- Demonstrate an understanding of professional ethical principles and work ethically in pursuit of truth, accuracy, fairness and diversity
- Think critically, creatively and independently
- · Conduct research and evaluate information by methods appropriate to the communications professions in which they work
- · Critically evaluate their own work and that of others for accuracy and fairness, clarity, appropriate style and grammatical correctness

#### **Program Requirements:**

Communication (Journalism) 4-Year Plan:

- A grade of C- or higher for all courses required in the concentration and an overall GPA of 2.00 or higher.
- COM 32300 is not available for credit toward any Communication major, minor or concentration.
- Students pursuing the Communication Journalism concentration may not use Journalism as their required minor.

To earn the B.A. in Communication with a concentration in Journalism, students must fulfill the General Requirements and Communication core requirements as outlined in Program Description of the Communication B.A. program in this catalog, and the following concentration requirements:

### Journalism Core: Credits 24

- COM 13500 Introduction To News Writing Cr. 3
- COM 20000 Reporting, Writing And Editing I Cr. 3.
  COM 20101 Reporting, Writing, And Editing II Cr. 3.
- COM 14000 Introduction To Media Production Cr. 3.
- COM 25000 Mass Communication And Society Cr. 3.
- COM 31700 Digital Storytelling Cr. 3.
- COM 35200 Mass Communication Law Cr. 3.
- COM 41401 Multimedia Design& Production Cr. 3.

Concentration Total: Credits 24

### Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# **Communication Media And Culture Concentration**

**Communication Media and Culture Concentration Department of Communication** College of Arts and Sciences

Neff Hall 230 - 260-481-6825

With a concentration in Media and Culture, students will learn both the history and practices of media, meaning-making, and media industries from local to global levels. Students will develop understanding, insights, and practical skills necessary to an expanding and changing job market. This broad base integrates a variety of contexts including professional as well as advanced academic work. The minor that the students choose to pair with this concentration will be particularly important to help the student build specific skills in media analysis, media production, writing for mass media, public relations, new media, audience research, and other careers within the media industries.

Suggested Minors: Media production, journalism, public relations, political science, peace and conflict certificate, international studies certificate, and women's studies.

#### Student Learning Outcomes for the Media and Culture Concentration:

Upon completion of this concentration, students will be able to:

- · Identify and analyze both the history and practice of media industries
- · Identify and analyze relations between media, culture, and society
- Apply theoretical concepts to critically analyze media content(s) and their relationships to audiences
- Identify and analyze the form, structure, and techniques of mediated messages and consider how they function across local/global contexts
- · Apply the skills and knowledge gained from this concentration to their chosen minor

## **Program Requirements:**

Communication (Media and Culture) 4-Year Plan:

- · A grade of C- or higher for all courses required in the concentration and an overall GPA of 2.00 or higher.
- COM 32300 is not available for credit toward any Communication major, minor or concentration.

To earn the B.A. in Communication with a concentration in Media and Culture, students must fulfill the General Requirements and Communication core requirements as outlined in Program Description of the Communication B.A. program in this catalog, and the following concentration requirements:

# Media and Culture Core: Credits 15

- COM 24800 Introduction To Media Criticism and Analysis Cr. 3.
- · COM 25000 Mass Communication And Society Cr. 3.

- COM 32900 History Of The Mass Media Cr. 3.
- COM 33000 Theories Of Mass Communication Cr. 3.
- COM 44800 Applied Mass Media Research Cr. 3.

or

• COM 46300 - Mass Media Criticism Cr. 3.

### Supporting Courses: Credits 9

- · Choose 3 courses from the following list:
- ANTH 45700 Ethnic Identity Cr. 3.
- COM 14000 Introduction To Media Production Cr. 3.
- · COM 23800 Media, Culture, Society Cr. 3.
- · COM 31600 Controversy In American Society Cr. 3.
- · COM 32700 International Communications Cr. 3.
- COM 33800 Documentary Or Experimental Film And Video Cr. 3.
- COM 40400 Media And Globalization Cr. 3.
- COM 42100 Media Genres Cr. 3.
- · COM 42200 Women, Men, and Media Cr. 3.
- COM 46300 Mass Media Criticism Cr. 3.
- COM 44001 Rhetoric Of Popular Culture Cr. 3.
- ILCS 20800 International Cinema Cr. 3.

Concentration Total: Credits 24

# Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# **Communication Rhetoric And Public Advocacy Concentration**

Communication Rhetoric and Public Advocacy Concentration **Department of Communication** College of Arts and Sciences

Neff Hall 230 ~ 260-481-6825

A concentration in rhetoric will provide students with the tools to read, analyze, and criticize human discourse in relationship to persuasion. The pursuit of encouraging students to be more actively and critically engaged citizens is foundational to this emphasis. Grounded in argumentation and the symbolic dimensions of discourse, students within this concentration will learn both ancient and contemporary rhetorical theories. The ability to evaluate communication in its diverse formats prepares students (in combination with other majors and minors) for careers, in law, higher education, social and political activism, speech writing, film making, and business.

Suggested minors: Political science, women's studies, history, psychology, sociology, film & media studies, and criminal justice.

### Student Learning Outcomes for the Rhetoric and Public Advocacy Concentration:

Upon completion of this concentration, students will be able to:

- Identify and apply the various concepts, processes, contexts, and theories of rhetoric
  Discuss the ethical responsibilities of the rhetor and the rhetorical critic
- Analyze various rhetorical discourses to become informed, critical receivers of persuasive messages in their professional and everyday lives
- Recognize the relationships that exist among rhetoric, critical thinking, and democracy
- Develop and deliver strategic messages that employ effective techniques for advocacy and are tailored to specific audiences in deliberative forums
- Form judgments about the significance of rhetoric for understanding social and political issues and about the value of rhetoric for citizens.

## **Program Requirements:**

- · A grade of C- or higher for all courses required in the concentration and an overall GPA of 2.00 or higher.
- COM 32300 is not available for credit toward any Communication major, minor or concentration.

To earn the B.A. in Communication with a concentration in Rhetoric and Public Advocacy, students must fulfill the General Requirements and Communication core requirements as outlined in Program Description of the Communication B.A. program in this catalog, and the following concentration requirements:

# Rhetoric and Public Advocacy Core: Credits 15

- COM 21000 Debating Public Issues Cr. 3.
- COM 31200 Rhetoric In The Western World Cr. 3.
- COM 31600 Controversy In American Society Cr. 3.
- COM 31800 Principles Of Persuasion Cr. 3.
- · COM 40100 Rhetorical Criticism Cr. 3.

# Supporting Courses: Credits 6

- · Choose two courses from the following list:
- · COM 14000 Introduction To Media Production Cr. 3.
- COM 31300 Introduction To Health Communication Cr. 3.
- COM 31400 Advanced Presentational Speaking Cr. 3.
- · COM 42200 Women, Men, and Media Cr. 3.
- COM 44001 Rhetoric Of Popular Culture Cr. 3.
- COM 46300 Mass Media Criticism Cr. 3.
- COM 47100 Communicating Peace Cr. 3.
- COM 49100 Special Topics In Communication Cr. 1-3. (Advisor Approval Required)

Concentration Total: Credits 21

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# **Communication Sciences And Disorders (B.S.)**

Program: B.S.
Department of Communication Sciences and Disorders
College of Arts and Sciences

Modular Clinic Classroom Bldg 111 ~ 260-481-6410

This preprofessional degree helps you prepare to pursue graduate education in speech-language pathology or audiology. Careers in these fields allow you to work with children and adults who have speech, language, swallowing, or hearing disorders. You will offer professional assistance to enhance our most distinctive human ability - communication.

The curriculum offers courses and practical experiences that prepare you to work with people who have communication disorders in settings such as schools, hospitals, rehabilitation centers, clinics, and private practices. These practicum courses offer services through the Communication Disorders Clinic to the campus and surrounding community.

#### **Student Learning Outcomes:**

Upon completion of this degree, students will:

- · acquire basic knowledge of the normal nature and development of speech.
- acquire basic knowledge of language and hearing.
- acquire basic knowledge of assessment, treatment and prevention of speech, language and hearing disorders.
- · demonstrate basic clinical skills of assessment.
- demonstrate basic skill in the design and implementation of appropriate treatment plans.
- · acquire oral and written communication abilities and interpersonal skills needed for the assessment and treatment of speech, language and hearing disorders.

#### **Program Delivery:**

· This program is available on-campus

#### Declaring this Major:

• Declare this major within the Department of Communication Sciences and Disorders

#### **General Requirements:**

- Degree Requirements
- General Education Requirements
- · College Requirements
- · Overlapping Course Content
- · Academic Regulations

# Program Requirements:

Communication Sciences and Disorders 4-Year Plan:

- A GPA of 2.00 or higher for all major department courses taken
- · A grade of C- or better for all CSD courses taken is required

#### **Program Recommendations:**

· You may wish to consider elective courses that fulfill requirements for a minor that supports preparation of CSD majors.

To earn a B.S. with a major in Communication Sciences and Disorders, you must fulfill the following requirements in addition to the General Requirements noted above:

# General Education Requirements: Credits 33

- Click on the Purdue Fort Wayne General Education Requirements link above for details.
   A grade of C- or higher is required. Some majors may require particular General Education of the Company of the Company
- A grade of C- or higher is required. Some majors may require particular General Education courses as specified in their program description. Up to six credits of approved General Education courses satisfying requirements in Area A and B, and three credits satisfying requirements in Area C, may originate in the major. A grade of C- or higher in each course, and an overall GPA of 2.0 is required to satisfy the Purdue Fort Wayne General Education Requirements.

# College of Arts and Sciences Requirements

• Click on the Purdue Fort Wayne College Requirements link above. Go to Arts and Sciences Requirements for the Bachelor of Science Degree

#### English Writing and Speaking: Credits 6

- · See Part A in Arts and Sciences Requirements for the Bachelor of Science Degree for Speaking requirement
- ENGL 23301 Intermediate Expository Writing Cr. 3.

(or other approved writing course)

# International Language: Credits 6-8

• See Part B in Arts and Sciences Requirements for the Bachelor of Science Degree

# Core and Concentration (Major) Courses: Credits 28

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• CSD 11500 - Introduction to Communicative Disorders Cr. 3.
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- CSD 30200 Acoustic Bases of Speech and Hearing Cr. 3.
- · CSD 30400 Anatomy and Physiology of the Speech and Hearing Mechanism Cr. 4.
- CSD 30600 Introduction to Phonetics Cr. 3.
- CSD 30900 Language Development Cr. 3.
- CSD 32100 Introduction to Phonological Disorders in Children Cr. 3.
- CSD 41600 Introduction to Assessment of Communication Disorders Cr. 3.
- CSD 42000 Introduction to Developmental Speech and Language Disorders Cr. 3.
- CSD 46000 Introduction to Assessment Audiology Cr. 3.

#### Additional Courses: Credits 12

- · Students must complete 12 credits from the list below.
- Students intending to pursue graduate studies are encouraged to take CSD 44900 and CSD 54900.
- CSD 18100 First Course in American Sign Language Cr. 3.
- CSD 18200 Second Course in American Sign Language Cr. 3.
- · CSD 39900 Directed Study in Audiology and Speech Sciences Cr. 1-3.
- CSD 40500 Augmentative and Computer Applications in Speech and Language Cr. 3
- CSD 40600 Field Experience In Augmentative/Alternative Communication Cr. 1.
- CSD 43000 Speech-Language Disorders in Healthcare Settings Cr. 3.
- CSD 44900 Introduction to Clinical Practice in Speech-Language Pathology Cr. 3.
- CSD 54900 Clinical Practice in Speech/Language Pathology I Cr. 1-8.
- CSD 55000 Aural Rehabilitation for Adults Cr. 3.
- CSD 55100 Aural Rehabilitation for Children Cr. 3
- CSD 59000 Directed Study of Special Problems Cr. 1-6.

# Supporting Courses: Credits 15-16

- LING 10300 Introduction to the Study of Language Cr. 3.
- STAT 12500 Communicating with Statistics Cr. 3.
- BIOL 12600 Human Biology Cr. 3.
- BIOL 20300 Human Anatomy And Physiology Cr. 4. or
- BIOL 32700 Biology Of Aging Cr. 3.
- PSY 12000 Elementary Psychology Cr. 3. or
- SOC 16101 Principles of Sociology Cr. 3.
- SOC 16300 Social Problems Cr. 3.
- CHM 11100 General Chemistry Cr. 3. or
- PHYS 10500 Sound and Music Cr. 3.

#### **General Electives**

#### Required:

· Sufficient additional credits to bring the total to 120

- · Consider elective courses that fulfill the requirements of a minor that supports the preparation of CSD majors.
- · If no minor is chosen, the following courses are recommended:
- BIOL 20400 Human Anatomy And Physiology Cr. 4.
- COM 30300 Intercultural Communication Cr. 3.
- EDU 30500 Intercential Communication Cr. 3.
  EDU 30500 Teaching The Exceptional Learner In The Elementary School Cr. 3.
  EDU 30700 Methods For Teaching Students With Special Needs Cr. 3.
- PHIL 31200 Medical Ethics Cr. 3.
- PSY 12000 Elementary Psychology Cr. 3.
  PSY 23500 Child Psychology Cr. 3.
- PSY 35000 Abnormal Psychology Cr. 3.
- SOC 16101 Principles of Sociology Cr. 3.
- SOC 16300 Social Problems Cr. 3.

Total Credits: 120

# Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# **Computer Engineering (B.S.Cmp.E.)**

Program: B.S.Cmp.E.
Department of Electrical and Computer Engineering
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 327 ~ 260-481-6362

Computer Engineering is the engineering discipline that deals with the design and application of computer systems. These computer systems range in size from tiny embedded processors to massive database and network servers. Purdue University Fort Wayne offers a four-year computer engineering undergraduate program leading to a Bachelor of Science (BS) degree.

Computer engineers have a broad technical background, covering both hardware (equipment) and software (programs). These two aspects of computer systems are inseparable: software cannot operate without hardware; without software, computer hardware can perform no useful function. In system design, it is often necessary to assign functions to hardware and software components, based on cost and performance criteria.

Our students, while drawn from diverse backgrounds, are all extremely able and committed to learning. Purdue Fort Wayne delivers an exceptional educational experience to engineering students, encouraging collaboration and teamwork throughout the curriculum.

#### **Student Learning Outcomes:**

As a framework for the continuous improvement policy, the Computer Engineering program has adopted a set of program educational objectives that describe the anticipated accomplishments of our graduates within a few years after graduation.

#### The Bachelor of Science in Computer Engineering (BSCmpE) program educational objectives are to produce graduates who:

- 1. Function and communicate effective to solve technical problems
- 2. Advance professionally to roles of greater computer engineering responsibilities and/or by transitioning into leadership positions in business, government, and/or education
- 3. Participate in life-long learning through the successful completion of advanced degree(s), continuous education, and/or engineering certification(s)/licensure or other professional development
- 4. Demonstrate a commitment to community by applying technical skills and knowledge to support various service activities

#### The graduates from the Computer Engineering program will demonstrate that they have:

- 1. The ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
- 2. The ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
- 3. The ability to communicate effectively with a range of audiences.
- 4. The ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
- 5. The ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
- 6. The ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgement to draw conclusions.
- 7. The ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

#### Accreditation:

• The Computer Engineering program is accredited by the Engineering Accreditation Commission of ABET.

#### **Program Delivery:**

The BSCmpE program is delivered primarily through on-campus courses; however, some of the required General Education courses are available as hybrid and/or on-line courses and those can be used to satisfy the program requirements.

#### Declaring this Major:

Students interested in declaring Computer Engineering as their major may do so in one of two ways:

- · On their application when they first apply to Purdue Fort Wayne
- After meeting with an ECE faculty advisor, who will determine that the student has the required math and chemistry background to begin our program

#### **General Requirements:**

- 1. Degree Requirements
- 2. General Education Requirement
- 3. Overlapping Course Content
- 4. Academic Regulations

#### **Program Requirements:**

In order to start in the Computer Engineering program, a student must meet the following criteria:

- 1. Math Placement at or above MA 15400
- 2. Have taken CHM 11100 or 1 year of high school chemistry in the last five (5) years

# **Program Requirements:**

Computer Engineering BSCmpE 4-Year Plan:

In order to start in the Electrical Engineering program, a student must meet the following criteria:

- 1. Math Placement at or above MA 15400
- 2. Have taken CHM 11100 or 1 year of high school chemistry in the last five (5) years

# General Education Requirements

The Purdue Fort Wayne General Education Requirements for the Computer Engineering program is provided below. This plan satisfies the competency requirements and the credit hour requirement.

CATEGORY	COMPETENCY	COURSE	Credit Hours
A	1	ENGL 13100 Elementary Composition	3
A	2	COM 11400 Fundamentals of Speech	3
A	3	MA 16500 Analytical Geometry and Calculus I	4
		MA 16600 Analytical Geometry and Calculus II	4
В	4	CHM 11500 General Chemistry I	4
		PHYS 15200 Mechanics	5
В	5	Select from the list of approved courses	3
		(all Competency 5 outcomes must be met)	
В	6	Select from the list of approved courses	3
		(all Competency 6 outcomes must be met)	
В	7	PHYS 25100 Heat, Electricity and Optics	5
C	8	ECE 40500 Senior Design I	3

- 1. For B 5 and B 6, if a student selected a course that does not meet ALL outcomes for that competency, he/she must take another course that meets rest of the outcomes for that competency.
- 2. All courses used to complete the General Education Requirements must be completed with a grade of C- or better.

# Major and Supporting Courses Required for the BSCmpE

- ENGR 12700 Engineering Fundamentals I Cr. 4.
- ENGR 12800 Engineering Fundamentals II Cr. 4.
- MA 17500 Introductory Discrete Mathematics Cr. 3.

Students may take either MA 17500 or MA 27500, but not both, to fulfill this requirement.

- MA 27500 Intermediate Discrete Math Cr. 3.
- MA 26100 Multivariate Calculus Cr. 4.
- MA 35100 Elementary Linear Algebra Cr. 3.
- MA 36300 Differential Equations Cr. 3.

# Core and Concentration Courses Required for the BSCmpE

• ECE 20100 - Linear Circuit Analysis I Cr. 3.

```
ECE 20200 - Linear Circuit Analysis II Cr. 3.
ECE 20700 - Electronic Measurement Techniques Cr. 1.
ECE 20800 - Electronic Devices And Design Laboratory Cr. 1.
ECE 22900 - C/C++ Programming For Electrical And Computer Engineering Cr. 4.
ECE 25500 - Introduction To Electronic Analysis And Design Cr. 3.
ECE 27000 - Introduction To Digital System Design Cr. 4.
ECE 30100 - Signals And Systems Cr. 3.
ECE 30200 - Probabilistic Methods il Electrical Engineering Cr. 3.
ECE 35800 - Introduction To VHDL Cr. 3.
ECE 36200 - Microprocessor Systems And Interfacing Cr. 4.
ECE 36800 - Data Structures Cr. 3.
ECE 40600 - Senior Engineering Design II Cr. 3.
ECE 43700 - Computer Design and Prototyping Cr. 4.
ECE 46500 - Embedded Microprocessors Cr. 3.
```

#### **Technical Elective Requirements**

• ECE 48500 - Embedded Real-Time Operating Systems Cr. 4.

All Computer Engineering students must take at least three (3) credit hours from the list of Group I Technical Electives, and at least ten (10) credit hours from either the Group I or Group II Technical Elective lists.

# Group I Technical Electives

BSCmpE students must take at least one (1) course from the list of Group I Technical Electives given below:

```
ECE 30300 - Engineering Software Design Cr. 3.
ECE 42800 - Modern Communication Systems Cr. 3.
ECE 43600 - Digital Signal Processing Cr. 3.
ECE 44901 - Machine Learning Cr. 3.
ECE 47800 - Robotics And Automation Cr. 3
ECE 54700 - Introduction To Computer Communication Networks Cr. 3.
ECE 56700 - FPGA Design For Signal Processing Applications Cr. 3
CS 32100 - Introduction To Computer Graphics Cr. 3.
```

- CS 38400 Numerical Analysis Cr. 3. or
- CS 38400 Numerical Analysis Cr. 3. 6r
   PHYS 32500 Scientific Computing Cr. 3.

· CS 36400 - Introduction To Database Systems Cr. 3.

- MA 59800 Topics in Mathematics Cr. 1-5. Note: Cryptography
  - 1. Either CS 38400 or PHYS 32500, but not both, can be used as a Group 1 technical elective.
  - 2. ECE 49500 may be counted as a Group I Technical Elective upon the approval of the CPE Curriculum Committee
  - 3. Other ECE 500-level or above courses may be included in this group upon the approval of the CPE Curriculum Committee
  - 4. Other MA 59800 courses other than Cryptography require the approval of the Computer Engineering Curriculum Committee to be included as Group 1 technical electives

#### **Group II Technical Electives**

```
• ECE 31100 - Electric And Magnetic Fields Cr. 3. Or
• PHYS 31200 - Intermediate Electricity and Magnetism Cr. 3.
• ECE 31300 - Energy Conversion Laboratory Cr. 1.
• ECE 32400 - Introduction To Energy Systems Cr. 3.
• ECE 33300 - Automatic Control Systems Cr. 3.
• ECE 48300 - Digital Control Systems Analysis And Design Cr. 3.
• ECE 49600 - Electrical And Computer Engineering Projects Cr. 1-15.
• ECE 49700 - Research In Electrical Engineering I Cr. 3.
• ECE 49800 - Research In Electrical Engineering II Cr. 3.
• ECE 53800 - Digital Signal Processing I Cr. 3.

MA 57500 - Graph Theory Cr. 3.
ME 25300 - An Introduction to Mechanics Cr. 2.

• PHYS 32200 - Optics Cr. 3.
• PHYS 34200 - Modern Physics Cr. 3.
• PHYS 34500 - Optics Laboratory I Cr. 1.
• STAT 51200 - Applied Regression Analysis Cr. 3.
• SE 52000 - Engineering Economics Cr. 3.
• SE 53000 - Systems Engineering Management Cr. 3.
• SE 54000 - Systems Architecture Cr. 3.
· SE 55000 - Advanced Manufacturing Systems And Processes Cr. 3.
```

- 1. Either ECE 31100 or PHYS 31200 can be counted as Technical Elective Group II, but not both.
- 2. Other 500-level courses offered by the engineering, math, computer science, or physics departments may be taken by the student in Group II Technical Electives with approval of the advisor
- 3. ECE 49600, ECE 49700, and ECE 49800 may be counted as Group II Technical Electives, with the maximum of 3 credit hours each, upon the approval of the CPE curriculum committee.

NOTE: A course cannot be counted toward both an undergraduate degree and a graduate degree, with the exception of the students enrolled in the 5-year BS/MSE Combined Degree Program.

# **GPA Requirement**

You must have a cumulative GPA of at least 2.0 in the 120 credits required for this major.

# Total Credits Required: 120

# Student Responsibilities

All Computer Engineering students are responsible for satisfying the graduation requirements specified for the BSCmpE program. Thus, it is essential that they develop a thorough understanding of the required courses, academic policies, and procedures governing their academic career.

All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

### Additional Course Use:

- ECE 20700 required, ECE 29300 accepted
- ECE 22900 required, CS 22900 or CS 22700 plus CS 22800 accepted

# **Computer Engineering Technology (B.S.)**

Program: B.S. School of Polytechnic College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 205 ~ 260-481-4127

Computer Engineering Technology is part of the School of Polytechnic. Computer Engineering Technology (CPET) prepares students to design, develop, and implement the computer-based applications and systems that drive society needs. CPET focuses on electronic hardware, strongly related to software, and the use of technical applications being developed and implemented for use in industry. Students learn in an applied approach about electrical circuits, microcomputers, networking, security and mobile communication. Students must complete all courses i the degree with a C- or better, this excludes free electives.

#### **Program Educational Objectives:**

Upon completion of the Computer Engineering Technology (B.S.) students will:

- Demonstrate the knowledge and ability to function as a member of a technical staff who can use current industrial practices and design procedures for development, implementation, and project management of computer based software and systems or electrical/electronic(s) hardware and software.
- · Demonstrate readiness for career advancement, promotion, and mobility.
- Demonstrate continuous learning, either on the job or in graduate school.
- Demonstrate the ability to function as a contributing member of society and the profession.
- Demonstrate effective teamwork skills and recognize ethical responsibilities.

#### Student outcomes for the degree are:

- an ability to apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve broadly-defined engineering problems
  appropriate to the discipline;
- an ability to design systems, components, or processes meeting specified needs for broadly-defined engineering problems appropriate to the discipline;
- an ability to apply written, oral, and graphical communication in broadly-defined technical and non-technical environments; and an ability to identify and use appropriate technical literature:
- · an ability to conduct standard tests, measurements, and experiments and to analyze and interpret the results to improve processes; and
- · an ability to function effectively as a member as well as a leader on technical teams.

#### Accreditation:

The Computer Engineering Technology degree is accredited by the Engineering Technology Accreditation Commission of ABET, http://www.abet.org.

The B.S. in Computer Engineering Technology (CPET) focuses on applications and application packages in areas of information technology and electronics to support information technology. This can be contrasted with Computer Engineering programs where the focus is on the theory and design of computer-based systems and Computer Science with a focus on computer program design. A graduate of this program will have the training and skills encompassed by a combination of CPET, Electrical Engineering Technology (EET), Computer Science, and supporting science, mathematics, general education, and other technical areas. CPET courses generally focus on software strongly related to hardware, while EET courses focus on hardware and related software. A strong feature of the CPET program is the adaptability of the curriculum to concentrate on technical applications similar to those being developed and implemented for use in industry such as: industrial networking, web-based control, electronic devices, web services, and other aspects of enterprise networking. Based on course selection a B.S. CPET major may also qualify for an A.S. in EET.

The curriculum described below provides a technical education in the area of industrial and enterprise computer networking. The core provides the student with basic instruction in analog and digital circuit analysis with hands-on laboratory work. It also introduces the fundamentals of computer systems, programming, and applications using word processors, spreadsheets, and highand low-level computer languages. The specialization area provides in-depth knowledge about networking and the requisite hardware and software. Other required courses provide mathematical and communication skills, and sufficient knowledge of the industrial environment to perform effectively in the workplace. The B.S. also enables you to pursue advanced degrees in management, engineering, technology, or computer science.

#### **Program Delivery:**

POLYTECHNIC programs emphasize practice-based learning via hands-on laboratory applications using state-of-the-art equipment. Some courses are available through online, distance, and hybrid learning, however many incorporate an on-campus laboratory element.

#### **Declaring This Major:**

Students interested in declaring Computer Engineering Technology as their major may do so in one of two ways:

- 1. On their application when they first apply to the university.
- 2. After meeting with a faculty advisor, a change of major can be declared.

#### **General Requirements:**

- 1. Degree Requirements
- 2. General Education Requirements
- 3. Overlapping Course Content
- 4. Academic Regulations

# **Program Requirements:**

Computer Engineering Technology 4 Yr Plan:

- 1. Students must complete all courses in the degree with a grade of C- or better, this excludes the free elective.
- 2. Student Responsibilities: You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair.
- 3. B.S. CPET degree majors cannot pursue a B.S. EET.
- 4. Transfer credit limits, see Academic Regulations above.
- 5. General Education and Major courses as listed below.

## General Education Requirements-Credits: 31

- ENGL 13100 Reading, Writing, and Inquiry I Cr. 3.
- COM 11400 Fundamentals Of Speech Communication Cr. 3.
- MA 15900 Precalculus Cr. 5.
- MA 22700 Calculus for Technology I Cr. 4.
- CHM 11100 General Chemistry Cr. 3.
- IET 10500 Industrial Management Cr. 3.
  - B6 (Humanistic and Artistic Ways of Knowing) that meets ALL outcomes for that competency Cr. 3
  - B7 (Interdisciplinary Ways of Knowing) Cr. 3
- PHYS 21800 General Physics Cr. 4. or
- PHYS 22000 General Physics Cr. 4.

# General Education Requirement Capstone Experience Credits: 3

# Computer, Electrical & Information Technology Core Technical Courses: Credits 29

- ECET 10200 Electrical Circuits I Cr. 4. or • CPET 10100 - Electrical Circuits Cr. 4.
- ECET 11100 Digital Circuits Cr. 4.
- ECET 11400 Introduction to Visual Basic Cr. 3.
- ECET 14600 Digital Circuits II Cr. 4.
- ECET 15200 Electrical Circuits II Cr. 4.
- ECET 20400 Analog Electronics II Cr. 4.
- ECET 29600 Electronic System Fabrication Cr. 2-3.
  CPET 19000 Problem Solving with MATLAB Cr. 1-4.

# Advanced Core Technical Courses Credits: 34

- CPET 18100 Computer Operating Systems Basics Cr. 3.
- CPET 28100 Networks Management Cr. 3.
- CPET 35500 Data Communications and Networking Cr. 4.
- CPET 36400 Networking Security Cr. 3.
- CPET 47000 Technology Project Management Cr. 3.
- CPET 49000 Senior Design Project I Cr. 1.
- CPET 49100 Senior Design Project II Cr. 2.
- CPET 49900 Computer Engineering Technology Cr. 1-4.

(CPET 499 course must be in Mobile Computing)

- ECET 20500 Introduction to Microprocessors Cr. 4.
- ECET 26400 C Programming Language Applications Cr. 3.
   CS 16000 Introduction To Computer Science I Cr. 4.

## **Technical Electives Credits: 10**

Consult Academic Advisor.

- Any CPET/ITC courses at or above 300 level, Cr. 3.
- Any CPET/ECET/ITC course<sup>1</sup> at or above 300 level, Cr. 4.
- Any ITC/ECET/ITC/CS<sup>2</sup> courses at or above 300 level, Cr. 3.

<sup>1</sup>Cooperative Education, up to 3 credits, <sup>2</sup>CS 26000 or one course above 300 level (excluding CS 30600)

# Supporting Courses Credits: 9

- MA 22800 Calculus for Technology II Cr. 3.
- ENGL 23401 Technical Report Writing Cr. 3.
- IET 20500 Applied Statistics for Engineering Technology Cr. 3. or
   STAT 30100 Elementary Statistical Methods I Cr. 3.

Free Elective Credits: 4

Total Credits: 120

## Additional Course Use

- · MA 153 and MA 154 Required, MA 159 acceptable
- · MA 22700 required, MA 16500 accepted
- · MA 22800 required, MA 16600 accepted
- · CHM 11100 required, CHM 11500 accepted
- · PHYS 21800 or 22000 required, PHYS 15200 accepted
- CPET 19000 required, ENGR 12800 accepted
- · CPET 10100 and ECET 152 required, ECE 20100 + ECE 20200 + ECE 20700 accepted
- · CPET 10100 required, ECET 10200 accepted
- · CPET 18100 required, ITC 23000 accepted
- · ECET 26400 required, ENGR 22900 accepted
- · ECET 11100 required, ENGR 270000 accepted

# Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# **Computer Science (B.A.)**

Program: B.A.

Department of Computer Science

College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 125 ~ 260-481-6803

The Bachelor of the Arts in Computer Science (BA CS) provides a degree path for students who want to combine a solid degree in Computer Science with an in-depth focus on a second area of interest. Consequently, the BA CS degree reduces the number of credit hours of specific supporting courses as required by the current Bachelor of Science in Computer Science (BS CS) degree in order to make these hours available for an approved Second Discipline. Both BA CS and BS CS programs have similar CS core and concentration area requirements. As a consequence, the BA CS will offer interested students an interdisciplinary degree which will form a solid foundation for a secure career path. This program would more efficiently serve our students in achieving their academic goals as well as in developing skills that the global society needs.

#### **Student Learning Outcomes:**

The graduates from the Computer Science program are expected to know and gain the ability to:

- 1. Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.
- 2. Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.
- 3. Communicate effectively in a variety of professional contexts.
- 4. Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
- 5. Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.
- 6. Apply computer science theory and software development fundamentals to produce computing-based solutions.

#### Accreditation:

• The B.S. in Computer Science program is accredited by the Computing Accreditation Commission of ABET.

#### **Program Delivery:**

· The Computer Science program is mainly delivered through on-campus courses. However, limited number of courses are available as hybrid courses.

### Declaring This Major:

Students interested in declaring Computer Science as their major may do so in one of two ways:

- · On their application when they first apply to Purdue University Fort Wayne
- After meeting with a CS faculty advisor, a change of major can be declared.

#### **General Requirements:**

- · Degree Requirements
- General Education Requirements
- Overlapping Course Content
- · Academic Regulations

# **Program Requirements:**

Computer Science B.A. 4-Yr Plan:

In addition to satisfying the requirements of Purdue Fort Wayne (Regulations) and the College of Engineering, Technology, and Computer Science (Colleges), you must complete the following courses.

# General Education Requirements Credits: 33+

#### General Education Requirements

- · Only courses with a grade of C- or better used to satisfy the Purdue Fort Wayne general education requirements.
- · A student must also have a GPA of 2.0 or higher in general education courses.
- Additional General Education courses may be needed to reach 33 credit hours.
- Students may use the Advanced Communication course to fulfill general education requirements.
- · Contact the Department of Computer Science for more information.

# Category A: Foundational Intellectual Skills

- 1. Written Communication Credits: 6
  - ENGL 13100 Reading, Writing, and Inquiry I Cr. 3.
  - ENGL 23401 Technical Report Writing Cr. 3.
- 2. Speaking and Listening Credits: 3
  - COM 11400 Fundamentals Of Speech Communication Cr. 3.
- 3. Quantitative Reasoning Credits: 3-4
  - MA 16500 Analytic Geometry and Calculus I Cr. 4. or
  - MA 22900 Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.

# Category B: Ways of Knowing

## 4. Scientific Ways of Knowing Credits: 6-10

### General Education Requirements

 See the approved list of Category B Competency 4 courses on the Purdue Fort Wayne General Education Program web page. To avoid taking multiple courses, the Department recommends choosing a course that covers all learning outcomes.

## 5. Social and Behavioral Ways of Knowing Credits: 3

#### General Education Requirements

 See the approved list of Category B Competency 5 courses on the Purdue Fort Wayne General Education Program web page. To avoid taking multiple courses, the Department recommends choosing a course that covers all learning outcomes.

## 6. Humanistic and Artistic Ways of Knowing Credits: 3

#### General Education Requirements

• See the approved list of Category B Competency 6 courses on the Purdue Fort Wayne General Education Program web page. To avoid taking multiple courses, the Department recommends choosing a course that covers all learning outcomes.

## 7. Interdisciplinary or Creative Ways of Knowing Credits: 3

#### General Education Requirements

 See the approved list of Category B Competency 7 courses on the Purdue Fort Wayne General Education Program web page. To avoid taking multiple courses, the Department recommends choosing a course that covers all learning outcomes. CS11200 - Survey of Computer Science, is recommended.

### General Education Electives Credits: 0-3

#### General Education Requirements

• The Statewide Transfer General Education Core for bachelor degree programs at Purdue Fort Wayne shall consist of 30 credits. Any course listed in Category A or B on the Purdue Fort Wayne General Education Program web page.

# Category C: Capstone

## 8. Capstone Experience Credits: 3

#### General Education Requirements

• See the approved list of courses in Category C Competency 8 on the Purdue Fort Wayne General Education Program web page. The Capstone requirement may be satisfied by taking an appropriate Computer Science course. CS 30600 is recommended.

# Major Requirements Credits: 45

- CS 16000 Introduction To Computer Science I Cr. 4.
- CS 16100 Introduction To Computer Science II Cr. 4.
- CS 23200 Introduction To C And Unix Cr. 3.
- CS 26000 Data Structures Cr. 3.
- CS 27100 Computer Architecture Cr. 3.
- CS 35000 Programming Language Design Cr. 3.
- CS 36000 Software Engineering Cr. 4.
- CS 36400 Introduction To Database Systems Cr. 3.
- CS 37400 Computer Networks Cr. 3.
- CS 44500 Computer Security Cr. 3.
- CS 46000 Senior Capstone Project I Cr. 3.
- CS 46500 Senior Capstone Project II Cr. 3.
- CS 47200 Operating Systems Design Cr. 3.
- Any 3 credit hour CS course at the 30000/40000 level except CS 30600. The following course is recommended: CS 48600 Analysis Of Algorithms Cr. 3.

# Supporting Courses Credits: 9

• MA 17500 - Introductory Discrete Mathematics Cr. 3.

# One of the following: Credits: 3

- MA 31400 Introduction to Mathematical Modeling Cr. 3.
- STAT 30100 Elementary Statistical Methods I Cr. 3.
  STAT 51100 Statistical Methods Cr. 3.

## **Advanced Communication Credits: 3**

• The Advanced Communication requirement may be satisfied by any COM or ENGL course with a prerequisite of COM 11400 or ENGL 13100. Any of ENGL 23301, COM 32300, 30300, 31000, 31800, or 32000 is recommended. Students may want to select a course that also meets general education requirements.

# Second Discipline: 21

· Approved elective courses from a discipline other than CS. It is recommended that these courses are from a minor in the discipline. These courses cannot be already counted in other BA CS requirements. At least 12 credit hours courses must be at 20000 level or above.

# Areas of Concentrations: 12 Credit Hours

• To satisfy the Concentration Area requirement, at least six credit hours must be chosen from one area. The remaining credits may be distributed among the other areas. With departmental approval, up to six hours may be chosen from CS 49200, CS 49400 or CS 49500.

## Software Engineering

- CS 33100 Introduction To C++ And Object-Oriented Programming Cr. 3.
- CS 36800 Human-Computer Interaction Cr. 3.
- · CS 46700 Project Management Cr. 3.

# Intelligent Systems and Security

- CS 37200 Web Application Development Cr. 3.
  CS 37500 Multimedia Networking Cr. 3.
- CS 38000 Artificial Intelligence Cr. 3.

# **Data Science and Visual Computing**

- CS 32100 Introduction To Computer Graphics Cr. 3.
- CS 36500 Advanced Database Systems Cr. 3.
- CS 42100 Advanced Computer Graphics Cr. 3.
- CS 45700 Introduction To Data Mining Cr. 3.

## **Advanced Computing**

- CS 38400 Numerical Analysis Cr. 3.
- CS 47400 Compiler Construction Cr. 3.
- CS 48800 Theory Of Computation Cr. 3.

# Minor in Computer Science

· Computer Science Minor

# **GPA Requirement**

· You must satisfy the Purdue Fort Wayne and the College of Engineering, Technology, and Computer Science Cumulative GPA requirement for graduation.

# Academic Regulations Specific to the Program

- · Only Computer Science Courses in which you have earned a grade of C or better can be applied to the degree or used to satisfy prerequisites.
- A maximum of 10 credits with a grade of D will be accepted in non-CS courses.
- · No credit toward graduation will be given for courses or sequences with overlapping content.

Total Credits Required: 120

## Student Responsibilities

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# **Computer Science (B.S.)**

Program: B.S.
Department of Computer Science
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 125 ~ 260-481-6803

Computer Science is a growing field with a high demand for capable individuals who possess skills in programming, development of software systems, computing, and the flexibility to adapt as technology changes. The Computer Science program provides students a durable technical foundation in an environment of rapid technical change, promotes their professional growth through contact with the best professional practice, and enables them to play a role in resource and technical leadership in the global society. Students of the program gain the skills and knowledge in Computer Programming, Software Engineering, Data Science, Security, Artificial Intelligence, Web Technology, Computer Graphics & Visualization, Computer Systems & Networks, Database Systems, Human-Computer Interaction, Computer Architecture, and Theory of Computation. Earning a Bachelor of Science in Computer Science will prepare you for a career as a computer professional, which is highly sought after and constantly evolving. It will also equip you with the knowledge and skills needed in order to pursue advanced studies in a graduate program.

#### **Student Learning Outcomes:**

The graduates from the Computer Science program are expected to know and gain the ability to:

- 1. Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.
- 2. Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.
- Communicate effectively in a variety of professional contexts.
- 4. Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
- 5. Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.
- 6. Apply computer science theory and software development fundamentals to produce computing-based solutions.

#### Accreditation:

• The B.S. program in Computer Science is accredited by the Computing Accreditation Commission of ABET.

#### Program Delivery:

• The Computer Science program is mainly delivered through on-campus courses. However, limited number of courses are available as hybrid courses.

### **Declaring This Major:**

Students interested in declaring Computer Science as their major may do so in one of two ways:

- · On their application when they first apply to Purdue University Fort Wayne
- · After meeting with a CS faculty advisor, a change of major can be declared.

### **General Requirements:**

- · Degree Requirements
- General Education Requirements
- · Overlapping Course Content
- · Academic Regulations

# **Program Requirements:**

Computer Science B.S. 4-Yr Plan:

In addition to satisfying the requirements of Purdue Fort Wayne (Regulations) and the College of Engineering, Technology, and Computer Science (Colleges), you must complete the following courses.

# General Education Requirements Credits: 33+

General Education Requirements

- Only courses with a grade of C- or better used to satisfy the Purdue Fort Wayne general education requirements.
- · A student must also have a GPA of 2.0 or higher in general education courses.
- Additional General Education courses may be needed to reach 33 credit hours.
- Students may use supporting courses to fulfill general education requirements. See an advisor to select courses for Lab Science I and II and advanced communication. Elective credits will be required to bring total credit hours to 120.
- Contact the Department of Computer Science for more information.

## Category A: Foundational Intellectual Skills

- 1. Written Communication Credits: 6
  - ENGL 13100 Reading, Writing, and Inquiry I Cr. 3.
  - ENGL 23401 Technical Report Writing Cr. 3.
- 2. Speaking and Listening Credits: 3
  - COM 11400 Fundamentals Of Speech Communication Cr. 3.
- 3. Quantitative Reasoning Credits: 8
  - MA 16500 Analytic Geometry and Calculus I Cr. 4.
  - MA 16600 Analytic Geometry and Calculus II Cr. 4.

# Category B: Ways of Knowing

# 4. Scientific Ways of Knowing Credits: 3-5

General Education Requirements

- The Scientific Ways requirement may be satisfied by taking an appropriate course for the Lab Science I.
- See the approved list of Category B Competency 4 courses on the Purdue Fort Wayne General Education Program web page. To avoid taking multiple courses, the Department recommends choosing a course that covers all learning outcomes.

## 5. Social and Behavioral Ways of Knowing Credits: 3

General Education Requirements

• See the approved list of Category B Competency 5 courses on the Purdue Fort Wayne General Education Program web page. To avoid taking multiple courses, the Department recommends choosing a course that covers all learning outcomes.

### 6. Humanistic and Artistic Ways of Knowing Credits: 3

General Education Requirements

• See the approved list of Category B Competency 6 courses on the Purdue Fort Wayne General Education Program web page. To avoid taking multiple courses, the Department recommends choosing a course that covers all learning outcomes.

# 7. Interdisciplinary or Creative Ways of Knowing Credits: 3

General Education Requirements

• See the approved list of Category B Competency 7 courses on the Purdue Fort Wayne General Education Program web page. CS 11200 is recommended. To avoid taking multiple courses, the Department recommends choosing a course that covers all learning outcomes.

# Category C: Capstone

# 8. Capstone Experience Credits: 3

General Education Requirements

• See the approved list of courses in Category C Competency 8 on the Purdue Fort Wayne General Education Program web page. The Capstone requirement may be satisfied by taking an appropriate Computer Science course. CS 30600 is recommended.

# Major Requirements Credits: 45

- CS 16000 Introduction To Computer Science I Cr. 4.
- CS 16100 Introduction To Computer Science II Cr. 4.
- CS 23200 Introduction To C And Unix Cr. 3.
- CS 26000 Data Structures Cr. 3.
- CS 27100 Computer Architecture Cr. 3.
- CS 35000 Programming Language Design Cr. 3.
- CS 36000 Software Engineering Cr. 4.
- CS 36400 Introduction To Database Systems Cr. 3.
- CS 37400 Computer Networks Cr. 3.
- CS 44500 Computer Security Cr. 3.
- CS 46000 Senior Capstone Project I Cr. 3.
- CS 46500 Senior Capstone Project II Cr. 3.
- CS 47200 Operating Systems Design Cr. 3.
- CS 48600 Analysis Of Algorithms Cr. 3.

# Supporting Courses Credits: 20-22

- MA 17500 Introductory Discrete Mathematics Cr. 3.
- MA 35100 Elementary Linear Algebra Cr. 3. or
- MA 51100 Linear Algebra with Applications Cr. 3.
- STAT 51100 Statistical Methods Cr. 3.

## Advanced Communication Credits: 3

The Advanced Communication requirement may be satisfied by any COM or ENGL course with a prerequisite of COM 11400 or ENGL 13100. Any of ENGL 23301, COM 32300, 30300, 31000, 31800, or 32000 is recommended. Students may want to select a course that also meets general education requirements.

## Approved Science Courses Credits: 8-10

A total of 8 credit hours in approved Lab Science sequence are required.

- Laboratory Science I Cr. 4-5.
- Laboratory Science II Cr. 4-5.

The following Lab Science sequences may be used to satisfy the Lab Science I and II requirements:

Lab Science I	Lab Science II
BIOL 11700 - Principles of Ecology & Evolution - Cr. 4	BIOL 11900 - Principles of Structure and Function - Cr. 4
CHM 11500 - General Chemistry - Cr. 4	CHM 11600 - General Chemistry - Cr. 4
PHYS 21800 - General Physics - Cr. 4	PHYS 21900 General Physics II - Cr. 4
PHYS 22000 - General Physics - Cr. 4	PHYS 22100 - General Physics - Cr. 4
PHYS 15200 - Mechanics - Cr. 5	PHYS 25100 - Heat, Electricity, and Optics - Cr. 5

# Areas of Concentrations: 12 Credit Hours

To satisfy the Concentration Area requirement, at least six credit hours must be chosen from one area. The remaining credits may be distributed among the other areas. With departmental approval, up to six hours may be chosen from CS 49200, CS 49400 or CS 49500.

# Software Engineering

- CS 33100 Introduction To C++ And Object-Oriented Programming Cr. 3.
- CS 36800 Human-Computer Interaction Cr. 3.
- CS 46700 Project Management Cr. 3.

# Intelligent Systems and Security

- CS 37200 Web Application Development Cr. 3.
  CS 37500 Multimedia Networking Cr. 3.
- CS 38000 Artificial Intelligence Cr. 3.

# Data Science and Visual Computing

- CS 32100 Introduction To Computer Graphics Cr. 3.
- CS 36500 Advanced Database Systems Cr. 3.
- · CS 42100 Advanced Computer Graphics Cr. 3.
- CS 45700 Introduction To Data Mining Cr. 3.

## **Advanced Computing**

- CS 38400 Numerical Analysis Cr. 3.
- CS 47400 Compiler Construction Cr. 3.
- CS 48800 Theory Of Computation Cr. 3.

# **Approved Electives**

Courses selected with approval of advisor to meet 120 credit hour requirement, if necessary.

# Minor in Computer Science

· Computer Science Minor

# **GPA Requirement**

You must satisfy the Purdue Fort Wayne and the College of Engineering, Technology, and Computer Science Cumulative GPA requirement for graduation.

# Academic Regulations Specific to the Program

- Only Computer Science courses in which you have earned a grade of C or better can be applied to the degree or used to satisfy prerequisites.
- A maximum of 10 credits with a grade of D will be accepted in non-CS courses.
- No credit toward graduation will be given for courses or sequences with overlapping content, not limited to the following:
  - BIOL: 10000, 10001, 11700
  - ° CHM: 10400, 11100, 11500
  - · CHM: 10200, 11200, 11600
  - PHYS: 13100, 15200, 20100, 21800, 22000
     PHYS: 13200, 25100, 20200, 21900, 22100

Total Credits Required: 120

## Student Responsibilities

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# **Construction Management (B.S.)**

Program: B.S. School of Polytechnic College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 221 ~ 260-481-6338

Construction Management is part of the School of Polytechnic. Construction Management (CM) prepares students for the application of engineering principles and technological developments in construction methods, business operations and management skills to oversee a construction project. CPET majors manage and supervise the conversion of engineering and architectural plans from ideas to reality.

#### CM B.S. Program Objectives

- To provide education of the traditional and returning adult student for career success in the construction industry, with a special emphasis on sustainable construction.
- To develop a respect for diversity and a knowledge of contemporary professional, societal, and global issues with an understanding of professional and ethical responsibilities.
- To be responsive to the ever-changing technologies of the construction industries.
- · To instill in students the desire for and ability to engage in lifelong learning.

The breadth of the curriculum will provide leadership potential in addressing problems of the region, its people, and its industries. Graduates of this program take jobs with contractors, building-materials companies, utilities, architectural firms, engineering firms, and government agencies. The construction management program does not lead to licensure as a professional engineer or registered architect.

#### **Student Learning Outcomes:**

- 1. An ability to identify, formulate, and solve broadly defined technical or scientific problems by applying knowledge of mathematics and science and/or technical topics to areas relevant to the discipline.
- 2. An ability to formulate or design a system, process, procedure or program to meet desired needs.
- 3. An ability to develop and conduct experiments or test hypotheses, analyze and interpret data and use scientific judgment to draw conclusions.
- 4. An ability to communicate effectively with a range of audiences.
- 5. An ability to understand ethical and professional responsibilities and the impact of technical and/or scientific solutions in global, economic, environmental, and societal contexts.
- 6. An ability to function effectively on teams that establish goals, plan tasks, meet deadlines, and analyze risk and uncertainty.

#### **Program Delivery:**

 POLYTECHNIC programs emphasize practice-based learning via hands-on laboratory applications using state-of-the-art equipment. Some courses are available through online, distance, and hybrid learning, however many incorporate an on-campus laboratory element.

#### **Declaring This Major:**

Students interested in declaring Construction Management as their major may do so in one of two ways:

- · On their application when they first apply to the university.
- · After meeting with a faculty advisor, a change of major can be declared.

### **General Requirements:**

- · Regulations, Policies, Rights, & Responsibilities
- · General Education Requirements
- Overlapping Course Content
- · Regulations, Policies, Rights, & Responsibilities

# **Program Requirements:**

Construction Management (B.S.) 4-Year Plan:

- Students must complete courses earning grades of C- or better.
- Student Responsibilities: You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair.
- Transfer credit limits, see Academic Regulations above.
- · General Education and Major courses as listed below.

#### Mission:

To provide employers and the public of northeast Indiana with educated, technologically equipped graduates, able to serve the varied construction industries in advancing
the solutions to problems facing the public and private sector.

General Education Credits: 35

### Category A: Foundations Intellectual Skills: 19 credits

- COM 11400 Fundamentals Of Speech Communication Cr. 3.
- ECON 20101 Introduction to Microeconomics Cr. 3.
- ENGL 13100 Reading, Writing, and Inquiry I Cr. 3.
- ENGL 23401 Technical Report Writing Cr. 3.
- MA 15300 College Algebra Cr. 3.
- MA 22700 Calculus for Technology I Cr. 4.

## Category B: 13 credits

- ARET 12300 Digital Graphics For Built Environment I Cr. 3.
- IET 10500 Industrial Management Cr. 3.
- PHIL 11100 Introduction To Ethics Cr. 3.
- PHYS 21800 General Physics Cr. 4.

### Category C: Capstone

• ENGL 42101 - Technical Writing Projects Cr. 1-3.

# Core and Concentration (Major) Course Credits: 69

- ET 10600 Introduction to Engineering Technology Cr. 3.
- ET 19000 Statics Cr. 3.
- ET 20000 Strength of Materials Cr. 3.
- CM 12400 Residential And Light Frame Construction Cr. 3.
- CM 16700 Construction Systems And Materials Cr. 3.
- CM 17600 Construction Specifications and Contracts Cr. 3.
- CM 20400 Elementary Surveying Cr. 3.
- CM 22000 Commercial Construction And Codes Cr. 3.
- CM 25300 Hydraulics And Drainage Cr. 3
- CM 28100 Environmental Equipment for Buildings Cr. 3.
- CM 30100 Construction Experience I Cr. 1.
- CM 30600 Construction Surveying Cr. 3.
- CM 32300 Digital Graphics For The Built Environment II Cr. 3.
- CM 32400 Sustainable Construction Cr. 3.
- CM 34400 Construction Project Quality Cr. 3.
- CM 36600 Materials Testing Cr. 3.
- CM 38100 Structural Analysis Cr. 3.
- CM 40100 Construction Experience II Cr. 1.
- CM 43000 Properties And Behavior of Soils Cr. 3.
- CM 44200 Cost Estimating Cr. 3.
- CM 44300 Construction Means And Methods Cr. 3.
- CM 44500 Construction Project Management Cr. 3.
- CM 45400 Capstone I Cr. 2
- CM 45500 Capstone II Cr. 2.
- CM 45700 Construction Safety Cr. 3.

### Required Technical & Support Course: 16

- MA 15400 Trigonometry Cr. 3.
- BUS 20100 Principles Of Financial Accounting Cr. 3.
- BUS 20300 Commercial Law I Cr. 3.
- BUS 30200 Management And Behavior In Organizations Cr. 3
   Earth Science Elective Cr. 4. PHYS 21900, EAPS1001 including 1 credit hour laboratory, or CHEM11500.

Total Credits: 120

# Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# Data Science And Applied Statistics (B.S.D.S.A.S.)

Program: B.S.D.S.A.S. **Department of Mathematical Sciences** College of Arts and Sciences

Programs leading to the Bachelor of Science in Data Science and Applied Statistics help you prepare for employment in business and industry, or study for advanced degrees.

#### **Student Learning Outcomes:**

Students who complete the DSAS degree should have sufficient preparation to extract meaning from and interpret real world data and to effectively communicate the results. To achieve the objectives noted above, this program emphasizes:

- · Data preparation and management
- · Programming skills
- · Statistical thinking and learning
- · Model building and assessment
- · The underlying mathematical foundations associated with the areas listed above

### **Program Delivery:**

· This program is available on-campus

#### Declaring this Major:

· Declare this major within the Department of Mathematical Sciences

#### **General Requirements:**

- · Degree Requirements
- · General Education Requirements
- · College Requirements
- · Overlapping Course Content
- · Academic Regulations

# **Program Requirements:**

Data Science and Applied Statistics 4-Yr. Plan:

- · A GPA of 2.00 or higher for all major department courses with at most one passing grade less than 1.50 in courses used to fulfill the major requirements
- · Of the mathematics courses numbered below 26100, only 16500, 16600, and 17500 apply toward a mathematics degree
- Statistics courses must be numbered 49000 or higher to count

To earn a Bachelor's Degree in Data Science and Applied Statistics, you must fulfill the following requirements in addition to the General Requirements noted above:

# General Education Requirements: Credits 33

- Click on the Purdue Fort Wayne General Education Requirements link above for details.
- Some majors may require particular General Education courses as specified in their program description. Up to six credits of approved General Education courses satisfying requirements in Area A and B, and three credits satisfying requirements in Area C, may originate in the major. A grade of C- or higher in each course, and an overall GPA of 2.0 is required to satisfy the Purdue Fort Wayne General Education Requirements.

# College of Arts and Sciences Requirements

• Click on the Purdue Fort Wayne College Requirements link above. Go to Arts and Sciences Requirements for the Bachelor of Science Degree

## English Writing and Speaking: Credits 6

- · See Part A in Arts and Sciences Requirements for the Bachelor of Science Degree for Speaking Requirement
- ENGL 23301 Intermediate Expository Writing Cr. 3.

(or other approved writing course)

## International Language: Credits 6-8

• See Part B in Arts and Sciences Requirements for the Bachelor of Science Degree

## Core and Concentration (Major) Courses

## Student Success Seminar: Credit 1

• MA 19000 - Topics In Mathematics For Undergraduates Cr. 1-5.

taken as: Student Success Seminar Cr. 1

### Basic Mathematics Courses: Credits 15

- MA 16500 Analytic Geometry and Calculus I Cr. 4.
- · MA 16600 Analytic Geometry and Calculus II Cr. 4.
- MA 26100 Multivariate Calculus Cr. 4.
- MA 35100 Elementary Linear Algebra Cr. 3.

## Basic Computing Courses: Credits 9

- IST 16000 Foundation And Role Of Information Systems Cr. 3.
- IST 27000 Data And Information Management Cr. 3.
- CS 29200 Intermediate Topics In Computer Science Cr. 2-3. taken as: Python Programming for Data Analytics Cr.3.

## Basic Statistics Courses: Credits 18

- STAT 49000 Topics in Statistics for Undergraduates Cr. 1-5. taken as: Introduction to Multivariate Data Analysis Cr.3.
- STAT 51100 Statistical Methods Cr. 3.
- STAT 51200 Applied Regression Analysis Cr. 3.
- STAT 51600 Basic Probability and Applications Cr. 3.
- STAT 51700 Statistical Inference Cr. 3.
- STAT 51800 Introduction To Statistical Learning Cr. 3

## Statistics and Computer Science Elective Courses: Credits 9

Select three courses from the following list:

- CS 45700 Introduction To Data Mining Cr. 3.
- CS 49200 Topics In Computer Science Cr. 3. taken as: Data Visualization
- CS 59000 Topics In Computer Science Cr. 3. taken as: Machine Learning
  - STAT 43200 Introduction to Stochastic Processes Cr.3. STAT 51300 - Statistical Quality Control Cr.3.
- STAT 51400 Design of Experiments Cr. 3.
- STAT 52000 Time Series And Applications Cr. 3.

## Capstone Course: Credits 3

Students should complete a data analysis project. In addition to emphasizing the application of statistical methods, the course should provide students ample opportunity to collaborate as part of a team and to communicate their findings through written reports and oral presentation.

• STAT 49000 - Topics in Statistics for Undergraduates Cr. 1-5. taken as: Data Analysis Capstone Cr.3.

# Science Courses: Credits 11

Choose three science courses from the list below; two of the courses chosen must include a lab. Check with the Department of Mathematical Sciences for updates to this list and to see which credits may also double-count in the General Education Requirements section.

## Astronomy

- ASTR 26400 Descriptive Astronomy: Stars And Galaxies Cr. 3.
- ASTR 36400 Stars And Galaxies Cr. 3.
- ASTR 40100 Introduction To Astrophysics Cr. 3.

# Biology

- ANTH 20001 Bioanthropology Cr. 3.
- BIOL 10000 Introduction To The Biological World Cr. 3.
- BIOL 10001 Introduction To The Biological World Laboratory Cr. 1.
- BIOL 11700 Principles Of Ecology And Evolution Cr. 4.
- BIOL 11900 Principles Of Structure And Function Cr. 4.
- BIOL 12600 Human Biology Cr. 3.
- BIOL 12700 Introduction To Human Diseases Cr. 3.
- BIOL 14000 Marine Biology Cr. 3.
- BIOL 19500 Special Assignments Cr.0-4.
  - or a BIOL course at the 200 level or higher

## Chemistry

- CHM 10200 Lectures In Chemical Science for Engineers Cr. 3.
- CHM 11100 General Chemistry Cr. 3. (credit given for CHM 11100 or CHM 11500)
- CHM 11200 General Chemistry Cr. 3.
- CHM 11500 General Chemistry Cr. 4. (credit given for CHM 11100 or CHM 11500)
- CHM 11600 General Chemistry Cr. 4.

# Earth, Atmospheric and Planetary Sciences:

- EAPS 10300 Earth Science: Materials And Processes Cr. 3.
- EAPS 10401 Earth Science: Evolution Of The Earth Cr. 3.
- EAPS 11301 Directed Study in Earth Science Cr. 1-2.
  - or a EAPS course at the 200 level or higher

## Geography

- GEOG 10700 Physical Systems of the Environment Cr. 3.
- GEOG 10900 Weather and Climate Cr. 3.
- GEOG 23700 Mapping Our World Cr. 3.
- GEOG 31500 Environmental Conservation Cr. 3-5.

### **Physics**

- PHYS 12700 Physics for Computer Graphics and Animation Cr. 3.
- PHYS 15200 Mechanics Cr. 5.
  - or a PHYS course at the 200 level or higher

## **General Electives**

· Sufficient additional credits to bring the total to 120

Total Credits: 120

# Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# Early Childhood (B.S.Ed.) - Birth To Age 5 (Non-Licensure)

Program: B.S.Ed. School of Education College of Professional Studies

Neff Hall 250 ~ 260-481-4146

If you are interested in nurturing and teaching preschool children (birth to age five), consider a career in early childhood education. Preschool teachers educate and care for all children-with and without diverse learning or developmental needs. They explore basic subjects in a way that young children can understand and promote the optimal development of social skills, emotional understanding, and self-regulation.

#### PREPARATION

As a bachelor-completion program, preparation for this career at Purdue University Fort Wayne begins with the acquisition of an Associate of Science in early childhood education. Most students acquire the A.S. at Ivy Tech Community College.

The early childhood education bachelor-completion program has two options: birth through age five (preschool only) and preschool through grade three (preschool-primary). The latter option affords students the opportunity to earn a teaching license through the Indiana Department of Education. If you are interested in the preschool through grade three program, please see the Early Childhood (B.S.Ed.) - Preschool to Grade 3 (Licensure) program. The curriculum for both options includes classroom instruction and work experiences in local early childhood settings, and addresses the developmental and learning capabilities and needs of children from birth through age eight. Coursework will include:

- · Child growth and development
- Family and community relationships
- Designing developmentally appropriate environments for children

You will spend time in classrooms under the supervision of highly qualified teachers and supervisors, interacting with children in each of the three age groups in at least two settings (e.g., childcare, Head Start). Your studies will also provide a solid background in the liberal arts.

To earn the B.S.Ed. in early childhood education, you must satisfy the requirements of Purdue Fort Wayne (Regulations) and the College of Professional Studies.

#### **Student Learning Outcomes**

Upon completion of a major in Early Childhood students will:

- · Become more caring, humane and functional citizens in a global, multicultural, democratic society
- Improve the human condition by creating positive learning environments
- Become change agents by demonstrating reflective professional practice
- · Solve client problems through clear, creative analyses
- Assess client performance, creating and executing effective teaching, counseling, and educational leadership by utilizing a variety of methodologies reflecting current related research
- · Utilize interdisciplinary scholarship, demonstrating technology and critical literacies, and effectively communicating with all stakeholders.

#### Accreditation

Our education programs are accredited through CAEP (Council for the Accreditation of Educator Preparation). We are nationally recognized as a high-quality program through the National Association for the Education of Young Children.

### **Program Delivery**

This program is available on campus

#### **Declaring This Major**

You must declare this major with the School of Education

# Program Requirements:

# General Requirements

- Degree Requirements
   General Education Requirements
- College Requirements
  Overlapping Course Content
  Academic Regulations

# General Education Requirements: Credits 33

General Education Requirements

# Category A: Foundational Intellectual Skills Credits

- 1. Written Communication
  - ENGL 13100 Reading, Writing, and Inquiry I Cr. 3.

# 2. Speaking and Listening

- COM 11400 Fundamentals Of Speech Communication Cr. 3.
- 3. Quantitative Reasoning

One of the following:

- MA 15300 College Algebra Cr. 3.
- MA 14000 Practical Quantitative Reasoning Cr. 3.

# Category B: Ways of Knowing

# 4. Scientific Ways of Knowing

- BIOL 10000 Introduction To The Biological World Cr. 3.
  - One of the following:
- GEOG 10700 Physical Systems of the Environment Cr. 3. PHYS 21000 The Nature of Physical Science I Cr. 3.

# 5. Social and Behavioral Ways of Knowing

One of the following:

- ECON 10101 Survey of Current Economic Issues and Problems Cr. 3.
   ECON 20000 Fundamentals of Economics Cr. 3.
- POL 10300 Introduction to American Politics Cr. 3.

One of the following:

- PSY 12000 Elementary Psychology Cr. 3.
- SOC 16101 Principles of Sociology Cr. 3.

# 6. Humanistic and Artistic Ways of Knowing

One of the following:

- HIST 10501 American History I Cr. 3.
  HIST 10601 American History II Cr. 3.

One of the following:

- AD 10101 Art Appreciation Cr. 3.
  AD 25501 Art And Design Cr. 3.

# 7. Interdisciplinary or Creative Ways of Knowing

One of the following:

- ENGL 10302 Introductory Creative Writing Cr. 3. (Recommended) or
   ENGL 20301 Creative Writing Poetry Cr. 3. (Recommended) or
- - Refer to Approved List Cr. 3.

# Category C: Capstone

# 8. Capstone Experience

Refer to Approved List Cr. 3.

# Additional Educational Studies Requirements (12)

- ENGL 23301 Intermediate Expository Writing Cr. 3.
- MA 10100 Mathematics for Elementary Teachers I Cr. 3.
- MA 10300 Mathematics for Elementary Teachers III Cr. 3.

One of the following:

- HIST 11300 History of Western Civilization I Cr. 3.
- HIST 11400 History of Western Civilization II Cr. 3.
- ENGL 10101 Ancient And Medieval World Literature Cr. 3.
- ENGL 10201 Modern World Literature Cr. 3.

Free Elective: (1 credit to reach 120 credits for degree)

# Pre-professional Education Requirements: Credits 12

Prior to being admitted to Professional Education courses you must complete the following Pre-professional Education requirements:

- EDU 20000 Examining Self As A Teacher Cr. 3.
- EDU 20001 Introduction To Scientific Inquiry Cr. 1-3.
- EDU 20002 Using Computers For Education Cr. 1-3.
- CSD 11500 Introduction to Communicative Disorders Cr. 3.

# Professional Early Childhood Education Core from A.S. Degree: Credits 23

Most students acquire these credits through an Associate of Science in early childhood at Ivy Tech Community College.

# Professional Education Requirements: Credits 39

## Additional Courses Taken Prior to Block 1: Credits 12

- EDU 22200 Early Childhood Multilingual Learners Cr. 3.
- EDU 32700 Social Studies Methods And The Family: Focus On Young Children Cr. 3.
   EDU 34900 Teaching And Learning For All Young Children I: Focus on Birth To Age 3 Cr. 3.
- EDU 30100 Laboratory/Field Experience Cr. 0-3.

Birth to Age 3 Cr. 0

• EDU 47000 - Practicum Cr. 3-8.

Birth to Age 3 (P: EDU 34900) Cr. 3

# Block 1: Credits 6

- EDU 35200 Teaching And Learning In Preschool/Kindergarten Cr. 3.
- EDU 40100 Laboratory/Field Experience Cr. 0-3.

Preschool Cr. 0

• EDU 35500 - Issues In Infancy And Early Childhood Mental Health Cr. 3.

# Block 2 (P: Block 1): Credits 6

- EDU 45000 Child Development Seminar Cr. 3.
- EDU 47000 Practicum Cr. 3-8.

Preschool Cr. 3

# Additional Courses Taken After Admission to Block 1: Credits 15

- EDU 34001 Education And American Culture Cr. 3.
- EDU 34600 Discipline/Parenting For Young Children Cr. 3.

(may not count as General Education Area 8)

- EDU 30500 Teaching The Exceptional Learner In The Elementary School Cr. 3.
- EDU 41000 Trends And Issues In Special Education Cr. 3.

• EDU 46500 - Service Delivery Systems And Consultation Strategies Cr. 3.

## Total: Credits 120 minimum

# Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# Early Childhood (B.S.Ed.) - Preschool To Grade 3 (Licensure)

Program: B.S.Ed. School of Education College of Professional Studies

Neff Hall 250 ~ 260-481-4146

If you are interested in nurturing and teaching preschool children (ages three to five) or primary children (Kindergarten to grade three), consider a career in early childhood education. Preschool and elementary primary grade teachers educate and care for all children-with and without diverse learning or developmental needs. They explore basic subjects in a way that young children can understand and promote the optimal development of social skills, emotional understanding, and self-regulation.

The early childhood education preschool to grade 3 program has two options:

Option 1: a 4-year option where all courses may be completed at Purdue University Fort Wayne

Option 2: a <u>transfer option</u> that begins with the acquisition of an Associate of Science in early childhood education. Most students acquire the A.S. at Ivy Tech Community College.

Each option affords students the opportunity to earn a teaching license through the Indiana Department of Education. The curriculum for both options includes classroom instruction and work experiences in local early childhood settings, and addresses the developmental and learning capabilities and needs of children from birth through age eight. Coursework will include:

- · Child growth and development
- Family and community relationships
- Designing developmentally appropriate environments for children

You will spend time in classrooms under the supervision of highly qualified teachers and supervisors, interacting with children in each of the two age groups (preschool and elementary primary) and settings (e.g., childcare, Head Start, elementary school). Your studies will also provide a solid background in the liberal arts.

To earn the B.S.Ed. in early childhood education, you must satisfy the requirements of Purdue Fort Wayne (Regulations) and the College of Professional Studies.

#### **Student Learning Outcomes**

Upon completion of a major in Early Childhood students will:

- · Become more caring, humane and functional citizens in a global, multicultural, democratic society
- Improve the human condition by creating positive learning environments
- · Become change agents by demonstrating reflective professional practice
- Solve client problems through clear, creative analyses
- Assess client performance, creating and executing effective teaching, counseling, and educational leadership by utilizing a variety of methodologies reflecting current related research
- · Utilize interdisciplinary scholarship, demonstrating technology and critical literacies, and effectively communicating with all stakeholders.

#### Accreditation

The Early Childhood Education Preschool to Grade 3 program is accredited by the Council for the Accreditation of Educator Preparation (CAEP) and nationally recognized as a high-quality program through the National Association for the Education of Young Children. Because of these statuses, students who meet specified requirements are eligible for the early childhood education teaching license in the state of Indiana. Indiana holds reciprocal licensing agreements with other states.

### **Program Delivery**

This program is available on campus

### **Declaring This Major**

You must declare this major with the School of Education

# **Program Requirements:**

Early Childhood (BSEd) Preschool to Grade 3 (Licensure) 4-Year Plan:

# General Requirements

- · Degree Requirements
- General Education Requirements
- College Requirements
  Overlapping Course Content
  Academic Regulations

# **OPTION 1: 4-YEAR OPTION:**

General Education Requirements: Credits 33

## Category A: Foundational Intellectual Skills

- 1. Written Communication
  - ENGL 13100 Reading, Writing, and Inquiry I Cr. 3.
- 2. Speaking and Listening
  - COM 11400 Fundamentals Of Speech Communication Cr. 3.
- 3. Quantitative Reasoning
  - MA 10100 Mathematics for Elementary Teachers I Cr. 3.

# Category B: Ways of Knowing

- 4. Scientific Ways of Knowing
  - BIOL 10000 Introduction To The Biological World Cr. 3.

One of the following:

- GEOG 10700 Physical Systems of the Environment Cr. 3.
- PHYS 21000 The Nature of Physical Science I Cr. 3.

# 5. Social and Behavioral Ways of Knowing

One of the following:

- PSY 12000 Elementary Psychology Cr. 3.
- · SOC 16101 Principles of Sociology Cr. 3.

One of the following:

- ECON 10101 Survey of Current Economic Issues and Problems Cr. 3.
   ECON 20000 Fundamentals of Economics Cr. 3.
- POL 10300 Introduction to American Politics Cr. 3.

# 6. Humanistic and Artistic Ways of Knowing

One of the following:

- HIST 10501 American History I Cr. 3.
- HIST 10601 American History II Cr. 3.

One of the following:

- AD 10101 Art Appreciation Cr. 3.
  AD 25501 Art And Design Cr. 3.

## 7. Interdisciplinary or Creative Ways of Knowing

One of the following:

- ENGL 10302 Introductory Creative Writing Cr. 3. (Recommended) or
   ENGL 20301 Creative Writing Poetry Cr. 3. (Recommended) or
- - Refer to approved list Cr. 3.

# Category C: Capstone

### 8. Capstone Experience

· Refer to approved list Cr. 3.

## Additional Educational Studies Requirements: Credits 12

- ENGL 23301 Intermediate Expository Writing Cr. 3.
- MA 10200 Mathematics for Elementary Teachers II Cr. 3.
- MA 10300 Mathematics for Elementary Teachers III Cr. 3.

One of the following:

- ENGL 10101 Ancient And Medieval World Literature Cr. 3.
  ENGL 10201 Modern World Literature Cr. 3.
  HIST 11300 History of Western Civilization I Cr. 3.
  HIST 11400 History of Western Civilization II Cr. 3.

## Elective: (2 credits to reach 120 for degree)

# Pre-professional Educational Requirements: Credits 12

- EDU 20000 Examining Self As A Teacher Cr. 3.
- EDU 25000 General Educational Psychology Cr. 1-4.
- EDU 10100 Laboratory/Field Experience Cr. 0.
- EDU 20001 Introduction To Scientific Inquiry Cr. 1-3.
- EDU 20002 Using Computers For Education Cr. 1-3.

# Early Childhood Education Core: Credits 19

- EDU 30500 Teaching The Exceptional Learner In The Elementary School Cr. 3.
- EDU 33500 Introduction To Early Childhood Education Cr. 3.
- EDU 34700 Language Arts For Early Childhood Cr. 3.
- EDU 24900 Growth And Development In Early Childhood Cr. 3.
- EDU 31700 Early Childhood Education Practicum I Cr. 4.
- EDU 33800 Administration Of Early Childhood Programs Cr. 3.

# Professional Education Program Requirements: Credits 42

## Additional Courses Taken Prior to Block 1: Credits 9

- EDU 22200 Early Childhood Multilingual Learners Cr. 3.
- EDU 34900 Teaching And Learning For All Young Children I: Focus on Birth To Age 3 Cr. 3.
  EDU 30100 Laboratory/Field Experience Cr. 0-3.
- EDU 32700 Social Studies Methods And The Family: Focus On Young Children Cr. 3.

### Block 1: Credits 6

- EDU 35200 Teaching And Learning In Preschool/Kindergarten Cr. 3.
- EDU 35500 Issues In Infancy And Early Childhood Mental Health Cr. 3.
   EDU 40100 Laboratory/Field Experience Cr. 0-3.

## Block 2: (P: Block 1) Credits 9

- EDU 33300 Inquiry In Mathematics And Science Cr. 3. (C: EDU 37000)
   EDU 33700 Classroom Learning Environments Cr. 3.

- EDU 37000 Language Arts & Reading I Cr. 3.
  EDU 30100 Laboratory/Field Experience Cr. 0-3.

## Additional Courses Taken After Admission to Block 1: Credits 9

- EDU 34001 Education And American Culture Cr. 3.
- EDU 41000 Trends And Issues In Special Education Cr. 3.
- EDU 46500 Service Delivery Systems And Consultation Strategies Cr. 3.

# Student Teaching: Credits 9

P: Block 2

P: Take the Pearson Content Exam

- EDU 42600 Student Teaching: Early Childhood Cr. 1-16.
- EDU 40100 Laboratory/Field Experience Cr. 0-3.
- EDU 45000 Child Development Seminar Cr. 3.
- EDU 47000 Practicum Cr. 3-8.

Total: Credits 120 minimum

## **OPTION 2: TRANSFER OPTION:**

General Education Requirements: Credits 33

Category A: Foundational Intellectual Skills

1. Written Communication

• ENGL 13100 - Reading, Writing, and Inquiry I Cr. 3.

### 2. Speaking and Listening

• COM 11400 - Fundamentals Of Speech Communication Cr. 3.

# 3. Quantitative Reasoning

One of the following:

- MA 14000 Practical Quantitative Reasoning Cr. 3.
- MA 15300 College Algebra Cr. 3.

## Category B: Ways of Knowing

### 4. Scientific Ways of Knowing

• BIOL 10000 - Introduction To The Biological World Cr. 3.

One of the following:

- GEOG 10700 Physical Systems of the Environment Cr. 3.
- PHYS 21000 The Nature of Physical Science I Cr. 3.

## 5. Social and Behavioral Ways of Knowing

One of the following:

- PSY 12000 Elementary Psychology Cr. 3.
- SOC 16101 Principles of Sociology Cr. 3.

One of the following:

- ECON 10101 Survey of Current Economic Issues and Problems Cr. 3.
- ECON 20000 Fundamentals of Economics Cr. 3.
- POL 10300 Introduction to American Politics Cr. 3.

## 6. Humanistic and Artistic Ways of Knowing

One of the following:

- HIST 10501 American History I Cr. 3.
- HIST 10601 American History II Cr. 3.

One of the following:

- AD 25501 Art And Design Cr. 3.
- AD 10101 Art Appreciation Cr. 3.

# 7. Interdisciplinary or Creative Ways of Knowing

One of the following:

 • ENGL 10302 - Introductory Creative Writing Cr. 3.

- ENGL 20301 Creative Writing Poetry Cr. 3. • Refer to Approved List Cr. 3.
- Category C: Capstone

### 8. Capstone Experience

Refer to Approved List Cr. 3.

# Additional Educational Studies Requirements: Credits 12

- ENGL 23301 Intermediate Expository Writing Cr. 3.
- MA 10100 Mathematics for Elementary Teachers I Cr. 3.
- MA 10300 Mathematics for Elementary Teachers III Cr. 3.

One of the following:

- HIST 11300 History of Western Civilization I Cr. 3.
- HIST 11400 History of Western Civilization II Cr. 3.
   ENGL 10101 Ancient And Medieval World Literature Cr. 3.
   ENGL 10201 Modern World Literature Cr. 3.

Free Elective: (1 credit to reach 120 credits for degree)

Pre-professional Educational Requirements: Credits 9

- EDU 20000 Examining Self As A Teacher Cr. 3.
- EDU 20002 Using Computers For Education Cr. 1-3.
- EDU 20001 Introduction To Scientific Inquiry Cr. 1-3.

# Professional Early Childhood Education Core from A.S. Degree: Credits 23

Most students acquire these credits through an Associate of Science in early childhood at Ivy Tech Community College.

# Professional Education Program Requirements: Credits 42

### Additional Courses Taken Prior to Block 1: Credits 9

- EDU 22200 Early Childhood Multilingual Learners Cr. 3.
- EDU 34900 Teaching And Learning For All Young Children I: Focus on Birth To Age 3 Cr. 3.
- EDU 30100 Laboratory/Field Experience Cr. 0-3.
- EDU 32700 Social Studies Methods And The Family: Focus On Young Children Cr. 3.

## Block 1: Credits 6

- EDU 35200 Teaching And Learning In Preschool/Kindergarten Cr. 3.
- EDU 35500 Issues In Infancy And Early Childhood Mental Health Cr. 3.
   EDU 40100 Laboratory/Field Experience Cr. 0-3.

## Block 2 (P: Block 1): Credits 6

- EDU 33300 Inquiry In Mathematics And Science Cr. 3.
- EDU 37000 Language Arts & Reading I Cr. 3.
- EDU 30100 Laboratory/Field Experience Cr. 0-3.

### Additional Courses Taken After Admission to Block 1: Credits 12

- EDU 34001 Education And American Culture Cr. 3.
- EDU 30500 Teaching The Exceptional Learner In The Elementary School Cr. 3.
- EDU 41000 Trends And Issues In Special Education Cr. 3.
- EDU 46500 Service Delivery Systems And Consultation Strategies Cr. 3.

### Student Teaching: Credits 9

P: Block 2

P: Take the Pearson Content Exam

- EDU 42600 Student Teaching: Early Childhood Cr. 1-16.
- EDU 40100 Laboratory/Field Experience Cr. 0-3.
- EDU 45000 Child Development Seminar Cr. 3.
- EDU 47000 Practicum Cr. 3-8.

Total: Credits 120 minimum

# Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair of dean.

# **Economics (B.A.)**

Program: B.A.
Department of Political Science
College of Arts and Sciences

Neff Hall Room 340 ~ 260-481-6497

Economics is the study of the rational allocation of scarce resources. This major seeks to develop critical skills that will help you understand and solve problems in a wide variety of circumstances. These analytical abilities are valuable in the business world and many professional disciplines such as law and social work.

This program is offered in close cooperation with the Department of Economics and Finance in the Richard T. Doermer School of Business and Management Sciences, which offers the economics courses required for the major. Students are advised by the faculty of the Department of Economics and Finance.

#### **Student Learning Outcomes:**

Upon completion of this degree, students will:

- be able to explain economic behavior in a variety of settings using economic concepts and theories;
- develop critical analytical skills to assist with solving problems in a variety of circumstances;
- develop the ability to employ basic statistical and econometric methods in the analysis of economic data.

### **Program Delivery:**

· This program is available on-campus

### Declaring this Major:

· Declare this major within the Department of Political Science

#### **General Requirements:**

- Degree Requirements
- · General Education Requirements
- · College Requirements
- Overlapping Course Content
- Academic Regulations

# **Program Requirements:**

Economics 4-Yr. Plan:

- A grade of C- or higher in all department courses required for the major and an overall GPA of 2.00 or higher for all courses required in the major.
- Correspondence courses may not be used to satisfy any of the requirements for this major.

To earn the B.A. with a major in Economics, you must fulfill the following requirements in addition to the General Requirements noted above:

# General Education Requirements: Credits 33

- Click on the Purdue Fort Wayne General Education Requirements link above for details.
- Some majors may require particular General Education courses as specified in their program description. Up to six credits of approved General Education courses satisfying requirements in Area A and B, and three credits satisfying requirements in Area C, may originate in the major. A grade of C- or higher in each course, and an overall GPA of 2.0 is required to satisfy the Purdue Fort Wayne General Education Requirements.

# College of Arts and Sciences Requirements

· Click on the Purdue Fort Wayne College Requirements link above for details. Go to Requirements for the Bachelor of Arts Degree.

## English Writing and Speaking: Credits 6

- See Part A in Arts and Sciences Requirements for the Bachelor of Arts Degree for Speaking requirement
- ENGL 23301 Intermediate Expository Writing Cr. 3.

(or other approved writing course)

# International Language: Credits 12-14

• See Part B in Arts and Sciences Requirements for the Bachelor of Arts Degree

## Distribution: Credits 9

- See Part C in Arts and Sciences Requirements for the Bachelor of Arts Degree
- Choose courses other than ECON

### Cultural Studies: Credits 6

· See Part D in Arts and Sciences Requirements for the Bachelor of Arts Degree

## **Economics Core Courses: Credits 27**

- ECON 20101 Introduction to Microeconomics Cr. 3.
- ECON 20201 Introduction to Macroeconomics Cr. 3.
- ECON 27000 Introduction to Statistical Theory in Economics and Business I Cr. 3.
- ECON 32100 Intermediate Microeconomic Theory Cr. 3.
- ECON 32201 Intermediate Macroeconomic Theory Cr. 3.
- · ECON 40601 Senior Seminar Cr. 3.

# Additional Economics Courses: Credits 9

- Choose from 3000+ or 4000+ level Economics courses
- · Other courses approved by the Economics faculty may be approved
- · At least two of the courses chosen must be completed at Purdue Fort Wayne

## **General Electives**

· Sufficient additional credits to bring the total to 120

Total Credits: 120

# Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# **Electrical Engineering (B.S.E.E.)**

Program: B.S.E.E.

Department of Electrical and Computer Engineering College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 327 ~ 260-481-6362

Electrical Engineering is a professional engineering discipline that deals with the study and application of electrical, electronics, and electromagnetism. Purdue University Fort Wayne offers a four-year electrical engineering undergraduate program leading to a Bachelor of Science (BS) degree.

Electrical engineers design, develop, and operate systems that generate and use electrical signals and power. The scope of electrical engineering has expanded tremendously in recent years. It is now the largest branch in engineering, with most graduates employed by manufacturers of electrical and electronic equipment, aircraft, business machines, and professional and scientific equipment.

Our students, while drawn from diverse backgrounds, are all extremely able and committed to learning. Purdue Fort Wayne delivers an exceptional education experience to engineering students, encouraging collaboration and teamwork throughout the curriculum.

### **Student Learning Outcomes:**

As a framework for the continuous improvement policy, the Electrical Engineering program has adopted a set of program educational objectives that describe the anticipated accomplishments of our graduates within a few years after graduation.

### The Bachelor of Science in Electrical Engineering (BSEE) program educational objectives are to produce graduates who:

- 1. Function and communicate effectively to solve technical problems
- 2. Advance professionally to roles of greater electrical engineering responsibilities and/or by transitioning into leadership positions in business, government, and/or education

- 3. Participate in life-long learning through the successful completion of advanced degree(s) professional development, and/or engineering certification(s)/licensure
- 4. Demonstrate a commitment to community by applying technical skills and knowledge to support various service activities

## The graduates from the Electrical Engineering program will demonstrate that they have:

- 1. The ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
- 2. The ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
- 3. The ability to communicate effectively with a range of audiences.
- 4. The ability to recognize ethical and professional responsibilities in engineering situations and make informed judgment, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
- The ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
- 6. The ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgement to draw conclusions.
- 7. The ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

#### Accreditation:

• The Electrical Engineering program is accredited by the Engineering Accreditation Commission of ABET.

#### **Program Delivery:**

• The BSEE program is delivered primarily through on-campus courses; however, some of the required General Education courses are available as hybrid and/or on-line courses, and those can be used to satisfy the program requirements.

#### Declaring this Major:

Students interested in declaring Electrical Engineering as their major may do so in one of two ways:

- · On their application when they first apply to Purdue Fort Wayne
- · After meeting with an ECE faculty advisor, who will determine that the student has the required math and chemistry background to begin our program

### **General Requirements:**

- · Degree Requirements
- · General Education Requirements
- · Overlapping Course Content
- Academic Regulations

# **Program Requirements:**

Electrical Engineering 4-Yr. Plan:

In order to start in the Electrical Engineering program, a student must meet the following criteria:

- 1. Math Placement at or above MA 15400
- 2. Have taken CHM 11100 or 1 year of high school chemistry in the last five (5) years

## **General Education Requirements**

The General Education Requirements for the Electrical Engineering program is provided below. This plan satisfies the competency requirements and the credit hour requirement.

Category	Competency	Course	Credit Hours
A	1	ENGL 13100 Elementary Composition	3
A	2	COM 11400 Fundamentals of Speech	3
A		MA 16500 Analytical Geometry and Calculus I MA 16600 Analytical Geometry and Calculus II	4 4
В	4	CHM 11500 General Chemistry I PHYS 15200 Mechanics	4 5
В	5	Select from the list of approved courses (all Competency outcomes must be met)	3
В	6	Select from the list of approved courses (all Competency outcomes must be met)	3
В	7	PHYS 25100 Heat, Electricity and Optics	5
C	8	ECE 40500 Senior Design I	3
		Total Credit Hours	37

<sup>1.</sup> If a student selects a course from categories B5 or B6 that meets only some outcomes but not ALL, the student will be required to take another course from these categories that meet the remaining competency outcomes.

2. All courses used to satisfy the General Education Requirements must be completed with a grade of C- or better.

# Major and Supporting Courses Required for the BSEE

- ENGR 12700 Engineering Fundamentals I Cr. 4.
- ENGR 12800 Engineering Fundamentals II Cr. 4.
- MA 26100 Multivariate Calculus Cr. 4.
- MA 35100 Elementary Linear Algebra Cr. 3.
- MA 36300 Differential Equations Cr. 3.
- ME 25300 An Introduction to Mechanics Cr. 2.

# Core and Concentration Courses Required for the BSEE

- ECE 20100 Linear Circuit Analysis I Cr. 3.
- ECE 20200 Linear Circuit Analysis II Cr. 3.
- ECE 20700 Electronic Measurement Techniques Cr. 1.
- ECE 20800 Electronic Devices And Design Laboratory Cr. 1.
- ECE 22900 C/C++ Programming For Electrical And Computer Engineering Cr. 4.
- ECE 25500 Introduction To Electronic Analysis And Design Cr. 3.
- ECE 27000 Introduction To Digital System Design Cr. 4.
- ECE 30100 Signals And Systems Cr. 3.
- ECE 30200 Probabilistic Methods iI Electrical Engineering Cr. 3.
- ECE 31100 Electric And Magnetic Fields Cr. 3. OR
- PHYS 31200 Intermediate Electricity and Magnetism Cr. 3.

Either ECE 31100 or PHYS 31200 is required, but not both.

- ECE 33300 Automatic Control Systems Cr. 3.
- ECE 36200 Microprocessor Systems And Interfacing Cr. 4.
- ECE 40600 Senior Engineering Design II Cr. 3.
- ECE 42800 Modern Communication Systems Cr. 3.
- ECE 43600 Digital Signal Processing Cr. 3.
- ECE 46000 Power Electronics Cr. 4.

# **Technical Elective Requirements**

Following are the lists of approved Technical Electives for the Electrical Engineering program. The BSEE requires 15 hours of Technical Electives. All Electrical Engineering Technical Electives have design content.

## Group I Technical Electives

An Electrical Engineering students must take three (3) courses from the Group I list:

- ECE 30300 Engineering Software Design Cr. 3.
- ECE 32400 Introduction To Energy Systems Cr. 3.
- ECE 46500 Embedded Microprocessors Cr. 3.
- ECE 47400 Introduction To Radio Frequency Circuit Design Cr. 3.
- ECE 47800 Robotics And Automation Cr. 3
- ECE 48300 Digital Control Systems Analysis And Design Cr. 3.
- ECE 54700 Introduction To Computer Communication Networks Cr. 3.
  - 1. ECE 49500 can be counted as a Group I technical elective upon the approval by the EE curriculum committee.
  - 2. Other ECE 5x000 courses may be included in this group upon the approval by the EE curriculum committee.

# Group II Technical Electives

All Electrical Engineering students must take two (2) courses from the Group II list:

• ECE 35800 - Introduction To VHDL Cr. 3.

- ECE 36800 Data Structures Cr. 3.
- ECE 43700 Computer Design and Prototyping Cr. 4.
- ECE 48500 Embedded Real-Time Operating Systems Cr. 4.
- SE 52000 Engineering Economics Cr. 3. OR
- SE 54000 Systems Architecture Cr. 3.
- SE 53000 Systems Engineering Management Cr. 3. OR
- SE 55000 Advanced Manufacturing Systems And Processes Cr. 3.
- CS 32100 Introduction To Computer Graphics Cr. 3.
- · CS 36000 Software Engineering Cr. 4.
- MA 17500 Introductory Discrete Mathematics Cr. 3. OR
- MA 27500 Intermediate Discrete Math Cr. 3.
- PHYS 32500 Scientific Computing Cr. 3.
- PHYS 32200 Optics Cr. 3.
- PHYS 34200 Modern Physics Cr. 3.
  - 1. ECE 49600, ECE 49700, and ECE 49800 can be counted as Group II technical electives, with the maximum of 3 credit hours each, upon the approval by the EE curriculum committee.
  - 2. Students may take either SE 52000 or SE 54000, but not both, to count for this Group II Technical Elective requirement.
  - 3. Students may take either SE 53000 or SE 55000, but not both, to count for this Group II Technical Elective requirement.
  - 4. Students may take either MA 17500 or MA 27500, but not both, to count for this Group II Technical Elective requirement.

NOTE: A course cannot be counted toward both an undergraduate degree and a graduate degree, with the exception of the students enrolled in the 5-Year BS/MSE Combined Degree Program.

## Special Content Courses for the BSEE

In general, seminars, survey courses, project courses, special topic course, and informal laboratory courses are considered to be Special Content Courses. A complete list of these courses, as approved by the EE curriculum committee, is given below.

The procedure for offering a Special Content Course is outlined below:

- The proposal for offering the course in a semester must be submitted to the Chair of the EE Curriculum Committee three (3) weeks before the end of the previous semester. The course proposal is simply the course syllabus which includes the following information:
  - 1. Course/Project title
  - 2. Course/Project description
  - 3. Number of credit hours
  - 4. Semester
  - 5. Design content
  - 6. Topics Covered
  - Name of instructor
- If the course is to be counted toward the EE degree program (i.e., as a technical elective), the proposal must also be approved by the EE curriculum committee before the course is offered.
- The instructor is required to submit a written report to the Department of Electrical and Computer Engineering, at the end of the semester, at the same time the course grade is submitted. The format and length of the report is at the discretion of the instructor, but at a minimum it should include the course syllabus and a summary of the results.
  - ECE 49500 Selected Topics in Electrical Engineering Cr. 1-4.
  - ECE 49600 Electrical And Computer Engineering Projects Cr. 1-15.
  - ECE 49700 Research In Electrical Engineering I Cr. 3.
  - ECE 49800 Research In Electrical Engineering II Cr. 3.
    - No more than a combined total of 9 credit hours may be used to satisfy the EE degree requirement.
    - A maximum of 3 credit hours of ECE 49500 can be counted as Group I technical electives for EE program.
    - A combined total of no more than 6 credit hours of ECE 49600, ECE 49700, and ECE 49800 can be counted as Group II technical electives for the EE program.

# **GPA Requirement**

You must have a cumulative GPA of at least 2.0 in the 120 credits required for this major.

Total Credits Required: 120

# Student Responsibilities

All Electrical Engineering students are responsible for satisfying the graduation requirements specified for the BSEE program. Thus, it is essential that they develop a thorough understanding of the required courses, academic policies, and procedures governing their academic career.

All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

### Additional Course Use:

- ECE 20700 required, ECE 29300 accepted
- ECE 22900 required, CS 22900 or CS 22700 plus CS 22800 accepted

# **Electrical Engineering Technology (B.S.)**

Program: B.S. School of Polytechnic College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 205 ~ 260-481-4127

Electrical Engineering Technology is part of the School of Polytechnic. Electrical Engineering Technology (EET) prepares students for the application of engineering principles and technological developments for the creation of useful products and process in electrical and electronic systems. Similar to electrical engineering, EET deals with the implementation design, application, installation, manufacturing, operation or maintenance of electrical/electronic(s) systems. Students must complete all courses in the degree with a C- or better, this excludes free electives.

#### **Program Educational Objectives:**

Upon completion of the Electrical Engineering Technology (B.S.) students will:

- Demonstrate the knowledge and ability to function as a member of a technical staff who can use current industrial practices and design procedures for development, implementation, and project management of electrical/electronic(s) and/or computer based software and systems.
- · Demonstrate readiness for career advancement, promotion, and mobility.
- · Demonstrate continuous learning, either on the job or in graduate school.
- Demonstrate the ability to function as a contributing member of society and the profession.
- · Demonstrate effective teamwork skills and recognize ethical responsibilities.

# Student outcomes for the degree are as follows:

- an ability to apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve broadly-defined engineering problems appropriate to the discipline;
- an ability to design systems, components, or processes meeting specified needs for broadly-defined engineering problems appropriate to the discipline;
- an ability to apply written, oral, and graphical communication in broadly-defined technical and non-technical environments; and an ability to identify and use appropriate technical literature;
- · an ability to conduct standard tests, measurements, and experiments and to analyze and interpret the results to improve processes; and
- · an ability to function effectively as a member as well as a leader on technical teams

#### Accreditation:

- The Electrical Engineering Technology degree is accredited by the Engineering Technology Accreditation Commission of ABET, http://www.abet.org.
- The four-year B.S. Electrical Engineering Technology (EET) program prepares students for careers in many fields related to engineering, in electronics or computer related industries, manufacturing, engineering sales, or any industry that uses electric power, electronic communications, computer networks, or computer-controlled equipment. The program provides students with advanced study in specialized fields of electronics and computer networking and provides other courses to build a foundation of technical and non-technical knowledge that is essential in modern industry.

#### **Program Delivery:**

 POLYTECHNIC programs emphasize practice-based learning via hands-on laboratory applications using state-of-the-art equipment. Some courses are available through online, distance, and hybrid learning, however many incorporate an on-campus laboratory element.

#### Declaring This Major:

Students interested in declaring Electrical Engineering Technology as their major may do so in one of two ways:

- · On their application when they first apply to the university.
- After meeting with a faculty advisor, a change of major can be declared.

#### **General Requirements:**

- · Degree Requirements
- General Education Requirements
- Overlapping Course Content
- Academic Regulations

# **Program Requirements:**

Electrical Engineering Technology B.S. 4-Yr. Plan:

- Students must complete all courses in the degree with a C- or better, this excludes the free elective.
- Student Responsibilities: You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair.
- B.S. EET degree majors cannot pursue a B.S. CPET.
- · Transfer credit limits, see Academic Regulations above.
- · General Education and Major courses as listed below.

# General Education Requirements: Credits 31

- ENGL 13100 Reading, Writing, and Inquiry I Cr. 3.
- COM 11400 Fundamentals Of Speech Communication Cr. 3.
- MA 15900 Precalculus Cr. 5.
- MA 22700 Calculus for Technology I Cr. 4.
- CHM 11100 General Chemistry Cr. 3.
- IET 10500 Industrial Management Cr. 3.
- PHYS 21800 General Physics Cr. 4. or
- PHYS 22000 General Physics Cr. 4.

B6 (Humanistic and Artistic Ways of Knowing) that meets ALL outcomes for that competency Cr. 3 B7 (Interdisciplinary Ways of Knowing) Cr. 3

# General Education Requirement-Capstone Experience: Credits 3

• ENGL 42101 - Technical Writing Projects Cr. 1-3.

# Computer, Electrical & Information Technology Core Technical Courses: Credits 29

- ECET 10200 Electrical Circuits I Cr. 4. or
- CPET 10100 Electrical Circuits Cr. 4.
- ECET 11100 Digital Circuits Cr. 4.
- ECET 11400 Introduction to Visual Basic Cr. 3.
- ECET 14600 Digital Circuits II Cr. 4.
- ECET 15200 Electrical Circuits II Cr. 4.
- ECET 20400 Analog Electronics II Cr. 4.
- ECET 29600 Electronic System Fabrication Cr. 2-3.
- CPET 19000 Problem Solving with MATLAB Cr. 1-4.

# Advanced Core Technical Courses: Credits 37

- ECET 20500 Introduction to Microprocessors Cr. 4.
- ECET 23100 Electrical Power and Controls Cr. 4.

- ECET 26400 C Programming Language Applications Cr. 3.
- ECET 30200 Introduction to Control Systems Cr. 4.
- ECET 30300 Communications I Cr. 4.
- ECET 30700 Analog Network Signal Processing Cr. 4.
- ECET 35700 Real-Time Digital Signal Processing Cr. 4.
- ECET 36100 Introduction to PLC and Pneumatic Systems Cr. 4.
- ECET 47000 Technology Project Management Cr. 3.
- ECET 49000 Senior Design Project, Phase I Cr. 1-2.
- ECET 49100 Senior Design Project, Phase II Cr. 2-5.

# Supporting Courses: Credits 9

- MA 22800 Calculus for Technology II Cr. 3.
- ENGL 23401 Technical Report Writing Cr. 3.
- IET 20500 Applied Statistics for Engineering Technology Cr. 3. or
- STAT 30100 Elementary Statistical Methods I Cr. 3.

Technical Electives: Credits 8

• ECET or CPET courses at the 300 or 400 level - Cr. 8 (Consult Academic Advisor)

Free Elective: Credits 3

Total Credits: 120 (60 credits from A.S. Program plus 60 credits from B.S program.)

# Additional Course Use

- MA 153 and MA 154 Required, MA 159 acceptable
- MA 22700 required, MA 16500 accepted
- MA 22800 required, MA 16600 accepted
- MA 22500 required, MA 10000 accepted
   CHM 11100 required, CHM 11500 accepted
   PHYS 21800 or 22000 required, PHYS 15200 accepted
   CPET 19000 required, ENGR 12800 accepted
- ECET 10200 and ECET 152 required, ECE 20100 + ECE 20200 + ECE 20700 accepted
- ECET 10200 required, CPET 10100 accepted
- ECET 26400 required, ENGR 22900 accepted

# Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair of dean.

# **Elementary Education (B.S.Ed.)**

Program: B.S.Ed. **School of Education** College of Professional Studies

Neff Hall 250 ~ 260-481-4146

The B.S.Ed. in elementary education is intended to prepare students for successful careers as teachers of children in elementary generalist (K-6) classroom settings. Elementary Education majors will also supplement their degrees with a Specialty Area in a concentration, dual license, or minor. See the list of options under the Specialty Area heading below. Upon satisfactory completion of the program, you are eligible to apply for an Indiana teaching license.

To earn the B.S.Ed. in elementary education, you must satisfy the requirements of Purdue University Fort Wayne (Regulations) and the College of Professional Studies.

#### **Student Learning Outcomes:**

Upon completion of a major in Elementary Education students will:

- · Become more caring, humane and functional citizens in a global, multicultural, democratic society
- · Improve the human condition by creating positive learning environments
- · Become change agents by demonstrating reflective professional practice
- · Solve client problems through clear, creative analyses
- Assess client performance, creating and executing effective teaching, counseling, and educational leadership by utilizing a variety of methodologies reflecting current related research
- · Utilize interdisciplinary scholarship, demonstrating technology and critical literacies, and effectively communicating with all stakeholders.

#### Accreditation:

• The Elementary Education program is accredited by the Council for the Accreditation of Educator Preparation (CAEP) and nationally recognized as a high-quality program through the Association for Childhood Education International (ACEI). Because of these statuses, students who meet specified requirements are eligible for the elementary education teaching license in the state of Indiana. Indiana holds reciprocal licensing agreements with other states.

#### **Program Delivery:**

· This program is available on campus

#### **Declaring This Major:**

· You must declare this major with the School of Education

# **Program Requirements:**

Elementary Education (BSEd) 4-Year Plan:

# General Requirements

- · Degree Requirements
- General Education Requirements
- · College Requirements
- · Overlapping Course Content
- Academic Regulations

General Education Requirements: Credits 33

General Education Requirements

## Category A: Foundational Intellectual Skills

#### 1. Written Communication

- ENGL 13100 Reading, Writing, and Inquiry I Cr. 3.
- ENGL 23301 Intermediate Expository Writing Cr. 3.

# 2. Speaking and Listening

• COM 11400 - Fundamentals Of Speech Communication Cr. 3.

# 3. Quantitative Reasoning

• MA 10100 - Mathematics for Elementary Teachers I Cr. 3.

# Category B: Interdisciplinary or Creative Ways of Knowing

# 4. Scientific Ways of Knowing

- BIOL 10000 Introduction To The Biological World Cr. 3.
- · GEOG 10700 Physical Systems of the Environment Cr. 3.

# 5. Social and Behavioral Ways of Knowing

• EDU 34001 - Education And American Culture Cr. 3.

One of the following:

- ANTH 10501 Culture And Society Cr. 3.
- ANTH 20002 Language And Culture Cr. 3.
   LING 10300 Introduction to the Study of Language Cr. 3.
   POL 10300 Introduction to American Politics Cr. 3.
- PSY 12000 Elementary Psychology Cr. 3.
- SOC 16101 Principles of Sociology Cr. 3.

# 6. Humanistic and Artistic Ways of Knowing

One of the following two courses:

- HIST 10501 American History I Cr. 3. (preferred)
   HIST 10601 American History II Cr. 3.

# 7. Interdisciplinary or Creative Ways of Knowing

(at least 3 credits and all outcomes in approved courses) (Suggest Creative Writing or LING 46000)

# Category C: Capstone

### 8. Capstone Experience

(at least 3 credits and all outcomes in approved courses)

# Additional Educational Studies Requirements: Credits 23

- AD 25501 Art And Design Cr. 3.
- EDU 32300 The Teaching Of Music In The Elementary Schools Cr. 2-3.
- EDU 33301 Art Experiences For The Elementary Teacher Cr. 2.
- ENGL 49002 Children's Literature Cr. 3.
- MA 10200 Mathematics for Elementary Teachers II Cr. 3.
- MA 10300 Mathematics for Elementary Teachers III Cr. 3.
- HIST 23200 The World in the 20th Century Cr. 3.
- PHYS 21000 The Nature of Physical Science I Cr. 3.

# Specialty Area

# Concentrations, Dual Licenses, or Purdue Fort Wayne Minors

Elementary Education students are required to complete one of the following specialty areas to fulfill the Specialty Area requirements:

- a Concentration (a set of courses in exceptional needs, language arts, mathematics, science, or social studies that does not directly lead to licensure)
- a <u>Dual License</u> program (a set of courses in combination with a major in elementary education that will also lead to licensure in Early Childhood, Teaching English as a New Language, or Exceptional Needs-Mild Intervention)
- an <u>Purdue Fort Wayne Minor</u> (You may complete one of the following university minors: Art & Design, Art History, Biology, Chemistry, Communication Studies, Computer Science, Creative Writing, Economics, English, Folklore, French, Geology, German, History, Human Services, Journalism, Linguistics, Mathematics, Media Production, Mild Intervention, Music, Philosophy, Physics, Political Science, Professional Writing, Psychology, Public Affairs, Religious Studies, Sociology, Spanish, and Theatre. Minors do not lead directly to licensure. See Undergraduate catalog for specific course requirements for each minor.)

Note: Some of the courses listed below may be counted in the elementary degree as well as the subject area. However, some subjects will require more than the 120 credits required for a degree in elementary education.

## Concentrations

### **Exceptional Needs: Credits 9**

- EDU 30500 Teaching The Exceptional Learner In The Elementary School Cr. 3.
- EDU 37001 Introduction To Learning Disabilities Cr. 3.
- EDU 46500 Service Delivery Systems And Consultation Strategies Cr. 3.

### Language Arts: Credits 15

- ENGL 23301 Intermediate Expository Writing Cr. 3.
- ENGL 49002 Children's Literature Cr. 3.

One of the following courses: 3 credits

- ENGL 10101 Ancient And Medieval World Literature Cr. 3.
- ENGL 10201 Modern World Literature Cr. 3.
- ENGL 10700 Masterpieces of Asia Cr. 3.
- ENGL 46401 Native American Literature Cr. 3.
- ENGL 47901 American Ethnic and Minority Literature Cr. 3.
- FOLK 35200 Native American Folklore Cr. 3.

One of the following two courses: 3 credits

- ENGL 10302 Introductory Creative Writing Cr. 3.
- ENGL 20301 Creative Writing Poetry Cr. 3.

One of the following three courses: 3 credits

- ENGL 20501 Introduction to the English Language Cr. 3.
- ENGL 20600 Introduction to the Study of Grammar Cr. 3.
- · LING 10300 Introduction to the Study of Language Cr. 3.

#### Mathematics: Credits 15

- MA 10100 Mathematics for Elementary Teachers I Cr. 3.
- MA 10200 Mathematics for Elementary Teachers II Cr. 3.
- MA 10300 Mathematics for Elementary Teachers III Cr. 3.

One of the following two courses:

- MA 14000 Practical Quantitative Reasoning Cr. 3.
- MA 15300 College Algebra Cr. 3.

One of the following two courses:

- EDU 44301 Teaching Elementary Mathematics Problem Solving Cr. 3. (preferred)
- MA 15400 Trigonometry Cr. 3.

### Science: Credits 14

- BIOL 10000 Introduction To The Biological World Cr. 3.
- BIOL 10001 Introduction To The Biological World Laboratory Cr. 1.
- GEOG 10700 Physical Systems of the Environment Cr. 3.
- EAPS 10002 General Geology Laboratory Cr. 1-2.
- PHYS 21000 The Nature of Physical Science I Cr. 3.

#### One of the Following:

- ASTR 10000 The Solar System Cr. 3.
- CHM 11100 General Chemistry Cr. 3.
- EAPS 12100 Journey To Mars Cr. 3.

#### Social Studies: Credits 18

- HIST 10501 American History I Cr. 3.
- HIST 10601 American History II Cr. 3.
- HIST 23200 The World in the 20th Century Cr. 3.
- POL 10300 Introduction to American Politics Cr. 3.
  - HIST Elective 30000-40000 level Cr. 3
  - POL Elective 30000-40000 level Cr. 3

# **Dual Licenses**

## Early Childhood: Credits 21

- EDU 33700 Classroom Learning Environments Cr. 3.
- EDU 35200 Teaching And Learning In Preschool/Kindergarten Cr. 3.
- EDU 40100 Laboratory/Field Experience Cr. 0-3.
- EDU 35500 Issues In Infancy And Early Childhood Mental Health Cr. 3.
   EDU 37000 Language Arts & Reading I Cr. 3.

  EDU 37000 Childhood Mental Health Cr. 3.
- EDU 31500 Child Development Cr. 3.
- EDU 45000 Child Development Seminar Cr. 3.
  EDU 47000 Practicum Cr. 3-8.

#### Teaching English as a New Language: Credits 21

- LING 10300 Introduction to the Study of Language Cr. 3.
- ENGL 40203 Structure of Modern English (TESOL) Cr. 3.
- ENGL 43200 Second Language Acquisition Cr. 3.
- LING 42102 Methods and Materials for TESOL I Cr. 3.
- LING 42203 Methods and Materials for TESOL II Cr. 3.
- LING 46000 Language in Society Cr. 3.
- LING 47000 TENL Practicum Cr. 3.

### Exceptional Needs-Mild Intervention: Credits 21

- EDU 30500 Teaching The Exceptional Learner In The Elementary School Cr. 3.
- EDU 35201 Education Of Children With Learning Problems (LD and EMR) Cr. 3.
- EDU 20100 Laboratory/Field Experience Cr. 0-3.
- EDU 37001 Introduction To Learning Disabilities Cr. 3.
- EDU 37101 Assessment And Individualized Instruction In Reading and Mathematics Cr. 3.
- EDU 30100 Laboratory/Field Experience Cr. 0-3.
- EDU 45300 Management Of Academic And Social Behavior Cr. 3.
- EDU 46500 Service Delivery Systems And Consultation Strategies Cr. 3.
- EDU 47000 Practicum Cr. 3-8.

#### Purdue Fort Wayne Minor: variable credits

You may complete one of the following university minors:

Art Design, Art History, Biology, Chemistry, Communication Studies, Computer Science, Creative Writing, Economics, English, Folklore, French, Geology, German, History, Human Services, Journalism, Linguistics, Mathematics, Media Production, Mild Intervention, Music, Philosophy, Physics, Political Science, Professional Writing, Psychology, Public Affairs, Religious Studies, Sociology, Spanish, and Theatre.

Minors do not lead directly to licensure. See Undergraduate catalog Colleges for specific course requirements for each minor.

### **Education Requirements: Credits 61**

### Preprofessional Education Requirements: Credits 12

Prior to being admitted to the Block 1: Professional Education program you must complete the following initial requirements:

- EDU 20000 Examining Self As A Teacher Cr. 3.
- EDU 25000 General Educational Psychology Cr. 1-4.

C: EDU 10100

• EDU 10100 - Laboratory/Field Experience Cr. 0.

Credits: 0 (C: EDU 25000)

- EDU 20001 Introduction To Scientific Inquiry Cr. 1-3.
- EDU 20002 Using Computers For Education Cr. 1-3.

Credits 3

#### Block 1: Professional Education: Credits 9

- EDU 36900 Culturally Relevant, Multilingual Literacy Education For Elementary Educators Cr. 3. (C: EDU 31500 and EDU 30100)
- EDU 30500 Teaching The Exceptional Learner In The Elementary School Cr. 3.
- EDU 31500 Child Development Cr. 3. (C: EDU 36900 and EDU 30100)
- EDU 30100 Laboratory/Field Experience Cr. 0-3.

# Block 2: Professional Education (P: Block 1): Credits 9

• EDU 33700 - Classroom Learning Environments Cr. 3.

- EDU 37000 Language Arts & Reading I Cr. 3.
- EDU 37500 Classroom And Community Leadership Cr. 3.
- EDU 30100 Laboratory/Field Experience Cr. 0-3.

# Block 3: Professional Education (P: Block 2): Credits 12

- EDU 32500 Social Studies In The Elementary Schools Cr. 3.
- EDU 32800 Science In The Elementary Schools Cr. 3.
- EDU 37100 Language Arts And Reading II Cr. 3.
- EDU 34300 Mathematics In The Elementary School Cr. 3.
- EDU 40100 Laboratory/Field Experience Cr. 0-3.

## Student Teaching: Credits 12

One of the following options must be completed:

- EDU 40100 Laboratory/Field Experience Cr. 0-3.
- EDU 42500 Student Teaching: Elementary Cr. 1-16. Credits: 12 or
  - EDU 42500 Student Teaching: Elementary and EDU 47000, SPED/ECE Practicum Credits: 9/3 or
  - EDU 42500 Student Teaching: Elementary and LING 47000, ENL Practicum Credits: 9/3

# Additional Required Courses: Credits 0-7

• Elective courses (if necessary to reach 120 credits for the degree): Credits 0-7

### Total: Credits 120 minimum

# Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair of dean.

### Additional Course Use:

Courses listed below may also be considered in meeting specific requirements.

- EDU 31500 required, EDU 24900 accepted
- AD 25501 required, AD 10101 accepted

# **Elementary Education - Education Policy (Non-Licensure) (B.S.Ed.)**

Program: B.S.Ed.(Non-Licensure) School of Education College of Professional Studies

Neff Hall 250 ~ 260-481-4146

The B.S.Ed. in elementary education with a concentration in public policy is intended to prepare students for successful careers in diverse areas, including education lobbying, serving as directors of after school programs, or in informal education organizations like Science Central, the Fort Wayne Children's Zoo and the Fort Wayne Urban League.

To earn the B.S.Ed. in Elementary Education - Education Policy, you must satisfy the requirements of Purdue University Fort Wayne (Regulations) and the College of Professional Studies.

Grades of C- or higher are required in each course used toward this degree. Minimum 2.70 cumulative grade point average is required for graduation.

#### **Student Learning Outcomes:**

Upon completion of a major in Elementary Education - Education Policy students will:

- Become more caring, humane and functional citizens in a global, multicultural, democratic society
   Improve the human condition by creating positive learning environments
- Become change agents by demonstrating reflective professional practice
- · Solve client problems through clear, creative analyses
- · Assess client performance, creating and executing effective teaching, counseling, and educational leadership by utilizing a variety of methodologies reflecting current related research
- · Utilize interdisciplinary scholarship, demonstrating technology and critical literacies, and effectively communicating with all stakeholders.

# Program Delivery:

This program is available on campus

#### **Declaring This Major:**

You must declare this major with the School of Education

# **Program Requirements:**

Elementary Education, Education Policy (Non-Licensure) (BSEd) 4-Year Plan:

# General Requirements

- Degree Requirements
- · General Education Requirements
- · College Requirements
- · Overlapping Courses
- · Academic Regulations

General Education Requirements: Credits 33

General Education Requirements

## Category A: Foundational Intellectual Skills: Credits 12

1. Written Communication: Credits 6

- ENGL 13100 Reading, Writing, and Inquiry I Cr. 3.
- ENGL 23301 Intermediate Expository Writing Cr. 3.

### 2. Speaking and Listening

• COM 11400 - Fundamentals Of Speech Communication Cr. 3.

### 3. Quantitative Reasoning

• MA 10100 - Mathematics for Elementary Teachers I Cr. 3.

## Category B: Interdisciplinary or Creative Ways of Knowing: Credits 18

- 4. Scientific Ways of Knowing: Credits 6
  - GEOG 10700 Physical Systems of the Environment Cr. 3.
  - BIOL 10000 Introduction To The Biological World Cr. 3.
- 5. Social and Behavioral Ways of Knowing: Credits 6
  - EDU 34001 Education And American Culture Cr. 3.

One of the following:

- ANTH 10501 Culture And Society Cr. 3.
- ANTH 20002 Language And Culture Cr. 3.
- POL 10300 Introduction to American Politics Cr. 3.
- PSY 12000 Elementary Psychology Cr. 3.
- SOC 16101 Principles of Sociology Cr. 3.
- 6. Humanistic and Artistic Ways of Knowing: Credits 3
  - HIST 10601 American History II Cr. 3.

One of the following two courses:

• HIST 10501 - American History I Cr. 3. (preferred)

# 7. Interdisciplinary or Creative Ways of Knowing: Credits 3

• At least 3 credits from approved list (suggested courses are ENGL 10302 or ENGL 20301-Creative Writing).

# Category C: Capstone: Credits 3

# 8. Capstone Experience

• At least 3 credits and all outcomes in approved courses.

# Additional Educational Studies Requirements: Credits 18

- AD 25501 Art And Design Cr. 3.
- ENGL 49002 Children's Literature Cr. 3.
- HIST 23200 The World in the 20th Century Cr. 3.
- MA 10200 Mathematics for Elementary Teachers II Cr. 3.
- MA 10300 Mathematics for Elementary Teachers III Cr. 3.
- PHYS 21000 The Nature of Physical Science I Cr. 3.

# Preprofessional Education Requirements: Credits 12

- EDU 20000 Examining Self As A Teacher Cr. 3.
- EDU 25000 General Educational Psychology Cr. 1-4. and
- EDU 10100 Laboratory/Field Experience Cr. 0.
- EDU 20001 Introduction To Scientific Inquiry Cr. 1-3.
- EDU 20002 Using Computers For Education Cr. 1-3.

# Education Policy: Credits 51-52

### **Required Education Courses (12 credits)**

#### Block 1:

- EDU 30500 Teaching The Exceptional Learner In The Elementary School Cr. 3.
- EDU 31500 Child Development Cr. 3. or
- EDU 30100 Laboratory/Field Experience Cr. 0-3.

#### Block 2:

- EDU 33700 Classroom Learning Environments Cr. 3.
- EDU 37500 Classroom And Community Leadership Cr. 3.
- EDU 30100 Laboratory/Field Experience Cr. 0-3.

### First Focus: Public Affairs Minor: Credits 15

Three required courses:

Three of the next four courses: 9 Credits

- PPOL 10100 The American Criminal Justice System Cr. 3.
- PPOL 12000 Contemporary Health Issues Cr. 1-3.
- PPOL 16200 Environment and People Cr. 3.
- PPOL 17000 Introduction to Public Affairs Cr. 3.

Two of the next three courses: 6 Credits

- PPOL 26300 Public Management Cr. 3.
  - o 30000-40000 Level PPOL Elective: Cr. 3
  - 30000-40000 Level PPOL Elective: Cr. 3

Second Focus: Select one of the following options based on your professional interests

If none of the following options work for you, you may create a cohesive focus and have it approved by your academic advisor. The focus should be a minimum of 18 credits with at least 12 credits at 300+ level.

# Nonprofit Organization: Credits 22

- BUS 20100 Principles Of Financial Accounting Cr. 3.
- COM 25300 Introduction To Public Relations Cr. 3.
- ENGL 42502 Research Methods for Professional Writers Cr. 3. (allows for a focus on grant writing)
- HSRV 10300 Helping Relationship Techniques Cr. 3.
- POL 15001 Foundations of Community Advocacy Cr. 1-3. (Cr. 1)

• POL 30701 - Indiana State Government and Politics Cr. 3. (focus on how government works in IN, state and local)

A Content Course Elective in one of the following subject areas: Business, Communication, English, Human Services, Political Science or approved alternative subject course. Cr. 3.

#### One of the following Method Course Elective Cr. 3.

- EDU 32500 Social Studies In The Elementary Schools Cr. 3.
- EDU 32800 Science In The Elementary Schools Cr. 3.
- EDU 34300 Mathematics In The Elementary School Cr. 3.
- EDU 37000 Language Arts & Reading I Cr. 3.
- EDU 37001 Introduction To Learning Disabilities Cr. 3.

# Young Children (birth-age 8) and their families: Credits 19

- COM 25300 Introduction To Public Relations Cr. 3.
- EDU 32700 Social Studies Methods And The Family: Focus On Young Children Cr. 3.
- EDU 35200 Teaching And Learning In Preschool/Kindergarten Cr. 3.
   EDU 35500 Issues In Infancy And Early Childhood Mental Health Cr. 3.
- HSRV 10300 Helping Relationship Techniques Cr. 3.
- POL 15001 Foundations of Community Advocacy Cr. 1-3. (Cr. 1)
- SOC 30000 Race and Ethnic Relations Cr. 3. or
- SOC 31601 The Family Cr. 3. or
  SOC 31701 Social Stratification Cr. 3.

## School-age Children or Diverse Children and Families: Credits 19

- COM 25300 Introduction To Public Relations Cr. 3.
- COM 30300 Intercultural Communication Cr. 3.
- EDU 32700 Social Studies Methods And The Family: Focus On Young Children Cr. 3.
- EDU 36900 Culturally Relevant, Multilingual Literacy Education For Elementary Educators Cr. 3.
- POL 15001 Foundations of Community Advocacy Cr. 1-3. (1 credit)
- SOC 30000 Race and Ethnic Relations Cr. 3. or
- SOC 31601 The Family Cr. 3. or
- SOC 31701 Social Stratification Cr. 3.
  - · World Language in any foreign language Cr. 3

# Educational Research: Credits 18

- COM 30300 Intercultural Communication Cr. 3.
- EDU 40000 Topical Exploration In Education Cr. 1-15. (Research in Elementary Education 6 credits, may be divided into 2 courses of 3 credits)
- ENGL 42502 Research Methods for Professional Writers Cr. 3.
- HSRV 41700 Research Methods Cr. 3. or
- SOC 35202 Methods of Social Research Cr. 3.
- PPOL 30000 Statistical Techniques Cr. 3. or
- PSY 20100 Introduction to Statistics in Psychology Cr. 3. or
- SOC 35100 Social Statistics Cr. 3. or
- STAT 30100 Elementary Statistical Methods I Cr. 3.

# Internship: Credits 6

- EDU 30000 Topical Exploration In Education Cr. 1-3. Internship in Education Policy (Junior Internship; 3 credits; 75 hours minimum)
- EDU 40000 Topical Exploration In Education Cr. 1-15. Internship in Education Policy (Senior Internship; 3 credits; 160 hours minimum)

### **Electives**

(Can use any university degree credit bearing course to bring program to 120 credits)

Total Credits: 120 Minimum

### Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair of dean.

### Additional Course Use:

Courses listed below may also be considered in meeting specific requirements.

- EDU 31500 required, EDU 24900 accepted
- · AD 25501 required, AD 10101 accepted

# English (B.A.)

Program: B.A.
Department of English and Linguistics
College of Arts and Sciences

Liberal Arts Building 145 ~ 260-481-6841

For details on pursuing a secondary education second degree (BSEd) to teach English in middle school/high school, click on the links to the Secondary Education - Second Degree Program and the School of Education page in this catalog. Note: The BSEd as a second degree in these programs cannot be earned without completion of the bachelor's degree in the content area from the College of Arts and Sciences. See Program Requirements below for a link to the Secondary Education - Second Degree 4-Year Plan.

# **Student Learning Outcomes:**

Upon completion of the degree, students will:

- · display the ability to write critically, precisely, and persuasively, especially about topics relevant to their major field and their selected concentration.
- demonstrate the ability to communicate knowledge of literary, linguistics, and rhetorical conventions and traditions, especially those of America and England.
- · can apply the appropriate research tools and methods to demonstrate critical understanding of their selected concentrations.

### **Program Delivery:**

· This program is available on-campus

## Declaring this Major:

• Declare this major within the Department of English and Linguistics

#### **General Requirements:**

- · Degree Requirements
- General Education Requirements
- · College Requirements
- Overlapping Content
- Academic Regulations

To earn the B.A. with a major in English, you must fulfill the following requirements in addition to the General Requirements noted above:

# **Program Requirements:**

#### English BA with 4-Year Plan:

- A grade of C- or higher in all department courses required for the major and an overall GPA of 2.00 or higher for all courses taken in the major.
- · An area of concentration is required to graduate with this degree. Links to the concentrations are in the Area of Concentration section below.

#### English BA with Secondary Education 4-Year Plan:

# General Education Requirements: Credits 33

- Click on the Purdue Fort Wayne General Education Requirements link above for details
- A grade of C- or higher is required in each course used to satisfy the Purdue Fort Wayne General Education Requirements

# College of Arts and Sciences Requirements

· Click on the Purdue Fort Wayne College Requirements link above for details. Go to Requirements for the Bachelor of Arts Degree.

# English Writing and Speaking: Credits 6

- · See Part A in Arts and Sciences Requirements for the Bachelor of Arts Degree for Speaking requirement.
- ENGL 20201 Literary Interpretation Cr. 3.

# International Language: Credits 12-14

• See Part B in Arts and Sciences Requirements for the Bachelor of Arts Degree.

### Distribution: Credits 9

- See Part C in Arts and Sciences Requirements for the Bachelor of Arts Degree.
- Choose courses other than ENGL

#### Cultural Studies: Credits 6

• See Part D in Arts and Sciences Requirements for the Bachelor of Arts Degree

# **English Core Requirements**

# Introduction to English Major: Credit 1

• ENGL 12000 - Introduction To The English Major Cr. 1.

#### American Literature: Credits 3

Choose one course from the following list:

```
    ENGL 25001 - American Literature Before 1865 Cr. 3.
    ENGL 25100 - American Literature Since 1865 Cr. 3.
    ENGL 45101 - American Literature 1800-1865 Cr. 3.
    ENGL 45200 - American Literature 1865-1914 Cr. 3.
    ENGL 45400 - American Literature Since 1914 Cr. 3.
    ENGL 45501 - American Fiction to 1900 Cr. 3.
    ENGL 45700 - 20th Century American Poetry Cr. 3.
    ENGL 45800 - 20th Century American Fiction Cr. 3.
    ENGL 47200 - Contemporary American Fiction Cr. 3.
    ENGL 47200 - American Ethnic and Minority Literature Cr. 3.
```

### British Literature Before 1700: Credits 3

Choose one course from the following list:

```
ENGL 22001 - Introduction to Shakespeare Cr. 3.
ENGL 30102 - Critical and Historical Survey of English Literature I Cr. 3.
ENGL 40401 - Old English Language and Literature Cr. 3.
ENGL 40502 - Chaucer Cr. 3.
ENGL 40601 - Middle English Literature Cr. 3.
ENGL 40801 - Elizabethan Drama and Its Background Cr. 3.
ENGL 40901 - Elizabethan Poetry Cr. 3.
ENGL 41501 - Major Plays of Shakespeare Cr. 3.
ENGL 41701 - English Poetry of the Early 17th Century Cr. 3.
ENGL 41801 - Milton Cr. 3.
```

### British Literature After 1700: Credits 3

Choose one course from the following list:

```
CMPL 21700 - Detective And Mystery Literature Cr. 3.
ENGL 30202 - Critical and Historical Survey of English Literature II Cr. 3.
ENGL 42204 - English Literature, 1660-1789 Cr. 3.
ENGL 43202 - Romantic Literature Cr. 3.
ENGL 43501 - Victorian Literature Cr. 3.
ENGL 44501 - 20th Century British Poetry Cr. 3.
ENGL 44601 - 20th Century British Fiction Cr. 3.
ENGL 44700 - British Fiction to 1800 Cr. 3.
ENGL 44800 - 19th Century British Fiction Cr. 3.
ENGL 48801 - Studies in Irish Literature and Culture Cr. 3.
```

# English Language Study: Credits 3

Choose one course in the area of Linguistics, History of the English Language, or Old/Middle English Literature from the following list:

```
ENGL 20501 - Introduction to the English Language Cr. 3.
ENGL 20600 - Introduction to the Study of Grammar Cr. 3.
ENGL 40102 - History of the English Language Cr. 3.
ENGL 40203 - Structure of Modern English (TESOL) Cr. 3.
ENGL 40401 - Old English Language and Literature Cr. 3.
ENGL 40502 - Chaucer Cr. 3.
ENGL 40601 - Middle English Literature Cr. 3.
LING 10300 - Introduction to the Study of Language Cr. 3.
LING 30300 - Introduction to Linguistic Analysis Cr. 3.
LING 30700 - Phonology Cr. 3.
LING 41000 - Syntax Cr. 3.
LING 42500 - Semantics Cr. 3.
LING 48500 - Language Change and Variation Cr. 3.
LING 48500 - Language in Society Cr. 3.
LING 48500 - Topics in Linguistics Cr. 3.
```

# English Writing: Credits 3

```
• ENGL 20301 - Creative Writing - Poetry Cr. 3.
• ENGL 20302 - Creative Writing - Fiction Cr. 3.
  or choose a course from the following list:
• ENGL 23101 - Professional Writing Cr. 3.
• ENGL 23202 - Introduction to Business Writing Cr. 3.
• ENGL 23301 - Intermediate Expository Writing Cr. 3.
• ENGL 23401 - Technical Report Writing Cr. 3.
• ENGL 30103 - Writing Fiction Cr. 3.
• ENGL 30301 - Writing Poetry Cr. 3.
• ENGL 32301 - Digital Writing Cr. 3.
• ENGL 33101 - Business and Administrative Writing Cr. 3.
• ENGL 36402 - Editing for Publication Cr. 3.
• ENGL 39500 - Individual Study of Writing Cr. 1-3.
• ENGL 39800 - Internship in Writing Cr. 1-3.
• ENGL 40001 - Issues in Teaching Writing Cr. 3.
• ENGL 40101 - Advanced Fiction Writing Cr. 3.
• ENGL 40301 - Advanced Poetry Writing Cr. 3.
• ENGL 40501 - Writing Prose - Creative Nonfiction Cr. 2-3.
• ENGL 41402 - Using Poems To Beath Death (Finding Poetry To Live) Cr.3.
• ENGL 42002 - Argumentative Writing Cr. 3.
• ENGL 42101 - Technical Writing Projects Cr. 1-3.
• ENGL 42202 - Creativity and Community Cr. 3.
• ENGL 42502 - Research Methods for Professional Writers Cr. 3.
• ENGL 46001 - Introduction to Literacy Studies Cr. 3
• ENGL 46201 - Studies in Rhetoric and Composition Cr. 3.
• ENGL 46500 - Theories and Practices of Editing Cr. 3.
• ENGL 46700 - Writing for Multiple Media Cr. 3.
• ENGL 47201 - Composing the Self Cr. 3.
• ENGL 47600 - Writers Reading Cr. 3.

ENGL 49001 - Writing Seminar Cr. 3.
ENGL 49700 - Writing Center Theory and Practice Cr. 3.
```

# Capstone Course: Credits 3

• ENGL 37101 - Critical Practices Cr. 3.

## Area of Concentration: Credits 15

- Choose one area of concentration from the list below. Click link for details of each concentration.
  - · Language Concentration: Credits 15
  - Literature Concentration: Credits 15
  - Writing Concentration: Credits 15

# **General Electives**

· Sufficient additional credits to bring the total to 120.

Total Credits: 120

# Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# English (B.A.) Language Concentration

Program: English Language Concentration **Department of English and Linguistics** College of Arts and Sciences

Liberal Arts Building 145 ~ 260-481-6841

### **Program Requirements:**

- · A grade of C- or higher for all courses required in the concentration and an overall GPA of 2.00 or higher.
- · The department recommends the study of a second international language with an international-language minor.

To earn a B.A. in English with a concentration in Language, students must fulfill the General Requirements and English core requirements outlined in the Program Description of the English B.A. in this catalog, and the following concentration requirements:

# **Program Requirements:**

**English BA Language Concentration 4-Year Plan:** 

# Language Core

Choose one of the following courses: Credits 3

- LING 10300 Introduction to the Study of Language Cr. 3.
   LING 30300 Introduction to Linguistic Analysis Cr. 3.

# Choose one of the following: Credits 3

- ENGL 40102 History of the English Language Cr. 3.
- ENGL 40401 Old English Language and Literature Cr. 3.

### Choose one of the following: Credits 3

- COM 52100 Theories Of Rhetoric Cr. 3.
- ENGL 46201 Studies in Rhetoric and Composition Cr. 3.
- LING 46000 Language in Society Cr. 3.

# Additional Courses in Linguistics: Credits 6

- · Choose two courses from the following list:
- ANTH 20002 Language And Culture Cr. 3.
- ANTH 40001 Seminar In The Ethnography Of Communication Cr. 3.
- CSD 18100 First Course in American Sign Language Cr. 3.

- CSD 18200 Second Course in American Sign Language Cr. 3.
- CSD 30600 Introduction to Phonetics Cr. 3.
- CSD 30900 Language Development Cr. 3.
- PSY 42600 Language Development Cr. 3.
- PSY 52600 Psycholinguistics Cr. 3.

Concentration Total Credits: 15

# Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# **English (B.A.) Writing Concentration**

**Program: English Writing Concentration** Department of English and Linguistics College of Arts and Sciences

Liberal Arts Building 145 ~ 260-481-6841

#### **Program Requirements:**

- A grade of C- or higher for all courses required in the concentration and an overall GPA of 2.00 or higher.
- If you are interested in writing professionally, the department recommends a minor in Business Studies or in Journalism.

To earn the B.A. in English with a concentration in Writing, students must fulfill the General Requirements and the English core requirements outlined in the Program Description of the English B.A. in this catalog, and the following concentration requirements:

# **Program Requirements:**

**English BA Writing Concentration 4-Year Plan:** 

Writing Core: Credits 15

Refer to the English B.A. for list of courses in the following categories or check with your advisor:

- ENGL 20301 or one writing course at the 3000+ level: Credits 3
- Two writing courses at the 3000+ level: Credits 6
- One writing course at the 4000+ level: Credits 3
- One additional course in the following areas: Credits 3
  - Classics
  - Comparative Literature
  - English

  - · Folklore

Concentration Total Credits: 15

# Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# **English (B.A.) Literature Concentration**

Program: English Literature Concentration Department of English and Linguistics College of Arts and Sciences

Liberal Arts Building 145 ~ 260-481-6841

#### **Program Requirements:**

- A grade of C- or higher for all courses required in the concentration and an overall GPA of 2.00 or higher.
- If you plan to work toward advanced degrees (M.A., Ph.D.) in English, the department recommends additional period or major-author courses and the study of a second international language.
- · If you are a pre-law student, the department recommends taking upper level writing courses.

To earn the B.A. in English with a concentration in Literature, students must fulfill the General Requirements and English core requirements outlined in the Program Description of the English B.A. in this catalog, and the following concentration requirements:

# **Program Requirements:**

**English BA Literature Concentration 4-Year Plan:** 

Literature Core: Credits 15

Refer to the English B.A. for list of courses in the following categories or check with your advisor:

- One additional course in American Literature: Credits 3
- One additional course in British Literature before 1700: Credits 3
- One additional course in British Literature after 1700: Credits 3
   Two additional courses in the following areas: Credits 6
  - Classics
  - Comparative Literature
  - English
  - Film
  - Folklore

Concentration Total Credits: 15

# Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# Finance (B.S.B.)

Program: B.S.B. - Finance

Department of Accounting and Finance Richard T. Doermer School of Business

Neff Hall 350 ~ 260-481-6471

**Doermer School of Business Undergraduate Student Success Center** 

Neff Hall 366 ~ 260-481-6472

#### Doermer School of Business Overview

#### The student learning outcomes for the degree are as follows:

- Upon completion of the Bachelor of Science in Business (B.S.B) Degree, students will:
- Be able to integrate fundamental principles of business theory and practice.
- · Be able to solve problems by modeling, analyzing data (qualitative and numeric), and using critical thinking skills.
- Be able to understand the global and cultural implications of business decisions.
- · Be able to understand ethical considerations in business decision.
- Be able to understand the relationship between the community and business.
- · Be able to demonstrate the effective communication and teamwork skills.
- Be prepared for life-long learning in a dynamic environment.

The Bachelor of Science in Business (B.S.B.) program is accredited by The Association to Advance Collegiate Schools of Business (AACSB), which provides a voluntary mechanism of quality control. AACSB is the most prestigious business accrediting body in the nation. Only about one-quarter of all business schools in the nation possess this distinction.

Your initial courses are selected from introductory-level general education, business, and economics subjects. When you have qualified for admission to the B.S.B. program, additional opportunities are provided for in-depth studies in a variety of advanced business, management, and analytical subjects. These advanced studies help you prepare for positions of increasing executive responsibility in the business community.

At the time you are admitted to the B.S.B. program, you must declare a specialization in one of five majors: accounting, business economics, finance, management, or marketing.

#### Admission

Students are admitted as pre-business students until they have completed the specific pre-business requirements needed for admission to the Bachelor's degree program.

To be admitted to the B.S.B. program, applicants must have a cumulative GPA of 2.00 or higher and will have completed at least 45 credits that apply toward the degree, including the courses listed below. Within this course listing, successful applicants will have (1) a grade of C- or better in each course and (2) a GPA of 2.50 or better within these courses.

#### Courses Required for Admission to the B.S.B. Program

Course Number and Title		Credits
COM 11400	Fundamentals of Speech Communication	3
MA 22900	Calculus for the Managerial, Social, and Biological Sciences I	3
PSY 12000 <u>or</u> SOC 16101	Elementary Psychology or Principles of Sociology	3
BUS 10001	Principles of Business Administration	3
ENGL 23301	Intermediate Expository Writing	3
BUS 20401	Business Communication	3
BUS 10000	Introduction to College and Business Careers	1
BUS 20100	Principles of Financial Accounting	3
BUS 20101	Computers in Business	3
ECON 20101	Introduction to Microeconomics	3
BUS 20001	Business Degree Seminar	0

Three additional rules apply for admission to the  $B.S.B.\ program$  :

- 1. No more than 6 credits of these courses may be repeated, and no course may be repeated more than once.
- 2. Both the original and the repeat grades earned in the above courses will be used to compute the admission GPA. This includes courses that you have taken or repeated at Purdue Fort Wayne and other Purdue campuses.
- 3. Students must earn a minimum of 300 points in the Passport to Success program, including at least two high impact events, before they can be admitted to any of the majors. Passport to Success is a program required of all business majors that emphasizes participation in activities outside the classroom. Details of the Passport to Success program may be found on the Doermer School of Business website.

#### Note:

Bachelor's degree programs in business are offered at other Purdue University campuses. Since admission and graduation requirements vary among these campuses, you must meet the admission and graduation requirements of the campus from which you intend to graduate.

#### **Enrollment in Business Courses Numbered 30100 and Above**

Unless you have met at least one of the following conditions, you are not permitted to enroll in a business course numbered 30100 or above:

- You have been admitted to the B.S.B. program at Purdue Fort Wayne.
- · The course is a specified requirement for another bachelor's degree program or minor in which you are enrolled and you have completed all course prerequisites.
- · You have obtained written permission from the department through which the course is offered.

If you have enrolled and are not eligible, you will be withdrawn from the course.

**B.S.B. REQUIREMENTS** To earn the B.S.B., you must complete a minimum of 120 credits as specified below and obtain an overall cumulative GPA of at least 2.30. You must satisfy the requirements of Purdue Fort Wayne (see Regulations) and the Richard T. Doermer School of Business, including completion of the Passport to Success program, and earn a grade of C- or better in each BUS and ECON course. Developmental courses do not apply to degree requirements.

Your final consecutive 30 credits must be taken at Purdue Fort Wayne after you have been formally admitted to the B.S.B. program. Business majors may not count BUS, ECON or OLS courses towards their general education requirements (unless noted).

Special Academic Regulations for Students in Undergraduate Business Programs Following are the general policies and procedures for students enrolled in business undergraduate programs. In addition to the policies of Purdue Fort Wayne (see Regulations), these are intended to maintain the historically high academic standards of undergraduate business programs at Purdue Fort Wayne.

The Student's Responsibility You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

Academic Renewal Option The school participates in the Academic Renewal Option for eligible students returning to Purdue Fort Wayne after an absence of five or more years. (see Regulations)

Time Limit. To ensure that you will be professionally competitive with other members of your graduating class, you may complete the degree requirements specified in the catalog in effect at the time you were formally admitted to the degree program only if

- Progress toward your degree objective has been continuous. If you have not registered for degree-applicable courses as a Purdue Fort Wayne business major for a period
  of one calendar year, you will be considered as not progressing toward your original degree objective. Subsequently, if you qualify for re-entry to an undergraduate
  business program at Purdue Fort Wayne, you must satisfy the admission and degree requirements specified in the Purdue Fort Wayne catalog that includes your year of
  re-entry
- No more than five years have elapsed since your admission to the business degree program. If more than five years have elapsed, your cumulative academic record will be reviewed by the appropriate business or economics department, and you will be required to meet the degree criteria specified in the current Purdue Fort Wayne catalog. This may result in your having to repeat those courses in which the original content is determined to be outdated.
- The necessary courses or degree programs are available. If the courses that were required at the time of your formal admission to the business degree program are no longer available, you must complete the current replacements for those courses. Should these newer courses require prerequisites you have not taken, you must also enroll for these prerequisites in the appropriate sequence.

Overlapping Courses You may not count toward graduation any courses or sequences considered to have overlapping content.

Academic Probation You are placed on academic probation whenever your semester or cumulative GPA at the end of any fall or spring semester falls below 2.0.

Repeat Limits To remain eligible for the B.S.B. program, a student may not retake any of the 30000 or 40000-level BUS or ECON courses more than twice. An appeal may be made by the student to the Undergraduate Policy Committee (UPC) in the case of extenuating circumstances.

Transfer Credit Generally, courses in basic business and economics subjects (10000-20000 level) will be accepted as equivalent if they are being transferred from regionally accredited institutions. Courses in advanced business and economics (30000-40000 level) will only be considered equivalent if they are from another business school accredited by The Association to Advance Collegiate Schools of Business (AACSB), were taken within the past five years, and were taken as a junior or senior class standing.

At least 50 percent of required business and economics courses must be completed at Purdue Fort Wayne in order for a B.S.B. degree to be awarded.

Credit by Examination Under very limited circumstances and subject to the following policies, you may be permitted to earn credit by means of a special examination:

- 1. In all cases, your eligibility for a credit examination; the type of examination; testing procedures, date, time, and location; and evaluation of your performance are the decision of the appropriate Purdue Fort Wayne business or economics department. The decision of the department is final.
- 2. Credits earned by examination cannot exceed 10 percent of your total degree requirements.
- 3. You may attempt an authorized credit examination only once.
- 4. Only those examination scores that equate to a C- grade or better will be considered. Only the grade P will be reported for credit earned by examination.

### Bachelor of Science in Business with a major in Finance

The finance major is composed of courses that have been selected to familiarize you with the theory, instruments, and institutions of finance, and with a financial approach for structuring and analyzing management decisions. The study of finance provides a basis for careers in corporate financial management, as well as executive positions in commercial banking, savings and credit institutions, and the investment field.

# **Program Requirements:**

Finance 4-Year Plan

# General Education Requirements Credits: 33

A grade of C- or better is required in each course used to satisfy the Purdue Fort Wayne general education requirements.

# Category A: Foundational Intellectual Skills

- 1. Written Communication Credits: 3
  - ENGL 13100 Reading, Writing, and Inquiry I Cr. 3.
- 2. Speaking and Listening Credits: 3
  - COM 11400 Fundamentals Of Speech Communication Cr. 3.
- 3. Quantitative Reasoning Credits: 3
  - MA 22900 Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.

#### **Additional Course Use**

Courses listed below may also be considered in meeting specific degree requirements.

MA 22900 required, MA 16300, MA 16500, MA 22700 or MATH M119 accepted

# Category B: Ways of Knowing

### 4. Scientific Ways of Knowing Credits: 3

Select one of the following:

- ANTH 20001 Bioanthropology Cr. 3. ASTR 10000 The Solar System Cr. 3.
- BIOL 10000 Introduction To The Biological World Cr. 3.
- BIOL 32700 Biology Of Aging Cr. 3.
- CHM 11100 General Chemistry Cr. 3. required lab
- CHM 11500 General Chemistry Cr. 4. required lab
- CHM 12000 Chemistry And Art Cr. 3.
  EAPS 10001 General Geology Cr. 3-5.
- EAPS 12100 Journey To Mars Cr. 3.
  NUTR 30300 Essentials of Nutrition Cr. 3.
- GEOG 10700 Physical Systems of the Environment Cr. 3. • GEOG 10900 - Weather and Climate Cr. 3.
- HORT 10100 Fundamentals of Horticulture Cr. 3.
  PHYS 10500 Sound and Music Cr. 3.
- PHYS 11500 Introduction to Lasers Cr. 3. • PHYS 12000 - Physics of Sports Cr. 3.
- PHYS 15200 Mechanics Cr. 5. required lab
- PHYS 21800 General Physics Cr. 4. required lab
- PHYS 22000 General Physics Cr. 4. required lab
- PHYS 22300 X-Ray Physics Cr 3.

Business majors are not required to take a lab class but if you choose to take a class with a required lab, you must complete the required lab. If you opt to take a science class that is not on the list above, then you will have to take another Scientific Ways of Knowing class as a general education elective that satisfies any missing outcomes.

### 5. Social and Behavioral Ways of Knowing Credits: 3

Select one of the following:

- PSY 12000 Elementary Psychology Cr. 3. or
- SOC 16101 Principles of Sociology Cr. 3.

# 6. Humanistic and Artistic Ways of Knowing Credits: 3

• PHIL 11100 - Introduction To Ethics Cr. 3.

### 7. Interdisciplinary Ways of Knowing Credits: 6

Must complete

• BUS 10001 - Principles Of Business Administration Cr. 3.

and select one of the following:

- INTL 20000 Introduction to International Studies: Emerging Global Visions Cr. 3.
- LGBT 20000 Introduction to Scholarship on Lesbian, Gay, Bisexual, and Transgender Issues Cr. 3.
- LING 46000 Language in Society Cr. 3.
  OLS 45400 Gender and Diversity in Management Cr. 3.
- PACS 20000 Introduction to Peace and Conflict Studies Cr. 3.
   PPOL 16200 Environment and People Cr. 3.

- REL 11200 Religion and Culture Cr. 3.
  SOC 20900 Community and the Build Environment Cr. 3.
- WOST 24000 Topics in Feminism Cr. 3.
  EALC 10101 Elementary Japanese I Cr. 4.
- EALC 10201 Elementary Japanese II Cr. 4.
- FR 11100 Elementary French I Cr. 3.
- FR 11201 Elementary French II Cr. 3.
- GER 11201 Elementary German II Cr. 3.
- NELC 10000 Elementary Arabic I Cr. 3.
- NELC 15000 Elementary Arabic II Cr. 3.
- SPAN 11101 Elementary Spanish I Cr. 3.
- SPAN 11201 Elementary Spanish II Cr. 3.
- SPAN 11300 Accelerated First Year Spanish Cr. 3.

# Category C: Capstone

## 8. Capstone Experience Credits: 3

General Education Requirements

General Education Electives Credits: 6

General Education Requirements

# DSB Additional Requirements Credits: 6

You must earn a grade of C- or better in each of the following courses:

- ENGL 23301 Intermediate Expository Writing Cr. 3.
- BUS 20401 Business Communication Cr. 3.

### Business and Economics Core Credits: 46

You must earn a grade of C- or better in each of the following courses:

# **Business Principles Credits: 13**

- BUS 10000 Introduction To College And Business Careers Cr. 1.
- BUS 20100 Principles Of Financial Accounting Cr. 3.
- BUS 20200 Principles Of Managerial Accounting Cr. 3.
- BUS 20101 The Computer In Business Cr. 3
- BUS 20300 Commercial Law I Cr. 3.
- BUS 20001 Business Degree Seminar Cr. 0.

# **Economics Principles Credits: 9**

- ECON 20101 Introduction to Microeconomics Cr. 3.
- ECON 20201 Introduction to Macroeconomics Cr. 3.
- ECON 27000 Introduction to Statistical Theory in Economics and Business I Cr. 3.

Courses listed below may also be considered in meeting specific degree requirements.

ECON 27000 required, STAT 30100, STAT 51100 accepted

# Management Processes Credits: 15

A student may not retake any of the 30000-40000 level BUS or ECON courses more than twice. An appeal may be made by the student to the Undergraduate Policy Committee (UPC) in the case of extenuating circumstances.

- BUS 30100 Financial Management Cr. 3.
- BUS 30101 Introduction To Marketing Cr. 3.
- BUS 30102 Operations Management Cr. 3.
- BUS 30200 Management And Behavior In Organizations Cr. 3
- BUS 32100 Management Of Information Systems Cr. 3.

# Management Policy and Strategy Credits: 9

- BUS 40400 Social, Legal, And Ethical Implications Of Business Decisions Cr. 3.
- BUS 43000 Organizations And Organizational Change Cr. 3.
- BUS 40100 Administrative Policy Cr. 3.
- BUS 40000 Business Senior Seminar Cr. 0-3.

A grade of P' will be posted for BUS 40000 when a student successfully earns all of the Passport to Success points required for graduation.

# Finance Major Requirements Credits: 24

A student may not retake any of the 30000-40000 level BUS or ECON courses more than twice. An appeal may be made by the student to the Undergraduate Policy Committee (UPC) in the case of extenuating circumstances.

You must earn a grade of C- or better in each of the following courses:

- BUS 30300 Intermediate Investments Cr. 3.
- BUS 30500 Intermediate Corporate Finance
- BUS 31000 Financial Statement Analysis Finance Perspective Cr. 3.
- BUS 34500 Money/Banking/Capital Markets Cr. 3.
- BUS 49400 International Finance Cr. 3.
- · BUS 32500 Cost Accounting Cr. 3.

#### Finance Electives

#### Choose two of the following:

- BUS 30800 Risk Management And Insurance Cr. 3.
  BUS 30900 Retirement Plan Fundamentals Cr. 3.
- BUS 42000 Equity And Fixed Income Investments Cr. 3.
- BUS 44600 Bank & Financial Intermediation Cr. 3.
- BUS 45400 Current Topics In Banking Cr. 3.
- BUS 49001 Special Studies In International Business Administration Cr. 1-3.
- BUS 49002 Independent Study In Finance Cr. 1-3.
- BUS 49700 Bank Simulation Course Cr. 3.

NOTE: BUS 49002 is a topics course and may be taken more than once, with different topics. BUS 49001 is by invitation only.

### Free Electives Credits: 11

11 credits from either business or non-business courses to complement your professional and educational objectives, and bring your degree total to at least 120 credits.

Total Credits: 120

# Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# **General Studies (B.G.S.)**

Program: B.G.S. **Department of General Studies** College of Arts and Sciences

Kettler Hall 144 ~ 260-481-6828

General Studies offers a wide variety of personalized degree options to students. They may individually tailor their programs to combine a substantial core of courses basic to a traditional university education and study in career-related areas. Within the flexible framework of degree requirements, students may design an undergraduate program that can more readily meet their career and personal-development goals. Students will be encouraged and assisted in developing a unique academic program complementing their individual interests, abilities, and intellectual and practical concerns.

The Bachelor of General Studies (B.G.S.) includes courses in broad categories called required areas of learning (listed below) and elective credit that students may earn in any Purdue University Fort Wayne program. The required areas of learning provide broad exposure to the humanities, social sciences, and sciences, while the electives permit students to explore areas of interest, receive credit for prior university-level experiential learning, and tailor the degree to their individual needs. In each plan of study, students must demonstrate competency in each of the following areas: written communication (two courses), oral communication, mathematics, computer literacy, and a diversity course. After students are admitted to a general studies degree program, students will develop a plan of study to meet their objectives. An advisor will provide assistance in this effort.

# **Student Learning Outcomes:**

Upon successful completion of this degree, students will:

- · Make use of their knowledge in written and oral communication by writing and speaking precisely, clearly, and persuasively.
- Formulate arguments in a variety of contexts.
- · Assess their own arguments and compare and evaluate them with the arguments of others.
- · Compare the nature and diversity of individuals, organizations, cultures, and societies.
- Distinguish that different scholarly disciplines require different types of evidence.
- Gather, evaluate, select, organize, and synthesize material in order to complete a research or creative project.
- · Combine the knowledge gained across interdisciplinary boundaries

#### **Program Delivery:**

Students may take advantage of the wide variety of daytime, evening, weekend, hybrid, and online courses at Purdue Fort Wayne. Students may also earn credit by examination, and in some cases earn credit for significant, documentable self-acquired competencies when the learning outcomes have been comparable to those of university-level work. See an advisor for more information. Consideration is given to all previously earned college credit from other accredited institutions. The Bachelor of General Studies (B.G.S.) program may also be tailored to the needs of those unable to study on campus during regularly scheduled periods and may be completed online.

For questions regarding the B.G.S. program, contact the Executive Director of General Studies.

# **Program Requirements:**

General Studies 4-Yr. Plan

# General Education Requirements:

- · Degree Requirements
- · General Education Requirements
- · Overlapping Content
- · Academic Regulations

# Required Areas of Learning (Credits 54)

# Area A: Arts & Humanities (Credits 12)

Grade of C- or above is required. Must include at least two different subjects.

### Written & Oral Communication (Credits 9)

- ENGL 13100 Reading, Writing, and Inquiry I Cr. 3.
- COM 11400 Fundamentals Of Speech Communication Cr. 3.

### Choose one of the following:

- ENGL 10302 Introductory Creative Writing Cr. 3.
- ENGL 20201 Literary Interpretation Cr. 3.
- ENGL 20301 Creative Writing Poetry Cr. 3.
- ENGL 23202 Introduction to Business Writing Cr. 3.
- ENGL 23301 Intermediate Expository Writing Cr. 3.
- ENGL 23401 Technical Report Writing Cr. 3.
- HIST 21700 The Nature of History Cr. 3.
- ILCS 30000 Methods of Research and Criticism Cr. 3.
- POL 20700 Elements of Political Analysis Cr. 3.

## Arts & Humanities Options (Credits 3)

#### Choose one course in the following Arts & Humanities area:

- · African American Studies
- Art & Design
- Classical Studies

- Communication
- · Comparative Literature
- English (except 15000, 19000, 12900, P131, R150, R190, W115, W116, W129, W130)
- · Film & Video Studies
- · History
- International Languages (CLCS, EALC, FR, GER, ILCS, NELC, SPAN)
- International Language & Culture Studies
- International Studies
- · Medieval & Renaissance Studies
- Music (unless used as a professional school)
- Philosophy
- · Religious Studies
- Theatre

# Area B: Science & Mathematics (Credits 12)

Grade of C- or above is required. Must include at least two different subjects.

# Mathematics (Credits 3)

#### Choose one of the following:

- · ECON 20101 Introduction to Microeconomics Cr. 3.
- IET 20500 Applied Statistics for Engineering Technology Cr. 3.
- IET 35000 Engineering Economy Cr. 3.
- MA 10100 Mathematics for Elementary Teachers I Cr. 3.
- MA 14000 Practical Quantitative Reasoning Cr. 3.
- MA 15300 College Algebra Cr. 3.
- MA 15400 Trigonometry Cr. 3.
- MA 15900 Precalculus Cr. 5.
- MA 16500 Analytic Geometry and Calculus I Cr. 4.
- · MA 16600 Analytic Geometry and Calculus II Cr. 4.
- MA 22700 Calculus for Technology I Cr. 4.
- MA 22900 Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.
- PHIL 25200 Intermediate Logic Cr. 3.
- STAT 12500 Communicating with Statistics Cr. 3.

### Computer Literacy (Credits 1-3)

## Choose one of the following:

- Anything in Computer Science
- Anything in Information System Technology
- AD 10502 Digital Imaging Cr. 3.
- AD 20301 Web Design I: Introduction to Web Design Cr. 3.
- BUS 20101 The Computer In Business Cr. 3
- EDU 20002 Using Computers For Education Cr. 1-3. (Does not count in Area B, elective only.)
- ETCS 10600 Introduction to Computers Cr. 3.
- OLS 28000 Computer Applications for Supervisors Cr. 3. (Does not count in Area B, elective only.)

# Science & Mathematics Options (Credits 6-8)

### Choose two courses in the following Science & Mathematics area:

- ANTH 20001, 44500 (ONLY)
- Astronomy
- Biology
- · Chemistry
- Computer Science (Includes BUS 20101)
- Earth, Atmospheric & Planetary Sciences
- ECON 20101, 27000 (ONLY)
- Entomology Forestry & Natural Resources
- GEOG 10700, 10900, 31500 (ONLY)
- · Horticulture
- Industrial Engineering Technology 20500, 35000 (ONLY)

- · Information System Technology
- Mathematics (except MA 10900, 11100, 11101, 11300, 12401)
- NUTR 30300 (ONLY)
- PCTX 20100 (ONLY)
- Philosophy 25200 (ONLY)
- Physics
- PPOL 30000 (ONLY)
- PSY 12000, 20100, 31000, 31100, 31400, 31700, 32900, 41600 (ONLY)
- SOC 35100 (ONLY)
- · Statistics

# Area C: Social & Behavioral Sciences (Credits 12)

Grade of C- or above is required. Must include at least two different subjects.

#### Choose four courses in the following Social & Behavioral Sciences area:

- · Anthropology
- · Communication Sciences & Disorders
- Economics
- Geography
- Gerontology
- · Lesbian, Gay, Bisexual & Transgender
- · Linguistics
- Peace & Conflict Studies
- · Political Science
- PPOL 10100 (ONLY)
- · Psychology
- Sociology
- · Women's Studies

# Area D: Choose ONE Area of Learning (Credits 18)

Choose ONE Area of Learning (Area A or B or C) and complete 18 additional credits from that area. Grade of C- or above is required. Must include at least two different subjects from the selected Area of Learning.

### Area A: Arts & Humanities: (Credits 18)

- · African American Studies
- Art & Design
- Classical Studies
- Communication
- Comparative Literature
- Dance
- English (except 15000, 19000, 12900, P131, R150, R190, W115, W116, W129, W130)
- Film & Video Studies
- Folklore
- History
- · International Languages & Culture Studies
- · International Languages
- International Studies
- Medieval & Renissance Studies
- Music (unless used as a professional school)
- · Philosophy
- Religious Studies
- Theatre

#### OR

### Area B: Science & Mathematics: (Credits 18)

- ANTH 20001, 44500 (ONLY)
- Astronomy
- Biology
- Chemistry
- Computer Science (Includes BUS 20101)
- Earth, Atmospheric & Planetary Sciences
- ECON 20101, 27000 (ONLY)
- Entomology
- Forestry & Natural Resources
- GEOG 10700, 10900, 31500 (ONLY)
- Horticulture
- Industrial Engineering Technology 20500, 35000 (ONLY)
- Information System Technology
- Mathematics (Except MA 11100, 12401)
- NUTR 30300 (ONLY)
- PCTX 20100 (ONLY)

- Philosophy 25200 (ONLY)
- PPOL 30000 (ONLY)
- PSY 12000, 20100, 31000, 31100, 31400, 31700, 32900, 41600 (ONLY)
- SOC 35100 (ONLY)

#### OR

#### Area C: Social & Behavioral Sciences: (Credits 18)

- Anthropology
- Communication Sciences & Disorders
- Economics
- Geography
- Gerontology
- Lesbian, Gay, Bisexual & Transgender
- Linguistics
- Peace & Conflict Studies
- · Political Science
- PPOL 10100 (ONLY)
- Psychology
- Sociology
- Women's Studies

### General Electives: Credits 63

#### Art & Science electives: (Credits 15)

- · African American Studies
- · Art & Design
- Anthropology
- Astronomy
- Biology
- Chemistry
- Classical Studies · College of Arts and Sciences
- Communication
- Communication Sciences & Disorders
- · Comparative Literature
- Computer Sciences (Includes BUS 20100 only)
- Dance
- · Earth, Atmospheric & Planetary Sciences
- English (except 15000, R150, W115, W116, W130)
- Entomology
- ETCS 10600 (ONLY)
- · Film & Video Studies
- Folklore
- · Forestry & Natural Resources
- · Fort Wayne Arts & Sciences
- Geography
- Gerontology
- · History
- Horticulture
- Industrial Engineering Technology 20500, 35000 (ONLY)
- Information System Technology
- · International Languages
- International Language & Culture Studies
- International Studies
- · Lesbian, Gay, Bisexual & Transgender Studies
- Linguistics
- Mathematics (except MA 10900, 11300)
- Medieval & Renaissance Studies
- · Music (unless used as a Professional School)
- Peace & Conflict Studies
- · Pharmacology Philosophy
- · Physics
- Political SciencePPOL 10100, 30000 (ONLY)
- PsychologyReligious Studies
- Sociology · Statistics
- · Theatre
- Women's Studies

# Free Electives: (Credits 48)

Students may choose from any available subjects/courses that they meet the prerequistes for and have not already taken. Courses with a D- or higher will be accepted in electives

## General Studies Capstone: Credits 3

A grade of C- or above is required.

• IDIS 41700 - General Studies Degree Capstone Cr. 3.

# Additional Program Requirements

Residency Requirement: A minimum of 32 credits at the 200-level or above must be completed at PFW or another campus of Purdue University.

#### **Upper-Level Requirement: 30 Credits**

• A minimum of 30 credits must be taken at the 30000-40000 level (or see College of Arts and Sciences for a list of 20000 level courses than can be counted as upper level).

#### **Diversity Requirement: 1-3 Credits**

- · AFRO (ANY)
- ANTH 10501, 20002, 20003, 30000, 31001, 33000, 35001, 35600, 37001, 37500, 44500, 45500, 45700, 47000
- · BIOL 25000, 32700
- BUS 20400, 30000, 30200, 49001, 49400
- · CLCS (ANY)
- CMPL 21700
- · COM 21200, 30300, 31200, 32400, 41000, 42200, 52700, 59000
- CSD 11500, 18100, 18200, 28300, 28400, 30600
- EALC (ANY)
- ECON 40800, 43000
- EDU 30500, 30700, 34001, 35201, 37001, 40001, 41000
- ENGL 10700, 36401, 36901, 37202, 37801, 37901, 38101, 38800, 39201, 46201
- FNN 20400
- · FOLK 11100, 25400, 30500, 35200
- FR (ANY)
- GEOG 10700
- GER (ANY)
- GERN 23100
- HIST 10001, 11300, 11400, 20101, 22200, 23200, 31001, 31002, 31101, 31102, 32503 (\*\*\*), 32701, 33101, 33201, 33503, 34201, 34502, 34601, 35102, 35202, 35501, 36102, 38601, 38801, 39301, 40201, 42501 (\*\*\*), 42601 (\*\*\*), 43200
- IDIS 20200
- · ILCS 20800, 35000
- INTL (ANY)
- INTD 33000LGBT (ANY)
- LING 36000
- LSTU 10100, 21000, 29000 (\*\*\*), 33000, 38500, 39000 (\*\*\*)
- MUSC 10500, 20103, 39300
- NELC (ANY)
- NUR 30900
- · OLS 25200, 45400
- POL 10700, 10900, 20001 (\*\*\*), 32400, 32800, 33501, 33900, 34000, 35001, 36001, 37101, 37600, 40100 (\*\*\*), 49001 (\*\*\*)
- PPOL 30500
- PSY 24000, 33400, 33500, 34500, 36500, 37100
- REL 11200, 23000, 23100, 29300 (\*\*\*), 30100, 30500, 30600, 30700, 31100, 31200, 31500, 32100, 37500, 37800, 38100
- SOC 16300, 30000
- SPAN (ANY)
- · WOST (ANY)

\*\*\*See your academic advisor to have variable topic courses approved for diversity

### **Course Subject Limits**

- -3 credit limit in each of the following: ENG W135\*, MA 149\*
- 21 credit limit in each of the following department/subject areas: AD, AFRO, ANTH, ASTR, BIOL, CHM, CLCS, CMPL, COAS, COM, CS, CSD, DANC, EALC, EAPS, ECON, ENGL, ETCS, FINA\*/VART\*/VCD\*, FOLK, FR, FVS, GEOG, GER, GERN, HIST, HONR, HORT, ILCS, INTL, IST, JOUR\*, LGBT, LING, MA, MARS, MUSC (unless used as a professional school, see professional school areas below. Only 10 credits in any MUSC 0xxxx classes), NELC, PACS, PCTX, PHIL, PHYS, POL, PSY, REL, SOC, SPAN, STAT, THTR, WOST.
- 30 credit limit in each of the following professional school/college disciplines: BUS, DAST\*/DHYG\*/DLTP\*, EDU/EDUA\*/EDUC\*, HPER (only 1 course allowed in an athletes participating sport), HSRV, IDIS, INTD, LSTU, MSL/MIL, MUSC (if used as a professional school, which only counts as electives with only 10 credits in any MUSC 0xxxx classes), NUR, OLS (unless paired with other classes/subjects within the School of Engineering Technology and Computer Science; see below), PHRM, PPOL/SPEA\*, RADX, VM.
- 30 credit limit in each of the following professional school areas, but only 21 credits in each subject within the school/college:

- Engineering Technology and Computer Science (30 total; 21 allowed in each, except OLS): ARET, CE, CET, CEPT, CNET, ECET, ECE, ENGR, ET, IET, IT, IM, ITC, ME, MET, SE, TECH, and up to 30 in OLS unless paired with any of the above for a total of 30 within the college/school
- · Consumer and Family Sciences (30 total; 21 allowed in each): CDFS, CFS, FNN\*/NUTR, HTM
- Agriculture (30 total; 21 allowed in each): AGRI, ANSC, ENTM, FNR, HORT

#### -30 credit limit in the following situations:

- · Credit by exams: AP/CLEP
- Prior Learning Assessment (PLA)
- Older credit that begins with the letter "T": TBUS/TENG/TPSY etc.
- 48 credit Limit in the following subject area: AHLT\*/CHHS\*/HSCI

Total Credits: 120

All students must have a 2.0 or higher to graduate.

# Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions/waivers to any requirement must be petitioned in writing and approved by the appropriate Dean or Executive Director of the General Studies program.

### Additional Course Use

Courses listed below may also be considered in meeting specific degree requirements.

The following old course subject codes will be accepted into Area A Requirement:

- AFRO
- AFRI
- AAAD
- CLAS
- CMLT
- ENG • FILM
- FINA
- FREN
- · FRIT
- HISP
- JOUR RUSS
- SLAVVCD

The following old course subject codes will be accepted into Area B Requirement:

- CHEM
- COAS (J111, J112, J113)
- GEOL
- EAS
- GEOS
- PHSL

The following old course subject codes will be accepted into Area C Requirement:

- AGEC 217
- · POLS

The following old course subject codes will be accepted into the Diversity Requirement:

- AFRO
- AMST (A200, A301, A441)
- CMLT (C340)
- ECON (E323, E346)
- ENG (G104, G310, L107, L113, L207, L364, L369, L378, L379, L381, L388, L392, W372, W462)
- EDUC (H340, K201, K205, K206, K305, K306, K307, K350, K351, K352, K360, K370, K410, Q400)
- FINA (A170, A270)
- FOLK (F350, F354, F378)

<sup>\*</sup>Courses no longer offered at PFW.

- FWAS (H201, H202)
- LSTU (L101, L385)
- POLS (Y337, Y374, Y496)
- SLAV

The following old course subject codes will be accepted into the Math Competency Requirement:

- COAS (J112, J113)
- MA 21300
- MATH (M118, 150, 163, 164, 261)
- POLS Y395

# History (B.A.)

Program: B.A.
Department of History
College of Arts and Sciences

Liberal Arts Building 209 ~ 260-481-6686

The courses and programs offered through the Department of History can help you gain a better understanding of yourself and your world as you prepare for a career in teaching, library work, law, public service, or a related profession.

For details on pursuing a secondary education second degree (BSEd) to teach History in middle school/high school, click on the links to the Secondary Education - Second Degree Program and the School of Education page in this catalog. Note: The BSEd as a second degree in these programs cannot be earned without completion of the bachelor's degree in the content area from the College of Arts and Sciences. See Program Requirements below for a link to the Secondary Education - Second Degree 4-Year Plan.

#### **Student Learning Outcomes:**

Upon completion of this degree, students will:

- · Possess broad knowledge and some specialized understanding of the diverse historical pasts of America, Europe, and the World
- Understand the basic scientific and humanistic methodology of history as an intellectual discipline including the direct experience of evaluating primary sources and secondary literature
- · Demonstrate the ability to read, analyze, and write about historic topics
- · Recognize historical analyses of human experience as the basic outlook of modern culture
- · Be equipped to continue historical studies throughout life.

### **Program Delivery:**

• This program is available on-campus

### Declaring this Major:

· Declare this major within the Department of History

### **General Requirements:**

- Degree Requirements
- General Education Requirements
- · College Requirements
- Overlapping Content
- Academic Regulations

To earn the B.A. with a major in History, you must fulfill the following requirements in addition to the General Requirements noted above. To become eligible for the History Honors Program, see requirements listed below under Honors in History.

# Program Requirements:

#### History BA 4-Year Plan:

· A grade of C- or higher in all department courses required for the major and an overall GPA of 2.00 or higher for all courses required in the major.

If pursuing the second degree in Secondary Education BSEd, a minor in one of the following areas is also required:

- Economics
- · Political Science
- Psychology
- · Sociology

#### History BA with Secondary EDUC/ECON Minor 4-Year Plan:

History BA with Secondary EDUC/POLS Minor 4-Year Plan:

History BA with Secondary EDUC/PSY Minor 4-Year Plan:

History BA with Secondary EDUC/SOC Minor 4-Year Plan:

# General Education Requirements: Credits 33

- Click on the Purdue Fort Wayne General Education Requirements link above for details.
- Some majors may require particular General Education courses as specified in their program description. Up to six credits of approved General Education courses satisfying requirements in Areas A and B, and three credits satisfying requirements in Area C, may originate in the major. A grade of C- or higher in each course, and an overall GPA of 2.0 is required to satisfy the Purdue Fort Wayne General Education Requirements.

# College of Arts and Sciences Requirements

· Click on the Purdue Fort Wayne College Requirements link above for details. Go to Requirements for the Bachelor of Arts Degree

### English Writing and Speaking: Credits 6

Speaking Requirement:

• HIST 12500 - Great Debates: Introduction to Historical Communication Cr. 3.

Writing Requirement:

• HIST 21700 - The Nature of History Cr. 3.

# International Language: Credits 12-14

• See Part B in Arts and Sciences Requirements for the Bachelor of Arts Degree

# Distribution: Credits 9

- See Part C in Arts and Sciences Requirements for the Bachelor of Arts Degree
- · Choose courses other than HIST

# Cultural Studies: Credits 6

- · See Part D in Arts and Sciences Requirements for the Bachelor of Arts Degree for course choices to fulfill the Non-Western Culture requirement
- HIST 11300 History of Western Civilization I Cr. 3.

# Core and Concentration (Major) Courses

# Required Courses: Credits 21

- HIST 10501 American History I Cr. 3.
- HIST 10601 American History II Cr. 3.
- HIST 11300 History of Western Civilization I Cr. 3.
- · HIST 11400 History of Western Civilization II Cr. 3.
- HIST 12500 Great Debates: Introduction to Historical Communication Cr. 3.
- HIST 21700 The Nature of History Cr. 3.
- HIST 49502 Proseminar for History Majors Cr. 3.

# American History: Credits 6

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HIST 23200 may not be used to fulfill this category.
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- HIST 22500 Special Topics in History Cr. 1-3.
- HIST 22801 The Vietnam War Cr. 3.
- · HIST 30101 Colonial America Cr. 3.
- HIST 30201 Revolutionary America Cr. 3.
- HIST 30302 The United States from 1789 to 1865 I Cr. 3.
- HIST 30502 The Cold War Cr. 3.
- HIST 31001 Survey of American Indians I Cr. 3.
- HIST 31101 Survey of American Indians II Cr. 3
- HIST 31301 Origins of Modern America, 1865 1917 Cr. 3.
- HIST 31401 Recent U.S. History I, 1917-1945 Cr. 3.
- · HIST 31501 Recent U.S. History II, 1945-Present Cr. 3.
- HIST 31801 The American West Cr. 3.
- HIST 32503 Topics in History Cr. 3.
- HIST 33502 American History Through Music Cr. 3.
- HIST 34501 American Diplomatic History I Cr. 3.
- HIST 34502 History of Espionage: Spies, Intelligence, and Intelligence Agencies in an International Context Cr. 3.
- HIST 35002 History Of Modern Medicine Cr. 3.
- · HIST 35101 The United States in World War II Cr. 3.
- HIST 36001 Atlantic World, 1400-1900 Cr. 3
- HIST 37701 The History of American Sports Cr. 3.
- HIST 37801 American Constitutional History 3 cr.
- HIST 38201 The Sixties Cr. 3.
- HIST 41601 Slavery In Americas Cr. 3.
- HIST 44700 US-Latin American Relations Cr. 3.

## Western European History: Credits 6

HIST 23200 may not be used to fulfill this category.

- HIST 20500 Ancient Civilization Cr. 3.
- HIST 22500 Special Topics in History Cr. 1-3.
- HIST 23400 Witchcraft and Witch Hunts, c. 1400-1750 Cr. 3.
- HIST 24101 Nationalism in the Modern World Cr. 3. • HIST 31102 - Holocaust and Modern Genocides Cr. 3.
- HIST 31402 Europe From The New World To Napoleon Cr. 3.
- HIST 32503 Topics in History Cr. 3.
- HIST 32701 Modern France And The French Empire Cr. 3.
- HIST 34502 History of Espionage: Spies, Intelligence, and Intelligence Agencies in an International Context Cr. 3.
- HIST 35102 Western Europe in the Early Middle Ages Cr. 3.
- HIST 35202 Western Europe in the High And Later Middle Ages Cr. 3.
- HIST 35501 Europe: Louis XIV to French Revolution Cr. 3.
- HIST 36001 Atlantic World, 1400-1900 Cr. 3
- HIST 36102 Europe in the 20th Century I Cr. 3. HIST 37802 - Germany: 1871-Present Cr. 3.
- HIST 38601 Greek History Cr. 3.
- · HIST 38801 Roman History Cr. 3.
- HIST 39002 Decline & Fall Of Roman Empire Cr. 3.
- MARS 20100 Medieval Encounters Cr. 3

### World History: Credits 6

HIST 23200 may not be used to fulfill this category.

- · HIST 20500 Ancient Civilization Cr. 3.
- HIST 22500 Special Topics in History Cr. 1-3.
- HIST 22801 The Vietnam War Cr. 3.
- HIST 24101 Nationalism in the Modern World Cr. 3.
- HIST 30502 The Cold War Cr. 3.
- HIST 31002 Russian Revolutions and Soviet Regime Cr. 3.
- HIST 32701 Modern France And The French Empire Cr. 3.
- HIST 33101 African History from Ancient Times to Empires and City States Cr. 3.
- HIST 33201 African History from Colonial Rule to Independence Cr. 3.
- HIST 33503 Topics in Non-Western History Cr. 3.
- HIST 34101 Latin America: Conquest And Empire Cr. 3.
- HIST 34201 Latin America: Evolution and Revolution Cr. 3.
- HIST 34502 History of Espionage: Spies, Intelligence, and Intelligence Agencies in an International Context Cr. 3.
- HIST 34601 Modern Mexico Cr. 3.
- HIST 36001 Atlantic World, 1400-1900 Cr. 3
- HIST 39301 Ottoman History Cr. 3.
- HIST 40201 Byzantine History and Civilization II Cr. 3.
- HIST 41601 Slavery In Americas Cr. 3.

- HIST 42601 History of Balkans: 1914 to Present Cr. 3.
- HIST 43200 20th Century Latin American Revolutions Cr. 3.
- HIST 44700 US-Latin American Relations Cr. 3.

## Additional History Course: Credits 3

- · Choose one additional course in HIST, or MARS 20100.
- · HIST 23200 may be used to fulfill this requirement

#### General Elective Courses

· Sufficient additional credits to bring the total to 120.

# Honors in History

As an entering student, you could become eligible for the History Honors Program by scoring above 600 on the SAT I verbal test or the CEEB history achievement test; thereafter, you must have a GPA of 3.25 or higher or be recommended by a member of the department for admission. Admission to the degree program requires that you submit a written petition to the department no later than the end of your junior year.

In addition to fulfilling the B.A. requirements, completion of this honors program requires:

- a GPA of 3.3 or higher in history and a cumulative GPA of 3.25 or higher
- · 9 credits of Honors courses, including 6 credits in History
- · satisfactory completion and defense of an honors thesis

Total Credits: 120

# Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# **Hospitality Management (B.S.)**

Program: B.S.
Department of Hospitality and Tourism Management
College of Professional Studies
Neff Hall 330 ~ 260-481-6562

### **Student Learning Outcomes:**

#### **Business Management-Planning and Analysis**

- · Issue/problem to be considered critically is stated clearly and described comprehensively, delivering all relevant information necessary for full understanding.
- Information is taken from source(s) with enough interpretation/evaluation to develop a comprehensive analysis or synthesis.
- · Viewpoints of experts are questioned thoroughly
- Thoroughly (systematically and methodically) analyzes own and others' assumptions and carefully evaluates the relevance of contexts when presenting a position.
- Organizes and synthesizes evidence to reveal insightful patterns, differences, or similarities related to focus.
- · Uses quantitative analysis of data as the basis for deep and thoughtful judgements, drawing insightful, carefully qualified conclusions.

### **Business Management - Problem Solving**

· Demonstrates the ability to construct a clear and insightful problem statement with evidence of all relevant contextual factors.

#### **Business Management - Creative Thinking**

· Identifies multiple approaches for solving the problem that apply within a specific context.

#### Business Management, Integrity, Global Mindset, Innovation

· Proposes one or more solutions that are sensitive to contextual factors as well as ethical, logical, and cultural dimensions of the problem.

#### **Business Management**

· Implements the solution in a manner that addresses thoroughly and deeply multiple contextual factors of the problem.

#### **Human Interaction**

- · Reviews results relative to the problem defined with thorough, specific considerations of need for further work.
- · Completes all assigned tasks by deadline; work accomplished is thorough, comprehensive, and advances the project

#### **Human Interaction**

- · Reviews results relative to the problem defined with thorough, specific considerations of need for further work.
- · Completes all assigned tasks by deadline; work accomplished is thorough, comprehensive, and advances the project.
- · Proactively helps other team members complete their assigned tasks to a similar level of excellence.

#### **Human Interaction - Communication**

- · Issue/problem to be considered critically is stated clearly and described comprehensively, delivering all relevant information necessary for full understanding.
- Demonstrates a thorough understanding of context, audience, and purpose that is responsive to the assigned task(s) and focuses all elements of the work.
- Engages team members in ways that facilitate their contributions to meetings by both constructively building upon or synthesizing the contributions of others as well as noticing when someone is not participating and inviting them to engage.
- · Addresses destructive conflict directly and constructively, helping to manage/resolve it in a way that strengthens overall team cohesiveness and future effectiveness.

#### Personal Skills

- Demonstrates sophisticated understanding of the complexity of elements important to members of another culture in relation to its history, values, politics, communication styles, economy, or beliefs and practices
- Interprets intercultural experience from the perspectives of own and more than one worldview and demonstrates ability to act in a supportive manner that recognizes the feelings of another cultural group.
- Articulates a complex understanding of cultural differences in verbal and nonverbal communication (e.g., demonstrates understanding of the degree to which people use
  physical contact while communicating in different cultures or use direct/ indirect and explicit/ implicit meanings) and is able to skillfully negotiate a shared
  understanding based on those differences.
- · Initiates and develops interactions with culturally different others. Suspends judgment in valuing her/ his interactions with culturally different others
- · Extends a novel or unique idea, question, format, or product to create new knowledge or knowledge that crosses boundaries.

#### Integrity

· Student can independently apply ethical perspectives/concepts to an ethical question, accurately, and is able to consider full implications of the application.

### **Current Memberships:**

The Bachelor of Science in Hospitality and Tourism Management Program is currently a member of <u>The Hotel Schools of Distinction</u>, a global professional development network of universities.

#### **Program Delivery:**

The HTM program is offered primarily on-campus, with some courses delivered via hybrid and/or distance learning means. A semester in Florida is offered to meet the academic requirements of one of the program's concentration options.

#### **General Requirements:**

- Degree Requirements
- General Education Requirements
- · Overlapping Content
- Academic Regulations

# Program Requirements:

Hospitality Management 4-Yr. Plan:

- Students enrolled in the HTM department are required to consult their advisor to choose appropriate general education courses and help choose amongst the three concentrations proposed to students in their sophomore year within the program.
- The concentrations offered are:
  - Hotel & Resort Management
  - · Restaurant Management
  - · Tourism and Destination Management
- Students follow a prescribed progression in their second, third, and fourth year completing the course requirement corresponding to the concentration they have chosen. In addition, the third and fourth years of the program offer students opportunities to choose amongst HTM electives.
- To graduate, a student admitted to the HTM major must complete the required courses as listed below in the chronological order thus completing all HTM level 2 before starting HTM level 3 and hence forth completing all HTM level 3 before starting HTM level 4 courses while also respecting the co- and prerequisites.

# General Education Requirements: Credits 33

• General Education Requirements

#### **Note: Course Sequencing**

- HM1 (Gen. Ed. A1, A3, B4, B6, B7)
- HM2 (Gen. Ed. A2, B5, 2 additional Gen. Ed. courses)
- HM3 (1 additional Gen. Ed. course)
- HM4 (Gen. Ed. C8)

# Major Courses and Supporting Courses: Credits 51

- ECON 20000 Fundamentals of Economics Cr. 3.
- NUTR 20400 Food, History & Culture Cr. 3.
- NUTR 30300 Essentials of Nutrition Cr. 3.
- HTM 10000 Introduction to the Hospitality and Tourism Industry Cr. 1-3.
- HTM 14100 Financial Accounting for the Service Industries Cr. 3.

(Can substitute BUS A201 or BUS A200 for HTM 141)

- HTM 18100 Lodging Management Cr. 3.
- HTM 21400 Introduction to Food Selection and Preparation Cr. 3.
- HTM 23100 Hospitality and Tourism Marketing Cr. 3.
- HTM 24200 Managerial Accounting And Financial Management In Hospitality Operations Cr. 3.
- HTM 25200 Professional Development I
- HTM 30200 Hospitality and Tourism Industry Internship Cr. 1.
- HTM 31000 Food and Beverage Operation Management Cr. 4.
- HTM 31200 Human Resources Management for the Service Industries Cr. 3.

(Can substitute OLS 376 for HTM 312)

- HTM 35000 Professional Development II
- HTM 37100 Introduction to Tourism Cr. 3.
- HTM 41100 Hospitality and Tourism Law Cr. 3.
- HTM 43000 Hospitality Strategic Management Cr. 3.
- HTM 44100 Financial Management for the Hospitality Industry Cr. 3.
- HTM 45200 Professional Development Cr. 1.

#### **Note: Course Sequencing**

- · HM1 (HTM 10000, 14100, 18100, 21400, 37100)
- HM2 (HTM 23100, 24200, 25200, ECON 20000, and NUTR 20400, 30300)
- HM3 (HTM 30200, 31000, 31200, 35000)
- HM4 (HTM 41100, 43000, 44100, 45200)

# Concentrations and Courses:

Choose from one of the three following concentrations:

- 1) Hotel & Resort Management
- 2) Restaurant Management
- 3) Tourism and Destination Management

# Hotel and Resort Management: Credits 36

- CFS 39900 (Independent Hotel Management) Cr. 3.
- HTM 21500 Science Of Cooking Cr. 3.
- HTM 32400 Distribution Management Cr. 3.
- HTM 37400 Revenue Management Cr. 3.
- HTM 49100 Beverage Management Cr. 2.
- HTM 49400 Advanced Restaurant Management Cr. 4

- o CFS 39900 Cr. 3.
- ° CFS 39900 (Global Hospitality) Cr. 3.
- CFS 39900 (FLORIDA Semester) Cr. 3.
- NUTR 40300 Advanced Nutrition: Food from Farm to Fork Cr. 3.
- HTM 22400 Destination Management/Convention Management
- HTM 31500 Club Management and Operations Cr. 3.
- HTM 33600 Global Hospitality Growth Cr. 3.
- HTM 33800 Culinary Traditions Of Italy Cr. 3.
- HTM 37600 Sustainable Tourism Development Cr. 3.
- HTM 37700 Resort Property, Rental And Services Management Cr. 3.
- HTM 37800 Destination And Resort Marketing Cr. 3
- HTM 40800 Hospitality Management Environmental Issues, Opportunities And Challenges Cr. 3.
- HTM 42000 Event Management Cr. 3.

Students choosing the "Hotel & Resort Mangement" concentration will be required to enroll in at least three electives off campus in an approved HTM program. Currently the Purdue Fort Wayne Florida (HTM 37600, 37700 and 37800) satisfies this requirement. Other options may be approved on case by case basis by the Department Chair.

#### Note: Course Sequencing

- · HM2 HTM 21500
- HM3 (HTM 32400, 37400 and 3 HTM electives)
- HM4 (HTM 49100, 49400, CFS 39900, Independent Hotel Management and 3 HTM electives)

# Restaurant Management: Credits 36

- CFS 39900 Portfolio (online in Fall) Cr. 3.
- NUTR 40300 Advanced Nutrition: Food from Farm to Fork Cr. 3.
- HTM 21500 Science Of Cooking Cr. 3.
- HTM 33800 Culinary Traditions Of Italy Cr. 3.
- HTM 42000 Event Management Cr. 3.
- HTM 49100 Beverage Management Cr. 2.
- HTM 49400 Advanced Restaurant Management Cr. 4

#### Five additional Hospitality Management electives required:

- · CFS 39900 Cr. 3.
- $\circ~$  CFS 39900 (Global Hospitality) Cr. 3.
- · CFS 39900 (Independent Hotel Management) Cr. 3.
- CFS 39900 (FLORIDA Semester) Cr. 3.
   HTM 22400 Destination Management/Convention Management
- HTM 31500 Club Management and Operations Cr. 3.
- HTM 32400 Distribution Management Cr. 3.
- HTM 32500 Special Events Cr. 3.
  HTM 33400 Introduction To Sports Hospitality Management Cr. 3.
- HTM 37600 Introduction To Sports Hospitality Mana
   HTM 37600 Sustainable Tourism Development Cr. 3.
- HTM 37700 Resort Property, Rental And Services Management Cr. 3.
- HTM 37800 Destination And Resort Marketing Cr. 3

Students choosing the "Restaurant Management" concentration will be required to enroll in at least one elective off campus in an approved HTM program. Currently the "Culinary Traditions of Italy" (HTM 33800) satisfies this requirement. Other options may be approved on case by case basis by the Department Chair.

#### **Note: Course Sequencing**

- HM2 HTM 21500
- HM3 (HTM 33800, 42000, CFS 39900 Portfolio and 2 HTM electives)
- HM4 (HTM 49100, 49400, NUTR 40300 and 3 HTM electives)

# Tourism and Destination Management: Credits 36

- CFS 39900 Portfolio (online in Fall) Cr. 3.
- HTM 21500 Science Of Cooking Cr. 3.
- HTM 22400 Destination Management/Convention Management
- HTM 32400 Distribution Management Cr. 3.
- HTM 37400 Revenue Management Cr. 3.
- HTM 37600 Sustainable Tourism Development Cr. 3. (online in Fall)
- HTM 49100 Beverage Management Cr. 2.
- HTM 49400 Advanced Restaurant Management Cr. 4
- NUTR 40300 Advanced Nutrition: Food from Farm to Fork Cr. 3.

#### Three additional Hospitality Management electives required:

- · CFS 39900 Cr. 3.
- o CFS 39900 (Global Hospitality) Cr. 3.
- HTM 31500 Club Management and Operations Cr. 3.
   HTM 33800 Culinary Traditions Of Italy Cr. 3.
- HTM 40800 Hospitality Management Environmental Issues, Opportunities And Challenges Cr. 3.
- HTM 42000 Event Management Cr. 3.

#### Note: Course Sequencing

- · HM2: HTM 21500
- HM3: (HTM 22400, 32400, 37400, 37600 (online), CFS 39900 Portfolio)
- HM4: (HTM 49100, 49400, NUTR 40300 and 3 HTM electives)

### **GPA Requirements:**

A minimum cumulative GPA of 2.2 or higher is required in the 120 credits applying to the Hospitality Management major.

### Technical Standards:

The BS Hospitality Management program requires students to attend courses that have specific technical standards. In all cases reasonable accommodations will be made with appropriate documentation from the Services for Students with Disabilities Office.

### **Degree Time Limit:**

All HTM degree requirements must be completed within 8 years of first registration into the HTM program.

### Self-Acquired Competency:

Credit by Self-Acquired Competency is allowed.

### Public Disclosure:

- . The BS Hospitality Management degree program has developed extraordinary teaching and learning opportunities that require students to participate and work in the industry as part of courses.
- · We are required to consult the Zachary's List and must deny access to individuals on this list to participate in internships, practicums and volunteer activities that place students in structured and semi-structured settings with children (http://purdue.edu/hr/EmployeeRelations/zachary.html). We strongly recommend that students who register for the Hospitality Management degree program take the above into consideration as it may deny them the opportunity to complete the program and therefore to
- If you are in any doubt or have any further questions, please set up a meeting with either the Dean of Students or the Department Chair.

### Additional Course Use:

Courses listed below may also be considered in meeting specific degree requirements.

- · HTM 14100 required, BUS A20000 or BUS A20100 accepted
- HTM 31200 required, OLS 37600 accepted

Total Credits: 120

### Student Responsibility

Students are responsible for satisfying the graduation requirements specified for his/her selected program. Thus, it is essential to develop a thorough understanding of the required courses, academic policies, and procedures governing the student's academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

## **Human Services (B.S.)**

Program: B.S. Degree Department: Human Services College of Professional Studies

www.pfw.edu/human-services/

Neff Hall 130 ~ 260-481-6424

Students preparing for careers as a human services professional will be able to work effectively in diverse settings such as: correctional, intellectual disability, and community health centers as educators, case managers, and other areas. Students will also be able to work in family, child, and youth service agencies, and programs designed to assist those with alcoholism, drug abuse, family violence, and aging. A human services degree is a good fit for those who want to be in a position to help others.

The Bachelor of Science in Human Services is a degree that requires a total of 120 semester credit hours. Students will be engaged in 360 internship hours at agencies within the community. By the time students graduate, they have been able to network with numerous references and are able to build a strong resume.

#### **Student Learning Outcomes**

Students who complete the bachelor's degree curriculum will:

- 1. Apply concepts and principles from human services courses to work settings.
- 2. Implement practice theories and design treatment plans utilizing the appropriate theory.
- 3. Demonstrate competency, by analyzing human services helping skills.
- 4. Understand the structure and function of human services organizations.
- 5. Use a variety of computer programs necessary in human services organizations.
- 6. Demonstrate competency in two concentration areas.
- 7. Engage in a service learning project in the community.
- 8. Understand characteristics of people from a diverse range of backgrounds and varying demographics.
- 9. Understand methods, analyses, and interpretation for human services' research.
- 10. Think critically using a clinical lens when working with clients.
- 11. Analyze their own values, predicting how these values will affect their academic and professional experiences.
- 12. Apply professional ethics and standards in human service settings.
- 13. Involve themselves in professional organizations and activities and lifelong learning.

#### **Program Delivery**

The program in human services is available on campus. There are a few courses offered online and as hybrid for students.

#### **Declaring Human Services**

To gain entry into this program, students must meet all of the requirements for admission to Purdue University Fort Wayne, the Department of Human Services, and comply with requirements for internship placements. Students should contact the Department of Human Services at 260-481-6424 for more information and to be assigned an advisor.

#### **Human Services Admission Requirements**

### Students are admitted to this degree program as follows:

Students new to Purdue Fort Wayne must complete an application for undergraduate admission and meet the criteria for admission to the University. In addition, students
must complete a two-step TB test, a criminal background check, and a drug test. Students who have previously taken courses at Purdue Fort Wayne should apply for reentry to the University if they have not been actively enrolled at Purdue Fort Wayne for one year or greater. Contact the Office of Admissions at 260-481-6812. Students
will be a pre-human service student until their second year in the program. Students must have a 2.8 in pre-requisite courses. Pre-requisite courses include: COM 11400,
ENGL 13100, HSRV 10000, HSRV 10300, HSRV 10500, PSY 12000, and SOC 16101.

- Students who have completed the requirements for the Associate of Science in Human Services at Ivy Tech Community College or another Human Services program from another accredited institution are enrolled in the program with junior status.
- The Bachelor's degree requires four semesters of Internship (360 hours) at an approved agency in northeastern Indiana.

Students must comply with agency requirements for internship placements. An in-person interview at the agency is required. The agencies require a resume and proof of a 2-step TB test, background check, and a 10-panel drug screen.

Anyone with a record of a sex crime against a child may not be placed into a clinical in which there is an actual or potential possibility that they will come into contact with children (IC5-2-12-12). Students who cannot be placed in clinicals with reasonable effort as a result of their criminal histories and subsequently cannot complete the program requirements will be unable to graduate from the program.

### General Requirements

- · Degree Requirements
- General Education Requirements
- Overlapping Course Content
- Academic Regulations

## **Program Requirements:**

Human Services 4-Yr. Plan:

### General Education Requirements Credits: 33

General Education Requirements

### Category A: Foundational Intellectual Skills (All courses require a C- or higher)

### 1. Written Communication Credits: 3

(at least 3 credits and all outcomes in approved courses with a grade of C- or better)

• ENGL 13100 - Reading, Writing, and Inquiry I Cr. 3.

### 2. Speaking and Listening Credits: 3

(at least 3 credits and all outcomes in approved courses with a grade of C- or better)

• COM 11400 - Fundamentals Of Speech Communication Cr. 3.

#### 3. Quantitative Reasoning Credits: 3

(at lease 3 credits and all outcomes in approved courses with a grade of C- or better)

• STAT 12500 - Communicating with Statistics Cr. 3.

### Category B: Interdisciplinary or Creative Ways of Knowing (All courses require a C- or higher)

### B4. Scientific Ways of Knowing Credits: 6

Select courses from the Purdue Fort Wayne General Education Courses that meets all learning outcomes. (at least 6 credits and all outcomes in approved courses with a grade of C- or better)

### B5. Social and Behavioral Ways of Knowing Credits: 6

(at least 3 credits and all outcomes in approved courses with a grade of C- or better)

- PSY 12000 Elementary Psychology Cr. 3.
- SOC 16101 Principles of Sociology Cr. 3.

### B6. Humanistic and Artistic Ways of Knowing Credits: 6

Select a course from the Purdue Fort Wayne General Education Courses that meets all learning outcomes. (at least 6 credits altogether in approved courses with a grade of C- or better)

#### Select one course:

- PHIL 11000 The Big Questions: Introduction to Philosophy Cr. 3. or
- PHIL 11100 Introduction To Ethics Cr. 3.

#### B7. Interdisciplinary or Creative Ways of Knowing Credits: 3

Select a course from the Purdue Fort Wayne General Education Courses that meets all learning outcomes. (at least 3 credits and all outcomes in approved courses with a grade of C- or better)

### C8. Capstone Experience

### Category C. Capstone Credits: 3

Select a course from the Purdue Fort Wayne General Education Courses that meets all learning outcomes. (at least 3 credits and all outcomes in an approved course with a grade of C- or better)

#### **Human Services Core Credits: 51**

Must complete the following courses with a grade of C- or better.

- HSRV 10000 Introduction to Human Services Cr. 3.
- HSRV 10300 Helping Relationship Techniques Cr. 3.
- HSRV 10500 Basic Interviewing Skills Cr. 3.
- HSRV 16900 Introduction to Wellness and Stress Management Cr. 3.
- HSRV 20000 Behavioral Therapies Cr. 3.
- HSRV 20100 Clinical in Case Study Method I Cr. 2.

(Fall Only)

- HSRV 21100 The Dynamics of Group Behavior Cr. 3.
- HSRV 25100 Clinical in Case Study Method II Cr. 3.

### (Spring only)

- HSRV 31500 Introduction to Theories and Therapies Cr. 3.
- HSRV 32000 Case Methods Cr. 3.
- HSRV 32400 Non-Profit Management Cr. 3.
- HSRV 33000 Psychopharmacology for Human Services Cr. 1.
- HSRV 37700 Ethics, Policy, Law and Professional Issues in Human Services Cr. 3.
- HSRV 39900 Special Topics Cr. 1-3. \*

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*HSRV 39900 - Trauma And Grief Cr. 3.

HSRV 40000 - Internship I Cr. 1-4.

(Fall only)

HSRV 40100 - Internship Seminar I Cr. 1.

(Fall only)

HSRV 41700 - Research Methods Cr. 3.

HSRV 41900 - Advanced Intervention Strategies Cr. 3.

HSRV 45000 - Internship II Cr. 2-4.

(Spring only)

HSRV 45100 - Internship Seminar II Cr. 1.

(Spring only)
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Please see HSRV Student Manual for pre-requisites and co-requisites.

### Required Supporting Courses Credits: 12 (All courses require a C- or higher)

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• ENGL 23301 - Intermediate Expository Writing Cr. 3.
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• PSY 35000 - Abnormal Psychology Cr. 3.

### Required Credits: 3

• COM 30300 - Intercultural Communication Cr. 3.

### Choose one from the following Credits: 3

- PSY 23500 Child Psychology Cr. 3.
- PSY 24000 Introduction to Social Psychology Cr. 3.
- PSY 36900 Development Across the Lifespan Cr. 3.

(Either PSY 23500 of PSY 36900 may be taken for credit, NOT BOTH)

Must complete with a grade of C- or better.

### **Human Service Concentration Credits: 24**

All Concentration Area courses must be approved by the students' advisor <u>prior</u> to registration. Students must choose <u>two</u> concentration areas. Students are required to complete 12 credits for each concentration. Not all courses are taught every semester. Courses cannot be used to fulfill both a required or general education area course and also a Concentration Area course. All courses require a C- or higher. It is the responsibility of the student to check for course prerequisites prior to meeting with the advisor. \*Please note that credit will not be given for both PSY 23500 and PSY 36900.

### Concentrations

Choose two Concentration Areas. All courses require a C- or higher.

#### Administration

- BUS 10001 Principles Of Business Administration Cr. 3.
- BUS 20000 Foundations Of Accounting Cr. 3.
- BUS 20002 Computer Literacy Concepts For Business Cr. 0-1.
- BUS 20100 Principles Of Financial Accounting Cr. 3.
- BUS 20102 Marketing For The Small Business Cr. 3.
- BUS 20200 Principles Of Managerial Accounting Cr. 3.

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• BUS 30200 - Management And Behavior In Organizations Cr. 3
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- COM 10100 Introduction To Communication Cr. 3.
- · COM 20000 Reporting, Writing And Editing I Cr. 3. COM 25000 - Mass Communication And Society Cr. 3.
- COM 25300 Introduction To Public Relations Cr. 3.
- COM 30300 Intercultural Communication Cr. 3.
- · COM 31400 Advanced Presentational Speaking Cr. 3.
- COM 31800 Principles Of Persuasion Cr. 3.
- COM 32300 Business And Professional Speaking Cr. 3.
- COM 32400 Introduction To Organizational Communication Cr. 3.
- COM 32500 Interviewing: Principles And Practice Cr. 3.
- COM 32700 International Communications Cr. 3.
- COM 41000 Gender Roles and Communication Cr. 3.
- COM 47100 Communicating Peace Cr. 3.
- ENGL 23202 Introduction to Business Writing Cr. 3.
- ENGL 33101 Business and Administrative Writing Cr. 3.
- OLS 25200 Human Relations in Organizations Cr. 3.
- OLS 27400 Applied Leadership Cr. 3.
- OLS 37500 Training Methods Cr. 3.
- OLS 37600 Human Resources Issues Cr. 3.
- OLS 45400 Gender and Diversity in Management Cr. 3.
   PPOL 17000 Introduction to Public Affairs Cr. 3.
- PPOL 26300 Public Management Cr. 3.

### Disabilities and Special Needs

- · COM 10100 Introduction To Communication Cr. 3.
- COM 31000 Family Communication Cr. 3.
- COM 31300 Introduction To Health Communication Cr. 3.
- CSD 11500 Introduction to Communicative Disorders Cr. 3.
- CSD 18100 First Course in American Sign Language Cr. 3.
- CSD 18200 Second Course in American Sign Language Cr. 3.
- CSD 30200 Acoustic Bases of Speech and Hearing Cr. 3.
- CSD 30600 Introduction to Phonetics Cr. 3.
- CSD 30900 Language Development Cr. 3.
- CSD 32100 Introduction to Phonological Disorders in Children Cr. 3.
- EDU 30500 Teaching The Exceptional Learner In The Elementary School Cr. 3.
- EDU 30600 Teaching Students With Special Needs In Secondary Classrooms Cr. 3.
- EDU 37001 Introduction To Learning Disabilities Cr. 3.
- MUSC 15300 Introduction to Music Therapy Cr. 3.
- · NUTR 30200 Nutrition Education Cr. 3.
- NUTR 30300 Essentials of Nutrition Cr. 3.
- PPOL 41100 Chronic and Long-Term Care Administration Cr. 3.
- PSY 35300 Social and Personality Development in Children Cr. 3.
- PSY 36200 Human Development II: Adolescence Cr. 3.
- PSY 36900 Development Across the Lifespan Cr. 3.
- SOC 31601 The Family Cr. 3.

#### Choose one of the following:

- PSY 23500 Child Psychology Cr. 3. or
- PSY 33500 Stereotyping and Prejudice Cr. 3.

#### Diversity

- ANTH 10501 Culture And Society Cr. 3.
- ANTH 20000 Topics In Anthropology Of Culture And Society Cr. 3
- ANTH 20002 Language And Culture Cr. 3.
- ANTH 31001 Introduction To The Cultures Of Africa Cr. 3.
- ANTH 40200 Gender In Cross-Cultural Perspective Cr. 3.
- COM 30300 Intercultural Communication Cr. 3.
- CSD 18100 First Course in American Sign Language Cr. 3.
- CSD 18200 Second Course in American Sign Language Cr. 3.
- ILCS 35000 International Communication Cr. 3.
- INTL 20000 Introduction to International Studies: Emerging Global Visions Cr. 3.
- · PACS 20000 Introduction to Peace and Conflict Studies Cr. 3. · PHIL 20600 - Introduction To Philosophy Of Religion Cr. 3.
- POL 10900 Introduction to International Relations Cr. 3.
- POL 20001 Contemporary Political Topics Cr. 1-6,
- POL 39700 Intervention, Peace, and War Cr. 3.
- · PSY 33400 Cross Cultural Psychology Cr. 3.
- PSY 33500 Stereotyping and Prejudice Cr. 3.
- REL 11200 Religion and Culture Cr. 3. • REL 23000 - Religions of the East Cr. 3.
- REL 23100 Religions of the West Cr. 3.
- REL 32100 Religion and the Civil Rights Movement Cr. 3
- SOC 30000 Race and Ethnic Relations Cr. 3.
- SOC 31300 Religion and Society Cr. 3.

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• SOC 31601 - The Family Cr. 3.
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- SOC 31701 Social Stratification Cr. 3.
- · SOC 32001 Deviant Behavior and Social Control Cr. 3.
- SOC 33300 Collective Behavior and Social Movements Cr. 3.
- WOST 30100 International Perspectives on Women Cr. 3.

#### Family

- ANTH 40200 Gender In Cross-Cultural Perspective Cr. 3.
- BIOL 32700 Biology Of Aging Cr. 3.
- CDFS 25500 Introduction To Couple And Family Relationships Cr. 3.
- · CFS 39900 Special Topics In CFS Cr. 1-4.
- COM 31000 Family Communication Cr. 3.
- COM 31300 Introduction To Health Communication Cr. 3.
- COM 31800 Principles Of Persuasion Cr. 3.
- COM 32000 Small Group Communication Cr. 3.
- COM 37200 Communication In Relationships Cr. 3.
- COM 37500 Conflict And Negotiation Cr. 3.
- COM 41000 Gender Roles and Communication Cr. 3.
- CSD 11500 Introduction to Communicative Disorders Cr. 3.
- EDU 34600 Discipline/Parenting For Young Children Cr. 3.
- NUTR 30200 Nutrition Education Cr. 3.
- NUTR 30300 Essentials of Nutrition Cr. 3.
- · GERN 23100 Introduction to Gerontology Cr. 3.
- GERN 49900 Topics in Gerontology Cr. 1-6.
- · HSRV 35000 Drugs and Society Cr. 3.
- HSRV 42000 Substance Abuse Prevention Cr. 3.
- PHIL 31200 Medical Ethics Cr. 3.
- PPOL 30500 Juvenile Justice Cr. 3.
- PPOL 40200 Hospital Administration Cr. 3.
- PPOL 41100 Chronic and Long-Term Care Administration Cr. 3.
- PSY 33500 Stereotyping and Prejudice Cr. 3.
- PSY 34500 Psychology of Women Cr. 3.
- PSY 35300 Social and Personality Development in Children Cr. 3.
- PSY 36700 Adult Development and Aging Cr. 3.
- PSY 37100 Death and Dying Cr. 3.
- PSY 44400 Human Sexual Behavior Cr. 3.
- SOC 16300 Social Problems Cr. 3.
- SOC 22100 Topics in Deviance Cr. 3.
- SOC 30000 Race and Ethnic Relations Cr. 3.
- SOC 31201 Education and Society Cr. 3.
- SOC 31601 The Family Cr. 3.
- SOC 32001 Deviant Behavior and Social Control Cr. 3.
- WOST 21000 Introduction To Women's And Gender Studies Cr. 3.
- WOST 22500 Gender, Sexuality, and Popular Culture Cr. 3. WOST 30100 - International Perspectives on Women Cr. 3.
- WOST 30200 Topics in Gender Studies Cr. 3.
- WOST 40000 Topics in Women's Studies Cr. 3.

#### Choose one of the following:

- PSY 23500 Child Psychology Cr. 3. or
- PSY 36900 Development Across the Lifespan Cr. 3.

#### Health

- · ANTH 44500 Seminar In Medical Anthropology Cr. 3.
- BIOL 10500 Medical Terminology Cr. 1.
- BIOL 11900 Principles Of Structure And Function Cr. 4.
- · BIOL 12600 Human Biology Cr. 3.
- BIOL 20300 Human Anatomy And Physiology Cr. 4.
- BIOL 20400 Human Anatomy And Physiology Cr. 4.
   BIOL 22000 Microbiology For Allied Health Professionals Cr. 4.
- BIOL 40600 Human Anatomy Cr. 4.
- COM 31000 Family Communication Cr. 3.
- COM 31300 Introduction To Health Communication Cr. 3.
- NUTR 30200 Nutrition Education Cr. 3.
- NUTR 30300 Essentials of Nutrition Cr. 3.
- PHIL 31200 Medical Ethics Cr. 3.
- PPOL 12000 Contemporary Health Issues Cr. 1-3.
- PPOL 32000 Health Systems Administration Cr. 3.
- PPOL 37100 Human Resource Management in Healthcare Facilities Cr. 3.
- PPOL 40200 Hospital Administration Cr. 3.

<sup>\*</sup>Any foreign language course

<sup>\*</sup>Any sign language course

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• PPOL 41100 - Chronic and Long-Term Care Administration Cr. 3.
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- PPOL 42200 The Social Epidemics: AIDS, Violence, and Substance Abuse Cr. 3.
- SOC 31401 Social Aspects of Health and Medicine Cr. 3.
- SOC 32001 Deviant Behavior and Social Control Cr. 3.
- PSY 25100 Health Psychology Cr. 3.

Choose one of the following:

- PSY 23500 Child Psychology Cr. 3. or
- PSY 36900 Development Across the Lifespan Cr. 3.

#### **Human Behavior**

- PSY 31100 Human Memory Cr. 3.
- PSY 31400 Introduction to Learning Cr. 3.
- PSY 31700 Addictions: Biology, Psychology and Society Cr. 3.
- PSY 32900 Psychobiology II: Principles of Psychobiological Psychology Cr. 3.
- PSY 33400 Cross Cultural Psychology Cr. 3.
- PSY 33500 Stereotyping and Prejudice Cr. 3.
- PSY 34500 Psychology of Women Cr. 3.
- PSY 35300 Social and Personality Development in Children Cr. 3.
- PSY 36200 Human Development II: Adolescence Cr. 3.
- PSY 36500 Development of Gender Roles in Children Cr. 3.
- PSY 36700 Adult Development and Aging Cr. 3.
- PSY 37100 Death and Dying Cr. 3.
- PSY 41600 Cognitive Psychology Cr. 3.
- PSY 42000 Introduction to Personality Theory Cr. 3.
- PSY 42600 Language Development Cr. 3.
- PSY 46000 Advanced Abnormal Psychology Cr. 3.

Chose one of the following:

- PSY 23500 Child Psychology Cr. 3. or
- PSY 36900 Development Across the Lifespan Cr. 3.

### Justice System

- COM 21000 Debating Public Issues Cr. 3.
- COM 31000 Family Communication Cr. 3.
- COM 31800 Principles Of Persuasion Cr. 3.
- COM 32000 Small Group Communication Cr. 3.
- HSRV 35000 Drugs and Society Cr. 3.
- HSRV 42000 Substance Abuse Prevention Cr. 3.
- · OLS 26800 Elements of Law Cr. 3.
- $\bullet~$  PHIL 12000 - Critical Thinking Cr. 3.
- PHIL 15000 Principles of Logic Cr. 3.
- POL 15001 Foundations of Community Advocacy Cr. 1-3.
- PPOL 10100 The American Criminal Justice System Cr. 3.
- PPOL 17000 Introduction to Public Affairs Cr. 3.
- PPOL 30500 Juvenile Justice Cr. 3.
- PPOL 30600 The Criminal Courts Cr. 3.
- PPOL 32201 Introduction to Criminalistics Cr. 3.
- PPOL 33100 Corrections Cr. 3.
- PSY 33500 Stereotyping and Prejudice Cr. 3.
- SOC 31701 Social Stratification Cr. 3.
- SOC 32001 Deviant Behavior and Social Control Cr. 3.
- SOC 32501 Criminology Cr. 3.

### Pre-Occupational Therapy

\*\*Disclaimer: The Department of Human Services assumes no responsibility for any errors or omissions in the content of this concentration. This information for required prerequisites was found through Huntington's and IUPUI's website and is based on their Doctor of Occupational Therapy requirements. Please notice that the information below is divided into courses for both institutions and then information is specific to each institution:

Courses that are pre-requisites for both Huntington University and IUPUI are:

- BIOL 10000 Introduction To The Biological World Cr. 3.
- BIOL 10500 Medical Terminology Cr. 1.
- BIOL 20300 Human Anatomy And Physiology Cr. 4.
- BIOL 20400 Human Anatomy And Physiology Cr. 4.
- PSY 12000 Elementary Psychology Cr. 3.
- PSY 35000 Abnormal Psychology Cr. 3.

Must take one of the following:

- PPOL 30000 Statistical Techniques Cr. 3. or
- STAT 30100 Elementary Statistical Methods I Cr. 3.

Specific Information and Courses for Huntington University -

Minimum GPA of 3.0 and a B- or better in all pre-requisite courses:

• HSRV 41700 - Research Methods Cr. 3.

Specific Information and Courses for IUPUI

Minimum GPA of 3.2 and a B or better in all pre-requisite courses:

- CHM 11100 General Chemistry Cr. 3.
- PHYS 21800 General Physics Cr. 4.
- PHYS 21900 General Physics II Cr. 4.
- PSY 36900 Development Across the Lifespan Cr. 3.
- SOC 16101 Principles of Sociology Cr. 3.

### Pre-Physical Therapy

Pre-Physical Therapy - \*\* Disclaimer: The Department of Human Services assumes no responsibility for any errors or omissions in the content of this concentration. This information for required prerequisites was found through Trine's and IUPUI's websites and is based on their Doctor of Physical Therapy requirements. Please notice that the information below is divided into courses for both institutions and then information specific to each institution.

Courses that are pre-requisites for both Trine University and IUPUI:

- BIOL 20300 Human Anatomy And Physiology Cr. 4.
- BIOL 20400 Human Anatomy And Physiology Cr. 4.
- CHM 11100 General Chemistry Cr. 3.
- CHM 11200 General Chemistry Cr. 3.
- PHYS 21800 General Physics Cr. 4.
- PHYS 21900 General Physics II Cr. 4.
- PSY 12000 Elementary Psychology Cr. 3.

Must Take One of The Following courses:

- PPOL 30000 Statistical Techniques Cr. 3.
- STAT 30100 Elementary Statistical Methods I Cr. 3.

Specific Information on Courses for Trine University: A minimum undergraduate GPA of 3.0 and no grade lower than a B for pre-requisite courses:

- BIOL 10000 Introduction To The Biological World Cr. 3.
- BIOL 11700 Principles Of Ecology And Evolution Cr. 4.

Specific Information on courses for IUPUI. A minimum undergraduate GPA of 3.2 and a grade of B or better in all pre-requisite courses:

- BIOL 10500 Medical Terminology Cr. 1.
- PSY 36900 Development Across the Lifespan Cr. 3.

#### Substance Abuse

- ANTH 40200 Gender In Cross-Cultural Perspective Cr. 3.
- BIOL 31700 Addictions: Biology, Psychology, And Society Cr. 3.
- COM 31000 Family Communication Cr. 3.
- COM 31300 Introduction To Health Communication Cr. 3.
- COM 32000 Small Group Communication Cr. 3.
- COM 37200 Communication In Relationships Cr. 3.
- COM 41000 Gender Roles and Communication Cr. 3.
- EDU 34600 Discipline/Parenting For Young Children Cr. 3.
- HSRV 35000 Drugs and Society Cr. 3.
- HSRV 42000 Substance Abuse Prevention Cr. 3.
- PPOL 10100 The American Criminal Justice System Cr. 3.
- PPOL 30500 Juvenile Justice Cr. 3.
- PPOL 32001 Criminal Investigation Cr. 3.
- PSY 31700 Addictions: Biology, Psychology and Society Cr. 3.
- PSY 34500 Psychology of Women Cr. 3.
- PSY 36900 Development Across the Lifespan Cr. 3.
- PSY 44400 Human Sexual Behavior Cr. 3.
- SOC 31601 The Family Cr. 3.
- SOC 32001 Deviant Behavior and Social Control Cr. 3.
- SOC 32501 Criminology Cr. 3.
- SOC 36000 Topics in Social Policy Cr. 3.

### Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

Total Credits: 120

# **Industrial Engineering Technology (B.S.)**

Program: B.S. School of Polytechnic College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 221 ~ 260-481-6338

Industrial Engineering Technology is part of the School of Polytechnic. Industrial Engineering Technology (IET) prepares students for existing and emerging careers in improving the bottom-line of manufacturing and service industrial engineers solve the problems of industry by improving quality, productivity, and utilizing resources efficiently. The need for industrial engineers is growing, as companies adopt industrial engineering principles such as, six sigma and lean manufacturing, to survive in the competitive world.

#### IET B.S. Program Objectives

- 1. To prepare graduates with knowledge, technical, analytical, and managerial skills necessary to develop, implement, and improve integrated systems in manufacturing and service industries that include people, materials, equipment, information, and energy.
- 2. To develop a respect for diversity and a knowledge of contemporary professional, societal, and global issues with an understanding of professional and ethical responsibilities
- 3. To prepare graduates for careers in higher levels of system design, integration, and management.

#### Student outcomes for the degree are as follows:

- an ability to apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve broadly-defined engineering problems
  appropriate to the discipline.
- · an ability to design systems, components, or processes meeting specified needs for broadly-defined engineering problems appropriate to the discipline.
- an ability to apply written, oral, and graphical communication in broadly-defined technical and non-technical environments; and an ability to identify and use
  appropriate technical literature.
- an ability to conduct standard tests, measurements, and experiments and to analyze and interpret the results to improve processes.
- · an ability to function effectively as a member as well as a leader on technical teams.

#### Accreditation

The Industrial Engineering Technology degree is accredited by the Engineering Technology Accreditation Commission of ABET, http://www.abet.org.

#### Program Delivery

POLYTECHNIC programs emphasize practice-based learning via hands-on laboratory applications using state-of-the-art equipment. Some courses are available through online, distance, and hybrid learning, however many incorporate an on-campus laboratory element.

#### **Declaring This Major**

Students interested in declaring Industrial Engineering Technology as their major may do so in one of two ways:

- 1. On their application when they first apply to the university.
- 2. After meeting with a faculty advisor, a change of major can be declared.

### **General Requirements:**

- 1. Degree Requirements
- 2. General Education Requirements
- 3. Overlapping Content
- 4. Academic Regulations

### **Program Requirements:**

Industrial Engineering Technology B.S. 4-Yr. Plan:

- Students must complete all courses earning grades of C- or better.
- · Student Responsibilities: You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair.
- Transfer credit limits, see Academic Regulations above.
- · General Education and Major courses as listed below.

### Required Core and Concentration (Major) Courses: 33 Cr.

- ET 19000 Statics Cr. 3.
- IET 35000 Engineering Economy Cr. 3.
- IET 36200 Technological Optimization Cr. 3.
- IET 45400 Statistical Process Control Cr. 3.
- IET 47800 Lean Manufacturing and Design Cr. 3.
- IET 48000 Cost Estimating and Design Cr. 3.
- MET 44000 Advanced CNC Machining Cr. 3. or
- MET 34700 Programming of Automation Systems Cr. 3.
  - · Technical Electives Cr. 12 (Consult with Academic Advisor see Suggested Technical Electives below)

### Additional Required Technical Courses: 21 Cr.

- CHM 11100 General Chemistry Cr. 3.
- ECET 11400 Introduction to Visual Basic Cr. 3. or
- ECET 26400 C Programming Language Applications Cr. 3.
- ECET 21100 Electrical Machines and Controls Cr. 3.
- ECET 36100 Introduction to PLC and Pneumatic Systems Cr. 4.
- MA 22700 Calculus for Technology I Cr. 4.
- PHYS 21900 General Physics II Cr. 4.

### Additional Required Support Courses: 6 Cr.

- ENGL 23401 Technical Report Writing Cr. 3.
- ENGL 42101 Technical Writing Projects Cr. 1-3.

### Suggested Technical Electives (Choose 12 Cr. or Consult Advisor)

- CPET 18100 Computer Operating Systems Basics Cr. 3.
- CPET 19000 Problem Solving with MATLAB Cr. 1-4.
- · CS 20300 Advanced Visual Programming Cr. 3.
- CS 22700 Introduction To C Programming Cr. 2.
- CS 26000 Data Structures Cr. 3.
- ET 20000 Strength of Materials Cr. 3.
- ET 23000 Introduction To Polymers Cr. 3.
- ET 24000 Steelmaking, Forming And Heat Treating Cr. 3.
- ET 31000 Failure Analysis Cr. 3.
- ET 32000 Biomedical Materials Cr. 3.
- ET 34000 Corrosion Control Cr. 3.
- IET 30400 Advanced Metrology Cr. 3.
- IET 40100 Manufacturing Process Planning Cr. 3.
- MET 24700 Computer-Aided Tool and Fixture Design Cr. 3.
- MET 30000 Applied Thermodynamics Cr. 3.
- MET 33000 Introduction to Fluid Power Cr. 3.

- MET 34700 Programming of Automation Systems Cr. 3.
- MET 35000 Applied Fluid Mechanics Cr. 3.
- MET 37000 Introduction to Heat Transfer Cr. 3.
- MET 38100 Engineering Materials Cr. 3.
- MET 48700 Instrumentation and Automatic Control Cr. 3.
- OLS 26800 Elements of Law Cr. 3.
- OLS 27400 Applied Leadership Cr. 3.
- OLS 37500 Training Methods Cr. 3.

Total Credits: 120 (including 60 Cr. from A.S. Degree)

### Additional Course Use

- · MA 22700 required, MA 16500 accepted
- · PHYS 21900 required, PHYS 25100 accented
- · CHM 11100 required, CHM 11500 accepted
- · ET 19000 required, ME 25000 accepted
- ECET 26400 required, ECET 11400 accepted

### Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# **Information Systems (B.S.)**

Program: B.S.
Department of Computer Science
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 125 ~ 260-481-6803

The Bachelor of Science in Information Systems emphasizes the design, development, and use of Information Systems for the management of information in the modern corporate and organizational environment. Additional focus is on the business knowledge courses as well as the use of technology, such as SAP, in business management software, solutions, and applications for business process. The Bachelor of Science in Information Systems prepares you for a career as a computer professional as well as for possible graduate study.

The Department of Computer Science offers the Bachelor of Science in Information Systems, an Associate of Science in Information Systems, a Bachelor of Science and a Bachelor of Arts in Computer Science. In addition to the degrees, the department offers a minor in Information Systems, a minor in Informatics, and a Certificate of Information Systems.

#### **Student Learning Outcomes**

- · Analyze a complex computing problem and apply principles of computing and other relevant disciplines to identify solutions
- Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline
- · Communicate effectively in a variety of professional contexts
- · Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles
- Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline
- · Support the delivery, use, and management of information systems within an information systems environment.

### **Program Delivery**

· On-campus and Distance

#### **Declaring This Major:**

· Procedure to declare major

#### **General Requirements:**

• Degree Requirements

- · General Education Requirements
- · Overlapping Content
- Academic Regulations

### **Program Requirements:**

Information Systems B.S. 4-Yr. Plan:

### B.S. Requirements: Credits 60

The first 60 credit hours of the Information Systems B.S. are identical to the Information Systems A.S. requirements. Please see the Information Systems A.S. program for the following requirements: General Education Areas A & B, Core requirements, Supporting courses and 5 credits of approved electives.

### General Education Category C Capstone: Credits 3

At least 3 credits and all outcomes in an approved course. CS 30600 (recommended).

### Advanced Core Requirements: Credits 21

- IST 34000 Business Process Management Cr. 3.
- IST 35000 IT Infrastructure Cr. 3.
- IST 37000 Systems Analysis And Design Cr. 3.
- IST 43000 IT Security And Risk Management Cr. 3.
- IST 44000 Introduction To Human-Computer Interaction Cr. 3.
- IST 46600 Information Systems& Technology Strategy, Management & Acquisition Cr. 3.
- IST 46700 Information Systems Project Management Cr. 3.

### Advanced Supporting Courses: Credits 18

- MA 22900 Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.
- IST 30100 Quantitative Methods For Decision Making Cr. 3.

### One of the following: Credits 3

- STAT 30100 Elementary Statistical Methods I Cr. 3.
- STAT 51100 Statistical Methods Cr. 3.
- ECON 27000 Introduction to Statistical Theory in Economics and Business I Cr. 3.

### One of the following approved Business or Economics: Credits 3

- BUS 20200 Principles Of Managerial Accounting Cr. 3.
- ECON 20201 Introduction to Macroeconomics Cr. 3.

### Two of the following approved Advanced Business Elective: Credits 6

- BUS 30100 Financial Management Cr. 3.
- BUS 30101 Introduction To Marketing Cr. 3.
- BUS 30102 Operations Management Cr. 3.

- BUS 30200 Management And Behavior In Organizations Cr. 3
- BUS 30000 International Business Administration Cr. 3.

### Areas of Depth: Credits 15

- To satisfy the Area of Depth requirement, the student must select one of the following options.
  - · Computer Science Minor
  - Business Studies Minor
  - Organizational Leadership Minor
  - Computer Networking Certificate
  - · Networking Administration concentration
  - · Database Analyst/Administration concentration

Note: If a minor is selected, minor courses may overlap with other required courses. Students must take additional electives to reach 120 credit hours. Courses in the OL minor may not be offered online.

### **Networking Administration**

- CPET 18100 Computer Operating Systems Basics Cr. 3.
- CPET 28100 Networks Management Cr. 3.
- CPET 36400 Networking Security Cr. 3.
- CS 44500 Computer Security Cr. 3.
- IST 45000 IT Audit And Controls Cr. 3.

### Database Analyst/Administration

- CS 16100 Introduction To Computer Science II Cr. 4.
- CS 26000 Data Structures Cr. 3.
- CS 36400 Introduction To Database Systems Cr. 3.
- CS 36500 Advanced Database Systems Cr. 3.
- CS 49200 Topics In Computer Science Cr. 3.

### Area of Depth Approved Elective: Credits 3

• IST 45000 or IST 49200 (recommended)

### **GPA Requirement**

· You must satisfy the Purdue Fort Wayne and the College of Engineering, Technology, and Computer Science Cumulative GPA requirement for graduation.

### Academic Regulations

- Only computer science courses in which you have earned a grade of C or better can be applied to the degree or used to satisfy prerequisites.
- Only courses with a grade of C- or better count to satisfy the Purdue Fort Wayne general education requirements.
- A maximum of 10 credits with a grade of D will be accepted in non-CS courses.
- No credit toward graduation will be given for courses or sequences with overlapping content or for developmental courses.

Total Credits Required: 120

### Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

### Additional Course Use:

- · IST 14000 required, CS 11400, ECET 11400, ITC 13000 accepted
- IST 16000 required, ITC 11000, BUS 32100 accepted
- IST 20300 required, CS 20300 accepted
- · IST 26500 required, IST 36000 accepted
- · IST 27000 required, ITC 35000 accepted
- IST 37000 required, IST 38000, ITC 38000 accepted
- IST 44000 required, CS 36800, ITC 37000 Accepted
- · IST 46700 required, CS 46700 accepted
- MA 15300 or 15900 required, MA 15400, 16500, 16600, 22700 accepted
- MA 22900 required, MA 16500, 22700 accepted

# **Information Technology (B.S.)**

Program: B.S. School of Polytechnic College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 205 ~ 260-481-4127

Information Technology is part of the School of Polytechnic. Information Technology (IT) prepares you for existing and emerging careers in the application of information technology in a variety of industries, including business, manufacturing, law enforcement and healthcare. IT prepares you to optimize computer application performance, manage information systems, implement system security, interact with databases, and network computers. Through active involvement, students acquire strong technical skills, a thorough understanding of business needs, and the ability to communicate effectively with customers, peers, and industry leaders.

#### **Program Educational Objectives:**

The B.S. degree in Information Technology, within 1-3 years of graduation, will provide IT graduate the ability to achieve:

- · Being a working Information Technology (IT) professional with core competencies that can be used on multi-disciplinary projects.
- Being a dedicated team member or leader
- Being a lifelong learner in IT.
- · Practicing ethical behavior.
- Being a change agent.
- · Practicing security concepts.

#### Student outcomes for the degree are:

- Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.
- · Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.
- Communicate effectively in a variety of professional contexts.
- · Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
- · Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.
- Identify and analyze user needs and to take them into account in the selection, creation, integration, evaluation, and administration of computing-based systems. [IT]
   According to the computing of the compu
- Accreditation
   The D.C. in Just
- The B.S. in Information Technology (IT) focuses on the usage and application of current technical concepts and practices, and the identification and analysis of user needs in the selection, creation, evaluation and administration of computer-based systems. Students will have an understanding of best practices, standards and applications of information technologies, and have the awareness to assist in the creation of an effective project plan to help meet the needs of organizations, enterprise, or society.
- The main objective of the IT program is to prepare graduates who are seeking careers in designing, developing, programming, and implementing information technology based systems, with an emphasis on network and communication systems (voice, data, and video), mobile and telecommunications systems, computer system & application management and administration, Web application development, computer system securities, enterprise application, information integration, and other emerging areas in the IT field that meet organizational, enterprise, and societal needs.
- The curriculum includes enterprise IT infrastructure, communications and networking, and IT Project Integration. Technical electives and the IT senior project I and II enable the program to be tailored to the specialization needs of students. Graduates will possess a combination of knowledge and practical, hands-on expertise to support an organization's information technology infrastructure as well as the people who use it.

#### **Program Delivery**

· POLYTECHNIC programs emphasize practice-based learning via hands-on laboratory applications using state-of-the-art equipment. Some courses are available through online, distance, and hybrid learning, however many incorporate an on-campus laboratory element.

#### **Declaring This Major**

Students interested in declaring Information Technology as their major may do so in one of two ways:

- · On their application when they first apply to the university.
- · After meeting with a faculty advisor, a change of major can be declared.

#### **General Requirements:**

- 1. Degree Requirements
- 2. General Education Requirements
- 3. Overlapping Content
- 4. Academic Regulations

### **Program Requirements:**

Information Technology 4-Yr. Plan:

- 1. Students must complete all Core and Advanced Core Courses, Technical Electives, and General Education earning grades of C- or better.
- 2. Student Responsibilities: You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair.
- 3. Transfer credit limits, see Academic Regulations above.
- 4. General Education and Major courses as listed below.

### General Education Requirements: Credits 33

- ENGL 13100 Reading, Writing, and Inquiry I Cr. 3.
- COM 11400 Fundamentals Of Speech Communication Cr. 3.
- MA 15300 College Algebra Cr. 3.
- MA 22900 Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.
  - · B4 (Scientific Ways of Knowing) Select TWO that both meet all outcomes for that competency Cr. 6
- IET 10500 Industrial Management Cr. 3. OR
- OLS 25200 Human Relations in Organizations Cr. 3.
  - B6 (Humanistic and Artistic Ways of Knowing) Select ONE that meet all outcomes for that competency Cr. 3
- BUS 10001 Principles Of Business Administration Cr. 3.
- ENGL 23401 Technical Report Writing Cr. 3.
- ENGL 42101 Technical Writing Projects Cr. 1-3.

### Major Core Courses: Credits 54

- CS 16000 Introduction To Computer Science I Cr. 4.
- ITC 11000 Information Technology Fundamentals Cr. 3.
- ITC 13000 Programming Fundamentals I Cr. 3.
- ITC 14500 Electrical Fundamentals Cr. 4 • ITC 22000 - Computer Systems Cr. 4.
- ITC 23000 Computer Operating Systems Cr. 3.
- ITC 31000 Information Technology Project Management Cr. 1-3.
- ITC 33100 Networks I Cr. 3.
- ITC 35000 Databases Cr. 3.
- ITC 38000 Project Analysis Design And Implementation Cr. 3.
- ITC 42000 Web Development Cr. 3.
- ITC 43000 Mobile Application Development Cr. 3.
- ITC 44000 Foundations Of Cloud Computing Cr. 3.
- ITC 48300 Information Technology Senior Design Cr. 3.
- ITC 49900 Information Technology Topics Cr. 1-4. [Required Topic: Cyber Security]
  - ITC 49900 Information Technology Topics Cr. 3 [Required Topic: Python Programming]
  - ITC 49900 Information Technology Topics Cr. 3. [Topic Required: Information Assurance]

### Approved Technical Elective Courses: Credits 15

- See Academic Advisor before registration. Cr. 15.
- BUS 20100 Principles Of Financial Accounting Cr. 3.
- BUS 20200 Principles Of Managerial Accounting Cr. 3.
- BUS 30000 International Business Administration Cr. 3.
- BUS 30100 Financial Management Cr. 3.
- BUS 30101 Introduction To Marketing Cr. 3.
- BUS 30102 Operations Management Cr. 3.
- BUS 30200 Management And Behavior In Organizations Cr. 3
- BUS 39400 Practicum In Business Cr. 6.
- · CPET 10100 Electrical Circuits Cr. 4.
- CPET 19000 Problem Solving with MATLAB Cr. 1-4.
- CPET 38400 Wide Area Network Design Cr. 3.
- CPET 49300 Wireless Networking Cr. 3.
- CPET 49900 Computer Engineering Technology Cr. 1-4.
- CS 11200 Computer Science For Everyone Cr. 3.
- CS 16100 Introduction To Computer Science II Cr. 4.
- CS 20300 Advanced Visual Programming Cr. 3.
- CS 26000 Data Structures Cr. 3.
- ECON 20101 Introduction to Microeconomics Cr. 3.
- ECET 26400 C Programming Language Applications Cr. 3.
   Any ECET course 300-level or higher Cr 3-4.
- IST 20300 Advanced Visual Programming Cr. 3.
- IST 26500 Enterprise Systems Cr. 3.
- ITC 13000 Programming Fundamentals I Cr. 3.
- ITC 29199 Industrial Practice Co-op I Cr.1.
- ITC 29299 Industrial Practice Co-op II
- ITC 33000 Networking Cr. 4.
- ITC 39399 Industrial Practice Co-op III Cr. 1.
  ITC 39499 Industrial Practice Co-op IV Cr. 1.
- ITC 39477 Industrial Fractice Co Cp. 1. Cr.
  ITC 49900 Information Technology Topics Cr. 1-4.
  MA 16600 Analytic Geometry and Calculus II Cr. 4.
- MA 17500 Introductory Discrete Mathematics Cr. 3.
  MA 22800 Calculus for Technology II Cr. 3.
- MA 32100 Applied Differential Equations Cr. 3.
  MA 35100 Elementary Linear Algebra Cr. 3.
- - Any MIL credit Cr. 3.
  - Any CS 300 (except CS306) or 400 level course, IST or ITC course

### Approved Elective Courses: Credits 12

· Any course except remedial math or English.

### Supporting Courses: Credits 6

- · COM 32300 Business And Professional Speaking Cr. 3.
- IET 20500 Applied Statistics for Engineering Technology Cr. 3.

### Additional Course Use:

Courses listed below may also be considered in meeting specific degree requirements.

- · MA 15300 required, MA 15900 accepted
- MA 22900 required, MA 16500 or MA 22700 accepted
  IET 20500 required, STAT 30100 accepted

- ITC 11000 required, IST 16000 accepted ITC 14500 required, ECET 11100 accepted
- ITC 13000 required, ECET 11400, CS 11400, IST 14000 accepted
- ITC 22000 required, CPET 29900, ECET 23400 accepted
  ITC 23000 required, CPET 18100 accepted
  ITC 31000 required, IST 46700 accepted

- ITC 33100 required, CPET 28100 accepted
- ITC 35000 required, IST 27000 accepteded

Total: Credits 120

### Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

## **Interior Design (B.S.)**

Program: Bachelor of Science Department of Art and Design College of Visual and Performing Arts

Visual Arts Building 117 ~ 260-481-6709

#### Upon completing their degree, all B.S. Inerior Desing graduates will be able to demonstrate the following learning outcomes:

- Understand the basic principles and applications of design and color in two and three dimensions, particularly with regard to human response and behavior. Design
  principles include, but are not limited to, an understanding of basic visual elements and principles of organization and expression.
- Apply their knowledge of design and color principles in a wide variety of residential and nonresidential projects. This requires an in-depth knowledge of the aesthetic
  properties of structure and surface, space and scale, materials, furniture, artifacts, textiles, lighting and the ability to research and solve problems creatively in ways that
  pertain to the function, quality and effect of specific interior programs. Knowledge of human factors and theories of human behavior related to the built environment that
  can inform interior design.
- Develop design solutions that pertain to the functional and behavioral requirements of specific interior design problems. Students are expected to synthesize the design solutions by using materials, furniture, textiles, color, lighting and space planning. This requires that students understand the technical issues of human factors, including areas such as programming, environmental control systems, anthropometrics, ergonomics and proximities. The ability to integrate human factor considerations with design elements is essential.
- Demonstrate knowledge of the technical aspects of construction and building systems and energy conservation, as well as working knowledge of legal codes and
  regulations related to construction, environmental systems and human health and safety, and the ability to apply such knowledge appropriately in specific projects.
- Demonstrate the ability to communicate concepts and requirements to the broad spectrum of professionals and clients involved or potentially involved with interior
  design projects. Such communication involves verbal, written and representational media in both two and three dimensions, and encompasses a range from initial sketch
  to finished design.
- · Demonstrate functional knowledge of production elements such as installation procedures, project management and specification of materials and equipment.
- Demonstrate an understanding of the history of art, architecture, decorative arts and interior design.
- · Demonstrate functional knowledge of basic business practices and ethical practices in interior design.
- · Demonstrate an understanding of research theories and methodologies related to or concerned with interior design.
- Demonstrate the ability to apply their learning and become oriented to the working profession, through field experience, internships or participation in interior design organizations.

#### **Program Description**

Follow your passion for design, pursue a Bachelor of Science (B.S.) degree in Interior Design, and become an Interior Designer. Our B.S. degree program prepares graduates with knowledge and skills that enable them to pursue many career opportunities in interior design, interior architecture, architectural design, facility planning, building construction industry and many other design-related fields. The well-crafted curriculum includes Purdue University Fort Wayne general education courses, interior design core courses and the sequential design studio courses from freshmen to senior level.

The two sequential capstone courses include departmental approved interdisciplinary courses that allow students to develop an area of design specialty in healthcare design, educational design, hospitality design, retail design, and residential design as well as many other different design specialties. Students will also receive lots of personal attention and experience including a semester-long practicum and the exciting senior exhibition at the conclusion of your coursework. As you graduate from the Interior Design program, you have acquired a broad skill set required for an interior designer.

#### Accreditation:

· The Department of Art and Design is accredited by the National Association of Schools of Art and Design (NASAD).

#### **Program Delivery:**

· Department of Art and Design courses are offered on campus, with some distance and hybrid course offerings.

### Declaring this major - B.S. Interior Design

The Bachelor of Science (B.S.) degree in Interior Design is a four-year program that provides graduates with knowledge and skills that enable them to pursue many
career opportunities in interior design, interior architecture, architectural design, facility planning, building construction industry and many other design related fields.

### **General Requirements:**

- · Degree Requirements
- · General Education Requirements
- Overlapping Content
- · Academic Regulations

Specific admission requirements for program - See "Declaring this major" above.

### **Program Requirements:**

Interior Design 4-Yr. Plan:

### General Education Requirements Credits: 33

- · Click on the General Education Requirements link for details
- · A grade of C- or higher is required in each course used to satisfy the Purdue Fort Wayne General Education Requirements. Courses may be retaken if minimum grade requirement is not met.
- Interior Design students may not take the following Art and Design courses for General Education credits; this includes AD 10101, AD 10801, AD 13300, AD 16500, AD 23900.

#### Category A1 Written Communication Cr. 6.

- ENGL 13100 Reading, Writing, and Inquiry I Reading, Writing, and Inquiry I and
   ENGL 23202 Introduction to Business Writing

#### Category A2 Speaking and Listening Cr. 3.

- · THTR 11400 Interpretation for Performance and Presentation or
- · COM 11400 Fundamentals Of Speech Communication or
- · Other approved A2 course

#### Category A3 Quantitative Reasoning Cr. 3.

- · STAT 12500 Communicating with Statistics or
- MA 15300 College Algebra or
- · Other approved A3 course higher than MA 15300

#### Category B5 Social/Behavioral Ways of Knowing Cr. 3.

• PSY 12000 Elementary Psychology

#### Category B7 Humanistic/Artistic Ways of Knowing Cr. 3.

· AD 11100 History Of Art I: Prehistoric To Medieval

### Interior Design Content Field: Credits 87

Students must earn a grade of C- or better in each required INTD course; courses may be re-taken in order to fulfill this requirement.

### First Year Interior Design Courses: Credits 24

- AD 10202 Introduction To 2-D Design Cr. 3.
- · AD 10502 Digital Imaging Cr. 3.
- AD 15200 Introduction To 3-D Design Cr. 3.
- ARET 12300 Digital Graphics For Built Environment I Cr. 3.
- ARET 16700 Construction Systems And Materials Cr. 3. • INTD 11100 - Introduction To Interior Design Cr. 3.
- INTD 12100 Freehand Sketching Cr. 3.
- INTD 20100 CAD For Interior Design Cr. 3.

### Second Year Interior Design Courses: Credits 21

- AD 10401 Introduction To Typography Cr. 3.
- AD 12100 Drawing Fundamentals I Cr. 3.
- ARET 12400 Architectural Engineering Construction I Cr. 3.
- INTD 11200 Interior Design I Cr. 3.
- INTD 13100 Decorative Materials And Accessories I Cr. 3.
- INTD 13200 Decorative Materials And Accessories II Cr. 3.
- INTD 24100 Lighting And Color Design Cr. 3.

### Third Year Interior Design Courses: Credits 24

AD 11100 counts twice in the Interior Design program, once in the the general education area, and a second time in the Third Year Interior Design Courses; credits are counted in general education area.

- AD 11100 History Of Art I: Prehistoric To Medieval Cr. 3.
- AD 20301 Web Design I: Introduction to Web Design Cr. 3.
- · ARET 22300 Digital Graphics For Built Environment II Cr. 3.
- INTD 30600 Interior And Furniture Styles I Cr. 3.
- INTD 30700 Interior And Furniture Styles II Cr. 3.
- INTD 30800 Interior Design II Cr. 3.
- INTD 30900 Interior Design III Cr. 3.
- INTD 33000 Culture And Design: A Cross-cultural Comparison Of Architecture Cr. 3.
- INTD 40200 Professional Practice Cr. 3.

#### Third Year Portfolio Review Checkpoint

Students in the second semester (after completion of INTD30800) of their junior year, and upon completion of 75 credit hours, of which 48 credit hours must be studio courses, will submit a portfolio for review.

- · The portfolio must contain work representing the best and fullest range of work completed in the freshman, sophomore, and junior Interior Design courses.
- Students will receive detailed information regarding this review in the spring semester of their junior year.
- · Successful students will be allowed to enroll in their remaining coursework in senior capstone courses that lead to the senior exhibition.
- · Students whose work does not meet the standards of the department reviewers may be required to resubmit the portfolio next year.

### Fourth Year Interior Design Courses: Credits 9

- INTD 40001 Interior Design Studio I Cr. 3.
- INTD 40100 Interior Design Studio II Cr. 3.
- INTD 40400 Interior Design Practicum Cr. 3.

### Interior Design Elective Courses: Credits 6 (Department-approved courses)

Choose two of the following elective courses:

- AD 20201 Introduction To Photography Cr. 3.
- AD 20502 Graphic Design I: Introduction To Graphic Design Cr. 3.
- AD 31001 Introduction To 3D Computer Modeling Cr. 3.
- AD 40201 Graphic Design IV: Packaging And Display Cr. 3.
- ARET 21000 Architecture And Urban Form Cr. 3.
- ARET 28100 Environmental Equipment For Buildings I Cr. 3.
- ARET 31000 Architecture And Urban Form In The Modern World Cr. 3.
- ARET 32400 Sustainable Construction Cr. 3.
- CNET 27600 Specs, Contracts, And Codes Cr. 3.
- CNET 28000 Quantity Estimating Cr. 3.
- CNET 34400 Constructed Project Quality I Cr. 3.

### Interdisciplinary Design Topic Courses: Credits 3 (Department-approved courses)

Choose one course from one of the Interdisciplinary Topics below. Cr. 3.

#### Residential Design

- CDFS 25500 Introduction To Couple And Family Relationships
- · SOC 31601 The Family
- PPOL 16200 Environment and People

#### Special Populations - Aging

- · GERN 23100 Introduction to Gerontology
- PHIL 31200 Medical Ethics
- · MUSC 41003 Creative Arts, Health, and Wellness
- · SOC 31401 Social Aspects of Health and Medicine

### Healthcare Design

- SOC 31401 Social Aspects of Health and Medicine
- PPOL 12000 Contemporary Health Issues
- PHIL 31200 Medical Ethics

#### **Educational Design**

- EDU 34001 Education And American Culture
- · PSY 31400 Introduction to Learning

#### **Hotel and Restaurant Design**

- HTM 10000 Introduction to the Hospitality and Tourism Industry
- · HTM 23100 Hospitality and Tourism Marketing
- · NUTR 20400 Food, History & Culture

#### Office Building design

- · BUS 10001 Principles Of Business Administration
- · OLS 25200 Human Relations in Organizations

### Minimum Grade Requirements

Students must have a minimum grade of C- or better on all classes for credit towards their degree. Classes below a C- grade may be retaken for a qualifying grade as needed.

# Credit By Self-Acquired Competency

Credit by Self-Acquired Competency is at the discretion of the department and evaluated on an individual basis.

### **Self-Paced Courses**

Independent study classes are sometimes available and at the discretion of both the course instructor and chair of the department.

Total Credits: 120

### Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# Management (B.S.B.)

Program: B.S.B. - Management Department of Management and Marketing Richard T. Doermer School of Business

Neff Hall  $340 \sim 260\text{-}481\text{-}6470$ 

### **Doermer School of Business Undergraduate Student Success Center**

Neff Hall  $366 \sim 260\text{-}481\text{-}6472$ 

### Doermer School of Business Overview

### The student learning outcomes for the degree are as follows:

- Upon completion of the Bachelor of Science in Business (B.S.B) Degree, students will:
- · Be able to integrate fundamental principles of business theory and practice.

- · Be able to solve problems by modeling, analyzing data (qualitative and numeric), and using critical thinking skills.
- Be able to understand the global and cultural implications of business decisions.
- · Be able to understand ethical considerations in business decision.
- · Be able to understand the relationship between the community and business.
- Be able to demonstrate the effective communication and teamwork skills.
- · Be prepared for life-long learning in a dynamic environment.

The Bachelor of Science in Business (B.S.B.) program is accredited by The Association to Advance Collegiate Schools of Business (AACSB), which provides a voluntary mechanism of quality control. AACSB is the most prestigious business accrediting body in the nation. Only about one-quarter of all business schools in the nation possess this distinction.

Your initial courses are selected from introductory-level general education, business, and economics subjects. When you have qualified for admission to the B.S.B. program, additional opportunities are provided for in-depth studies in a variety of advanced business, management, and analytical subjects. These advanced studies help you prepare for positions of increasing executive responsibility in the business community.

At the time you are admitted to the B.S.B. program, you must declare a specialization in one of five majors: accounting, business economics, finance, management, or marketing.

#### Admission

Students are admitted as pre-business students until they have completed the specific pre-business requirements needed for admission to the Bachelor's degree program.

To be admitted to the B.S.B. program, applicants must have a cumulative GPA of 2.00 or higher and will have completed at least 45 credits that apply toward the degree, including the courses listed below. Within this course listing, successful applicants will have (1) a grade of C- or better in each course and (2) a GPA of 2.50 or better within these courses.

#### Courses Required for Admission to the B.S.B. Program

	Credits
Fundamentals of Speech Communication	3
Calculus for the Managerial, Social, and Biological Sciences I	3
Elementary Psychology or Principles of Sociology	3
Principles of Business Administration	3
Intermediate Expository Writing	3
Business Communication	3
Introduction to College and Business Careers	1
Principles of Financial Accounting	3
Computers in Business	3
Introduction to Microeconomics	3
Business Degree Seminar	0
	Calculus for the Managerial, Social, and Biological Sciences I  Elementary Psychology or Principles of Sociology  Principles of Business Administration Intermediate Expository Writing Business Communication Introduction to College and Business Careers Principles of Financial Accounting Computers in Business Introduction to Microeconomics

Three additional rules apply for admission to the B.S.B. program:

- 1. No more than 6 credits of these courses may be repeated, and no course may be repeated more than once.
- 2. Both the original and the repeat grades earned in the above courses will be used to compute the admission GPA. This includes courses that you have taken or repeated at Purdue Fort Wayne and other Purdue campuses.
- 3. Students must earn a minimum of 300 points in the Passport to Success program, including at least two high impact events, before they can be admitted to any of the majors. Passport to Success is a program required of all business majors that emphasizes participation in activities outside the classroom. Details of the Passport to Success program may be found on the Doermer School of Business website.

#### Note:

Bachelor's degree programs in business are offered at other Purdue University campuses. Since admission and graduation requirements vary among these campuses, you must meet the admission and graduation requirements of the campus from which you intend to graduate.

#### **Enrollment in Business Courses Numbered 30100 and Above**

Unless you have met at least one of the following conditions, you are not permitted to enroll in a business course numbered 30100 or above:

- You have been admitted to the B.S.B. program at Purdue Fort Wayne.
- . The course is a specified requirement for another bachelor's degree program or minor in which you are enrolled and you have completed all course prerequisites.
- You have obtained written permission from the department through which the course is offered.

If you have enrolled and are not eligible, you will be withdrawn from the course.

**B.S.B. REQUIREMENTS** To earn the B.S.B., you must complete a minimum of 120 credits as specified below and obtain an overall cumulative GPA of at least 2.30. You must satisfy the requirements of Purdue Fort Wayne (see Regulations) and the Richard T. Doermer School of Business, including completion of the Passport to Success program, and earn a grade of C- or better in each BUS and ECON course. Developmental courses do not apply to degree requirements.

Your final consecutive 30 credits must be taken at Purdue Fort Wayne after you have been formally admitted to the B.S.B. program. Business majors may not count BUS, ECON or OLS courses towards their general education requirements (unless noted).

Special Academic Regulations for Students in Undergraduate Business Programs Following are the general policies and procedures for students enrolled in business undergraduate programs. In addition to the policies of Purdue Fort Wayne (see Regulations), these are intended to maintain the historically high academic standards of undergraduate business programs at Purdue Fort Wayne.

The Student's Responsibility You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

Academic Renewal Option The school participates in the Academic Renewal Option for eligible students returning to Purdue Fort Wayne after an absence of five or more years. (see Regulations)

Time Limit. To ensure that you will be professionally competitive with other members of your graduating class, you may complete the degree requirements specified in the catalog in effect at the time you were formally admitted to the degree program only if

- Progress toward your degree objective has been continuous. If you have not registered for degree-applicable courses as a Purdue Fort Wayne business major for a period
  of one calendar year, you will be considered as not progressing toward your original degree objective. Subsequently, if you qualify for re-entry to an undergraduate
  business program at Purdue Fort Wayne, you must satisfy the admission and degree requirements specified in the Purdue Fort Wayne catalog that includes your year of
  re-entry.
- No more than five years have elapsed since your admission to the business degree program. If more than five years have elapsed, your cumulative academic record will be reviewed by the appropriate business or economics department, and you will be required to meet the degree criteria specified in the current Purdue Fort Wayne catalog. This may result in your having to repeat those courses in which the original content is determined to be outdated.
- The necessary courses or degree programs are available. If the courses that were required at the time of your formal admission to the business degree program are no longer available, you must complete the current replacements for those courses. Should these newer courses require prerequisites you have not taken, you must also enroll for these prerequisites in the appropriate sequence.

Overlapping Courses You may not count toward graduation any courses or sequences considered to have overlapping content.

Academic Probation You are placed on academic probation whenever your semester or cumulative GPA at the end of any fall or spring semester falls below 2.0.

Repeat Limits To remain eligible for the B.S.B. program, a student may not retake any of the 30000 or 40000-level BUS or ECON courses more than twice. An appeal may be made by the student to the Undergraduate Policy Committee (UPC) in the case of extenuating circumstances.

Transfer Credit Generally, courses in basic business and economics subjects (10000-20000 level) will be accepted as equivalent if they are being transferred from regionally accredited institutions. Courses in advanced business and economics (30000-40000 level) will only be considered equivalent if they are from another business school accredited by The Association to Advance Collegiate Schools of Business (AACSB), were taken within the past five years, and were taken as a junior or senior class standing.

At least 50 percent of required business and economics courses must be completed at Purdue Fort Wayne in order for a B.S.B. degree to be awarded.

Credit by Examination Under very limited circumstances and subject to the following policies, you may be permitted to earn credit by means of a special examination:

- 1. In all cases, your eligibility for a credit examination; the type of examination; testing procedures, date, time, and location; and evaluation of your performance are the decision of the appropriate Purdue Fort Wayne business or economics department. The decision of the department is final.
- 2. Credits earned by examination cannot exceed 10 percent of your total degree requirements.
- 3. You may attempt an authorized credit examination only once.
- 4. Only those examination scores that equate to a C- grade or better will be considered. Only the grade P will be reported for credit earned by examination.

### Bachelor of Science in Business with a major in Management

The management and administration major provides you with an opportunity to study a broad scope of business and economics subjects, as well as concepts and theories of managing complex business operations. The courses stress goal setting, planning, controlling, and problem solving in the context of major business firms in domestic and international environments.

### **Program Requirements:**

Management 4-Year Plan

### General Education Requirements Credits: 33

A grade of C- or better is required in each course used to satisfy the Purdue Fort Wayne general education requirements.

### Category A: Foundational Intellectual Skills

- 1. Written Communication Credits: 3
  - ENGL 13100 Reading, Writing, and Inquiry I Cr. 3.

### 2. Speaking and Listening Credits: 3

• COM 11400 - Fundamentals Of Speech Communication Cr. 3.

### 3. Quantitative Reasoning Credits: 3

• MA 22900 - Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.

#### Additional Course Use

Courses listed below may also be considered in meeting specific degree requirements.

MA 22900 required, MA 16300, MA 16500, MA 22700 or MATH M119 accepted

### Category B: Ways of Knowing

### 4. Scientific Ways of Knowing Credits: 3

Select one of the following:

- ANTH 20001 Bioanthropology Cr. 3.
- ASTR 10000 The Solar System Cr. 3.
- BIOL 10000 Introduction To The Biological World Cr. 3.
- BIOL 32700 Biology Of Aging Cr. 3.
- · CHM 11100 General Chemistry Cr. 3. required lab
- CHM 11500 General Chemistry Cr. 4. required lab
- · CHM 12000 Chemistry And Art Cr. 3.
- EAPS 10001 General Geology Cr. 3-5.
- EAPS 12100 Journey To Mars Cr. 3.
- NUTR 30300 Essentials of Nutrition Cr. 3.
- GEOG 10700 Physical Systems of the Environment Cr. 3.
- GEOG 10900 Weather and Climate Cr. 3.
- HORT 10100 Fundamentals of Horticulture Cr. 3.
- PHYS 10500 Sound and Music Cr. 3.
- PHYS 11500 Introduction to Lasers Cr. 3.
- PHYS 12000 Physics of Sports Cr. 3.
- PHYS 15200 Mechanics Cr. 5. required lab
- PHYS 21800 General Physics Cr. 4. required lab
- PHYS 22000 General Physics Cr. 4. required lab
- PHYS 22300 X-Ray Physics Cr 3.

Business majors are not required to take a lab class but if you choose to take a class with a required lab, you must complete the required lab. If you opt to take a science class that is not on the list above, then you will have to take another Scientific Ways of Knowing class as a general education elective that satisfies any missing outcomes.

### 5. Social and Behavioral Ways of Knowing Credits: 3

Select one of the following:

- PSY 12000 Elementary Psychology Cr. 3. or
- SOC 16101 Principles of Sociology Cr. 3.

#### 6. Humanistic and Artistic Ways of Knowing Credits: 3

• PHIL 11100 - Introduction To Ethics Cr. 3.

### 7. Interdisciplinary Ways of Knowing Credits: 6

Must complete

• BUS 10001 - Principles Of Business Administration Cr. 3.

and select one of the following:

- INTL 20000 Introduction to International Studies: Emerging Global Visions Cr. 3.
- LGBT 20000 Introduction to Scholarship on Lesbian, Gay, Bisexual, and Transgender Issues Cr. 3.

- · LING 46000 Language in Society Cr. 3.
- OLS 45400 Gender and Diversity in Management Cr. 3.
- PACS 20000 Introduction to Peace and Conflict Studies Cr. 3.
- PPOL 16200 Environment and People Cr. 3.
- REL 11200 Religion and Culture Cr. 3.
- SOC 20900 Community and the Built Environment Cr. 3.
- WOST 24000 Topics in Feminism Cr. 3.
- EALC 10101 Elementary Japanese I Cr. 4.
- EALC 10201 Elementary Japanese II Cr. 4.
- FR 11100 Elementary French I Cr. 3.
- FR 11201 Elementary French II Cr. 3.
- GER 11100 Elementary German I Cr. 3.
- GER 11201 Elementary German II Cr. 3.
- NELC 10000 Elementary Arabic I Cr. 3.
- NELC 15000 Elementary Arabic II Cr. 3.
  SPAN 11101 Elementary Spanish I Cr. 3.

- SPAN 11201 Elementary Spanish II Cr. 3.
  SPAN 11300 Accelerated First Year Spanish Cr. 3.

### Category C: Capstone

#### 8. Capstone Experience Credits: 3

General Education Requirements

#### General Education Electives Credits: 6

General Education Requirements

### DSB Additional Requirements Credits: 6

You must earn a grade of C- or better in each of the following courses:

- ENGL 23301 Intermediate Expository Writing Cr. 3.
- BUS 20401 Business Communication Cr. 3.

### Business and Economics Core Credits: 46

You must earn a grade of C- or better in each of the following courses:

### **Business Principles Credits: 13**

- BUS 10000 Introduction To College And Business Careers Cr. 1.
- BUS 20100 Principles Of Financial Accounting Cr. 3.
- BUS 20200 Principles Of Managerial Accounting Cr. 3.
- BUS 20101 The Computer In Business Cr. 3
- BUS 20300 Commercial Law I Cr. 3.
- BUS 20001 Business Degree Seminar Cr. 0.

# **Economics Principles Credits: 9**

- ECON 20101 Introduction to Microeconomics Cr. 3.
- ECON 20201 Introduction to Macroeconomics Cr. 3.
- ECON 27000 Introduction to Statistical Theory in Economics and Business I Cr. 3.

Courses listed below may also be considered in meeting specific degree requirements.

### Management Processes Credits: 15

A student may not retake any of the 30000-40000 level BUS or ECON courses more than twice. An appeal may be made by the student to the Undergraduate Policy Committee (UPC) in the case of extenuating circumstances.

- BUS 30100 Financial Management Cr. 3.
- BUS 30101 Introduction To Marketing Cr. 3.
- BUS 30102 Operations Management Cr. 3.
- BUS 30200 Management And Behavior In Organizations Cr. 3
- BUS 32100 Management Of Information Systems Cr. 3.

### Management Policy and Strategy Credits: 9

- BUS 40400 Social, Legal, And Ethical Implications Of Business Decisions Cr. 3.
- BUS 43000 Organizations And Organizational Change Cr. 3.
- · BUS 40100 Administrative Policy Cr. 3.
- BUS 40000 Business Senior Seminar Cr. 0-3.

A grade of 'P' will be posted for BUS 40000 when a student successfully earns all of the Passport to Success points required for graduation.

### Management Major Requirements Credits: 21

A student may not retake any of the 30000-40000 level BUS or ECON courses more than twice. An appeal may be made by the student to the Undergraduate Policy Committee (UPC) in the case of extenuating circumstances.

You must earn a grade of C- or better in each of the following courses:

- BUS 30000 International Business Administration Cr. 3.
- BUS 32700 Deterministic Models In Operations Research Cr. 3.
- BUS 31201 Entrepreneurship Cr. 3-6.
- BUS 44000 Personnel: Human Resources Management Cr. 3.

### Management Electives

9 Credits in  $\underline{\text{three}}$  additional BUS classes, selected from the following:

- BUS 42600 Sales Management Cr. 3.
- BUS 49001 Special Studies In International Business Administration Cr. 1-3.
- BUS 49003 Independent Study In Decision Sciences Cr. 1-6.
- BUS 49005 Independent Study In Operations Management Cr. 1-3.
- BUS 49006 Independent Study In Business Administration Cr. 1-3.
- BUS 49007 Ind Stdy-Pers Mgt Behv Cr. 1-3.

NOTE: BUS 49003, 49005, and 49006 are topics courses and may be taken more than once, with different topics. BUS 49001 is by invitation only.

**NOTE:** Double majors in Management and Marketing may <u>NOT</u> use the same elective course for both majors. All Management and Marketing electives need to be distinctly different courses.

Free Elective Credits: 14

14 credits from either business or non-business courses to complement your professional and educational objectives, and bring your degree total to at least 120 credits.

Total Credits: 120

### Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# Marketing (B.S.B.)

Program: B.S.B. - Marketing Department of Management and Marketing Richard T. Doermer School of Business

Neff Hall 340 ~ 260-481-6470

**Doermer School of Business Undergraduate Student Success Center** 

Neff Hall 366 ~ 260-481-6472

#### Doermer School of Business Overview

#### The student learning outcomes for the degree are as follows:

- Upon completion of the Bachelor of Science in Business (B.S.B) Degree, students will:
- · Be able to integrate fundamental principles of business theory and practice.
- · Be able to solve problems by modeling, analyzing data (qualitative and numeric), and using critical thinking skills.
- · Be able to understand the global and cultural implications of business decisions
- · Be able to understand ethical considerations in business decision.
- · Be able to understand the relationship between the community and business.
- · Be able to demonstrate the effective communication and teamwork skills.
- · Be prepared for life-long learning in a dynamic environment.

The Bachelor of Science in Business (B.S.B.) program is accredited by The Association to Advance Collegiate Schools of Business (AACSB), which provides a voluntary mechanism of quality control. AACSB is the most prestigious business accrediting body in the nation. Only about one-quarter of all business schools in the nation possess this distinction.

Your initial courses are selected from introductory-level general education, business, and economics subjects. When you have qualified for admission to the B.S.B. program, additional opportunities are provided for in-depth studies in a variety of advanced business, management, and analytical subjects. These advanced studies help you prepare for positions of increasing executive responsibility in the business community.

At the time you are admitted to the B.S.B. program, you must declare a specialization in one of five majors: accounting, business economics, finance, management, or marketing.

#### Admission

Students are admitted as pre-business students until they have completed the specific pre-business requirements needed for admission to the Bachelor's degree program.

To be admitted to the B.S.B. program, applicants must have a cumulative GPA of 2.00 or higher and will have completed at least 45 credits that apply toward the degree, including the courses listed below. Within this course listing, successful applicants will have (1) a grade of C- or better in each course and (2) a GPA of 2.50 or better within these courses.

#### Courses Required for Admission to the B.S.B. Program

Course Number and Title		Credits
COM 11400	Fundamentals of Speech Communication	3
MA 22900	Calculus for the Managerial, Social, and Biological Sciences I	3
PSY 12000 <u>or</u> SOC 16101	Elementary Psychology or Principles of Sociology	3
BUS 10001	Principles of Business Administration	3
ENGL 23301	Intermediate Expository Writing	3
BUS 20401	Business Communication	3
BUS 10000	Introduction to College and Business Careers	1
BUS 20100	Principles of Financial Accounting	3
BUS 20101	Computers in Business	3
ECON 20101	Introduction to Microeconomics	3
BUS 20001	Business Degree Seminar	0

Three additional rules apply for admission to the B.S.B. program :

- 1. No more than 6 credits of these courses may be repeated, and no course may be repeated more than once.
- 2. Both the original and the repeat grades earned in the above courses will be used to compute the admission GPA. This includes courses that you have taken or repeated at Purdue Fort Wayne and other Purdue campuses.
- 3. Students must earn a minimum of 300 points in the Passport to Success program, including at least two high impact events, before they can be admitted to any of the majors. Passport to Success is a program required of all business majors that emphasizes participation in activities outside the classroom. Details of the Passport to Success program may be found on the Doermer School of Business website.

#### Note:

Bachelor's degree programs in business are offered at other Purdue University campuses. Since admission and graduation requirements vary among these campuses, you must meet the admission and graduation requirements of the campus from which you intend to graduate.

#### Enrollment in Business Courses Numbered 30100 and Above

Unless you have met at least one of the following conditions, you are not permitted to enroll in a business course numbered 30100 or above:

- · You have been admitted to the B.S.B. program at Purdue Fort Wayne.
- The course is a specified requirement for another bachelor's degree program or minor in which you are enrolled and you have completed all course prerequisites.
- You have obtained written permission from the department through which the course is offered.

If you have enrolled and are not eligible, you will be withdrawn from the course.

**B.S.B. REQUIREMENTS** To earn the B.S.B., you must complete a minimum of 120 credits as specified below and obtain an overall cumulative GPA of at least 2.30. You must satisfy the requirements of Purdue Fort Wayne (see Regulations) and the Richard T. Doermer School of Business, including completion of the Passport to Success program, and earn a grade of C- or better in each BUS and ECON course. Developmental courses do not apply to degree requirements.

Your final consecutive 30 credits must be taken at Purdue Fort Wayne after you have been formally admitted to the B.S.B. program. Business majors may not count BUS, ECON or OLS courses towards their general education requirements (unless noted).

Special Academic Regulations for Students in Undergraduate Business Programs Following are the general policies and procedures for students enrolled in business undergraduate programs. In addition to the policies of Purdue Fort Wayne (see Regulations), these are intended to maintain the historically high academic standards of undergraduate business programs at Purdue Fort Wayne.

The Student's Responsibility You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

Academic Renewal Option The school participates in the Academic Renewal Option for eligible students returning to Purdue Fort Wayne after an absence of five or more years. (see Regulations)

Time Limit. To ensure that you will be professionally competitive with other members of your graduating class, you may complete the degree requirements specified in the catalog in effect at the time you were formally admitted to the degree program only if

- Progress toward your degree objective has been continuous. If you have not registered for degree-applicable courses as a Purdue Fort Wayne business major for a period
  of one calendar year, you will be considered as not progressing toward your original degree objective. Subsequently, if you qualify for re-entry to an undergraduate
  business program at Purdue Fort Wayne, you must satisfy the admission and degree requirements specified in the Purdue Fort Wayne catalog that includes your year of
  re-entry.
- No more than five years have elapsed since your admission to the business degree program. If more than five years have elapsed, your cumulative academic record will be reviewed by the appropriate business or economics department, and you will be required to meet the degree criteria specified in the current Purdue Fort Wayne catalog. This may result in your having to repeat those courses in which the original content is determined to be outdated.
- The necessary courses or degree programs are available. If the courses that were required at the time of your formal admission to the business degree program are no
  longer available, you must complete the current replacements for those courses. Should these newer courses require prerequisites you have not taken, you must also
  enroll for these prerequisites in the appropriate sequence.

Overlapping Courses You may not count toward graduation any courses or sequences considered to have overlapping content.

Academic Probation You are placed on academic probation whenever your semester or cumulative GPA at the end of any fall or spring semester falls below 2.0.

Repeat Limits To remain eligible for the B.S.B. program, a student may not retake any of the 30000 or 40000-level BUS or ECON courses more than twice. An appeal may be made by the student to the Undergraduate Policy Committee (UPC) in the case of extenuating circumstances.

Transfer Credit Generally, courses in basic business and economics subjects (10000-20000 level) will be accepted as equivalent if they are being transferred from regionally accredited institutions. Courses in advanced business and economics (30000-40000 level) will only be considered equivalent if they are from another business school accredited by The Association to Advance Collegiate Schools of Business (AACSB), were taken within the past five years, and were taken as a junior or senior class standing.

At least 50 percent of required business and economics courses must be completed at Purdue Fort Wayne in order for a B.S.B. degree to be awarded.

Credit by Examination Under very limited circumstances and subject to the following policies, you may be permitted to earn credit by means of a special examination:

- 1. In all cases, your eligibility for a credit examination; the type of examination; testing procedures, date, time, and location; and evaluation of your performance are the decision of the appropriate Purdue Fort Wayne business or economics department. The decision of the department is final.
- 2. Credits earned by examination cannot exceed 10 percent of your total degree requirements.
- 3. You may attempt an authorized credit examination only once.
- 4. Only those examination scores that equate to a C- grade or better will be considered. Only the grade P will be reported for credit earned by examination.

### Bachelor of Science in Business with a major in Marketing

The marketing major is concerned with the movement of goods and services from the producer to the customer. It encompasses such topics as consumer behavior, product development, pricing, channels of distribution, promotion, marketing research, and effective management of corporate marketing operations.

### **Program Requirements:**

Marketing 4-Year Plan

### General Education Requirements Credits: 33

A grade of C- or better is required in each course used to satisfy the Purdue Fort Wayne general education requirements.

### Category A: Foundational Intellectual Skills

- 1. Written Communication Credits: 3
  - ENGL 13100 Reading, Writing, and Inquiry I Cr. 3.
- 2. Speaking and Listening Credits: 3
  - COM 11400 Fundamentals Of Speech Communication Cr. 3.
- 3. Quantitative Reasoning Credits: 3
  - MA 22900 Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.

**Additional Course Use** 

Courses listed below may also be considered in meeting specific degree requirements.

MA 22900 required, MA 16300, MA 16500, MA 22700 or MATH M119 accepted

### Category B: Ways of Knowing

### 4. Scientific Ways of Knowing Credits: 3

Select one of the following:

- ANTH 20001 Bioanthropology Cr. 3. ASTR 10000 The Solar System Cr. 3.
- BIOL 10000 Introduction To The Biological World Cr. 3.
- BIOL 32700 Biology Of Aging Cr. 3.
- CHM 11100 General Chemistry Cr. 3. required lab
- CHM 11500 General Chemistry Cr. 4. required lab
- CHM 12000 Chemistry And Art Cr. 3.
  EAPS 10001 General Geology Cr. 3-5.

- EAPS 12100 Journey To Mars Cr. 3.
  NUTR 30300 Essentials of Nutrition Cr. 3.
- GEOG 10700 Physical Systems of the Environment Cr. 3. • GEOG 10900 - Weather and Climate Cr. 3.
- HORT 10100 Fundamentals of Horticulture Cr. 3.
  PHYS 10500 Sound and Music Cr. 3.
- PHYS 11500 Introduction to Lasers Cr. 3.
- PHYS 12000 Physics of Sports Cr. 3. • PHYS 15200 - Mechanics Cr. 5. required lab
- PHYS 21800 General Physics Cr. 4. required lab
- PHYS 22000 General Physics Cr. 4. required lab
- PHYS 22300 X-Ray Physics Cr 3.

Business majors are not required to take a lab class but if you choose to take a class with a required lab, you must complete the required lab. If you opt to take a science class that is not on the list above, then you will have to take another Scientific Ways of Knowing class as a general education elective that satisfies any missing outcomes.

### 5. Social and Behavioral Ways of Knowing Credits: 3

Select one of the following:

- PSY 12000 Elementary Psychology Cr. 3. or
- SOC 16101 Principles of Sociology Cr. 3.

### 6. Humanistic and Artistic Ways of Knowing Credits: 3

• PHIL 11100 - Introduction To Ethics Cr. 3.

### 7. Interdisciplinary Ways of Knowing Credits: 6

Must complete

• BUS 10001 - Principles Of Business Administration Cr. 3.

and select one of the following:

- INTL 20000 Introduction to International Studies: Emerging Global Visions Cr. 3.
- LGBT 20000 Introduction to Scholarship on Lesbian, Gay, Bisexual, and Transgender Issues Cr. 3.
- LING 46000 Language in Society Cr. 3.
  OLS 45400 Gender and Diversity in Management Cr. 3.
- PACS 20000 Introduction to Peace and Conflict Studies Cr. 3.
   PPOL 16200 Environment and People Cr. 3.

- REL 11200 Religion and Culture Cr. 3.
  SOC 20900 Community and the Build Environment Cr. 3.
- WOST 24000 Topics in Feminism Cr. 3.
  EALC 10101 Elementary Japanese I Cr. 4.
- EALC 10201 Elementary Japanese II Cr. 4.
- FR 11100 Elementary French I Cr. 3.
- FR 11201 Elementary French II Cr. 3.
- GER 11201 Elementary German II Cr. 3.
- NELC 10000 Elementary Arabic I Cr. 3.
- NELC 15000 Elementary Arabic II Cr. 3.
- SPAN 11101 Elementary Spanish I Cr. 3.
- SPAN 11201 Elementary Spanish II Cr. 3.
- SPAN 11300 Accelerated First Year Spanish Cr. 3.

### Category C: Capstone

### 8. Capstone Experience Credits: 3

General Education Requirements

General Education Electives Credits: 6

General Education Requirements

### DSB Additional Requirements Credits: 6

You must earn a grade of C- or better in each of the following courses:

- ENGL 23301 Intermediate Expository Writing Cr. 3.
- BUS 20401 Business Communication Cr. 3.

### Business and Economics Core Credits: 46

You must earn a grade of C- or better in each of the following courses:

### **Business Principles Credits: 13**

- BUS 10000 Introduction To College And Business Careers Cr. 1.
- BUS 20100 Principles Of Financial Accounting Cr. 3.
- BUS 20200 Principles Of Managerial Accounting Cr. 3.
- BUS 20101 The Computer In Business Cr. 3
- BUS 20300 Commercial Law I Cr. 3.
- BUS 20001 Business Degree Seminar Cr. 0.

### **Economics Principles Credits: 9**

- ECON 20101 Introduction to Microeconomics Cr. 3.
- ECON 20201 Introduction to Macroeconomics Cr. 3.
- ECON 27000 Introduction to Statistical Theory in Economics and Business I Cr. 3.

Courses listed below may also be considered in meeting specific degree requirements.

ECON 27000 required, STAT 30100, STAT 51100 accepted

### Management Processes Credits: 15

A student may not retake any of the 30000-40000 level BUS or ECON courses more than twice. An appeal may be made by the student to the Undergraduate Policy Committee (UPC) in the case of extenuating circumstances.

- BUS 30100 Financial Management Cr. 3.
- BUS 30101 Introduction To Marketing Cr. 3.
- BUS 30102 Operations Management Cr. 3.
- BUS 30200 Management And Behavior In Organizations Cr. 3
- BUS 32100 Management Of Information Systems Cr. 3.

### Management Policy and Strategy Credits: 9

- BUS 40400 Social, Legal, And Ethical Implications Of Business Decisions Cr. 3.
- BUS 43000 Organizations And Organizational Change Cr. 3.
- · BUS 40100 Administrative Policy Cr. 3.
- BUS 40000 Business Senior Seminar Cr. 0-3.

A grade of 'P' will be posted for BUS 40000 when a student successfully earns all of the Passport to Success points required for graduation.

### Marketing Major Requirements Credits: 21

A student may not retake any of the 30000-40000 level BUS or ECON courses more than twice. An appeal may be made by the student to the Undergraduate Policy Committee (UPC) in the case of extenuating circumstances.

You must earn a grade of C- or better in each of the following courses:

- BUS 30000 International Business Administration Cr. 3.
- BUS 30302 Marketing Research Cr. 3.
- BUS 40800 Quantitative Methods For Marketing Management Cr. 3.
- BUS 45000 Marketing Strategy And Policy Cr. 3.

#### Marketing Electives

9 credits in three additional BUS classes, selected from the following:

- BUS 31202 Retail Marketing Cr. 3.
- BUS 40500 Consumer Behavior Cr. 3.
- BUS 41300 Personal Selling Cr. 3.
- BUS 41500 Advertising And Promotion Management Cr. 3.
- BUS 42600 Sales Management Cr. 3.
- BUS 49001 Special Studies In International Business Administration Cr. 1-3.
- BUS 49003 Independent Study In Decision Sciences Cr. 1-6.
- BUS 49004 Independent Study In Marketing Cr. 1-3.

Free Elective Credits: 14

14 credits from either business or non-business courses to complement your professional and educational objectives, and bring your degree total to at least 120 credits.

Total Credits: 120

# Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# **Mathematics (B.S.)**

Program: B.S.
Department of Mathematical Sciences
College of Arts and Sciences

Kettler Hall 200 ~ 260-481-6821

Programs leading to the Bachelor of Science in Mathematics help you prepare for employment in business and industry, teaching in secondary schools, or study for advanced degrees.

A Mathematics major prepares you for work in fields where a strong quantitative background is required, as well as for graduate study in the mathematical sciences. In addition, if you choose to pursue a second major in secondary education, then you will be prepared to teach mathematics in middle/high school.

For information on earning a Research Certificate in Mathematics, see the Program Descriptions section in this catalog.

For details on pursuing a secondary education second degree (BSEd) to teach Mathematics in middle school/high school, click on the links to the Secondary Education - Second Degree Program and the School of Education page in this catalog. Note: The BSEd as a second degree in these programs cannot be earned without completion of the bachelor's degree in the content area from the College of Arts and Sciences. See Program Requirements below for a link to the Secondary Education - Second Degree 4-Year Plan.

#### **Student Learning Outcomes:**

Upon completion of this degree:

- students will be able to reason mathematically and be good problem solvers.
- students will understand the role mathematics has played in solving important problems in a variety of disciplines, e.g. physics, engineering, and business.

- students who complete the Mathematics major will understand the fundamental concepts in algebra and analysis, and the value of mathematical proofs, and be able to do simple proofs.
- students who pursue the double degree in secondary education will have mastered the fundamental concepts necessary to obtain certification to teach mathematics in the secondary schools.

#### **Program Delivery:**

· This program is available on-campus

#### Declaring this Major:

· Declare this major within the Department of Mathematical Sciences

#### **General Requirements:**

- Degree Requirements
- · General Education Requirements
- · College Requirements
- · Overlapping Content
- Academic Regulations

To earn a B.S. with a major in Mathematics, you must fulfill the following requirements in addition to the General Requirements noted above.

# Program Requirements:

#### Mathematics BS 4-Year Plan:

- An overall GPA of 2.00 or higher for all courses required for the major.
- · Stricter GPA requirements apply for the double degree in secondary education see Secondary Education for details.

#### Mathematics BS with Secondary Education 4-Year Plan:

### General Education Requirements: Credits 33

- · Click on the Purdue Fort Wayne General Education Requirements link above for details.
- Some majors may require particular General Education courses as specified in their program description. Up to six credits of approved General Education courses satisfying requirements in Area A and B, and three credits satisfying requirements in Area C, may originate in the major. A grade of C- or higher in each course, and an overall GPA of 2.0 is required to satisfy the Purdue Fort Wayne General Education Requirements.

### College of Arts and Sciences Requirements

• Click on the Purdue Fort Wayne College Requirements link above. Go to Arts and Sciences Requirements for the Bachelor of Science Degree

# English Writing and Speaking: Credits 6

- · See Part A in Arts and Sciences Requirements for the Bachelor of Science Degree for Speaking requirement
- ENGL 23301 Intermediate Expository Writing Cr. 3.

(or other approved writing course)

### International Language: Credits 6-8

• See Part B in Arts and Sciences Requirements for the Bachelor of Science Degree

### Student Success Seminar: Credit 1

• MA 19000 - Topics In Mathematics For Undergraduates Cr. 1-5.

taken as: Student Success Seminar Cr. 1

### Core (Major) Courses: Credits 45-46

- Of the MA courses numbered below 26100, only 16500, 16600, and 17500 apply toward the major.
- STAT courses must be numbered 49000 or higher to be counted toward the major
- You must have a grade-point average of 2.0 or better with at most one passing grade less than 1.5 in courses used to fulfill the major requirements.
- MA 16500 Analytic Geometry and Calculus I Cr. 4.
- MA 16600 Analytic Geometry and Calculus II Cr. 4.
- MA 26100 Multivariate Calculus Cr. 4. or
- MA 26300 Multivariate and Vector Calculus Cr. 4.
- MA 17500 Introductory Discrete Mathematics Cr. 3. or
- MA 27500 Intermediate Discrete Math Cr. 3.
- MA 31400 Introduction to Mathematical Modeling Cr. 3.
- MA 35100 Elementary Linear Algebra Cr. 3.
- MA 36300 Differential Equations Cr. 3.
- MA 45300 Elements of Algebra Cr. 3.
- MA 46000 Geometry Cr. 3.
- MA 44100 Real Analysis Cr. 3. or
- MA 58000 History of Mathematics Cr. 3.
- STAT 51100 Statistical Methods Cr. 3. or
- STAT 51600 Basic Probability and Applications Cr. 3.
- CS 11400 Introduction To Visual Programming Cr. 3. or
- · CS 16000 Introduction To Computer Science I Cr. 4.

#### Choose two courses from the Math electives list below:

- CS 38400 Numerical Analysis Cr. 3.
- · CS 48600 Analysis Of Algorithms Cr. 3.
- CS 48800 Theory Of Computation Cr. 3.
- CS 54300 Introduction To Simulation And Modeling Of Computer Systems Cr. 3.
- CS 57200 Heuristic Problem Solving Cr. 3.
- MA 27300 Financial Mathematics Cr. 3.
  - MA course numbered 30000 or above
  - · STAT course numbered 49000 or above

#### Science Courses: Credits 11

Choose three science courses from list below- two of the courses must include a lab:

- ASTR 26400 Descriptive Astronomy: Stars And Galaxies Cr. 3.
- ASTR 36400 Stars And Galaxies Cr. 3.
- ASTR 37000 Cosmology Cr. 3.
- ASTR 40100 Introduction To Astrophysics Cr. 3.

#### Biology:

- ANTH 20001 Bioanthropology Cr. 3.
- BIOL 10000 Introduction To The Biological World Cr. 3.
   BIOL 10001 Introduction To The Biological World Laboratory Cr. 1.
- BIOL 11700 Principles Of Ecology And Evolution Cr. 4.
  BIOL 11900 Principles Of Structure And Function Cr. 4.
  BIOL 12600 Human Biology Cr. 3.

- BIOL 12700 Introduction To Human Diseases Cr. 3.
- BIOL 14000 Marine Biology Cr. 3.
- BIOL 19500 Special Assignments Cr.0-4.
  - or BIOL course numbered 200xx and above

#### Chemistry:

- CHM 10200 Lectures In Chemical Science for Engineers Cr. 3.
- CHM 11100 General Chemistry Cr. 3. (credit given for CHM 11100 or CHM 11500)
- CHM 11200 General Chemistry Cr. 3.
- CHM 11500 General Chemistry Cr. 4. (credit given for CHM 11100 or CHM 11500)
- CHM 11600 General Chemistry Cr. 4.

#### Geography:

- GEOG 10700 Physical Systems of the Environment Cr. 3.
- · GEOG 10900 Weather and Climate Cr. 3.
- · GEOG 23700 Mapping Our World Cr. 3.
- GEOG 31500 Environmental Conservation Cr. 3-5.

#### Earth, Atmospheric and Planetary Sciences:

- EAPS 10001 General Geology Cr. 3-5.
- EAPS 10300 Earth Science: Materials And Processes Cr. 3.
- EAPS 10401 Earth Science: Evolution Of The Earth Cr. 3.
- EAPS 11301 Directed Study in Earth Science Cr. 1-2.
  - or EAPS course numbered 200xx and above

#### Physics:

- PHYS 12700 Physics for Computer Graphics and Animation Cr. 3.
- PHYS 15200 Mechanics Cr. 5.
  - or PHYS course numbered 200xx and above

Note: Check with the Mathematics Department for updates to this list.

#### General Electives

· Sufficient additional credits to bring the total to 120.

Total Credits: 120

### Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# **Mechanical Engineering (B.S.M.E.)**

Program: B.S.M.E.

Department of Civil and Mechanical Engineering College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 321 ~ 260-481-6965

Mechanical engineering is a broad technical discipline covering the design, development, analysis, control and testing of machines, devices, and processes to improve quality of life for all.

Areas of specialization include engineering mechanics (solid mechanics, machine dynamics and mechanical design), energy systems (thermodynamics, fluid mechanics and heat transfer), manufacturing (materials selection and materials processing), and computer-aided engineering (solid modeling and finite element analysis).

Our students, while drawn from diverse backgrounds, are all extremely able and committed to learning. Purdue University Fort Wayne delivers an exceptional educational experience to engineering students, encouraging collaboration and teamwork throughout the curriculum. In addition to coursework, the department supports and encourage student participation in undergraduate research, co-op and internships, and several very active student organizations.

In its recently (2020) released rankings of the best colleges and universities in the United States, U.S. News & World Report demmed the engineering programs at Purdue University Fort Wayne to be among the best in the country.

#### Objectives:

As a framework for the continuous improvement policy, the Mechanical Engineering program has adopted a set of programs objectives that describe the anticipated accomplishments of our graduates within a few years after graduation.

The Mechanical Engineering program educational objectives are to produce graduates who:

- · Function and communicate effectively both as individuals and in multidisciplinary teams to solve technical problems.
- Advance professionally to roles of greater mechanical engineering responsibilities and/or by transitioning into leadership positions in business, government, and/or education.
- · Participate in life-long learning through the successful completion of advanced degree(s), professional development, and/or engineering certification(s)/licensure.
- Demonstrate a commitment to community by applying technical skills and knowledge to support various service activities.

#### **Student Learning Outcomes:**

The graduates from the Mechanical Engineering Program will demonstrate that they have:

- · The ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
- The ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social environmental, and economic factors.
- The ability to communicate effectively with a range of audiences.
- The ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, evenironmental, and societal contexts.
- The ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
- · The ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
- The ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

#### Accreditation:

· The mechanical engineering program is accredited by the Engineering Accreditation Commission of ABET, www.abet.org.

#### Program Delivery:

• The B.S.M.E. program is delivered primarily through on-campus courses; however, some of the required General Education courses are available as hybrid and/or on-line courses and those can be used to satisfy the program requirements.

#### Declaring this Major:

Students interested in declaring Mechanical Engineering as their major may do so in one of two ways:

- 1. On their application when they first apply to Purdue Fort Wayne
- 2. After meeting with a ME faculty advisor, who will determine that the student has the required math and chemistry background to begin in our program.

### General Requirements:

- Degree Requirements
- General Education Requirements
- · Overlapping Content
- · Academic Regulations

### **Program Requirements:**

Mechanical Engineering 4-Yr. Plan:

In order to start in the Mechanical Engineering program, a student must meet the following criteria:

1. Math Placement at or above MA 15400

### General Education Requirements

A student must earn a grade of C- or better in each course used to satisfy the Purdue Fort Wayne general education requirements.

A student must also have a GPA of at least 2.0 in all general education courses.

Students in the mechanical engineering program will satisfy the Purdue Fort Wayne General Education

Requirements in the following manner:

Category	Competency	Course	Credit Hours
A	1	ENGL 13100 Elementary Composition	3
A	2	COM 11400 Fundamentals of Speech	3
	2	MA 16500 Analytical Geometry and Calculus I	4
A	3	MA 16600 Analytical Geometry and Calculus I	4
D	4	CHM 11500 General Chemistry I	4
В	4	PHYS 15200 Mechanics	5
		Select one course from the following approved list	
В	5	ANTH 10501 - Culture and Society ANTH 20002 - Language and Culture ANTH 20003 - Intro to Prehistoric Archaeology ANTH 44500 - Medical Anthropology ANTH 47000 - Psychological Anthropology CDFS 25500 - Intro to Couple & Family Relationships COM 21200 - Study of Interpersonal Comm. COM 25000 - Mass Communication and Society COM 30300 - Intercultural Communication CSD 11500 - Intro to Communication Disorders ECON 10101 - Survey of Economic Issues & Problems **ECON 20000 - Fundamentals of Economics EDUC 34001 - Education and Culture GERN 23100 - Introduction to Gerontology **IET 10500 - Industrial Management LING 10300 - Intro to the Study of Language **OLS 25200 - Human Relations in Organizations **OLS 26800 - Elements of Law POL 10001 - American Political Controversies POL 10101 - Introduction to Political Science POL 10300 - Introduction to American Politics POL 10700 - Introduction to Comparative Politics POL 10700 - Introduction to International Relations POL 20800 - Scandals and Conspiracy Theories POL 21200 - Making Democracy Work POL 21200 - Making Democracy Work POL 21300 - Introduction to Public Policy POL 3500 - Sports and Public Policy POL 30101 - Political Parties and Interest Groups POL 31900 - The United States Congress PPOL 17000 - Introduction to Public Affairs PSY 12000 - Elementary Psychology PSY 23500 - Child Psychology PSY 23500 - Child Psychology PSY 35000 - Sports and Psychology PSY 35000 - Abnormal Psychology PSY 35000 - Development Across the Lifespan SOC 16101 - Principles of Sociology SOC 16300 - Social Problems SOC 37701 - Social Stratification SOC 32501 - Criminology SOC 36000 - Topics in Social Policy WOST 21000 - Introduction to Women's Studies	3
В	6	Select one course from the following approved list	3
		AD 10101 - Art Appreciation  AD 11100 - History Of Art I: Prehistoric To Medieval  AD 11201 - History Of Art II  COM 21000 - Debating Public Issues  COM 24800 - Intro to Media Criticism and Analysis	
		ENGL 10101 - Western World Masterpieces I	
		ENGL 20201 - Literary Interpretation	
		ENGL 25001 - American Literature Before 1865	

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FOLK 11100 - Introduction to World Folk Music
FVS 10100 - Introduction to Film
GER 37100 - Special Topics In Germanic Studies
**HIST 10501 - American History I
**HIST 10601 - American History II
HIST 11300 - History of Western Civilization I
HIST 11400 - History of Western Civilization II
HIST 20101 - Russian Civilization I-II
HIST 23200 - The World in the 20th Century
MUSC 10101 - Music for the Listener
MUSC 10500 - Traditions in World Music
MUSC 20103 - History of Rock and Roll Music
**PHIL 11000 - Introduction to Philosophy
PHIL 11009 - Introduction to Philosophical Topics
**PHIL 11100 - Ethics
PHIL 11101 - Contemporary Moral Problems
PHIL 24000 - Social and Political Philosophy
PHIL 30100 - History of Ancient Philosophy
PHIL 30200 - History of Medieval Philosophy
PHIL 30300 - History of Modern Philosophy
PHIL 30400 - 19th Century Philosophy
PHIL 30500 - Philosophical Theories of Feminism
PHIL 31200 - Medical Ethics
PHIL 32700 - Environmental Ethics
PHIL 32800 - Ethics and Animals
REL 23000 - Religions of the East
REL 23100 - Religions of the West
REL 30100 - Islam
SPAN 27500 - Hispanic Culture and Conversation
THTR 20100 - Theatre Appreciation
WOST 22500 - Gender, Sexuality, and Popular Culture
                                                                       3
   Select one course from the following approved list
AD 10801 - Introduction to Drawing for Non-majors
AD 13300 - Metalsmithing for Non-Majors
AD 16500 - Ceramics for Non-majors
AD 23900 - Painting for Non-majors
ANTH 37001 - Ancient Cultures of South America
ANTH 42100 - Moche Archaeology Seminar
ANTH 42600 - Human Osteology
ARET 12300 - Digital Graphics For Built Environment I
ARET 21000 - Architecture and Urban Form
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ARET 22300 - Digital Graph. for Built Environ.t II

ARET 22500 - Creative House Design

В

7

ENGL 25100 - American Literature Since 1865 FOLK 10100 - Introduction to Folklore ARET 31000 - Architecture & Urban Form

BUS 10001 - Principles of Business Administration

CE 23600 - Transportation Policy, Planning, &

COM 21001 - Visual Communication

CS 11200 - Survey of Computer Science

DANC 39000 - Introduction To Dance

EALC 10101 - Elementary Japanese I

EALC 10201 - Elementary Japanese II

EAPS 30000 - Environmental and Urban Geology

EAPS 30500 - Geologic Fund. in Earth Science

ENGL 10302 - Introductory Creative Writing

ENGL 20301 - Creative Writing

FR 11100 - Elementary French I

FR 11201 - Elementary French II

#### \*\*GEOG 31500 - Environmental Conservation

GER 11100 - Elementary German I

GER 11201 - Elementary German II

INTD 33000 - Culture & Design

INTL 20000 - Intro International Studies

LGBT 20000 - Intro Scholarship in to LGBT Issues

LING 46000 - Language in Society

MARS 20100 - Medieval Encounters

MUSC 14000 - Introduction to Musical Expression

MUSC 15300 - Introduction to Music Therapy

NELC 10000 - Elementary Arabic I

NELC 15000 - Elementary Arabic II

NUTR 40300 - Advanced Nutrition

OLS 45400 - Gender and Diversity in Management

PHIL 12000 - Critical Thinking

#### \*\*PHIL 15000 - Principles of Logic

PHIL 27500 - The Philosophy of Art

PHIL 32600 - Business Ethics

PHIL 35100 - Philosophy of Science

PHIL 35200 - History & Philosophy of Science

PHIL 43500 - Philosophy of Mind

PHIL 46500 - Philosophy of Language

PHYS 13600 - Chaos and Fractals

PHYS 30200 - Puzzles, Strategy Games, & Problem

POL 27500 - Politics and Film

POL 28500 - Science and Politics

PPOL 16200 - Environment and People

PSY 42600 - Language Development

PSY 44400 - Human Sexual Behavior

REL 11200 - Religion and Culture

REL 30000 - Religions of the Ancient World

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SOC 10900 - Community and the Built Environment
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SOC 31401 - Social Aspects of Health and Medicine

SPAN 11101 - Elementary Spanish I

SPAN 11201 - Elementary Spanish II

SPAN 11300 - Accelerated First Year Spanish

THTR 13400 - Fundamentals of Performance

THTR 32510 - History of Modern Drama

WOST 24000 - Topics in Feminism

\*\*\*PHYS 25100 cannot be used to fulfill B7 General Education course\*\*\*

C

Senior Design I (ENGR 41000 or ME 48700)

3

Total Credit Hours =

35

- 1) This plan satisfies the competency requirements and the credit hour requirement.
- 2) This list of ME approved courses is posted on at www.pfw.edu/cme.
- 3)Starred courses have been recommended by the Industry Advisory Board as being beneficial for mechanical engineering students.

# Major and Supporting Courses Required for the BSME

- ENGR 12700 Engineering Fundamentals I Cr. 4.
- ENGR 12800 Engineering Fundamentals II Cr. 4.
- MA 26100 Multivariate Calculus Cr. 4.
- MA 35100 Elementary Linear Algebra Cr. 3.
- MA 36300 Differential Equations Cr. 3.
- PHYS 25100 Heat, Electricity, and Optics Cr. 5.

### Core and Concetration Courses Required for the BSME

- CS 22700 Introduction To C Programming Cr. 2.
- ME 16000 Solid Modeling Cr. 2.
- ME 20000 Thermodynamics I Cr. 3.
- ME 25000 Statics Cr. 3.
- ME 25100 Dynamics Cr. 3.
- ME 25200 Strength of Materials Cr. 3.
- ME 29300 Measurements and Instrumentation Cr. 2.
- ME 30100 Thermodynamics II Cr. 3.
- ME 30300 Material Science and Engineering Cr. 2.
- ME 30400 Material Science and Engineering Cr. 2.
   ME 30400 Mechanics and Materials Laboratory Cr. 1.
- ME 31800 Fluid Mechanics Cr. 3.
- ME 31900 Fluid Mechanics Laboratory Cr. 1.
- ME 32100 Heat Transfer Cr. 3.
- ME 32200 Heat Transfer Laboratory Cr. 1.
- ME 33100 System Dynamics Cr. 3.
- ME 33300 Automatic Control Systems Cr. 3.
- ME 36100 Kinematics and Dynamics of Machinery Cr. 3.
- ME 36900 Design of Machine Elements Cr. 3.
- ME 48800 Mechanical Engineering Design II Cr. 3.

#### **Technical Elective Courses: Credits 12**

Students  $\underline{must}$  select at least three (3) courses from Group 1 and may select  $\underline{at\ most}$  one (1) course from Group 2.

### Group 1\*

- ME 42100 Heating and Air Conditioning I Cr. 3.
- ME 42400 Design and Optimization of Thermal Systems Cr. 3.
- ME 42500 Intermediate Heat Transfer: Theory and Applications Cr. 3.
- ME 42700 Sustainable Energy Sources and Systems Cr. 3.
- ME 43200 Manufacturing Processes Cr. 3.
- ME 44500 Biomaterials CR. 3.
- ME 47100 Vibration Analysis Cr. 3.
- ME 48000 Finite Element Analysis Cr. 3.
- ME 50500 Intermediate Heat Transfer Cr. 3.
- ME 50900 Intermediate Fluid Mechanics Cr. 3.
- ME 54400 Modeling And Simulation Of Mechanical Engineering Systems Cr. 3.
- ME 54500 Finite Element Analysis: Advanced Theory and Applications Cr. 3.
- ME 54600 CAD/CAM Theory And Advanced Applications Cr. 3.
- ME 54700 Mechatronics, Robot And Automation Cr. 3.
- ME 55000 Adv Stress Analysis Cr. 3.
- ECE 48300 Digital Control Systems Analysis And Design Cr. 3.
  - \* Other 5xx-level courses offered by the Civil & Mechanical Engineering Department may be included in Group 1 with approval.

### Group 2\*

- ME 49800 Research in Mechanical Engineering I Cr. 0-6.
- MET 33500 Basic Machining Cr. 3.
- ECE 25500 Introduction To Electronic Analysis And Design Cr. 3.
- SE 52000 Engineering Economics Cr. 3.
- SE 53000 Systems Engineering Management Cr. 3.
- SE 55000 Advanced Manufacturing Systems And Processes Cr. 3.
- CS 32100 Introduction To Computer Graphics Cr. 3.
- CS 38400 Numerical Analysis Cr. 3.
- MA 51000 Vector Calculus Cr. 3.
- MA 51100 Linear Algebra with Applications Cr. 3.
  MA 52300 Introduction to Partial Differential Equations Cr. 3.
- MA 52500 Introduction to Complex Analysis Cr. 3.
- STAT 51100 Statistical Methods Cr. 3.
- CHM 37100 Physical Chemistry Cr. 3.
- PHYS 32200 Optics Cr. 3.
- PHYS 34200 Modern Physics Cr. 3.

# Required Electrical and Computer Engineering Course: Credits 3

• ECE 20100 - Linear Circuit Analysis I Cr. 3.

### **GPA Requirement**

The required courses (ENGR, ME, and ECE) and technical elective courses must have a combined minimum GPA of 2.0.

For the latest information please visit www.pfw.edu/cme

### Total: Credits 120

### Student Responsibilities

All Mechanical Engineering students are responsible for satisfying the graduation requirements specified for the B.S.M.E. program. Thus, it is essential that they develop a thorough understanding of the required courses, academic policies, and procedures governing their academic career.

<sup>\*</sup>Other 5xxx-level courses offered by the CME, Math, or Physics departments may be included in Group 2 with approval.

# Mechanical Engineering Technology (B.S.)

Program: B.S. School of Polytechnic

College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 221 ~ 260-481-6338

Mechanical Engineering Technology is part of the School of Polytechnic. Mechanical Engineering Technology (MET) prepares students for the application of engineering principles and technological developments for the creation of useful products and/or production machinery. The MET program teaches you how to analyze and design machine systems used in many industries, including automotive, biomedical, aerospace, robotics, steelmaking, HVAC, consumer products and etc.

#### MET B.S. Program Objectives:

- To prepare graduates with knowledge, problem solving ability, and hands-on skills to enter careers in analysis, applied design, development, implementation, manufacturing, testing, technical sales, evaluation, or oversight of mechanical systems and processes.
- To develop a respect for diversity and a knowledge of contemporary professional, societal, and global issues with an understanding of professional and ethical responsibilities.

#### Student outcomes for the degree are as follows:

- an ability to apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve broadly-defined engineering problems
  appropriate to the discipline;
- · an ability to design systems, components, or processes meeting specified needs for broadly-defined engineering problems appropriate to the discipline;
- an ability to apply written, oral, and graphical communication in broadly-defined technical and non-technical environments; and an ability to identify and use appropriate technical literature:
- · an ability to conduct standard tests, measurements, and experiments and to analyze and interpret the results to improve processes; and
- an ability to function effectively as a member as well as a leader on technical teams.

#### Accreditation:

· The Mechanical Engineering Technology degree is accredited by the Engineering Technology Accreditation Commission of ABET, http://www.abet.org.

#### **Program Delivery:**

 POLYTECHNIC programs emphasize practice-based learning via hands-on laboratory applications using state-of-the-art equipment. Some courses are available through online, distance, and hybrid learning, however many incorporate an on-campus laboratory element.

#### Declaring This Major:

Students interested in declaring Mechanical Engineering Technology as their major may do so in one of two ways:

- 1. On their application when they first apply to the university.
- 2. After meeting with a faculty advisor, a change of major can be declared.

#### **General Requirements:**

- 1. Degree Requirements
- 2. General Education Requirements
- 3. Overlapping Content
- 4. Academic Regulations

### **Program Requirements:**

#### Mechanical Engineering Technology B. S. 4-Yr. Plan:

- Students must complete all courses earning grades of C- or better.
- Student Responsibilities: You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair.
- Transfer credit limits, see Academic Regulations above.
- · General Education and Major courses as listed below.

To earn the B.S. with a major in mechanical engineering technology, you must fulfill the requirements of Purdue Fort Wayne (<u>Regulations</u>); the College of Engineering, Technology, and Computer Science (Colleges); and the <u>Mechanical Engineering Technology A.S.</u>, and complete the following courses, earning a grade of C- or better in all courses.

#### Required Core and Concentration (Major) Courses

• MET 21600 - Machine Elements Cr. 4.

- IET 35000 Engineering Economy Cr. 3.
- MET 30000 Applied Thermodynamics Cr. 3.
- MET 31200 Dynamics and Mechanisms Cr. 3. • MET 33000 - Introduction to Fluid Power Cr. 3.
- MET 35000 Applied Fluid Mechanics Cr. 3.
- MET 37000 Introduction to Heat Transfer Cr. 3.
- MET 38100 Engineering Materials Cr. 3.
- MET 48700 Instrumentation and Automatic Control Cr. 3.
- MET 49400 Senior Design and Analysis Cr. 3.

### Additional Required Technical Courses

- ECET 21100 Electrical Machines and Controls Cr. 3.
- MA 22700 Calculus for Technology I Cr. 4. or
- MA 16500 Analytic Geometry and Calculus I Cr. 4.
- PHYS 21900 General Physics II Cr. 4.

#### MET Selective Credits: 3

- MET 34700 Programming of Automation Systems Cr. 3.
- MET 24700 Computer-Aided Tool and Fixture Design Cr. 3.
- MET 44000 Advanced CNC Machining Cr. 3.
- ET 22000 Materials Characterization Cr. 3.
- ET 23000 Introduction To Polymers Cr. 3.
- ET 24000 Steelmaking, Forming And Heat Treating Cr. 3.
- ET 31000 Failure Analysis Cr. 3.
- ET 32000 Biomedical Materials Cr. 3.
- ET 34000 Corrosion Control Cr. 3.

#### Computer Programming Elective: Credits 3

### Recommended Choices:

- CPET 19000 Problem Solving with MATLAB Cr. 1-4. Or
- ECET 26400 C Programming Language Applications Cr. 3. Or
- ECET 36100 Introduction to PLC and Pneumatic Systems Cr. 4. Or
- · CS 16000 Introduction To Computer Science I Cr. 4. Or
- CS 20300 Advanced Visual Programming Cr. 3.

# Additional Required Support Courses

- ENGL 23401 Technical Report Writing Cr. 3.
- ENGL 42101 Technical Writing Projects Cr. 1-3.

## Additional Core and Concentration Electives: Credits 6

- · Any two courses level 200 or above from IET and MET, or a course approved by an MET advisor.
- · Recommended choices:
- · IET 31000 Plant Layout and Material Handling Cr. 3.

Any of the Technical Selective courses

- IET 36200 Technological Optimization Cr. 3.
- IET 36900 Manufacturing Simulation Cr. 3.
- IET 40100 Manufacturing Process Planning Cr. 3.
- IET 45400 Statistical Process Control Cr. 3.
- IET 47800 Lean Manufacturing and Design Cr. 3.
- IET 22400 Production Planning and Control Cr. 3.

- IET 25700 Ergonomics Cr. 3.
- IET 26700 Work Methods Design Cr. 3.
- IET 30400 Advanced Metrology Cr. 3.
- ECET 36100 Introduction to PLC and Pneumatic Systems Cr. 4.

# Total Including 60 from A.S.: Credits 120

### Additional Course Use

- · MA 22700 required, MA 16500 accepted
- · PHYS 21900 required, PHYS 25100 accepted
- · MET 30000 required, ME 20000 accepted
- MET 48700 required, ME 29300+ME 38800 or ME 33300 accepted
- · MET 3500 required, ME 31800 accepted
- · MET 37000 required, ME 32100 accepted
- MET 21600 required, ME 36900 accepted
- · MET 31200 required, ME 25100 or ME 36100 accepted

### Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# Money and Banking (B.S.B.)

Program: B.S.B. - Money and Banking Department of Economics and Finance Richard T. Doermer School of Business

Neff Hall 350 ~ 260-481-6471

**Doermer School of Business Undergraduate Student Success Center** 

Neff Hall 366 ~ 260-481-6472

### Doermer School of Business Overview

#### The student learning outcomes for the degree are as follows:

- Upon completion of the Bachelor of Science in Business (B.S.B) Degree, students will:
- Be able to integrate fundamental principles of business theory and practice.
- Be able to solve problems by modeling, analyzing data (qualitative and numeric), and using critical thinking skills.
- · Be able to understand the global and cultural implications of business decisions.
- Be able to understand ethical considerations in business decision.
- · Be able to understand the relationship between the community and business.
- Be able to demonstrate the effective communication and teamwork skills.
- · Be prepared for life-long learning in a dynamic environment.

The Bachelor of Science in Business (B.S.B.) program is accredited by The Association to Advance Collegiate Schools of Business (AACSB), which provides a voluntary mechanism of quality control. AACSB is the most prestigious business accrediting body in the nation. Only about one-quarter of all business schools in the nation possess this distinction.

Your initial courses are selected from introductory-level general education, business, and economics subjects. When you have qualified for admission to the B.S.B. program, additional opportunities are provided for in-depth studies in a variety of advanced business, management, and analytical subjects. These advanced studies help you prepare for positions of increasing executive responsibility in the business community.

At the time you are admitted to the B.S.B. program, you must declare a specialization in one of five majors: accounting, business economics, finance, management, or marketing.

#### Admission

Students are admitted as pre-business students until they have completed the specific pre-business requirements needed for admission to the Bachelor's degree program.

To be admitted to the B.S.B. program, applicants must have a cumulative GPA of 2.00 or higher and will have completed at least 45 credits that apply toward the degree, including the courses listed below. Within this course listing, successful applicants will have (1) a grade of C- or better in each course and (2) a GPA of 2.50 or better within these courses.

#### Courses Required for Admission to the B.S.B. Program

Course Number and Title	Credits	
COM 11400	Fundamentals of Speech Communication	3
MA 22900	Calculus for the Managerial, Social, and Biological Sciences I	3
PSY 12000 <u>or</u> SOC 16101	Elementary Psychology or Principles of Sociology	3
BUS 10001	Principles of Business Administration	3
ENGL 23301	Intermediate Expository Writing	3
BUS 20401	Business Communication	3
BUS 10000	Introduction to College and Business Careers	1
BUS 20100	Principles of Financial Accounting	3
BUS 20101	Computers in Business	3
ECON 20101	Introduction to Microeconomics	3
BUS 20001	Business Degree Seminar	0

Three additional rules apply for admission to the B.S.B. program :

- 1. No more than 6 credits of these courses may be repeated, and no course may be repeated more than once.
- 2. Both the original and the repeat grades earned in the above courses will be used to compute the admission GPA. This includes courses that you have taken or repeated at Purdue Fort Wayne and other Purdue campuses.
- 3. Students must earn a minimum of 300 points in the Passport to Success program, including at least two high impact events, before they can be admitted to any of the majors. Passport to Success is a program required of all business majors that emphasizes participation in activities outside the classroom. Details of the Passport to Success program may be found on the Doermer School of Business website.

#### Note:

Bachelor's degree programs in business are offered at other Purdue University campuses. Since admission and graduation requirements vary among these campuses, you must meet the admission and graduation requirements of the campus from which you intend to graduate.

#### Enrollment in Business Courses Numbered 30100 and Above

Unless you have met at least one of the following conditions, you are not permitted to enroll in a business course numbered 30100 or above:

- You have been admitted to the B.S.B. program at Purdue Fort Wayne.
- The course is a specified requirement for another bachelor's degree program or minor in which you are enrolled and you have completed all course prerequisites.
- You have obtained written permission from the department through which the course is offered.

If you have enrolled and are not eligible, you will be withdrawn from the course.

**B.S.B. REQUIREMENTS** To earn the B.S.B., you must complete a minimum of 120 credits as specified below and obtain an overall cumulative GPA of at least 2.30. You must satisfy the requirements of Purdue Fort Wayne (see Regulations) and the Richard T. Doermer School of Business, including completion of the Passport to Success program, and earn a grade of C- or better in each BUS and ECON course. Developmental courses do not apply to degree requirements.

Your final consecutive 30 credits must be taken at Purdue Fort Wayne after you have been formally admitted to the B.S.B. program. Business majors may not count BUS, ECON or OLS courses towards their general education requirements (unless noted).

Special Academic Regulations for Students in Undergraduate Business Programs Following are the general policies and procedures for students enrolled in business undergraduate programs. In addition to the policies of Purdue Fort Wayne (see Regulations), these are intended to maintain the historically high academic standards of undergraduate business programs at Purdue Fort Wayne.

The Student's Responsibility You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

Academic Renewal Option The school participates in the Academic Renewal Option for eligible students returning to Purdue Fort Wayne after an absence of five or more years. (see Regulations)

Time Limit. To ensure that you will be professionally competitive with other members of your graduating class, you may complete the degree requirements specified in the catalog in effect at the time you were formally admitted to the degree program only if

Progress toward your degree objective has been continuous. If you have not registered for degree-applicable courses as a Purdue Fort Wayne business major for a period
of one calendar year, you will be considered as not progressing toward your original degree objective. Subsequently, if you qualify for re-entry to an undergraduate
business program at Purdue Fort Wayne, you must satisfy the admission and degree requirements specified in the Purdue Fort Wayne catalog that includes your year of
re-entry.

- No more than five years have elapsed since your admission to the business degree program. If more than five years have elapsed, your cumulative academic record will be reviewed by the appropriate business or economics department, and you will be required to meet the degree criteria specified in the current Purdue Fort Wayne catalog. This may result in your having to repeat those courses in which the original content is determined to be outdated.
- The necessary courses or degree programs are available. If the courses that were required at the time of your formal admission to the business degree program are no longer available, you must complete the current replacements for those courses. Should these newer courses require prerequisites you have not taken, you must also enroll for these prerequisites in the appropriate sequence.

Overlapping Courses You may not count toward graduation any courses or sequences considered to have overlapping content.

Academic Probation You are placed on academic probation whenever your semester or cumulative GPA at the end of any fall or spring semester falls below 2.0.

Repeat Limits To remain eligible for the B.S.B. program, a student may not retake any of the 30000 or 40000-level BUS or ECON courses more than twice. An appeal may be made by the student to the Undergraduate Policy Committee (UPC) in the case of extenuating circumstances.

**Transfer Credit** Generally, courses in basic business and economics subjects (10000-20000 level) will be accepted as equivalent if they are being transferred from regionally accredited institutions. Courses in advanced business and economics (30000-40000 level) will only be considered equivalent if they are from another business school accredited by The Association to Advance Collegiate Schools of Business (AACSB), were taken within the past five years, and were taken as a junior or senior class standing.

At least 50 percent of required business and economics courses must be completed at Purdue Fort Wayne in order for a B.S.B. degree to be awarded.

Credit by Examination Under very limited circumstances and subject to the following policies, you may be permitted to earn credit by means of a special examination:

- 1. In all cases, your eligibility for a credit examination; the type of examination; testing procedures, date, time, and location; and evaluation of your performance are the decision of the appropriate Purdue Fort Wayne business or economics department. The decision of the department is final.
- 2. Credits earned by examination cannot exceed 10 percent of your total degree requirements.
- 3. You may attempt an authorized credit examination only once.
- 4. Only those examination scores that equate to a C- grade or better will be considered. Only the grade P will be reported for credit earned by examination.

### General Education Requirements Credits: 33

A grade of C- or better is required in each course used to satisfy the Purdue Fort Wayne general education requirements.

### Category A: Foundational Intellectual Skills

- 1. Written Communication Credits: 3
  - ENGL 13100 Reading, Writing, and Inquiry I Cr. 3.
- 2. Speaking and Listening Credits: 3
  - COM 11400 Fundamentals Of Speech Communication Cr. 3.
- 3. Quantitative Reasoning Credits: 3
  - MA 22900 Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.

Additional Course Use

Courses listed below may also be considered in meeting specific degree requirements.

MA 22900 required, MA 16300, MA 16500, MA 22700 or MATH M119 accepted

# Category B: Ways of Knowing

4. Scientific Ways of Knowing Credits: 3

Select one of the following:

• ANTH 20001 - Bioanthropology Cr. 3.

- ASTR 10000 The Solar System Cr. 3.
- BIOL 10000 Introduction To The Biological World Cr. 3.
- BIOL 32700 Biology Of Aging Cr. 3.
- CHM 11100 General Chemistry Cr. 3. required lab
- CHM 11500 General Chemistry Cr. 4. required lab
- CHM 12000 Chemistry And Art Cr. 3.
- EAPS 10001 General Geology Cr. 3-5.
- EAPS 12100 Journey To Mars Cr. 3.
- NUTR 30300 Essentials of Nutrition Cr. 3.
- · GEOG 10700 Physical Systems of the Environment Cr. 3.
- GEOG 10900 Weather and Climate Cr. 3.
- · HORT 10100 Fundamentals of Horticulture Cr. 3.
- PHYS 10500 Sound and Music Cr. 3.
- PHYS 11500 Introduction to Lasers Cr. 3.
- PHYS 12000 Physics of Sports Cr. 3.
- PHYS 15200 Mechanics Cr. 5. required lab
- PHYS 21800 General Physics Cr. 4. required lab
   PHYS 22000 General Physics Cr. 4. required lab
- PHYS 22300 X-Ray Physics Cr 3.

Business majors are not required to take a lab class but if you choose to take a class with a required lab, you must complete the required lab. If you opt to take a science class that is not on the list above, then you will have to take another Scientific Ways of Knowing class as a general education elective that satisfies any missing outcomes.

### 5. Social and Behavioral Ways of Knowing Credits: 3

Select one of the following:

- PSY 12000 Elementary Psychology Cr. 3. or
- SOC 16101 Principles of Sociology Cr. 3.

#### 6. Humanistic and Artistic Ways of Knowing Credits: 3

• PHIL 11100 - Introduction To Ethics Cr. 3.

#### 7. Interdisciplinary Ways of Knowing Credits: 6

Must complete

• BUS 10001 - Principles Of Business Administration Cr. 3.

and select one of the following:

- INTL 20000 Introduction to International Studies: Emerging Global Visions Cr. 3.
- LGBT 20000 Introduction to Scholarship on Lesbian, Gay, Bisexual, and Transgender Issues Cr. 3.
- LING 46000 Language in Society Cr. 3.
- OLS 45400 Gender and Diversity in Management Cr. 3.
- PACS 20000 Introduction to Peace and Conflict Studies Cr. 3.
- PPOL 16200 Environment and People Cr. 3.
- REL 11200 Religion and Culture Cr. 3.
  SOC 20900 Community and the Built Environment Cr. 3.
- WOST 24000 Topics in Feminism Cr. 3.
  EALC 10101 Elementary Japanese I Cr. 4.
- EALC 10201 Elementary Japanese II Cr. 4.
- FR 11100 Elementary French I Cr. 3.
- FR 11201 Elementary French II Cr. 3.
- GER 11100 Elementary German I Cr. 3.
- GER 11201 Elementary German II Cr. 3. • NELC 10000 - Elementary Arabic I Cr. 3.
- · NELC 15000 Elementary Arabic II Cr. 3.
- SPAN 11101 Elementary Spanish I Cr. 3.
- SPAN 11201 Elementary Spanish II Cr. 3.
- SPAN 11300 Accelerated First Year Spanish Cr. 3.

### Category C: Capstone

#### 8. Capstone Experience Credits: 3

General Education Requirements

#### General Education Electives Credits: 6

General Education Requirements

# DSB Additional Requirements Credits: 6

You must earn a grade of C- or better in each of the following courses:

- ENGL 23301 Intermediate Expository Writing Cr. 3.
   BUS 20401 Business Communication Cr. 3.

### Business and Economics Core Credits: 46

You must earn a grade of C- or better in each of the following courses:

### **Business Principles Credits: 13**

- BUS 10000 Introduction To College And Business Careers Cr. 1.
- BUS 20100 Principles Of Financial Accounting Cr. 3.
- BUS 20200 Principles Of Managerial Accounting Cr. 3.
- BUS 20101 The Computer In Business Cr. 3
- BUS 20300 Commercial Law I Cr. 3.
- BUS 20001 Business Degree Seminar Cr. 0.

# **Economics Principles Credits: 9**

- ECON 20101 Introduction to Microeconomics Cr. 3.
- ECON 20201 Introduction to Macroeconomics Cr. 3.
- ECON 27000 Introduction to Statistical Theory in Economics and Business I Cr. 3.

Courses listed below may also be considered in meeting specific degree requirements.

ECON 27000 required, STAT 30100, STAT 51100 accepted

### Management Processes Credits: 15

A student may not retake any of the 30000-40000 level BUS or ECON courses more than twice. An appeal may be made by the student to the Undergraduate Policy Committee (UPC) in the case of extenuating circumstances.

- BUS 30100 Financial Management Cr. 3.
- BUS 30101 Introduction To Marketing Cr. 3.
- BUS 30102 Operations Management Cr. 3.
- BUS 30200 Management And Behavior In Organizations Cr. 3
- BUS 32100 Management Of Information Systems Cr. 3.

### Management Policy and Strategy Credits: 9

- BUS 40400 Social, Legal, And Ethical Implications Of Business Decisions Cr. 3.
- BUS 43000 Organizations And Organizational Change Cr. 3.
- BUS 40100 Administrative Policy Cr. 3.
- BUS 40000 Business Senior Seminar Cr. 0-3.

A grade of 'P' will be posted for BUS 40000 when a student successfully earns all of the Passport to Success points required for graduation.

### Bachelor of Science in Business with a major in Money and Banking

The Money and Banking major is comprise of courses that have been selected to prepare students for positions in the banking and financial services industries through advanced training that emphasizes both theory and practice. The major courses are taught by faculty members comprised of both academic researchers and experieinced practitioners. The program involves collaboration with the banks in the Fort Wayne area.

### Money and Banking Requirements Credits

A student may not retake any of the 30000 - 40000 level BUS or ECON courses more than twice. An appeal may be made by the student to the Undergraduate Policy Committee (UPC) in the case of extenuating curcumstances.

You must earn a grade of C - or better in each of the following courses:

- ECON 32100 Intermediate Microeconomic Theory Cr. 3.
- ECON 32201 Intermediate Macroeconomic Theory Cr. 3.
- BUS 44600 Bank & Financial Intermediation Cr. 3.
- BUS 45400 Current Topics In Banking Cr. 3.
- BUS 49700 Bank Simulation Course Cr. 3.
- BUS 34500 Money/Banking/Capital Markets Cr. 3.

or

• ECON 35000 - Money and Banking Cr. 3.

#### Money and Banking Electives

Choose two of the following:

- BUS 30300 Intermediate Investments Cr. 3.
- BUS 31000 Financial Statement Analysis Finance Perspective Cr. 3.
- ECON 30600 Undergraduate Seminar in Economics Cr. 3.
- ECON 36001 Public Finance: Survey Cr. 3.
- ECON 47101 Econometric Theory And Practice I Cr. 3.

### Free Electives

11 credits from either business or non-business courses to complement your professional and educational objectives, and bring your degree total to at least 120 credits.

### Total Credits: 120

### Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# Music (B.S.M.) Popular Music with Concentration in Songwriting/Performance or Recording/Production

Program: Popular Music BSM School of Music College of Visual and Performing Arts

Rhinehart Music Center 144 ~ 260-481-6714

A major in music requiring intensive study of an instrument or voice in popular and commercial musical styles and genres, including concentrations in music recording/production or songwriting/performance. Coursework will foster development of music creation, drawing upon a "core" of music theory, media production, technology, music history/appreciation, entrepreneurship, and study of the music industry. Musically accomplished and sensitive students will prepare for many different types of careers in the world of music. Strengthened by the continued close partnership with Sweetwater Sound, many courses are held in the new Sweetwater Music Center which houses classrooms, collaboration spaces, and top-notch music recording facilities.

Students earning the degree in Popular Music will choose one of two concentrations: Songwriting and Performance Concentration focuses on writing and performing of songs within various popular music genres.

Or Recording and Production Concentration that focuses on the recording and production of music utilizing state of the art music technology.

#### Student learning outcomes:

- Students will demonstrate knowledge of popular music theory sufficient to analyze musical forms, structures, and styles; to create within basic musical structures; and to relate theoretical concepts to sound.
- · Students will demonstrate performance ability as ensemble members, as soloists on both a primary instrument and a secondary instrument.
- Students will demonstrate knowledge of popular music styles with an understanding of the social, political and cultural impacts that shaped musical development.
- Students will demonstrate proficiency in utilizing appropriate technology to notate and create music, to investigate and report scholarly research, and to support the specific demands of their professional degrees.

#### Students pursuing the Songwriting and Performance Concentration:

- · Will demonstrate competency in commercial songwriting, with focus on composing music and lyrics within various popular music genres.
- Will declare primary and secondary instruments in either 1) Primary instrument, voice with secondary instrument in keyboard or guitar, or 2) Primary instrument, keyboard or guitar with secondary instrument in voice.

#### Students pursuing the Recording and Production Concentration:

· Will demonstrate competency in the recording and production of music including live sound and the interface between music and video.

### Students in this degree are subject to the policies for all music degrees found on the Music department page.

BSM Popular Music students are expected to own a computer-based digital audio workstation that is compatible with the School of Music high-end system, and that will allow students to work in their own space on their own time. The Director of Music Technology shall maintain the list of current equipment and capability BSM Popular Music students are expected to own. Since such equipment is considered to be "tools of the trade", this equipment expenditure can be included in Financial Aid loan calculations.

#### **Program Description**

Find your voice with intensive study in popular and commercial musical styles and genres, including concentrations in music recording/production or songwriting/performance. Courses offer multifaceted experiences in music creation, flowing from a "core" of curriculum of music theory, media production, technology, music history/appreciation, entrepreneurship, and study of the music industry. Popular music training will prepare you for many different types of careers in the vast world of music. Strengthened by our close partnership with Sweetwater Sound Inc., most courses are held in the Purdue University Fort Wayne Sweetwater Music Center with its amazing classrooms, collaboration spaces, and top-notch music recording facilities.

#### Accreditation:

· Programs offered by the department are fully accredited and under review by the National Association of Schools of Music.

#### **Program Delivery**:

• Courses for this major are offered on campus and at the Sweetwater Music Center.

#### **General Requirements:**

- Degree Requirements
- General Education Requirements
- · Overlapping Content
- · Academic Regulations

#### **Program Requirements:**

## General Education Requirements: Credits 33

Category B4: Scientific Ways of Knowing Cr. 3.

• PHYS 10500 - Sound and Music Cr. 3.

Category B6: Humanistic and Artistic Ways of Knowing Cr. 6.

- MUSC 10500 Traditions in World Music Cr. 3.
- MUSC 10101 Music for the Listener Cr. 3.

# Popular Music Core: Credits 24

#### Required courses:

- MUSC 18101 Popular Music Theory, Analysis And Application I Cr. 3.
  - Or MUSC 11300 Music Theory I
- MUSC 18102 Popular Music Theory, Analysis And Application II Cr.3.
  - Or MUSC 11400 Music Theory II.
- MUSC 18203 Survey Of Music Industry And Copyright Cr. 3.
- MUSC 20700 Electronic Music I Cr. 3.
- MUSC 20800 Electronic Music II Cr. 3.
- MUSC 28201 Popular Music Theory, Analysis And Application III Cr. 3.
  - Or MUSC 21300 Music Theory III.
- MUSC 28202 Popular Music Theory, Analysis And Application IV Cr. 3.
  - Or MUSC 21400 Music Theory IV.
- MUSC 48401 Music Marketing, Promotion And Entrepreneurship Cr. 3.

### Perspectives In Music: Credits 9

Electives (choose from):

- MUSC 20100 Music Literature I Cr. 2.
- MUSC 20103 History of Rock and Roll Music Cr. 3.
- MUSC 20200 Music Literature II Cr. 2.
- MUSC 28211 VT-Perspectives In Music Cr. 3.
- MUSC 39300 History of Jazz Cr. 3.

# Popular Music Performance Studies: Credits 28

#### Applied Primary Cr. 12.

Students take applied lessons in their primary instrument for a total of 12 credits at the 3XXXX level.

#### Applied Secondary Cr. 2.

Choose from the courses below for a total of 2 credits in the same secondary instrument.

- · MUSC 10000 Guitar
- MUSC 20102 Voice Class
- · MUSC 21100 Keyboard Techniques

#### Performance Ensemble: Credits 14

Required course - MUSC 18241 - Introduction To Performance Techniques

Students must take 7 semesters of Performance Ensembles for a total of 12 credit hours. Choose a combination of the courses below:

- MUSC 28341 Popular Music Performance Ensemble
- MUSC 04000 University Instrumental Ensembles
- MUSC 04100 Symphonic Wind Ensemble
- MUSC 04200 Jazz Ensemble
- · MUSC 04300 Orchestra

- · MUSC 07100 University Singers
- MUSC 07200 Chamber Singers
- MUSC 07300 Choral Union
- MUSC 34100 Guitar Ensemble
- MUSC 42004 Small Ensembles
- MUSC 45002 String Instrument Ensembles
- MUSC 45200 Keyboard Chamber Music Ensemble
- MUSC 46000 Woodwind Ensembles
- MUSC 49001 Percussion Ensembles

Performance Class: 8 semesters required.

· MUSC 09500 - Performance Class Cr. 0.

### Senior Seminar: Credits 3

Required course:

• MUSC 48499 - Senior Seminar Cr. 3.

### Media Production: Credits 6

Required courses:

- AD 20301 Web Design I: Introduction to Web Design Cr. 3.
- AD 20801 Video And Inter-Media I Cr. 3.

### Recording and Production Concentration: Credits 17

Students in the Recording and Production Concentration are required to complete a juried performance checkpoint at the end of their fourth semester or upon completion of the applicable courses in their academic plan.

Required courses:

- MUSC 10300 Music Recording And Production I Cr. 3.
- MUSC 20300 Music Recording And Production II Cr. 3.
- MUSC 20500 Music Recording And Production III Cr. 3.

Electives (choose from):

- MUSC 28361 Music Publishing Cr. 3.
- MUSC 28362 Legal Aspects Of The Music Industry Cr. 3.
- MUSC 30400 Live Sound Reinforcement Cr. 3.
- MUSC 30500 Practicum Cr. 1-4.
- MUSC 30600 VT-Special Topics Cr. 1-4.
- MUSC 31200 Arranging for Instrumental and Vocal Groups Cr. 2.
- MUSC 38311 Music And Audio For Video Cr. 3.

  MUSC 38312 Music And Audio For Video Cr. 3.
- MUSC 38312 Music Mixing And Mastering Cr. 3.
- MUSC 38363 Concert And Event Production Cr 3.
- MUSC 38364 Music Products Merchandising Cr. 3.
- MUSC 38365 Artist Management Cr. 3.
- MUSC 40400 Internship Cr. 1-4.
- MUSC 48403 Independent Study Cr. 1-4.

# Songwriting and Performance Concentration: Credits 17

Students in the Songwriting and Performance concentration will declare primary and secondary instruments in either:

- 1) Primary insturment, voice with secondary instrument in keyboard or guitar, or
- 2) Primary instrument, keyboard or guitar with secondary instrument in voice.

Students are required to complete a juried performance checkpoint at the end of their fourth semester or upon completion of the applicable courses in their academic plan.

#### Required courses:

- MUSC 28351 Songwriting I Cr. 3.
- MUSC 28352 Songwriting II Cr. 3.

• MUSC 31200 - Arranging for Instrumental and Vocal Groups Cr. 2

#### Electives (choose from):

- MUSC 10300 Music Recording And Production I Cr. 3.
- MUSC 20300 Music Recording And Production II Cr. 3.
- MUSC 20500 Music Recording And Production III Cr. 3.
- MUSC 28361 Music Publishing Cr. 3.
- MUSC 28362 Legal Aspects Of The Music Industry Cr. 3.
- MUSC 30500 Practicum Cr. 1-4.
- MUSC 30600 VT-Special Topics Cr. 1-4.
- MUSC 38311 Music And Audio For Video Cr. 3.
- MUSC 38312 Music Mixing And Mastering Cr. 3.
- MUSC 38363 Concert And Event Production Cr. 3.
- MUSC 38364 Music Products Merchandising Cr. 3.
  MUSC 40400 Internship Cr. 1-4.
- MUSC 48403 Independent Study Cr. 1-4.

### Grade Requirements:

- Grades. Music majors must complete each required music course with a grade of C- or better and with an overall GPA of 2.5 or higher for all required music courses. Two unsuccessful attempts to attain a grade of C- or better in the same required music course will result in dismissal from the School of Music.
- · Exceptions to academic policies require a written request to the music faculty in consultation with the student's advisor.

Total Credits: 120

### Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate director or dean.

# Music (B.S.M.) with a Concentration in an Outside Field

Program: Bachelor of Science in Music School of Music College of Visual and Performing Arts

Rhinehart Music Center 144 ~ 260-481-6714

Students in this program become competent in another field outside music by completing 26-29 credit hours of intensive study in that discipline. Possible outside fields include music technology, business, theatre, or another discipline, with the course sequence determined in collaboration with an advisor in that field. Several of the outside fields offer internship experiences that prepare students with valuable real-world experience.

#### Student learning outcomes common to all music degrees are as follows:

- Students will demonstrate knowledge of music theory sufficient to analyze musical forms, structures, and styles; to create within basic musical structures; and to relate theoretical concepts to sound.
- Students will demonstrate performance ability as ensemble members, as conductors, and as soloists on both a primary instrument and a secondary instrument.
- Students will demonstrate knowledge of the history and literature of western and non-western music, with an understanding of the social, political and cultural impacts which shaped music history.
- Students will demonstrate proficiency in utilizing appropriate technology to notate and create music, to investigate and report scholarly research, and to support the specific demands of their professional degrees.

### Student learning outcomes specific to the Bachelor of Science in Music and all Outside Field concentrations are as follows:

- Students in this program will demonstrate competence in another field outside music by completing 26-29 credit hours of intensive study in that discipline. Possible
  outside fields include music technology, business, theatre, or another discipline, with the course sequence determined in collaboration with an advisor in that field.
- To earn the B.S. in Music with a Concentration in Music Technology or another Outside Field, one must satisfy the requirements of Purdue University Fort Wayne (Regulations) and the music core, and complete the courses prescribed for the concentration with a grade of C- or better in each music and concentration course.

#### **Students Pursuing Music Technology:**

• Students in this program must complete a minimum of 29 credits in Music Technology Courses

- The MUSC 40500 Final Project must be completed as part of this field of study but can have variable credits (1-4 cr. hours).
- · MUSC 40400 Internship is optional and can be taken at the discretion of the Director of Music Technology.
- Students who do not take MUSC 40400 Internship must complete 8 semesters of major ensemble credit and performance class (MUSC 09500).
- Students enrolled in MUSC 40400 must complete 7 semesters of major ensemble and performance class (MUSC 09500).
- BSM Music Technology students are expected to own a computer-based digital audio workstation that is compatible with the School of Music high-end system, and that
  will allow students to work in their own space on their own time. The Director of Music Technology shall maintain the list of current equipment and capability BSMMusic Technology students are expected to own. Since such equipment is considered to be "tools of the trade", this equipment expenditure can be included in Financial
  Aid loan calculations.

#### **Program Description**

Want to continue music and pair it with study in another area of the university? This flexible program allows you to create your own outside field of 26-29 credit hours of intensive study in areas like music technology, business, theatre, or any another discipline. You can do this and also explore your musical talent through a core of rich experiences in music performance, history and theory.

With the help of our great faculty advisors, you can choose what additional area you would like to explore as you consider you future and how you can combine music with other interests. Several of these "outside fields" also offer internship experiences that will prepare you for a career with valuable real-world experiences.

#### Accreditation:

· Programs offered by the school are fully accredited by the National Association of Schools of Music and the American Music Therapy Association.

#### **Program Delivery:**

· This program is available on campus though some courses may be available as distance learning.

#### Declaring this Major:

- Students who choose to major in music must be accepted by both Purdue Fort Wayne and the School of Music. For information regarding admission to the university, see
  the Office of Admissions web page: <a href="Purdue Fort Wayne Portal/admissions">Purdue Fort Wayne Portal/admissions</a>.
- Acceptance into the School of Music is not automatic upon acceptance by the university. All accepted students who indicate music as their major are placed into the Pre-Music category by the Admissions Office. Full acceptance as a music major is contingent upon a successful audition.
- · Auditions. Information about audition requirements are found on the school web site: Purdue Fort Wayne Portal/music.

Students in this degree are subject to the policies for all music degrees found on the School of Music page.

#### **General Requirements:**

- · Degree Requirements
- General Education Requirements
- Overlapping Content
- Academic Regulations

### **Program Requirements:**

Music and an Outside Field 4-Yr. Plan:

Music and an Outside Field (Music Technology) 4-Yr. Plan:

General Education Requirements: Credits 33

General Education Requirements

### Category B4 Scientific Ways of Knowing: Credits 3

• PHYS 10500 - Sound and Music Cr. 3.

Note: PHYS 10500 is required for the Music Technology outside field. Students who have selected another outside field may choose any Category B4 course that meets all learning outcomes.

# Category B6 Humanistic and Artistic Ways of Knowing: Credits 3

• MUSC 10500 - Traditions in World Music Cr. 3.

### Music Core: Credits 33

- MUSC 10901 Computer Skills for Musicians Cr. 2.
- MUSC 11300 Music Theory I Cr. 3.
- MUSC 11400 Music Theory II Cr. 3.
- MUSC 11500 Sightsinging and Aural Perception I Cr. 1.
  MUSC 11600 Sightsinging and Aural Perception II Cr. 1.
  MUSC 20100 Music Literature I Cr. 2.

- MUSC 20200 Music Literature II Cr. 2.
- MUSC 21300 Music Theory III Cr. 3.
- MUSC 21400 Music Theory IV Cr. 3.
- MUSC 21400 Music Theory IV Cr. 5.
   MUSC 21500 Sightsinging and Aural Perception III Cr. 1.
   MUSC 21601 Sightsinging and Aural Perception IV Cr. 1.
   MUSC 31500 Analysis of Musical Form Cr. 3.
   MUSC 37000 Techniques for Conducting Cr. 2.

- MUSC 40300 History of Music I Cr. 3.
  MUSC 40401 History of Music II Cr. 3.

# Performance Studies: Credits 25-28

# Applied Primary (includes recital): Credits 14-16

BSM Music Technology students who take MUSC 48404 Internship must complete 7 semesters of applied study. All other BSM Music Technology students must complete 8 semesters

- MUSC 09500 Performance Class Cr. 0.
  - Note: BSM in Music with a concentration in Music Technology students who take MUSC 48404 Internship are only required to complete 7 semesters of MUSC 09500 Performance Class.
- MUSC 29600 Applied Music Upper Division Jury Examination Cr. 0.
- MUSC 30100 Recital: Concentration Level Cr. 0.

### Applied Secondary: Credits 4

• MUSC 29900 - Piano Proficiency Examination Cr. 0.

#### Non Keyboard Applied Primaries take:

- MUSC 11100 Class Piano I Cr. 1-2.
- MUSC 12100 Class Piano II Cr. 1-2.
- MUSC 13100 Class Piano III Cr. 1-2.
- MUSC 14100 Class Piano IV Cr. 1-2.

# Keyboard Applied Primaries take:

- MUSC 21100 Keyboard Techniques Cr. 1-2.
- MUSC 29900 Piano Proficiency Examination Cr. 0.
  - · and 3 additional credits of secondary study in any instrument or voice

#### Ensemble: Credits 7-8

BSM Music Technology students who enroll in MUSC 48400 Internship are only required to complete 7 semesters of major ensemble credit. All other students must complete 8 semesters of ensemble credit. (See School of Music Ensemble Requirements)

### Outside Field Concentrations Credits 26-29

Students in this program become competent in another outside field by completing 26-29 credit hours of intensive study in that discipline. Possible outside fields include music technology, business, theatre, or another discipline, with the course sequence determined in collaboration with an advisor in that field. Several of the outside fields offer internship experiences that prepare students with valuable real-world experience.

Students earning this degree in Music will choose one concentration to fulfill degree requirements.

#### All Other Outside Field Concentrations Credits 26-29

Students must work with the School of Music's designated faculty advisor and the appropriate department chair in the selected outside field area to determine the outside field curriculum. Students must also request that the curriculum be provided to their School of Music advisor. Once the curriculum is approved, it will be programmed into the student's degree audit.

# Music Technology Concentration Credits 29

#### Choose from:

- MUSC 10300 Music Recording And Production I Cr. 3.
- MUSC 18203 Survey Of Music Industry And Copyright Cr. 3.
- MUSC 20300 Music Recording And Production II Cr. 3.
- MUSC 20500 Music Recording And Production III Cr. 3.
- MUSC 20700 Electronic Music I Cr. 3.
- MUSC 20800 Electronic Music II Cr. 3.
- MUSC 30400 Live Sound Reinforcement Cr. 3.
- MUSC 30500 Practicum Cr. 1-4.
- MUSC 30600 VT-Special Topics Cr. 1-4.
- MUSC 38311 Music And Audio For Video Cr. 3.
- MUSC 38312 Music Mixing And Mastering Cr. 3.
- MUSC 40400 Internship Cr. 1-4.
- MUSC 48403 Independent Study Cr. 1-4.

#### Required Course:

• MUSC 40500 - Final Project In Music Technology Cr. 1-4.

#### **Grade Requirements**

Grades. Music majors must complete each required music course with a grade of C- or better and with an overall GPA of 2.5 or higher for all required music courses. Two unsuccessful attempts to attain a grade of C- or better in the same required music course will result in dismissal from the School of Music.

Exceptions to academic policies require a written request to the music faculty in consultation with the student's advisor.

#### Total: Credits 120

### Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate director or dean.

### **Music Education (B.Mus.Ed)**

Program: Bachelor of Music Education School of Music College Visual and Performing Arts

Rhinehart Music Center 144 ~ 260-481-6714

Graduates of this program hold positions teaching music in Indiana and across the nation, and find that their education, with its mixture of rigorous course work and field work experiences in area schools, prepares them well for the challenges of contemporary music education. Upon completion of the music education course work and student teaching, students are prepared to apply for state license in PK-12 Choral/General Music or PK-12 Instrumental/General Music.

#### The student learning outcomes for the degree are as follows:

- Students will demonstrate knowledge of music theory sufficient to analyze musical forms, structures, and styles; to create within basic musical structures; and to relate theoretical concepts to sound.
- · Students will demonstrate performance ability as ensemble members, as conductors, and as soloists on both a primary instrument and a secondary instrument.
- Students will demonstrate knowledge of the history and literature of western and non-western music, with an understanding of the social, political and cultural impacts which shaped music history.
- Students will demonstrate proficiency in utilizing appropriate technology to notate and create music, to investigate and report scholarly research, and to support the specific demands of their professional degrees.

#### Student learning outcomes specific to the Bachelor of Music Education degree are:

- · Students will demonstrate mastery of skills needed for high quality music teaching and performing.
- Students will collaborate and engage with diverse learners and communities.
- · Students will think and reflect critically on varied pedagogical approaches.
- Students will identify and implement creative musical experiences for 21st-century learners.
- · Students will exhibit professionalism that elevates the value of music education.
- Students in this program will demonstrate their knowledge of music education history, philosophy, methodologies, and repertoire, and their ability to apply musical and pedagogical knowledge to the PK-12 classroom setting. Upon completion of the course work and student teaching, students are prepared to apply for state license in PK-12 Choral/General Music or PK-12 Instrumental/General Music.

#### **Program Description**

Students can take the next step in sharing music with others by entering the professional world of music teaching. Join our successful alumni teaching in music programs in Indiana and across the nation in experiencing a mixture of rigorous course work and field work experiences in area schools. Students will leave this program with skills on the cutting edge of music education in either the instrumental or choral area, having completed both their music education degree, and a state license in K-12 Choral/General Music or K-12 Instrumental/General Music, ready to enter a professional teaching career bolstered by strong musical roots and contemporary approaches to helping other gain a love of this art

#### Accreditation:

· Programs offered by the school are fully accredited by the National Association of Schools of Music and the American Music Therapy Association.

#### **Program Delivery:**

· This program is available on campus though some courses may be available as distance learning.

### Declaring this Major:

- Students who choose to major in music must be accepted by both Purdue University Fort Wayne and the School of Music. For information regarding admission to the university, see the Office of Admissions web page: http://pfw.edul/admissions.
- Acceptance into the School of Music is not automatic upon acceptance by the university. All accepted students who indicate music as their major are placed into the Pre-Music category by the Admissions Office. Full acceptance as a music major is contingent upon a successful audition.
- · Auditions. Information about audition requirements are found on the school web site: http://pfw.edu/music.

### General Requirements:

- · Degree Requirements
- · General Education Requirements
- Overlapping Content
- · Academic Regulations

To earn the Bachelor of Music Education degree, one must satisfy the requirements of Purdue Fort Wayne (Regulations), the music core, and School of Education requirements for music education students (Overall GPA of 3.0). Music Education majors must meet stated GPA requirements for music courses (3.0).

Students in this degree are subject to the policies for all music degrees found on the School of Music.

### **Program Requirements:**

Music Education (Choral/General) 4-Yr. Plan:

# General Education Requirements: Credits 33

General Education Requirements

# Category A1 Written Communication: Credits 3

• ENGL 13100 - Reading, Writing, and Inquiry I Cr. 3.

### Category A2 Speaking and Listening: Credits 3

- COM 11400 Fundamentals Of Speech Communication Cr. 3.
- THTR 11400 Interpretation for Performance and Presentation Cr. 3.

# Category B5 Social and Behavioral Ways of Knowing: Credits 3

• EDU 34001 - Education And American Culture Cr. 3.

# Category B6-Humanistic and Artistic Ways of Knowing: Credits 3

• MUSC 10500 - Traditions in World Music Cr. 3.

MUSC10500 Traditions in World Music is required for all music degrees and should be taken to fulfill general education Area VI and accreditation requirements.

### Category B7-Interdisciplinary/Creative Ways of Knowing: Credits 3

• MUSC 14000 - Introduction to Musical Expression Cr. 3.

# Music Core: Credits 30

- MUSC 10901 Computer Skills for Musicians Cr. 2.
- MUSC 11300 Music Theory I Cr. 3.
- MUSC 11400 Music Theory II Cr. 3.
- MUSC 11500 Sightsinging and Aural Perception I Cr. 1.
- MUSC 11600 Sightsinging and Aural Perception II Cr. 1.
- MUSC 20100 Music Literature I Cr. 2.
- MUSC 20200 Music Literature II Cr. 2.
- MUSC 21300 Music Theory III Cr. 3.
- MUSC 21400 Music Theory IV Cr. 3.
- MUSC 21500 Sightsinging and Aural Perception III Cr. 1.
- MUSC 21601 Sightsinging and Aural Perception IV Cr. 1.
- MUSC 37000 Techniques for Conducting Cr. 2.
- MUSC 40300 History of Music I Cr. 3.
- MUSC 40401 History of Music II Cr. 3.

Performance Studies: Credits 25

## Applied Primary (includes recital): Credits 14

- MUSC 29600 Applied Music Upper Division Jury Examination Cr. 0.
- MUSC 09500 Performance Class Cr. 0.

All BME students must complete 7 semsester of MUSC 09500 Performance Class

• MUSC 30100 - Recital: Concentration Level Cr. 0.

# Applied Secondary: Credits 4

• MUSC 29900 - Piano Proficiency Examination Cr. 0.

### Non-keyboard Applied Primaries take:

- MUSC 11100 Class Piano I Cr. 1-2.
- MUSC 12100 Class Piano II Cr. 1-2.
- MUSC 13100 Class Piano III Cr. 1-2.
- MUSC 14100 Class Piano IV Cr. 1-2.

### Keyboard Applied Primaries take:

MUSC 21100 - Keyboard Techniques Cr. 1-2.
 and 3 additional credits of secondary study in any instrument or voice

### Ensemble: Credits 7

7 semesters of major ensemble are required

See School of Music Ensemble Requirements

#### Professional Music Education Courses: Credits 12

- MUSC 13500 First Year Seminar in Music Education Cr. 1.
- MUSC 21600 Music Education Lab/Field Experience Cr. 0.
- MUSC 23600 Introduction to Music Education Cr. 2.
- MUSC 29700 Music Education Upper Divisional Skills Examination Cr. 0.
- MUSC 31200 Arranging for Instrumental and Vocal Groups Cr. 2.
- MUSC 31900 Music Education Lab/Field Experience Cr. 0.
- MUSC 33500 Methods and Materials for Teaching General Music 6-12 Cr. 2.
- MUSC 33900 General Music Methods K-8 Cr. 2.
- MUSC 35700 Music in Special Education Cr. 2.
- EDU 47400 Undergraduate Seminar In Music Education Cr. 1-2.

#### **Professional Music Concentration Courses**

### Choral and General Music: Credits 12

- MUSC 22600 English Diction for Singers Cr. 1.
- MUSC 25600 Piano Techniques In The Choral Ensemble Cr. 1.
- MUSC 31800 Music Education Lab/Field Experience Cr. 0.
- MUSC 33801 The Art Of Teaching Choral Musicians I Cr. 2.

  MUSC 33802 The Art Of Teaching Cheral Musicians II Cr. 2.

  MUSC 33802 The Art Of Teaching Cheral Musicians II Cr. 2.
- MUSC 33802 The Art Of Teaching Choral Musicians II Cr. 2.
- MUSC 37100 Choral Conducting I Cr. 2.
- MUSC 46500 Techniques In Show Choir Cr. 1.
- MUSC 49400 Voice Pedagogy Cr. 3.

#### Instrumental and General Music: Credits 16

- MUSC 20102 Voice Class Cr. 1.
- MUSC 25500 Instrumental Rehearsal Techniques Cr. 1.
- MUSC 31700 Music Education Lab/Field Experience Cr. 0.
- MUSC 33701 The Art Of Teaching Beginner Instrumentalist Cr. 2.
- MUSC 33702 The Art Of Teaching Advanced Instrumentalist Cr. 2.
- MUSC 37300 Instrumental Conducting Cr. 2.
- MUSC 45500 Instrumental Rehearsal Techniques II Cr. 1.
- MUSC 46600 Techniques in Marching Bands Cr. 1-2.
- MUSC 47000 Pedagogy of Jazz Cr. 2.

### Four of the following: Credits 4

- MUSC 26100 String Techniques Cr. 1-2.
- MUSC 27200 Clarinet and Saxophone Techniques Cr. 1-2.
- MUSC 28100 Brass Instrument Techniques Cr. 1-2.
- MUSC 33700 Woodwind Techniques Cr. 1-2.
- MUSC 33800 Percussion Techniques Cr. 1-2.

### Professional Education Courses: Credits 18

- EDU 25000 General Educational Psychology Cr. 1-4.
- EDU 30100 Laboratory/Field Experience Cr. 0-3.

EDU 30100 is a Co-Requisite with EDU 25000 Educational Psychology

- EDU 34001 Education And American Culture Cr. 3. (fulfills General Education category B5)
- EDU 47500 Adolescent Development And Classroom Management Cr. 3.

Co-requisite with EDU 40100 Lab/Field Experience

• EDU 48200 - Student Teaching: All Grades Cr. 1-16.

Co-Requisite is EDU 40100

• EDU 40100 - Laboratory/Field Experience Cr. 0-3.

Two Semesters of EDU 40100 are required for the BME degree

Semester 1 of EDU 40100 is a Co-Requisite with EDU 47500 Ed Psy Tchrs All Grade

Semester 2 of EDU 40100 is a Co-Requisite with EDU 48200 Student Teaching All Grades

### Total: Credits 130-134

### **Grade Requirements**

Grades. Music majors must complete each required music course and education course with a grade of C- or better. Two unsuccessful attempts to attain a grade of C- or better in the same required music course will result in dismissal from the School of Music.

To earn the Bachelor of Music Education degree, one must satisfy the requirements of Purdue Fort Wayne (Regulations), the music core, and College of Education and Public Policy requirements for music education students (overall GPA of 3.0), and must meet stated GPA requirements for music courses.

Exceptions to academic policies require a written request to the music faculty in consultation with the student's advisor.

### Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate director or dean.

# **Music Industry (B.S.M.)**

Program: Music Industry

School of Music

College: Visual and Performing Arts

Rhinehart Music Center 144 260-481-6714

A major in music emphasizing the structure of the music industry, with particular emphasis in entrepreneurship, marketing, management, and operation within the rapidly changing, multi-billion dollar music and entertainment industry. Business practices, copyright/ownership, contracts, and many other issues pertaining to popular music will be investigated, along with media production, technology, musical study, and study of musical styles and histories. Music Industry students may take a number of more general music courses, which may include applied study (lessons), participation in ensembles, and courses in other areas offered by the School of Music. This program will prepare students for a variety of careers in music and it's allied industries. Students will have the opportunity to participate in the university-run record label, publishing company, as well as production and promotion of live music concerts and events. This major will maximize a strong partnership with Sweetwater, a world leader in music technology, professional audio, and instruments. The Sweetwater Music Center, an excellent new facility located on the Sweetwater campus, is the home for many of the classes in this program.

#### Student learning outcomes:

- · Students will demonstrate knowledge of popular music styles with an understanding of the social, political and cultural impacts that shaped musical development.
- Students will demonstrate proficiency in utilizing appropriate technology to notate and create music, to investigate and report scholarly research, and to support the
  specific demands of their professional degrees.
- Students will demonstrate an understanding of the legal problems and issues associated with the music industry, including case studies, modern/emerging business
  models and music licensing.
- Students will apply working knowledge of music event production and the functions and operation of the music publishing industry.
- Students will demonstrate an understanding of marketing products in the music industry including online, distribution, advertising and promotion.
- Students will demonstrate practices, and techniques for self-marketing and promoting the "independent" musical artist or group in order to succeed in the current music industry.

#### **Program Description**

Enter the amazing and vast world of music industry, with particular emphasis in entrepreneurship, marketing, management, and operation within this rapidly changing, multi-billion dollar career field. You will explore business practices, copyright/ownership, contracts, and many other issues pertaining to popular music, along with media production, technology, musical study, and study of musical styles and histories. This flexible degree will allow you to create a program of music courses, which may include applied study (lessons), participation in ensembles, and courses in other areas offered by the School of Music. You will also leave with a minor in business studies from the Doermer School of Business.

Your four years with us will prepare you for a variety of careers in music and the allied industries, as you participate in the university-run record label, publishing company, along with the production and promotion of live music concerts and events. You will greatly benefit from our strong partnership with Fort Wayne's Sweetwater Sound Inc., a world leader in music technology, professional audio, and instruments. The Sweetwater Music Center, an excellent new facility located on the Sweetwater campus, will be the home for many of the classes in this program as you enter the professional world of music.

BSM Music Industry students are expected to own a computer-based digital audio workstation that is compatible with the School of Music high-end system, and that will allow students to work in their own space on their own time. The Director of Music Industry shall maintain the list of current equipment and capability BSM-Music Industry students are expected to own. Since such equipment is considered to be "tools of the trade", this equipment expenditure can be included in Financial Aid loan calculations.

#### Accreditation:

· Programs offered by the school are fully accredited and under review by the National Association of Schools of Music.

#### Program Delivery:

• This major is offered on campus.

### **General Requirements:**

- Degree Requirements
- · General Education Requirements
- Overlapping Content
- · Academic Regulations

# **Program Requirements:**

Music Industry 4-Yr. Plan:

# General Education Requirements: Credits 33

- Category A3 Quantitative Reasoning Credits 3
  - MA 14000 Practical Quantitative Reasoning
  - o Or other approved A3 course that meets the prerequisite for ECON 20101 Introduction to Microeconomics
- Catagory B4: Scientific Ways of Knowing Credits 3 PHYS 10500 - Sound and Music Cr. 3.
- · Catagory B6: Humanistic and Artistic Ways of Knowing Credits 6
  - MUSC 10500 Traditions in World Music Cr. 3.
  - o MUSC 10101 Music for the Listener Cr. 3.

### Music Industry: Credits 27

#### Required courses:

- MUSC 18203 Survey Of Music Industry And Copyright Cr. 3.
  MUSC 28361 Music Publishing Cr. 3.
  MUSC 28362 Legal Aspects Of The Music Industry Cr. 3

- MUSC 48401 Music Marketing, Promotion And Entrepreneurship Cr. 3.

#### Electives (choose from):

- MUSC 20700 Electronic Music I Cr. 3.
- MUSC 20800 Electronic Music II Cr. 3.
- MUSC 30500 Practicum Cr. 1-4.
- MUSC 30600 VT-Special Topics Cr. 1-4.
- MUSC 38363 Concert And Event Production Cr. 3.
- MUSC 38364 Music Products Merchandising Cr. 3.
- MUSC 38365 Artist Management Cr. 3.
- MUSC 40400 Internship Cr. 1-4.
- MUSC 48403 Independent Study Cr. 1-4.

### Perspectives In Music: Credits 9

#### Electives (choose from):

- MUSC 20100 Music Literature I Cr. 2.
- MUSC 20103 History of Rock and Roll Music Cr. 3.
- MUSC 20200 Music Literature II Cr. 2.
- MUSC 28211 VT-Perspectives In Music Cr. 3.
  MUSC 39300 History of Jazz Cr. 3.

# Music Performance

• MUSC 09500 - Performance Class Cr. 0. (8 semesters)

#### Music Elective: Credits 20

#### Choose from:

• (MUSC Electives) Cr. 20

Senior Seminar: Credits 3

Required course:

• MUSC 48499 - Senior Seminar Cr. 3.

Media Production: Credits 9

Required courses:

- AD 10502 Digital Imaging Cr. 3.
  - AD 10502 is a prerequisite for AD 20301 and AD 20801.
- AD 20301 Web Design I: Introduction to Web Design Cr. 3.
- AD 20801 Video And Inter-Media I Cr. 3.

**Business Studies: Credits 18** 

A Business Studies minor is required with this major.

BUS 20002 Computer Literacy Concepts For Business is a prerequisite course for BUS 20101. Students can try to test out of BUS 20002 and if successful would take one additional Music Elective course.

### **Grade Requirements**

- Grades. Music majors must complete each required music course with a grade of C- or better and with an overall GPA of 2.5 or higher for all required music courses. Two unsuccessful attempts to attain a grade of C- or better in the same required music course will result in dismissal from the School of Music.
- Exceptions to academic policies require a written request to the music faculty in consultation with the student's advisor.

Total Credits: 120

# Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate director or dean.

# **Music Performance (B.M.)**

Program: Bachelor of Music in Performance School of Music College of Visual and Performing Arts

Rhinehart Music Center 144 ~ 260-481-6714

The Bachelor of Music program provides an opportunity for an advanced performer to earn a performance degree in voice, winds, orchestral strings, piano, guitar, or percussion. Instruction is by highly-qualified artist teachers. Graduates of this program are regularly accepted into prestigious graduate programs and continue to be active performers and studio teachers.

#### Student learning outcomes common to all music degrees are as follows:

- Students will demonstrate knowledge of music theory sufficient to analyze musical forms, structures, and styles; to create within basic musical structures; and to relate theoretical concepts to sound.
- · Students will demonstrate performance ability as ensemble members, as conductors, and as soloists on both a primary instrument and a secondary instrument.

- Students will demonstrate knowledge of the history and literature of western and non-western music, with an understanding of the social, political and cultural impacts which shaped music history.
- Students will demonstrate proficiency in utilizing appropriate technology to notate and create music, to investigate and report scholarly research, and to support the specific demands of their professional degrees.

The Bachelor of Music program provides an opportunity for an advanced performer to earn a performance degree in voice, brass, woodwinds, orchestral strings, piano, guitar, or percussion. Student learning outcomes specific to the Bachelor of Music in Performance degree are as follows:

Performance majors will demonstrate the ability to perform with a high level of artistry as soloists and collaborating musicians in settings appropriate to their instrument
of expertise. In addition, students will learn the pedagogy of their primary instrument and study its literature.

#### **Program Description**

The Bachelor of Music program offers a comprehensive classical experience that allows you to develop your solo playing or singing along with skilled teachers and professionals who will mentor you all the way. You can benefit from our partners in the Fort Wayne Philharmonic and other organizations as you learn from one-on-one study and also participate in ensembles that perform masterworks both in the region and internationally. When you complete this degree you will be ready to continue study in some of the prestigious graduate programs and continue to be active performers and studio teachers.

#### Accreditation:

· Programs offered by the School of Music are fully accredited by the National Association of Schools of Music and the American Music Therapy Association.

#### Program Delivery:

This program is available on campus though some courses may be available as distance learning.

#### Declaring this Major:

- Students who choose to major in music must be accepted by both Purdue University Fort Wayne and the School of Music. For information regarding admission to the university, see the Office of Admissions web page: http://pfw.edu/admissions.
- Acceptance into the School of Music is not automatic upon acceptance by the university. All accepted students who indicate music as their major are placed into the Pre-Music category by the Admissions Office. Full acceptance as a music major is contingent upon a successful audition.
- · Auditions. Information about audition requirements are found on the school web site: http://pfw.edu/music.

#### **General Requirements:**

- · Degree Requirements
- · General Education Requirements
- · Overlapping Content
- · Academic Regulations

To earn the Bachelor of Music, one must satisfy the requirements of Purdue Fort Wayne (Regulations) and the music core, and satisfactorily complete the following courses with a grade of C- or better in each music course.

Students in this degree are subject to the policies for all music degrees found on the School of Music webpage.

### **Program Requirements:**

Music Performance (Guitar) 4-Yr. Plan: Music Performance (Instrumental) 4-Yr. Plan: Music Performance (Piano) 4-Yr. Plan: Music Performance (Vocal) 4-Yr. Plan:

General Education Requirements: Credits 33

General Education Requirements

### Category B6 -Humanistic and Artistic Ways of Knowing: Credits 3

See Part 2 General Education Requirements for approved courses

• MUSC 10500 - Traditions in World Music Cr. 3.

MUSC 10500 Traditions in World Music is required for all music degrees and should be taken to fulfill general education Area VI and accreditation requirements.

#### Music Core: Credits 33

• MUSC 37000 - Techniques for Conducting Cr. 2. • MUSC 20100 - Music Literature I Cr. 2. • MUSC 20200 - Music Literature II Cr. 2. • MUSC 40300 - History of Music I Cr. 3. MUSC 40401 - History of Music II Cr. 3.
MUSC 11300 - Music Theory I Cr. 3. MUSC 11400 - Music Theory II Cr. 3. • MUSC 11500 - Sightsinging and Aural Perception I Cr. 1. MUSC 11500 - Sightsinging and Aural Perception II Cr. 1.
 MUSC 21300 - Music Theory III Cr. 3. • MUSC 21400 - Music Theory IV Cr. 3. MUSC 21500 - Nusser Theory IV Cr. 3.
MUSC 21500 - Sightsinging and Aural Perception III Cr. 1.
MUSC 21601 - Sightsinging and Aural Perception IV Cr. 1.
MUSC 31500 - Analysis of Musical Form Cr. 3.
MUSC 10901 - Computer Skills for Musicians Cr. 2.

# Performance Studies: Credits 28

### Applied Primary (includes recital): Credits 16

#### Applied Primary Lessons Cr. 16.

- · Performance majors must successfully complete 8 semesters of private music instruction in their primary instrument at the 4XXXX level. Choose one primary instrument from below:
- MUSC 40000 Percussion Cr. 2; 700 (2).
- MUSC 40001 Guitar Undergrad Major Cr. 1-6.
- MUSC 41002 Violin Cr. 1-6.
- MUSC 40004 Voice Cr. 1-4.
- MUSC 40003 Piano Undergraduate Major Cr. 2.
- MUSC 41004 Flute and Piccolo Undergraduate Major Cr. 2.
- MUSC 42002 Viola Cr. 1-6.
- MUSC 42003 Oboe and English Horn Cr. 2.
- MUSC 43000 Trombone Undergraduate Major Cr. 2.
- MUSC 43001 Cello Undergraduate Major Cr. 2.
- MUSC 43002 Clarinet Undergraduate Major Cr. 2.
- MUSC 44000 Euphonium Undergraduate Major Cr. 2.
- MUSC 44001 Double Bass Undergraduate Major Cr. 2.
- MUSC 44002 Bassoon Cr. 2.
- MUSC 44002 Bassoon Undergraduate Major Cr. 2.
- MUSC 45000 Tuba Cr. 2.
- MUSC 45001 Saxophone Undergraduate Major Cr. 2.

#### Performance Class Requirement Cr. 0

All performance majors must successfully complete 8 semesters of performance class with the instructor in charge of their primary area.

• MUSC 09500 - Performance Class Cr. 0.

#### Recital Requirements Cr. 0.

The following Exam and Recitals are required:

- MUSC 29600 Applied Music Upper Division Jury Examination Cr. 0.
- MUSC 40100 Junior Recital: Performance Major Cr. 0.
   MUSC 40200 Senior Recital: Performance Major Cr. 0.

### Applied Secondary: Credits 4

• MUSC 29900 - Piano Proficiency Examination Cr. 0.

### Non-keyboard Applied Primaries take:

• MUSC 11100 - Class Piano I Cr. 1-2.

- MUSC 12100 Class Piano II Cr. 1-2.
- MUSC 13100 Class Piano III Cr. 1-2.
- MUSC 14100 Class Piano IV Cr. 1-2.

#### Keyboard Applied Primaries take:

MUSC 21100 - Keyboard Techniques Cr. 1-2.
 and 3 additional credits of secondary study in another instrument or voice

#### **Ensembles: Credits 8**

See School of Music Ensemble Requirements.

- Vocal and Instrumental majors take major ensembles for 8 semesters.
- · Guitar majors take guitar ensemble for 8 semesters.
- Piano majors take major ensembles for 6 semesters and MUSC 00200 Piano Accompanying for 2 semesters

#### Professional Music Courses and Free Electives: Credits 26

#### Piano Majors (26 credits)

- MUSC 45200 Keyboard Chamber Music Ensemble Cr. 2 (2 semesters).
- MUSC 44300 Survey of Keyboard Literature Cr. 3.
- MUSC 44600 Survey of Keyboard Literature II Cr. 3.
- · MUSC 49300 Piano Pedagogy Cr. 3.
- Elective music Credits: 6
- Free elective Credits: 9

## Voice Majors (26 credits)

- MUSC 43100 Song Literature Cr. 3.
- Foreign languages Credits: 9 (6 credits in one foreign language, then 3 credits in an additional foreign language).
  - · German is the preferred language for vocal performance majors, followed by French.
- MUSC 22600 English Diction for Singers Cr. 1.
- MUSC 22700 German Diction for Singers Cr. 1.
- MUSC 22800 French Diction for Singers Cr. 1.
- MUSC 22900 Italian Diction for Singers Cr. 1.
- MUSC 49400 Voice Pedagogy Cr. 3.
- MUSC 47001 Opera Ensemble Cr. 2 (2 semesters).
- Elective music Credits: 3
- Free elective Credits: 2

#### Brass, Wind, Orchestral String, and Percussion Majors (26 credits)

- MUSC 44500 Instrumental Literature Cr. 3.
- MUSC 45900 Instrumental Pedogogy Cr. 2.
- Additional ensembles Credits: 6 Refer to School of Music Additional Conducted Ensembles or Chamber Ensembles
- Elective music Credits: 6
- Free elective Credits: 9

### Guitar Majors (26 Credits)

- MUSC 41900 VT-Independent Study In Music Cr. 3.
- MUSC 45900 Instrumental Pedogogy Cr. 2.

- Additional ensemble Credits: 2
   Refer to School of Music Additional Conducted Ensembles
- · Elective music Credits: 10
- Free elective Credits: 9

# **Grade Requirements**

Grades. Music majors must complete each required music course with a grade of C- or better and with an overall GPA of 2.5 or higher for all required music courses. Two unsuccessful attempts to attain a grade of C- or better in the same required music course will result in dismissal from the School of Music.

Exceptions to academic policies require a written request to the music faculty in consultation with the student's advisor.

Total Credits: 120

### Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate director or dean.

# **Music Therapy (B.S.M.T.)**

Program: Bachelor of Science in Music Therapy School of Music College of Visual and Performing Arts

Rhinehart Music Center 144 ~ 260-481-6714

Music therapists engage clients in music experiences to promote health and rehabilitation for individuals of all ages and of all functioning levels in a variety of settings such as hospitals, schools, residential treatment centers, rehabilitation facilities, and in private practice. The clinical training portion of the degree program utilizes an on-site clinic as well as numerous collaborating community facilities and agencies in the community for directly supervised, hands-on learning. At the completion of coursework, students must satisfactorily complete a six-month clinical internship to meet degree requirements. Graduates of the B.S.M.T. program are eligible to sit for the national exam administered by the Certification Bard for Music Therapists.

#### Student learning outcomes for all music degrees are as follows:

- Students will demonstrate knowledge of music theory sufficient to analyze musical forms, structures, and styles to create within basic musical structures; and to relate theoretical concepts to sound.
- Students will demonstrate performance ability as ensemble members, as conductors, and as soloists on both a primary instrument and a secondary instrument.
- Students will demonstrate knowledge o history and literature of western and non-stern music, with an understanding of the social, political, and cultural impacts which shaped music history.
- Students will demonstrate proficiency in utilizing appropriate technology to notate and create music, to investigate and report scholarly research, and to support the specific demands of the professional degrees.

### Student learning outcomes specific to the Bachelor of Science in Music therapy Degree are as follows:

- Students will demonstrate sufficient competence in the field as outlined in the Professional Competencies document of the American Music Therapy Association, Inc. for eligibility to sit for the national credentialing examination of the Certification Board for Music Therapists, Inc.
- Students will demonstrate an understanding of ethical clinical practice, and sufficient knowledge and skills in clinical music therapy practice to properly assess client
  strengths and needs, to plan and implement appropriate music therapy methods for treatment, to measure and document outcomes, to evaluate treatment, and to apply
  professional research literature to clinical practice.

#### **Program Description**

The Purdue University Fort Wayne music therapy program prepares you to improve the health and well-being of others through music-based therapy processes. Extensive clinical training, an important focus of this degree, utilizes the PFW Music Therapy Clinic as well as clinical placements at more than 15 collaborating healthcare, education, and social

services settings in and around the greater Fort Wayne area. These experiences provide you with hands-on clinical training under the direct supervision of appropriately credentialled and experienced music therapists. You will receive lots of personalized attention and mentoring through small interactive classes, and participation with faculty and other professionals in research conferences and other events of the professional music therapy organizations. A six-month clinical internship is required at the end of coursework which allows you to further develop your skills in a preferred area of practice in order to prepare you for entry into the professional workforce. Upon graduation from the B.S.M.T. program, you are eligible to sit for the national credentialing exam administered by the Certification Board for Music Therapists, Inc., and join our alums who boast an extraordinarily high first-time pass rate on the exam and an exceptional record of placement into professional music therapy positions. The Purdue University Fort Wayne music therapy program is the leading undergraduate program in a public university in Indiana, and is ranked among the top 20 in the nation.

#### Accreditation:

• The B.S.M.T. program is fully accredited by the National Association of Schools of Music and the American Music Therapy Association, Inc.

#### **Program Delivery:**

· This program is available on campus, though some general education courses may be available as distance learning.

#### Declaring this Major:

- Students who choose to major in music therapy must be accepted by both Purdue University Fort Wayne and the School of Music. For information regarding admission to the university, see the Office of Admissions web page: http://pfw.edu/admissions.
- Acceptance into the School of Music is not automatic upon acceptance by the university. All accepted students who indicate music as their major are placed into the Pre-Music category by the Admissions Office. Full acceptance as a music major is contingent upon a successful audition.
- · Auditions. Information about audition requirements are found on the school web site: http://pfw.edu/music.

To earn the Bachelor of Science in Music Therapy, one must satisfy the requirements of Purdue Fort Wayne (Regulations) and satisfactorily complete the following courses with a grade of C or better in each music course.

Students in this degree are subject to the policies for all music degrees found on the School of Music page.

#### **General Requirements:**

- · Degree Requirements
- · General Education Requirements
- · Overlapping Content
- · Academic Regulations

### **Program Requirements:**

Music Therapy 4-Yr. Plan:

General Education Requirements: Credits 33

General Education Requirements

Category A-Foundational Intellectual Skills: Credits 9

Category A1-Written Communication: Credits 3

• ENGL 13100 - Reading, Writing, and Inquiry I Cr. 3.

#### Category A2-Speaking and Listening: Credits 3

- THTR 11400 Interpretation for Performance and Presentation Cr. 3.
- COM 11400 Fundamentals Of Speech Communication Cr. 3.

# Catagory A3-Quantitative Reasoning Credits: 3

• STAT 12500 - Communicating with Statistics Cr. 3.

STAT 12500 is recommended, but any approved A3 course can be taken.

#### Category B4 Scientific Ways of Knowing: Credits 6

· BIOL 12600 - Human Biology Cr. 3.

Plus one additional approved B4 course (Credits: 3)

#### Category B5-Creative and Artistic Expression: Credits 6

- PSY 12000 Elementary Psychology Cr. 3.
- PSY 35000 Abnormal Psychology Cr. 3.

### Category B6-Humanistic and Artistic Ways of Knowing: Credits 6

• MUSC 10500 - Traditions in World Music Cr. 3.

Plus one additional approved B6 course.

### Category B7-Interdisciplinary or Creative Ways of Knowing: Credits 3

• MUSC 15300 - Introduction to Music Therapy Cr. 3.

#### Category C8 Capstone: Credits 3

• MUSC 41800 - Psychology of Music Cr. 3.

### Music Core: Credits 30

- MUSC 10901 Computer Skills for Musicians Cr. 2.
- MUSC 20100 Music Literature I Cr. 2.
- MUSC 20200 Music Literature II Cr. 2.
- MUSC 40300 History of Music I Cr. 3.
- MUSC 40401 History of Music II Cr. 3.
- MUSC 11300 Music Theory I Cr. 3. • MUSC 11400 - Music Theory II Cr. 3.
- MUSC 11500 Sightsinging and Aural Perception I Cr. 1.
- MUSC 11600 Sightsinging and Aural Perception II Cr. 1.
- MUSC 21300 Music Theory III Cr. 3.
- MUSC 21400 Music Theory IV Cr. 3.
- MUSC 21500 Sightsinging and Aural Perception III Cr. 1.
- MUSC 21601 Sightsinging and Aural Perception IV Cr. 1.
- MUSC 37000 Techniques for Conducting Cr. 2.

#### Performance Studies: Credits 25

### Applied Primary (includes recital): Credits 14

Music Therapy students take 14 credit hours of applied primary study, which consists of private music instruction with their instrument at the 300 level. Applied primary courses are 2 credit hour courses taken each semester.

- MUSC 29600 Applied Music Upper Division Jury Examination Cr. 0.
- MUSC 30100 Recital: Concentration Level Cr. 0.
- MUSC 09500 Performance Class Cr. 0.

7 semesters required for BSMT.

### Applied Secondary: Credits 4

• MUSC 29900 - Piano Proficiency Examination Cr. 0.

#### Non-keyboard Applied Primaries take:

- MUSC 11100 Class Piano I Cr. 1-2.
- MUSC 12100 Class Piano II Cr. 1-2.
- MUSC 13100 Class Piano III Cr. 1-2.
- MUSC 14100 Class Piano IV Cr. 1-2.

### Keyboard Applied Primaries take:

• MUSC 21100 - Keyboard Techniques Cr. 1-2. and 3 additional credits in secondary study

Ensembles: Credits 7

7 Semesters of Major Ensemble Credits are required

See School of Music Ensemble Requirements

# Professional Music Therapy Courses: Credits 31

- MUSC 15400 Music Therapy Method Basics I Cr. 1.
- MUSC 15500 Music Therapy Method Basics II Cr. 1.
- MUSC 25300 Functional Music Skills Cr. 2.
- MUSC 25301 Music Therapy Observation Practicum Cr. 1.
- MUSC 25400 Music Therapy Practicum I Cr. 1.
- MUSC 29800 Music Therapy Upper Divisional Skills Examination Cr. 0.
- MUSC 34001 Music Therapy in Healthcare Settings Cr. 3.
- MUSC 35300 Music Therapy Practicum II Cr. 1.
- MUSC 35400 Music Therapy Practicum III Cr. 1.
- MUSC 35500 Music and Exceptionality Cr. 3.
- MUSC 35800 Applied Music Therapy Methods Cr. 2
- MUSC 41001 Administrative and Professional Issues in Music Therapy Cr. 3.
- MUSC 41901 Introduction to Music Therapy Research Methods Cr. 3. • MUSC 42001 - Clinical Processes in Music Therapy Cr. 3.
- MUSC 42100 Music Therapy Practicum IV Cr. 1.
- MUSC 42200 Theoretical Foundations in Music Therapy Cr. 3.
- MUSC 42400 Music Therapy Internship Cr. 1.

BSMT students are required to complete a minimum of 2 semesters of MUSC 42400 to satisfy the internship requirement for the degree

# Additional Requirements: Credits 5

- MUSC 10000 Guitar Cr. 1.
- MUSC 20102 Voice Class Cr. 1.
- MUSC 28351 Songwriting I Cr. 3.

# **Grade Requirements**

Grades. Music therapy majors must complete each required music course with a grade of C- or better and with an overall GPA of 2.5 or higher for all required music courses. Two unsuccessful attempts to attain a grade of C- or better in the same required music course will result in dismissal from the School of Music.

Exceptions to academic policies require a written request to the music faculty in consultation with the student's advisor.

### Total: Credits 124

### Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# **Organizational Leadership (B.S.)**

Program: B.S.
Department of Organizational Leadership
College of Engineering, Technology, and Computer Science

Neff Hall 288 ~ 260-481-6420

#### The student learning outcomes for the degree are as follows:

- · Students will demonstrate an understanding of contemporary issues and theories in the areas of leadership, human resources systems and team design and facilitation.
- · Students will show an awareness of the cultural context of organizations and demonstrate their ability to work with diverse others.
- Students will be able to design, lead and participate in a multi-disciplinary team environment.
- · Students will demonstrate an understanding of the professional and ethical implications and responsibilities of leadership.
- Students will be able to communicate effectively in written, verbal and technological environments.
- · Students will be able to engage in self-reflection for professional and personal development.

The bachelor's program focuses on leadership roles, the human relations concerns of supervisors and managers, and human resource issues. Courses emphasize current and future workplace topics such as teamwork and work groups, facilitation skills, employee training and development, individual creativity and innovation, workforce diversity, employee health and safety, and overseeing change.

To earn the B.S. with a major in organizational leadership, you must satisfy the requirements of Purdue University Fort Wayne (Regulations) and the College of Engineering, Technology, and Computer Science, Department of Organizational Leadership (Colleges); earn a grade of C- or better in ENGL 13100, ENGL 23301 (or approved substitute), required General Education courses with a cumulative 2.0 GPA in this area, and each OL course with a cumulative 2.5 GPA in this area. Regardless if you are able to enroll in a course, you must obtain a C- or better before advancing into the next course that requires the prerequisite. A student must also complete the following requirements:

# **Program Requirements:**

Organizational Leadership B.S. 4-Yr. Plan:

General Education Requirements: Credits 33

General Education Requirements

#### Category A: Foundational Intellectual Skills

General Education Requirements

### 1. Written Communication: Credits 3

 $\bullet$  ENGL 13100 - Reading, Writing, and Inquiry I Cr. 3.

- 2. Speaking and Listening: Credits 3
  - COM 11400 Fundamentals Of Speech Communication Cr. 3.
- 3. Quantitative Reasoning: Credits 3
  - MA 14000 Practical Quantitative Reasoning Cr. 3. or
  - MA 15300 College Algebra Cr. 3.

### Category B: Interdisciplinary or Creative Ways of Knowing

Choose two courses from Category A or B in General Education Requirements. Total: 6 credits

4. Scientific Ways of Knowing: Credits 3

General Education Requirements

- 5. Social and Behavioral Ways of knowing: Credits 6
  - PSY 12000 Elementary Psychology Cr. 3.
  - SOC 16101 Principles of Sociology Cr. 3.
- 6. Humanistic and Artistic Ways of Knowing: Credits 3

General Education Requirements

7. Interdisciplinary or Creative Ways of Knowing: Credits 3

General Education Requirements

### Category C: Capstone

- 8. Capstone Experience: Credits 3
  - OLS 49600 Leading Change: Theory and Practice Cr. 3.
- OL Core and Major Courses: Credits 30
  - OLS 25200 Human Relations in Organizations Cr. 3.
  - OLS 26800 Elements of Law Cr. 3.

  - OLS 27400 Applied Leadership Cr. 3.
    OLS 37500 Training Methods Cr. 3.
    OLS 37600 Human Resources Issues Cr. 3.

  - OLS 38400 Leadership Process Cr. 3.
    OLS 45400 Gender and Diversity in Management Cr. 3.

- OLS 47400 Conference Leadership Cr. 3.
- OLS 47500 Human Resource Development Cr. 3.
- · OLS 48500 Leadership for Team Development Cr. 3.

#### OL Electives: Credits 9

- OLS 32000 Customer Service and Commitment Cr. 3.
- OLS 32400 Advanced Word Processing, Desktop Publishing, Presentation Graphics Cr. 3.
- OLS 32600 Comprehensive Spreadsheet Concepts, Cr. 3.
- OLS 32900 Comprehensive Database Management Concepts, Cr. 3.
- OLS 33100 Occupational Safety and Health Cr. 3.
- OLS 34200 Interviewing Strategies in Organizations Cr. 3.
- OLS 35000 Applied Creativity for Business and Industry Cr. 3.
   OLS 35100 Innovation And Entrepreneurship Cr. 3.
- OLS 36100 Safety Department Supervision Cr. 3.
- OLS 37000 Safety Department Supervision Cr. 3.
   OLS 37000 Managing Job Stress and Health Cr. 3.
   OLS 37800 Labor Relations Cr. 3.
- OLS 39900 Special Topics Cr. 3.
- OLS 46800 Personnel Law Cr. 3.
- OLS 47600 Compensation Planning and Management Cr. 3.
   OLS 47700 Conflict Management Cr. 3.
- OLS 47900 Staffing Organizations Cr. 3.
- OLS 48400 Leadership Strategies for Quality and Productivity Cr. 3.

### **Technical Support Requirements: Credits 21**

- BUS 20000 Foundations Of Accounting Cr. 3. or
- BUS 20100 Principles Of Financial Accounting Cr. 3.
- ECON 20000 Fundamentals of Economics Cr. 3. or
- ECON 20101 Introduction to Microeconomics Cr. 3.
- ENGL 23301 Intermediate Expository Writing Cr. 3.
- OLS 28000 Computer Applications for Supervisors Cr. 3.

### Choose from the following: Credits 3

- COM 32400 Introduction To Organizational Communication Cr. 3.
- COM 30300 Intercultural Communication Cr. 3.
- COM 32300 Business And Professional Speaking Cr. 3.

### Choose from the following: Credits 3

- PSY 20100 Introduction to Statistics in Psychology Cr. 3.
- PPOL 30000 Statistical Techniques Cr. 3.
- STAT 30100 Elementary Statistical Methods I Cr. 3.

### Choose from the following: Credits: 3

- OLS 32400 Advanced Word Processing, Desktop Publishing, Presentation Graphics Cr. 3.
- OLS 32600 Comprehensive Spreadsheet Concepts, Cr. 3.
- OLS 32900 Comprehensive Database Management Concepts, Cr. 3.
- CS 30600 Computers In Society Cr. 3.

### Concentration Credits: See list below for credits required

In consultation with Purdue Fort Wayne academic departments, OL has compiled interdisciplinary career concentrations such as:

Training & Development (18) Human Resource Management (18) Environmental Health and Safety (18) Health Services (19) Hotel, Restaurant, Tourism Management (18) Service Industry (18) Legal Studies (18) Physical Therapy (19) Pre-Med (31)

A minor may be substituted for the concentration. See the OL academic advisor for additional information.

All concentration or minor courses must be completed with a C- or higher.

#### Human Resources Management: Credits 18

- OLS 34200 Interviewing Strategies in Organizations Cr. 3.
- · OLS 46800 Personnel Law Cr. 3.
- OLS 47600 Compensation Planning and Management Cr. 3.
   OLS 47700 Conflict Management Cr. 3.
- OLS 47900 Staffing Organizations Cr. 3.

#### Choose 1 from the following:

- OLS 32600 Comprehensive Spreadsheet Concepts, Cr. 3.
- OLS 33100 Occupational Safety and Health Cr. 3.
- OLS 35000 Applied Creativity for Business and Industry Cr. 3.
- OLS 37000 Managing Job Stress and Health Cr. 3.
- OLS 37800 Labor Relations Cr. 3.
- OLS 39900 Special Topics Cr. 3.

# Training & Development: Credits 18

Choose 4 from the following: 12 credits

- COM 31400 Advanced Presentational Speaking Cr. 3. or
- COM 32300 Business And Professional Speaking Cr. 3.
- COM 30300 Intercultural Communication Cr. 3. or
- PSY 24000 Introduction to Social Psychology Cr. 3.
- OLS 46800 Personnel Law Cr. 3. (Required)
- PSY 31400 Introduction to Learning Cr. 3. or
- PSY 41600 Cognitive Psychology Cr. 3.

Choose 2 from the following: 6 credits

- OLS 32400 Advanced Word Processing, Desktop Publishing, Presentation Graphics Cr. 3.
- OLS 32600 Comprehensive Spreadsheet Concepts, Cr. 3.
- OLS 32900 Comprehensive Database Management Concepts, Cr. 3.
- OLS 33100 Occupational Safety and Health Cr. 3.
- · OLS 34200 Interviewing Strategies in Organizations Cr. 3.
- OLS 37000 Managing Job Stress and Health Cr. 3.
- OLS 47700 Conflict Management Cr. 3.

### Service Industry: Credits 18

- BUS 10001 Principles Of Business Administration Cr. 3.
- COM 21200 Approaches To The Study Of Interpersonal Communication Cr. 3.
- · OLS 32000 Customer Service and Commitment Cr. 3.
- OLS 34200 Interviewing Strategies in Organizations Cr. 3.

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• COM 32000 - Small Group Communication Cr. 3.
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- OLS 32400 Advanced Word Processing, Desktop Publishing, Presentation Graphics Cr. 3.
- OLS 32600 Comprehensive Spreadsheet Concepts, Cr. 3.
- OLS 35000 Applied Creativity for Business and Industry Cr. 3.
- OLS 35100 Innovation And Entrepreneurship Cr. 3.
- OLS 46800 Personnel Law Cr. 3.
- OLS 48400 Leadership Strategies for Quality and Productivity Cr. 3.
- PHIL 11100 Introduction To Ethics Cr. 3.
- PHIL 12000 Critical Thinking Cr. 3.

#### Legal Studies (OLS 268 prerequisite for this Concentration): Credits 18

• PHIL 11100 - Introduction To Ethics Cr. 3.

#### Choose 1 from the following:

- COM 32500 Interviewing: Principles And Practice Cr. 3.
- COM 37500 Conflict And Negotiation Cr. 3.
- OLS 34200 Interviewing Strategies in Organizations Cr. 3.
- POL 40101 Studies in Political Science Cr. 3.
- OLS 47700 Conflict Management Cr. 3.

#### Choose 4 from the following:

- COM 35200 Mass Communication Law Cr. 3.
- OLS 33100 Occupational Safety and Health Cr. 3.
- OLS 36100 Safety Department Supervision Cr. 3.
- OLS 37800 Labor Relations Cr. 3.
- OLS 39900 Special Topics Cr. 3.
- OLS 46800 Personnel Law Cr. 3.
- PHIL 12000 Critical Thinking Cr. 3.
- PPOL 10100 The American Criminal Justice System Cr. 3.
- PPOL 30100 Substantive Criminal Law Cr. 3.
- PPOL 30600 The Criminal Courts Cr. 3.
- PPOL 37601 Law and Public Policy Cr. 3.
- POL 10300 Introduction to American Politics Cr. 3.
- POL 30401 Constitutional Law Cr. 3.
- POL 30501 Constitutional Rights and Liberties Cr. 3.
- POL 32001 Judicial Politics Cr. 3.
- POL 32800 Women and the Law Cr. 3.

#### Health Services: Credits 18

- PPOL 32000 Health Systems Administration Cr. 3.
- PPOL 32200 Principles of Epidemiology Cr. 3.

#### Choose 1 from the following:

- PHIL 11100 Introduction To Ethics Cr. 3. or
- PHIL 31200 Medical Ethics Cr. 3.

#### Choose 3 from the following: 9 credits

- ANTH 44500 Seminar In Medical Anthropology Cr. 3.
- BIOL 20300 Human Anatomy And Physiology Cr. 4.
- GERN 23100 Introduction to Gerontology Cr. 3.
- HSRV 10000 Introduction to Human Services Cr. 3.
- PPOL 35200 Healthcare Finance I Cr. 3.
- SOC 31401 Social Aspects of Health and Medicine Cr. 3.

### Environmental Health and Safety: Credits 18

- CHM 11100 General Chemistry Cr. 3.
- IET 25700 Ergonomics Cr. 3.
- OLS 33100 Occupational Safety and Health Cr. 3.
- OLS 36100 Safety Department Supervision Cr. 3.

Choose 3 from the following:

- ARET 12400 Architectural Engineering Construction I Cr. 3.
- ARET 16700 Construction Systems And Materials Cr. 3.
- ARET 28100 Environmental Equipment For Buildings I Cr. 3.
- COM 32300 Business And Professional Speaking Cr. 3.
- ENGL 23401 Technical Report Writing Cr. 3.
- MA 15400 Trigonometry Cr. 3.
- PHYS 21800 General Physics Cr. 4.

#### Hotel, Restaurant, Tourism Management: Credits 18

- HTM 10000 Introduction to the Hospitality and Tourism Industry Cr. 1-3.
- HTM 18100 Lodging Management Cr. 3.
- HTM 21400 Introduction to Food Selection and Preparation Cr. 3.
- HTM 23100 Hospitality and Tourism Marketing Cr. 3.
- HTM 22400 Destination Management/Convention Management or
- HTM 32400 Distribution Management Cr. 3.
- HTM 37100 Introduction to Tourism Cr. 3.

### Physical Therapy: Credits 19 plus approved courses used elsewhere in program

- BIOL 20300 Human Anatomy And Physiology Cr. 4.
- BIOL 20400 Human Anatomy And Physiology Cr. 4.
  - CHM 11500 General Chemistry (Recommend taking as Gen. Ed.)
- CHM 11600 General Chemistry Cr. 4.
  - PHYS 22000 General Physics (Recommend taking as Gen. Ed.)
- PHYS 22100 General Physics Cr. 4.
  - PSY 12000 Elementary Psychology (Required as a Gen. Ed.)
  - PSY 20100 Introduction to Statistics in Psychology or
  - STAT 30100 Elementary Statistical Methods I
    - (Recommend taking one of these courses to fulfill major requirement)
- PSY 36900 Development Across the Lifespan Cr. 3.

#### Pre-Med: Credits 24 plus approved courses used elsewhere in program

- BIOL 11700 Principles Of Ecology And Evolution Cr. 4.
- BIOL 11900 Principles Of Structure And Function Cr. 4.
- CHM 11500 General Chemistry (Recommend taking as Gen. Ed.)
- CHM 11600 General Chemistry Cr. 4.
- CHM 25500 Organic Chemistry Cr. 3. (plus 1-credit lab: CHM 25400 Organic Chemistry Laboratory)
- CHM 25600 Organic Chemistry Cr. 3. (plus 1-credit lab: CHM 25800 Organic Chemistry Laboratory)
  - PHYS 22000 General Physics (Recommend taking as Gen. Ed.)
- PHYS 22100 General Physics Cr. 4.

#### Unrestricted Electives: Credits 9

### Special Academic Regulations for Organizational Leadership Degree Programs

To graduate with an OL B.S. degree students must have a cumulative GPA of 2.0 or above and a major GPA of 2.5 or above. The major GPA consists of all required and elective courses prefixed with OLS.

OLS, business, and technical courses taken more than 10 years ago will not count towards your degree requirements.

Students receiving credit for cooperative education experience can use these credits as unrestricted electives only. If you complete three (3) credits in OL cooperative education, you may use these to fulfill one of your OL electives.

If you have not registered for degree-applicable courses as a Purdue Fort Wayne OL major for two consecutive semesters (excluding summer), you must satisfy the degree requirements specified in the Purdue Fort Wayne catalog that includes your year of re-entry.

#### Note

Lists of specific courses required for each career concentration are available online and at the OL office (Neff 288). Other options for filling this requirement include using a Purdue Fort Wayne-recognized minor as a basis for your concentration area or designing a concentration that reflects your own career goals. If the minor you select includes courses that overlap with OL required courses (for example, Psychology, Communication, or Business), additional courses in the minor content area will be required to fulfill the 18 credit hours in the declared minor. Your proposal for an alternative concentration and a formal plan of study must be accepted by an OL faculty advisor and approved by the OL Curriculum Committee. If your plan is approved, it will become a formal part of your degree requirements.

Total: Credits 120

#### Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

### Additional Course Use:

Courses listed below may also be considered in meeting specific degree requirements.

MA 14000, 15300 required, MA 15400, 16500, 22900 accepted

PSY 20100, PPOL 30000 or STAT 30100 required, ECON 27000 accepted

## Physics (B.S.)

Program: B.S.
Department of Physics
College of Arts and Sciences

Kettler Hall 126B ~ 260-481-6306

The Physics program can prepare you for careers in science and industry or teaching. It can also prepare you for graduate study in physics, medical physics, engineering, law, and medicine. Within the physics program, there are four possible concentrations in addition to the "standard" Physics major: Biomedical Physics; Computational Physics; Engineering Physics; and Optoelectronics and Photonics Physics. You may also earn a Research Certificate by participating in research. For details on these programs, see Program Descriptions in this Catalog.

For details on pursuing a secondary education second degree (BSEd) to teach Physics in middle school/high school, click on the links to the Secondary Education - Second Degree Program and the School of Education page in this catalog. Note: The BSEd as a second degree in these programs cannot be earned without completion of the bachelor's degree in the content area from the College of Arts and Sciences. See Program Requirements below for a link to the Secondary Education - Second Degree 4-Year Plan.

#### **Student Learning Outcomes:**

Upon completion of this degree, students will be able to:

- · reason about physically significant problems conceptually and mathematically.
- solve complex physical problems using sophisticated mathematical techniques.
- interpret mathematical solutions conceptually and physically.
- · investigate physical phenomena using multiple approaches.
- use computation and computer modeling to investigate physical phenomena and solve physical problems.
- · communicate in appropriate scientific media and forms.

#### Program Delivery:

• This program is available on-campus

#### Declaring this Major:

· Declare this major within the Department of Physics.

#### **General Requirements:**

• Degree Requirements

- · General Education Requirements
- · College Requirements
- · Overlapping Content
- · Academic Regulations

To earn the B.S. with a major in Physics, you must fulfill the following requirements in addition to the General Requirements noted above:

### **Program Requirements:**

#### Physics BS 4-Year Plan:

- Physics 15200 must be repeated if a grade of C- or below is received
- · A grade of C- or above in all supporting courses is required
- · A maximum of one grade below C- is allowed except for in supporting courses
- · A GPA of 2.00 or higher for all courses taken for the major.

#### Physics BS with Secondary Education 4-Year Plan:

### General Education Requirements: Credits 33

- · Click on the Purdue Fort Wayne General Education Requirements link above for details.
- Some majors may require particular General Education courses as specified in their program description. Up to six credits of approved General Education courses satisfying requirements in Area A and B, and three credits satisfying requirements in Area C, may originate in the major. A grade of C- or higher in each course, and an overall GPA of 2.0 is required to satisfy the Purdue Fort Wayne General Education Requirements.

### College of Arts and Sciences Requirements

• Click on the Purdue Fort Wayne College Requirements link above. Go to Requirements for the Bachelor of Science Degree.

#### English Writing and Speaking: Credits 6

- · See Part A in Arts and Sciences Requirements for the Bachelor of Science Degree for Speaking requirement
- ENGL 23301 Intermediate Expository Writing Cr. 3.

#### International Language: Credits 6-8

· See Part B in Arts and Sciences Requirements for the Bachelor of Science Degree

### Core Physics Major Courses: Credits 22

- PHYS 15200 Mechanics Cr. 5.
- PHYS 17000 Special Topics in Physics Cr. 1-4.
  - taken as First Year Seminar Cr. 2.
- PHYS 25100 Heat, Electricity, and Optics Cr. 5.
- PHYS 34200 Modern Physics Cr. 3.
- PHYS 34300 Modern Physics Laboratory Cr. 1.
- PHYS 44200 Quantum Mechanics Cr. 3.
- PHYS 48001 Senior Thesis I Cr. 3.
- PHYS 48002 Senior Thesis II Cr. 0.

### Core Supporting Courses: Credits 16

- · CHM 11500 General Chemistry Cr. 4.
- MA 16500 Analytic Geometry and Calculus I Cr. 4.
- MA 16600 Analytic Geometry and Calculus II Cr. 4.
- MA 26100 Multivariate Calculus Cr. 4.

or

• MA 26300 - Multivariate and Vector Calculus Cr. 4.

# Additional Physics Major Courses: Credits 28

- PHYS 30500 Intermediate Mathematics Physics Cr. 3.
- PHYS 31000 Intermediate Mechanics Cr. 4.
- PHYS 31200 Intermediate Electricity and Magnetism Cr. 3.

or

- ECE 31100 Electric And Magnetic Fields Cr. 3.
- PHYS 32200 Optics Cr. 3.
- PHYS 32500 Scientific Computing Cr. 3.
- PHYS 34500 Optics Laboratory I Cr. 1.
- PHYS 34600 Advanced Laboratory I Cr. 1.
- PHYS 36100 Electronics for Scientists Cr. 4.
- PHYS 41310 Intermediate Electricity and Magnetism II Cr. 3.
- PHYS 41800 Thermal and Statistical Physics Cr. 3.

## Additional Supporting Courses: Credits 10

- CHM 11600 General Chemistry Cr. 4.
- MA 35100 Elementary Linear Algebra Cr. 3.
- MA 36300 Differential Equations Cr. 3.

#### **General Electives**

• Sufficient additional credits to bring the total to 120

Total Credits: 120

# Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# Physics (B.S.) With Concentration In Astronomy

Program: B.S. Department of Physics College of Arts and Sciences

Kettler Hall  $126B \sim 260-481-6306$ 

Astronomy and astrophysics are the endeavor to understand the universe and to explain the origin of celestial objects and phenomena. It involves both planetary science (EAPS) and stellar science. The astrophysics track will require spectroscopy and instrumentation classes in addition to the astronomy core classes.

#### **Student Learning Outcomes:**

Upon completion of this degree, students will:

· have skills that can lead to a career in astronomy, optics, data analysis or software; or for pursuing graduate education in physics, astronomy or engineering.

#### **Program Delivery:**

· This program is available on-campus

#### Declaring this Major:

· Declare this major within the Department of Physics

#### **General Requirements:**

- · Degree Requirements
- · General Education Requirements
- · College Requirements
- · Overlapping Content
- Academic Regulations

### **Program Requirements:**

#### Physics Astronomy 4-Year Plan:

#### Physics with Astrophysics Track 4-Year Plan:

- Physics 15200 must be repeated if a grade of C- or below is received
- · A grade of C- or above in all supporting courses is required
- A maximum of one grade below C- is allowed except for in supporting courses
- · A GPA of 2.00 or higher for all courses taken for the major

Physics BS with Secondary Education 4-Year Plan:

## General Education Requirements Credits: 33

- Click on the Purdue Fort Wayne General Education Requirements link above for details.
- Some majors may require particular General Education courses as specified in their program description. Up to six credits of approved General Education courses satisfying requirements in Areas A and B, and three credits satisfying requirements in Area C, may originate in the major. A grade of C- or higher in each course, and an overall GPA of 2.0 is required to satisfy the Purdue Fort Wayne General Education Requirements.

### College of Arts and Sciences Requirements

• Click on the Purdue Fort Wayne College Requirements link above. Go to Requirements for the Bachelor of Science Degree.

### English Writing and Speaking: Credits 6

- See Part A in Arts and Sciences Requirements for the Bachelor of Science Degree for Speaking requirement
- ENGL 23301 Intermediate Expository Writing Cr. 3.

## International Language: Credits 6-8

• See Part B in Arts and Sciences Requirements for the Bachelor of Science Degree

## Core Physics Major Courses: Credits 22

- PHYS 15200 Mechanics Cr. 5.
- PHYS 17000 Special Topics in Physics Cr. 1-4.
  - taken as First Year Seminar Cr. 2.
- PHYS 25100 Heat, Electricity, and Optics Cr. 5.
  PHYS 34200 Modern Physics Cr. 3.
- PHYS 34300 Modern Physics Laboratory Cr. 1.
- PHYS 44200 Quantum Mechanics Cr. 3.
- PHYS 48001 Senior Thesis I Cr. 3.
  PHYS 48002 Senior Thesis II Cr. 0.

# Core Supporting Courses: Credits 16

- CHM 11500 General Chemistry Cr. 4.
- MA 16500 Analytic Geometry and Calculus I Cr. 4.
- MA 16600 Analytic Geometry and Calculus II Cr. 4.
- MA 26100 Multivariate Calculus Cr. 4.

• MA 26300 - Multivariate and Vector Calculus Cr. 4.

## Additional Physics Major Courses: Credits 20

- PHYS 30500 Intermediate Mathematics Physics Cr. 3.
- PHYS 31000 Intermediate Mechanics Cr. 4.
- PHYS 31200 Intermediate Electricity and Magnetism Cr. 3.

- ECE 31100 Electric And Magnetic Fields Cr. 3.
- PHYS 32200 Optics Cr. 3.
- PHYS 32500 Scientific Computing Cr. 3.
- PHYS 34500 Optics Laboratory I Cr. 1.
- PHYS 34600 Advanced Laboratory I Cr. 1.
- PHYS 41800 Thermal and Statistical Physics Cr. 3.

## Additional Supporting Course: Credits 10

- CHM 11600 General Chemistry Cr. 4.
- MA 35100 Elementary Linear Algebra Cr. 3.
  MA 36300 Differential Equations Cr. 3.

### Concentration in Astronomy

#### Core Astronomy / Astrophysics Courses: Credits 18

- PHYS 13500 The First Three Minutes Cr. 3.
- ASTR 10000 The Solar System Cr. 3.
- ASTR 10500 Stars And Galaxies Cr. 3-4.
- ASTR 36400 Stars And Galaxies Cr. 3.
- ASTR 37000 Cosmology Cr. 3.
- ASTR 40100 Introduction To Astrophysics Cr. 3.

or

• ASTR 45100 - Galaxies And Large Scale Structure Cr. 3.

or

• ASTR 47100 - Stellar Evolution Cr. 3.

### Optional Astrophysics Track: Credits 11-12

- PHYS 36100 Electronics for Scientists Cr. 4.
- PHYS 52400 Physical Optics and Experimental Spectroscopy Cr. 4.
- PHYS 40500 Atomic and Molecular Physics Cr. 3.
- PHYS 53600 Electronic Techniques for Research Cr 4.

#### **General Electives**

· Sufficient additional credits to bring the total to 120

Total Credits: 120

### Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# Physics (B.S.) With Concentration In Biomedical Physics

Program: B.S.
Department of Physics
College of Arts and Sciences

 $Kettler\ Hall\ 126B \sim 260\text{-}481\text{-}6306$ 

The concentration in Biomedical Physics is of value to students interested in pursing careers related to the medical profession or biological physics.

#### **Student Learning Outcomes:**

Upon completion of this degree, students:

· will be able to meet entrance prerequisites for medical school, medical physics, or preparation for the study of biophysics.

#### **Program Delivery:**

· This program is available on-campus

#### Declaring this Major:

· Declare this major within the Department of Physics

#### **General Requirements:**

- Degree Requirements
- · General Education Requirements
- · College Requirements
- Overlapping Content
- Academic Regulations

# **Program Requirements:**

Physics Biomedical 4-Year Plan:

- Physics 15200 must be repeated if a grade of C- or below is received
- · A grade of C- or above in all supporting courses is required
- A maximum of one grade below C- is allowed except for in supporting courses
- · A GPA of 2.00 or higher for all courses taken for the major

To earn the B.S. with a major in Physics and a concentration in Biomedical Physics, you must fulfill the following requirements in addition to the General Requirements noted above:

## General Education Requirements: Credits 33

- Click on the Purdue Fort Wayne General Education Requirements link above for details.
- Some majors may require particular General Education courses as specified in their program description. Up to six credits of approved General Education courses satisfying requirements in Areas A and B, and three credits satisfying requirements in Area C, may originate in the major. A grade of C- or higher in each course, and an overall GPA of 2.0 is required to satisfy the Purdue Fort Wayne General Education Requirements.

### College of Arts and Sciences Requirements

• Click on the Purdue Fort Wayne College Requirements link above. Go to Requirements for the Bachelor of Science Degree.

#### English Writing and Speaking: Credits 6

- See Part A in Arts and Sciences Requirements for the Bachelor of Science Degree for Speaking requirement
- ENGL 23301 Intermediate Expository Writing Cr. 3.

#### International Language: Credits 6-8

• See Part B in Arts and Sciences Requirements for the Bachelor of Science Degree

### Core Physics Major Courses: Credits 22

- PHYS 15200 Mechanics Cr. 5.
- PHYS 17000 Special Topics in Physics Cr. 1-4.

- taken as First Year Seminar Cr. 2.
- PHYS 25100 Heat, Electricity, and Optics Cr. 5.
- PHYS 34200 Modern Physics Cr. 3.
- PHYS 34300 Modern Physics Laboratory Cr. 1.
- PHYS 44200 Quantum Mechanics Cr. 3.
- PHYS 48001 Senior Thesis I Cr. 3.
- PHYS 48002 Senior Thesis II Cr. 0.

## Core Supporting Courses: Credits 16

- CHM 11500 General Chemistry Cr. 4.
- MA 16500 Analytic Geometry and Calculus I Cr. 4.
- MA 16600 Analytic Geometry and Calculus II Cr. 4.
- MA 26100 Multivariate Calculus Cr. 4.

or

• MA 26300 - Multivariate and Vector Calculus Cr. 4.

# Additional Physics Courses: Credits 20

- PHYS 30500 Intermediate Mathematics Physics Cr. 3.
- PHYS 31000 Intermediate Mechanics Cr. 4.
- PHYS 31200 Intermediate Electricity and Magnetism Cr. 3.

or

- ECE 31100 Electric And Magnetic Fields Cr. 3.
- PHYS 32200 Optics Cr. 3.
- PHYS 34500 Optics Laboratory I Cr. 1.
- PHYS 37000 Special Topics in Physics Cr. 3.
- PHYS 41800 Thermal and Statistical Physics Cr. 3.

# Additional Supporting Courses: Credits 19

- BIOL 11700 Principles Of Ecology And Evolution Cr. 4.
- BIOL 11900 Principles Of Structure And Function Cr. 4.
- BIOL 21800 Genetics And Molecular Biology Cr. 4.
- CHM 11600 General Chemistry Cr. 4.
- CHM 25500 Organic Chemistry Cr. 3.

or

• CHM 26100 - Organic Chemistry Cr. 3.

### **Concentration Tracks**

## Biophysics: Credits 20

This track is for students studying Biophysics.

- BIOL 20300 Human Anatomy And Physiology Cr. 4. and
- BIOL 20400 Human Anatomy And Physiology Cr. 4.

or

- BIOL 40600 Human Anatomy Cr. 4. and
- BIOL 40900 Human Physiology Cr. 4.
- BIOL 38100 Cell Biology Cr. 3.

- MA 35100 Elementary Linear Algebra Cr. 3.
- MA 36300 Differential Equations Cr. 3.
- PHYS 41310 Intermediate Electricity and Magnetism II Cr. 3.

### Medical Physics: Credits 17

This track is for students preparing to pursue an advanced degree in Medical Physics.

- BIOL 20300 Human Anatomy And Physiology Cr. 4. and
- BIOL 20400 Human Anatomy And Physiology Cr. 4.

- BIOL 40600 Human Anatomy Cr. 4. and
- · BIOL 40900 Human Physiology Cr. 4.
- MA 35100 Elementary Linear Algebra Cr. 3.
- MA 36300 Differential Equations Cr. 3.
- PHYS 41310 Intermediate Electricity and Magnetism II Cr. 3.

#### Pre-Med: Credits 14

This track is designed as preparation for medical school.

- CHM 25400 Organic Chemistry Laboratory Cr. 1.
- CHM 25800 Organic Chemistry Laboratory Cr. 1.
- CHM 25600 Organic Chemistry Cr. 3.

- CHM 26200 Organic Chemistry Cr. 3.
- CHM 53300 Introductory Biochemistry Cr. 3.
- PSY 12000 Elementary Psychology Cr. 3.
- SOC 16101 Principles of Sociology Cr. 3.

### General Electives

· Sufficient additional credits to bring the total to 120.

Total Credits: 120

### Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# Physics (B.S.) With Concentration In Computational Physics

Program: B.S. Department of Physics College of Arts and Sciences

Kettler Hall 126B ~ 260-481-6306

The concentration in Computational Physics is for students with an interest in computation and computational/mathematical modeling of physical systems.

#### **Student Learning Outcomes:**

Upon completion of this degree, students will:

· have the skills to enter a career involving computers, data analysis, modeling, and to pursue graduate education in physics, engineering, or materials science.

#### **Program Delivery:**

· This program is available on-campus

#### Declaring this Major:

· Declare this major within the Department of Physics

#### **General Requirements:**

- · Degree Requirements
- General Education Requirements
- · College Requirements
- · Overlapping Content
- · Academic Regulations

### **Program Requirements:**

Physics Computational 4-Year Plan:

- Students choosing this concentration must select either the computation specialization (CS) or the mathematics specialization (MATH).
- Physics 15200 must be repeated if a grade of C- or below is received
- A grade of C- or above in all supporting courses is required
- · A maximum of one grade below C- is allowed except for in supporting courses
- · A GPA of 2.00 or higher for all courses taken for the major

To earn the B.S. with a major in Physics and a concentration in Computational Physics, you must fulfill the following requirements in addition to the General Requirements noted above:

### General Education Requirements: Credits 33

- Click on the Purdue Fort Wayne General Education Requirements link above for details.
- Some majors may require particular General Education courses as specified in their program description. Up to six credits of approved General Education courses satisfying requirements in Areas A and B, and three credits satisfying requirements in Area C, may originate in the major. A grade of C- or higher in each course, and an overall GPA of 2.0 is required to satisfy the Purdue Fort Wayne General Education Requirements.

### College of Arts and Sciences Requirements

• Click on the Purdue Fort Wayne College Requirements link above. Go to Requirements for the Bachelor of Science Degree

#### English Writing and Speaking: Credits 6

- · See Part A in Arts and Sciences Requirements for the Bachelor of Science Degree for Speaking requirement
- ENGL 23301 Intermediate Expository Writing Cr. 3.

### International Language: Credits 6-8

• See Part B in Arts and Sciences Requirements for the Bachelor of Science Degree

# Core Physics Major Courses: Credits 22

- PHYS 15200 Mechanics Cr. 5.
- PHYS 17000 Special Topics in Physics Cr. 1-4.
  - taken as First Year Seminar Cr. 2.
- PHYS 25100 Heat, Electricity, and Optics Cr. 5.
- PHYS 34200 Modern Physics Cr. 3.
  PHYS 34300 Modern Physics Laboratory Cr. 1.
- PHYS 44200 Quantum Mechanics Cr. 3.
- PHYS 48001 Senior Thesis I Cr. 3.
- PHYS 48002 Senior Thesis II Cr. 0.

# Core Supporting Courses: Credits 16

- CHM 11500 General Chemistry Cr. 4.
- MA 16500 Analytic Geometry and Calculus I Cr. 4.
- MA 16600 Analytic Geometry and Calculus II Cr. 4.
- MA 26100 Multivariate Calculus Cr. 4.

• MA 26300 - Multivariate and Vector Calculus Cr. 4.

## Additional Physics Courses: Credits 22

- PHYS 30500 Intermediate Mathematics Physics Cr. 3.
- PHYS 31000 Intermediate Mechanics Cr. 4.
- PHYS 31200 Intermediate Electricity and Magnetism Cr. 3.

- ECE 31100 Electric And Magnetic Fields Cr. 3.
- PHYS 32200 Optics Cr. 3.
- PHYS 32500 Scientific Computing Cr. 3.
- PHYS 41310 Intermediate Electricity and Magnetism II Cr. 3.
- PHYS 41800 Thermal and Statistical Physics Cr. 3.

## Additional Supporting Courses: Credits 9

- MA 17500 Introductory Discrete Mathematics Cr. 3.
- MA 35100 Elementary Linear Algebra Cr. 3.
- MA 36300 Differential Equations Cr. 3.

## **Concentration Specializations**

### Computation Specialization Core Courses: Credits 11

- CS 16000 Introduction To Computer Science I Cr. 4.
- CS 16100 Introduction To Computer Science II Cr. 4.
- CS 26000 Data Structures Cr. 3.

#### Additional CS Elective Courses: Credits 6-9

Choose two or three additional computer science (CS) courses at the 2000+, 3000+, or 4000+ level.

- CS 32100 Introduction To Computer Graphics Cr. 3.
- CS 33100 Introduction To C++ And Object-Oriented Programming Cr. 3.
- CS 38400 Numerical Analysis Cr. 3.
- CS 48600 Analysis Of Algorithms Cr. 3.

## Mathematical Specialization Core Courses: Credits 19

- CS 16000 Introduction To Computer Science I Cr. 4.
- MA 31400 Introduction to Mathematical Modeling Cr. 3.
- MA 41700 Mathematical Programming Cr. 3.
- MA 51000 Vector Calculus Cr. 3.
- MA 52300 Introduction to Partial Differential Equations Cr. 3.
- MA 52500 Introduction to Complex Analysis Cr. 3.

#### **General Electives**

· Sufficient additional credits to bring the total to 120

Total Credits: 120

### Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# Physics (B.S.) With Concentration In Engineering

Program: B.S.
Department of Physics
College of Arts and Sciences

 $Kettler\ Hall\ 126B \sim 260\text{-}481\text{-}6306$ 

The concentration in Engineering Physics is for students who wish to combine engineering skills with scientific thinking and scientific skills.

#### **Student Learning Outcomes:**

Upon completion of this degree, students will:

have the skills that can lead to a career in industry or for pursuing graduate education in physics, engineering, medical physics or law.

#### Program Delivery:

· This program is available on-campus

#### Declaring this Major:

• Declare this major within the Department of Physics

#### General Requirements:

- · Degree Requirements
- General Education Requirements
- · College Requirements
- · Overlapping Content
- · Academic Regulations

### **Program Requirements:**

Physics (Civil Engineering) 4-Yr. Plan: Physics (Electrical Engineering) 4-Yr. Plan: Physics (Mechanical Engineering) 4-Yr. Plan:

- Students choosing this concentration must specify either an Electrical Engineering (EE) or Mechanical Engineering (ME) or Civil Engineering (CE) specialization.
- Physics 15200 must be repeated if a grade of C- or below is received
- A grade of C- or above in all supporting courses is required
- A maximum of one grade below C- is allowed except for in supporting courses
- · A GPA of 2.00 or higher for all courses taken for the major

To earn the B.S. with a major in Physics and a concentration in Engineering Physics, you must fulfill the following requirements in addition to the General Requirements noted above:

## General Education Requirements: Credits 33

- Click on the Purdue Fort Wayne General Education Requirements link above for details.
- Some majors may require particular General Education courses as specified in their program description. Up to six credits of approved General Education courses satisfying requirements in Area A and B, and three credits satisfying requirements in Area C, may originate in the major. A grade of C- or higher in each course, and an overall GPA of 2.0 is required to satisfy the Purdue Fort Wayne General Education Requirements.

# College of Arts and Sciences Requirements

· Click on the Purdue Fort Wayne College Requirements link above. Go to Requirements for the Bachelor of Science Degree.

#### English Writing and Speaking: Credits 6

- See Part A in Arts and Sciences Requirements for the Bachelor of Science Degree for Speaking requirement
- ENGL 23301 Intermediate Expository Writing Cr. 3.

### International Language: Credits 6-8

• See Part B in Arts and Sciences Requirements for the Bachelor of Science Degree

### Core Physics Major Courses: Credits 22

- PHYS 15200 Mechanics Cr. 5.
- PHYS 17000 Special Topics in Physics Cr. 1-4.
  - taken as First Year Seminar Cr. 2.
- PHYS 25100 Heat, Electricity, and Optics Cr. 5.
- PHYS 34200 Modern Physics Cr. 3.
- PHYS 34300 Modern Physics Laboratory Cr. 1.
- PHYS 44200 Quantum Mechanics Cr. 3.
- PHYS 48001 Senior Thesis I Cr. 3.
- PHYS 48002 Senior Thesis II Cr. 0.

# Core Supporting Courses: Credits 16

- · CHM 11500 General Chemistry Cr. 4.
- MA 16500 Analytic Geometry and Calculus I Cr. 4.
- MA 16600 Analytic Geometry and Calculus II Cr. 4.
- MA 26100 Multivariate Calculus Cr. 4.

or

• MA 26300 - Multivariate and Vector Calculus Cr. 4.

## Additional Physics Courses: Credits 8-11

- PHYS 30500 Intermediate Mathematics Physics Cr. 3. optional but recommended
- PHYS 32200 Optics Cr. 3.
- PHYS 32500 Scientific Computing Cr. 3.
- PHYS 34500 Optics Laboratory I Cr. 1.
- PHYS 34600 Advanced Laboratory I Cr. 1.

## Additional Supporting Courses: Credits 11-21

- CS 22700 Introduction To C Programming Cr. 2. and
- CS 22800 Object Oriented Programming In C++ Cr. 1.

or

- ECE 22900 C/C++ Programming For Electrical And Computer Engineering Cr. 4.
- ENGR 12700 Engineering Fundamentals I Cr. 4. optional but recommended
- ENGR 12800 Engineering Fundamentals II Cr. 4. optional but recommended

or

• MET 10400 - Technical Graphics Communications Cr. 3.

or

- MET 22300 Introduction to Computer- Aided Modeling and Design Cr. 3.
- MA 35100 Elementary Linear Algebra Cr. 3.
- MA 36300 Differential Equations Cr. 3.

### Concentration Specializations

#### Civil Engineering Concentration Core Courses: Credits 20-22

- CE 21000 Introduction To Geomatics Cr. 3.
- CE 25000 Statics Cr. 3. and
- CE 25100 Dynamics Cr. 3.

or

- PHYS 31000 Intermediate Mechanics Cr. 4.
- CE 36500 Environmental Engineering Cr. 3.
- ECE 31100 Electric And Magnetic Fields Cr. 3.

or

• PHYS 31200 - Intermediate Electricity and Magnetism Cr. 3.

### Additional CE/PHYS Elective Courses: Credits 6

Choose two additional Civil Engineering (CE) or Physics (PHYS) courses at the 3000+ level

### Electrical Engineering Concentration Core Courses: Credits 19

- PHYS 31000 Intermediate Mechanics Cr. 4.
- PHYS 41800 Thermal and Statistical Physics Cr. 3.
- ECE 20100 Linear Circuit Analysis I Cr. 3.
- ECE 20200 Linear Circuit Analysis II Cr. 3.
- ECE 30100 Signals And Systems Cr. 3.
- ECE 31100 Electric And Magnetic Fields Cr. 3.

or

• PHYS 31200 - Intermediate Electricity and Magnetism Cr. 3.

#### Additional ECE/PHYS Elective Courses: Credits 6

 $Choose \ two \ additional \ Electrical \ Engineering \ (ECE) \ or \ Physics \ (PHYS) \ courses \ at \ the \ 3000+level$ 

### Mechanical Engineering Concentration Core Courses: Credits 19

- ME 20000 Thermodynamics I Cr. 3.
- ME 25000 Statics Cr. 3.
- ME 25100 Dynamics Cr. 3.
- ME 25200 Strength of Materials Cr. 3.
- ECE 31100 Electric And Magnetic Fields Cr. 3.

or

- PHYS 31200 Intermediate Electricity and Magnetism Cr. 3.
- PHYS 36100 Electronics for Scientists Cr. 4.

#### Additional ME/PHYS Elective Courses: Credits 6

Choose two additional Mechanical Engineering (ME) or Physics (PHYS) courses

### **General Electives**

• Sufficient additional credits to bring the total to 120

Total Credits: 120

### Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# Physics (B.S.) With Concentration In Materials Science

Program: B.S. Department of Physics College of Arts and Sciences

Kettler Hall 126B ~ 260-481-6306

The concentration in Materials Science Physics is for students who want to learn about materials and how to perform analysis of materials.

#### **Student Learning Outcomes:**

Upon completion of this degree, students will:

· have the skills to enter a career in materials science, materials analysis, or pursue graduate education in physics, engineering, or materials science.

#### Program Delivery:

· This program is available on-campus

#### Declaring this Major:

· Declare this major within the Department of Physics

#### General Requirements:

- · Degree Requirements
- General Education Requirements
- · College Requirements
- Overlapping Content
- Academic Regulations

### **Program Requirements:**

#### Physics Materials Science 4-Year Plan:

- A grade of C or higher is required in PHYS 15200
- A grade of C or higher is required in PHYS 25100
- · A grade of C- or above in all supporting courses is required
- A maximum of one grade below C- is allowed except for in supporting courses
- · A GPA of 2.00 or higher for all courses taken for the major

To earn the B.S. with a major in Physics and a concentration in Materials Science, you must fulfill the following requirements in addition to the General Requirements noted above:

### General Education Requirements: Credits 33

- Click on the Purdue Fort Wayne General Education Requirements link above for details.
- Some majors may require particular General Education courses as specified in their program description. Up to six credits of approved General Education courses satisfying requirements in Areas A and B, and three credits satisfying requirements in Area C, may originate in the major. A grade of C- or higher in each course, and an overall GPA of 2.0 is required to satisfy the Purdue Fort Wayne General Education Requirements.

# College of Arts and Sciences Requirements

· Click on the Purdue Fort Wayne College Requirements link above. Go to Requirements for the Bachelor of Science Degree.

#### English Writing and Speaking: Credits 6

- · See Part A in Arts and Sciences Requirements for the Bachelor of Science Degree for Speaking requirement
- ENGL 23301 Intermediate Expository Writing Cr. 3.

### International Language: Credits 6-8

• See Part B in Arts and Sciences Requirements for the Bachelor of Science Degree

### Core Physics Major Courses: Credits 22

A grade of C or higher is required in both PHYS 1200 and PHYS 25100.

- PHYS 15200 Mechanics Cr. 5.
- PHYS 17000 Special Topics in Physics Cr. 1-4.
  - taken as First Year Seminar Cr. 2.
- PHYS 25100 Heat, Electricity, and Optics Cr. 5.
- PHYS 34200 Modern Physics Cr. 3.
- PHYS 34300 Modern Physics Laboratory Cr. 1.
- PHYS 44200 Quantum Mechanics Cr. 3.
- PHYS 48001 Senior Thesis I Cr. 3.
- PHYS 48002 Senior Thesis II Cr. 0.

# Core Supporting Courses: Credits 16

- CHM 11500 General Chemistry Cr. 4.
- MA 16500 Analytic Geometry and Calculus I Cr. 4.
  MA 16600 Analytic Geometry and Calculus II Cr. 4.
- MA 26100 Multivariate Calculus Cr. 4.

• MA 26300 - Multivariate and Vector Calculus Cr. 4.

### Additional Physics Major Courses: Credits 21

- PHYS 30500 Intermediate Mathematics Physics Cr. 3.
- PHYS 31000 Intermediate Mechanics Cr. 4.
- PHYS 31200 Intermediate Electricity and Magnetism Cr. 3.

- ECE 31100 Electric And Magnetic Fields Cr. 3.
- PHYS 32200 Optics Cr. 3.
- PHYS 32500 Scientific Computing Cr. 3.
- PHYS 34500 Optics Laboratory I Cr. 1.
- PHYS 34600 Advanced Laboratory I Cr. 1.
- PHYS 41800 Thermal and Statistical Physics Cr. 3.

### Additional Supporting Courses: Credits 4

· CHM 11600 - General Chemistry Cr. 4.

#### Material Science Concentration

Required Courses: Credits 18-21

• CHM 24100 - Introductory Inorganic Chemistry Cr. 4.

- CHM 26100 Organic Chemistry Cr. 3.
- EAPS 22101 Introductory Mineralogy Cr. 3-4.
  EAPS 42500 Scanning Electron Microscopy Cr. 2-3.
- ET 20000 Strength of Materials Cr. 3.
- MET 18000 Materials and Processes Cr. 3.
- PHYS 14204 Materials Science: Materials Laboratory Cr. 1.
- PHYS 54500 Solid State Physics Cr. 3.

### Additional Courses: Credits 4

Choose four credits from the following list:

- PHYS 14201 Materials Science: Semiconductors, Conductors and Superconductors Cr. 1.
- PHYS 14202 Materials Science: Optical And Magnetic Materials Cr. 1.
- PHYS 14203 Materials Science: Thermal Properties Cr. 1.
- PHYS 23601 Electron Microscopy Cr. 1.
- PHYS 23602 X-Ray Analysis Cr. 1.
- PHYS 23603 Scanning Probe Microscopy Cr. 1.

### General Electives

· Sufficient additional credits to bring the total to 120

Total Credits: 120

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# Physics (B.S.) With Concentration In Optoelectronics And Photonics

Program: B.S. **Department of Physics** College of Arts and Sciences

Kettler Hall 126B ~ 260-481-6306

The concentration in Optoelectronics and Photonics is for students with an interest in optics, electronics, and LASERS.

#### **Student Learning Outcomes:**

Upon completion of this degree, students will:

have the skills that can lead to a career in lasers, bio-optics, imaging, and optoelectronics and photonics, or for pursuing graduate education in physics, engineering, medical physics, or law

#### **Program Delivery:**

· This program is available on-campus

#### Declaring this Major:

· Declare this concentration within the Department of Physics

#### **General Requirements:**

- · Degree Requirements
- General Education Requirements
- College Requirements
- Overlapping Content
- · Academic Regulations

## Program Requirements:

Physics Optoelectronics-Photonics 4-Year Plan:

- Physics 15200 must be repeated if a grade of C- or below is received
- · A grade of C- or above in all supporting courses is required
- A maximum of one grade below C- is allowed except for in supporting courses
- · A GPA of 2.00 or higher for all courses taken for the major

To earn the B.S. with a major in Physics and a concentration in Optoelectronics and Photonics, you must fulfill the following requirements in addition to the General Requirements noted above:

### General Education Requirements: Credits 33

- Click on the Purdue Fort Wayne General Education Requirements link above for details.
- Some majors may require particular General Education courses as specified in their program description. Up to six credits of approved General Education courses satisfying requirements in Areas A and B, and three credits satisfying requirements in Area C, may originate in the major. A grade of C- or higher in each course, and an overall GPA of 2.0 is required to satisfy the Purdue Fort Wayne General Education Requirements.

### College of Arts and Sciences Requirements

• Click on the Purdue Fort Wayne College Requirements link above. Go to Requirements for the Bachelor of Science Degree.

### English Writing and Speaking: Credits 6

- See Part A in Arts and Sciences Requirements for the Bachelor of Science Degree for Speaking requirement
- ENGL 23301 Intermediate Expository Writing Cr. 3.

### International Language: Credits 6-8

• See Part B in Arts and Sciences Requirements for the Bachelor of Science Degree

### Core Physics Major Courses: Credits 22

- PHYS 15200 Mechanics Cr. 5.
- PHYS 17000 Special Topics in Physics Cr. 1-4.
  - taken as First Year Seminar Cr. 2.
- PHYS 25100 Heat, Electricity, and Optics Cr. 5.
- PHYS 34200 Modern Physics Cr. 3.
  PHYS 34300 Modern Physics Laboratory Cr. 1.
- PHYS 44200 Quantum Mechanics Cr. 3.
- PHYS 48001 Senior Thesis I Cr. 3.
- PHYS 48002 Senior Thesis II Cr. 0.

## Core Supporting Courses: Credits 16

- CHM 11500 General Chemistry Cr. 4.
- MA 16500 Analytic Geometry and Calculus I Cr. 4.
- MA 16600 Analytic Geometry and Calculus II Cr. 4.
- MA 26100 Multivariate Calculus Cr. 4.

• MA 26300 - Multivariate and Vector Calculus Cr. 4.

## Concentration in Optoelectronics and Photonics

### Additional Physics Courses: Credits 39

- PHYS 30500 Intermediate Mathematics Physics Cr. 3.
- PHYS 31000 Intermediate Mechanics Cr. 4.
- PHYS 31200 Intermediate Electricity and Magnetism Cr. 3.

or

- ECE 31100 Electric And Magnetic Fields Cr. 3.
- PHYS 32200 Optics Cr. 3.
- PHYS 32500 Scientific Computing Cr. 3.
- PHYS 34500 Optics Laboratory I Cr. 1.
- PHYS 34600 Advanced Laboratory I Cr. 1. • PHYS 36100 - Electronics for Scientists Cr. 4.
- PHYS 41310 Intermediate Electricity and Magnetism II Cr. 3.
- PHYS 41800 Thermal and Statistical Physics Cr. 3.
- PHYS 51100 Laser Physics Cr. 3.
- PHYS 52400 Physical Optics and Experimental Spectroscopy Cr. 4.
- PHYS 53600 Electronic Techniques for Research Cr 4.

### Additional Supporting Courses: Credits 6

- MA 35100 Elementary Linear Algebra Cr. 3.
- MA 36300 Differential Equations Cr. 3.

# **General Electives**

· Sufficient additional credits to bring the total to 120.

Total Credits: 120

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# **Political Science (B.A.)**

Program: B.A. Department of Political Science College of Arts and Sciences

Liberal Arts Building 209 ~ 260-481-6686

Political Science is the study of how power, in its many forms, is used to organize human social relations. Our courses analyze how government and politics work at all levels of society, from the national, state, and local to the international. They also explore, in a rigorous and non-partisan way, the ethical dimensions of political debates.

Students who study Political Science not only become better-informed citizens; they also develop expertise in oral argument, written analysis, and critical thinking, all of which are in high demand from public- and private-sector employers in government, politics, law, education, business, and not-for-profit organizations. Our graduates have an outstanding record of success in gaining admission to top graduate schools and law schools, winning major national scholarships, and achieving leadership success in many professional fields.

#### **Student Learning Outcomes:**

Upon completion of this degree, students will:

- · Demonstrate the ability to:
  - · Communicate and write clearly and effectively
  - · Use quantitative and qualitative analytical skills in appropriate situations
  - · Analyze social and political issues with cutting-edge problem solving skills
  - Lead and engage others ethically and professionally with personal integrity, academic and professional honesty, respect for diversity, and civil deliberation, dissent, and discourse
- Be prepared for:
  - Careers in public and private sectors, especially in the fields of government, politics, law, and public service (for a detailed account, see the latest edition of the American Political Science Association's Careers and the Study of Political Science)
  - · Graduate study/law school
  - Active and engaged leadership and citizenship in one's community, the nation, and beyond
- In the discipline, students will identify basic and explain advanced key terms and concepts in the major fields of the discipline:
   Political Thought and Philosophy
  - American Government and Politics
  - Comparative Government
  - International Relations

#### **Program Delivery:**

· This program is available on-campus

#### Declaring this Major:

• Declare this major within the Department of Political Science

#### **General Requirements:**

- Degree Requirements
- · General Education Requirements
- · College Requirements
- Overlapping Content
- Academic Regulations

### **Program Requirements:**

- · A grade of C- or higher in all department courses required for the major and an overall GPA of 2.00 or higher for all courses required in the major.
- No more than 9 credits taken at the 100xx level will count toward the major requirements.
- Credit will not be given for both POL 20001 and POL 40101 courses with the same topic.
- Neither POL 39800 or POL 48200 may count for more than 6 credits toward the major requirements.
- Together POL 39800 and POL 48200 may not count for more than 9 credits toward the major requirements.

To earn the B.A. with a major in Political Science, you must fulfill the following requirements in addition to the General Requirements noted above:

### General Education Requirements: Credits 33

- · Click on the Purdue Fort Wayne General Education Requirements link above for details.
- Some majors may require particular General Education courses as specified in their program description. Up to six credits of approved General Education courses satisfying requirements in Areas A and B, and three credits satisfying requirements in Area C, may originate in the major. A grade of C- or higher in each course, and an overall GPA of 2.0 is required to satisfy the Purdue Fort Wayne General Education Requirements.
- Recommended courses for Category A3 Quantitative Reasoning are: MA 14000 or MA 15300

### College of Arts and Sciences Requirements

· Click on the Purdue Fort Wayne College Requirements link above for details. Go to Requirements for the Bachelor of Arts Degree.

### English Writing and Speaking: Credits 6

- · See Part A in Arts and Sciences Requirements for the Bachelor of Arts Degree for Speaking requirement
- POL 20700 Elements of Political Analysis Cr. 3.

#### International Language: Credits 12-14

• See Part B in Arts and Sciences Requirements for the Bachelor of Arts Degree

#### Distribution: Credits 9

- See Part C in Arts and Sciences Requirements for the Bachelor of Arts Degree
- Choose courses other than POLS

### Cultural Studies: Credits 6

· See Part D in Arts and Sciences Requirements for the Bachelor of Arts Degree

# Core and Concentration (Major) Courses Credits: 33

#### Core Courses: Credits 9

- POL 20700 Elements of Political Analysis Cr. 3.
- POL 39500 Quantitative Political Analysis Cr. 3.
- POL 49001 Senior Seminar in Political Science Cr. 3.

#### Concentration Area Courses: Credits 12

#### Variable Topics Courses

The following courses are not listed in the concentration areas below; however, credit can be assigned to one of the concentration areas based on the course topic.

- POL 20001 Contemporary Political Topics Cr. 1-6,
- POL 32400 Gender and Politics Cr. 3.
- POL 40101 Studies in Political Science Cr. 3.

### Political Philosophy

#### One of the following:

- POL 10500 Introduction to Political Theory Cr. 3.
- POL 20300 The Promise and Problems of Democracy Cr. 3.
- POL 21200 Making Democracy Work Cr. 3.
- POL 38100 Classical Political Thought Cr. 3.
- POL 38200 Modern Political Thought Cr. 3.
- POL 38300 Foundations Of American Political Thought Cr. 3.
- POL 38400 Developments In American Political Thought Cr. 3.

#### International Relations

#### One of the following:

- POL 10900 Introduction to International Relations Cr. 3.
- POL 37101 Workshop in International Topics Cr. 1-3.
- POL 37500 War & International Conflict Cr. 3.
- POL 37600 International Political Economy Cr. 3.
- POL 39700 Intervention, Peace, and War Cr. 3.

### Comparative Politics

#### One of the following:

- POL 10700 Introduction to Comparative Politics Cr. 3.
- POL 33501 Western European Politics Cr. 3.
- POL 33900 Middle Eastern Politics Cr. 3.
- POL 34000 East European Politics Cr. 3.
- POL 35001 Politics of the Euoropean Union Cr. 3.
   POL 35501 Ethnic Conflict and Nationalism Cr. 3.

#### **American Politics**

#### One of the following:

- POL 10300 Introduction to American Politics Cr. 3.
- POL 21100 Introduction to Law Cr. 3.
- POL 25200 Sports and Public Policy Cr. 3.
- POL 27500 Politics and Film Cr. 3.
- POL 27300 Political Parties and Interest Groups Cr. 3.
  POL 30201 Public Bureaucracy in Modern Society Cr. 3
- POL 30301 Policy Making in the United States Cr. 3.
   POL 30401 Constitutional Law Cr. 3.
- POL 30501 Constitutional Rights and Liberties Cr. 3.
- POL 30601 State Politics in the United States Cr. 3.
- POL 30001 State Fornices in the Officer States Cr. 3.
  POL 30701 Indiana State Government and Politics Cr. 3.
  POL 30801 Urban Politics Cr. 3.
  POL 31300 Envronmental Policy Cr. 3.
  POL 31700 Voting, Elections, and Public Opinion Cr. 3.

- POL 31800 The American Presidency Cr. 3.
- POL 31900 The United States Congress Cr. 3. • POL 32001 - Judicial Politics Cr. 3.
- POL 32800 Women and the Law Cr. 3.
- POL 36001 U.S. Foreign Policy Cr. 3.
- POL 37800 Problems in Public Policy Cr. 3.

• POL 39400 - Public Policy Analysis Cr. 3.

#### Additional Political Science Courses: Credits 12

- Choose an additional 12 credits of POLS courses noting program restrictions:
  - No more than 9 credits taken at the 100xx level will count toward the major requirements
  - Credit will not be given for both POL 20001 and POL 40101 courses with the same topic.
  - Neither POL 39800 or POL 48200 may count for more than 6 credits toward the major requirements.
  - Together POL 39800 and POL 48200 may not count for more than 9 credits toward the major requirements.

#### **General Electives**

· Sufficient additional credits to bring the total to 120.

Total Credits: 120

# Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

## Psychology (B.A.)

Program: B.A.
Department of Psychology
College of Arts and Sciences

Neff Hall 388 ~ 260-481-6403

The Bachelor of Arts with a major in psychology is for the person seeking a career in psychology or a closely related field. The degree program provides a liberal-arts education in psychology as well as preparation for graduate school.

#### Student Learning Outcomes

Upon completion of the degree, students will:

- · know the major theoretical approaches, findings, and historical trends in psychology
- · be able to understand the major research methods in psychology, including design, data analysis, and interpretation
- · be able to think critically and use the scientific approach to understand behavior
- be able to understand the values that are the underpinnings of psychology as a science (e.g., value of empirical evidence, tolerance for ambiguity, ethics in research, teaching, and practice)
- be able to apply concepts, information, and skills learned in psychology courses to their lives and work
- be able to effectively locate and evaluate sources of information
- · be able to express themselves effectively in the discourse of the discipline
- be able to understand people from a diverse range of backgrounds and varying demographic characteristics such as age, race, disability, sexual orientation, class, ethnicity, religion, and cognitive abilities
- be able to make decisions about future employment or graduate education

#### **Program Delivery:**

• This program is available on-campus.

#### Declaring this Major:

• Declare this major within the Department of Psychology.

#### **General Requirements:**

- · Degree Requirements
- General Education Requirements
- · College Requirements
- Overlapping Content
- Academic Regulations

# **Program Requirements:**

Psychology B. A. 4-Yr. Plan:

• A grade of C- or higher in all department courses required for the major and an overall GPA of 2.00 or higher for all courses taken in the major.

To earn the B.A. with a major in psychology, you must fulfill the following requirements in addition to the General Requirements noted above:

## General Education Requirements: Credits 33

- Click on the Purdue Fort Wayne General Education Requirements link above for details.
   A grade of C- or higher is required for each course used to satisfy the Purdue Fort Wayne General Education Requirements.

### College of Arts and Sciences Requirements

· Click on the Purdue Fort Wayne College Requirements link above for details. Go to Requirements for the Bachelor of Arts Degree.

#### English Writing and Speaking: Credits 6

- · See Part A in Arts and Sciences Requirements for the Bachelor of Arts Degree for Speaking requirement.
- ENGL 23301 Intermediate Expository Writing Cr. 3.

(or other approved writing courses)

### International Language: Credits 12-14

• See Part B in Arts and Sciences Requirements for the Bachelor of Arts Degree.

#### Distribution: Credits 9

- See Part C in Arts and Sciences Requirements for the Bachelor of Arts Degree.
- · Choose courses other than PSY.

## Cultural Studies: Credits 6

• See Part D in Arts and Sciences Requirements for the Bachelor of Arts Degree.

# Core and Concentration (Major) Courses: Credits 21

• PSY 12000 - Elementary Psychology Cr. 3.

- PSY 14000 Critical Foundations for Psychology Cr. 3.
- PSY 20100 Introduction to Statistics in Psychology Cr. 3.
- PSY 20300 Introduction to Research Methods in Psychology Cr. 3.
- PSY 31400 Introduction to Learning Cr. 3.
- PSY 41600 Cognitive Psychology Cr. 3.
- PSY 32900 Psychobiology II: Principles of Psychobiological Psychology Cr. 3.

or

• PSY 41900 - Psychopharmacology Cr. 3.

#### Additional Requirements: Credits 9

Choose three courses from the following list:

• PSY 23500 - Child Psychology Cr. 3.

Credit not given for both PSY 23500 and PSY 36900

- PSY 24000 Introduction to Social Psychology Cr. 3.
- PSY 35000 Abnormal Psychology Cr. 3.
- PSY 36900 Development Across the Lifespan Cr. 3.

Credit not given for both PSY 23500 and PSY 36900

• PSY 42000 - Introduction to Personality Theory Cr. 3.

### Psychology Elective Courses 2000+ Level: Credits 9

In the case of courses which can be repeated for credit (e.g., PSY 39200; PSY 49600), more than one section of the same course number must have substantially different content, as approved by the department chair, if both are to be used toward meeting this requirement. At least three credits must be taken at Purdue Fort Wayne.

### Capstone Requirement: Credits 3

Choose one of the following:

The capstone course is a culminating experience in the senior year in which the student develops a major project (literature review, research proposal, empirical study, or service learning project) that demonstrates characteristics of critical thinking, including the ability to identify a problem, evaluate evidence, and use information to analyze existing conclusions, draw new conclusions, or contribute to real-world applications or understanding of larger issues.

#### Prerequisites:

- 1. Senior standing (90 credits) or completion of 33 credits in psychology
- 2. Successful completion of PSY 20300 with a grade of C- or better
  - PSY 43100 Advanced Psychobiology Cr. 3.
  - PSY 44100 Advanced Research in Personality and Social Psychology Cr. 3.
  - PSY 44600 Advanced Research In Human Memory And Cognition Cr. 3.
  - PSY 49900 Honors Thesis in Psychology Cr. 3.
  - PSY 54000 History of Psychology Cr. 3.

#### Supplemental Requirements:

- · Completion of the FOCUS career guidance tool and a Career Services session to review the results (during PSY 14000)
- Completion of a Career Services session to review resume or curriculum vitae (during junior year)
- Completion of a Career Services session focused on cover letter review, personal statement review, or mock interview (during senior year)
- · Successful completion of the Exit Exam in Psychology

#### General Electives

· Sufficient additional credits to bring the total to 120

Total Credits: 120

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# Psychology (B.S.)

Program: B.S. Department of Psychology College of Arts and Sciences

Neff Hall 388 ~ 260-481-6403

The Bachelor of Science with a major in psychology is for the person seeking a career in psychology or a closely related field. The degree program provides a liberal-arts education in psychology as well as preparation for graduate school.

#### Student Learning Outcomes

Upon completion of the degree, students will:

- · know the major theoretical approaches, findings, and historical trends in psychology
- · be able to understand the major research methods in psychology, including design, data analysis, and interpretation
- · be able to think critically and use the scientific approach to understand behavior
- be able to understand the values that are the underpinnings of psychology as a science (e.g., value of empirical evidence, tolerance for ambiguity, ethics in research, teaching, and practice)
- be able to apply concepts, information, and skills learned in psychology courses to their lives and work
- · be able to effectively locate and evaluate sources of information
- the able to express themselves effectively in the discourse of the discipline
- be able to to understand people from a diverse range of backgrounds and varying demographic characteristics such as age, race, disability, sexual orientation, class, ethnicity, religion, and cognitive abilities
- · be able to make decisions about future employment or graduate education

#### **Program Delivery:**

· This program is available on-campus.

#### Declaring this Major:

· Declare this major within the Department of Psychology.

#### **General Requirements:**

- Degree Requirements
- General Education Requirements
- · College Requirements
- Overlapping Content
- Academic Regulations

### **Program Requirements:**

Psychology B.S. 4-Yr. Plan:

· A grade of C- or higher in all department courses required for the major and an overall GPA of 2.00 or higher for all courses taken in the major.

To earn the B.S. with a major in psychology, you must fulfill the following requirements in addition to the General Requirements noted above:

# General Education Requirements: Credits 33

- · Click on the Purdue Fort Wayne General Education Requirements link above for details.
- · A grade of C- or higher is required for each course used to satisfy the Purdue Fort Wayne General Education Requirements.

# College of Arts and Sciences Requirements

Click on the Purdue Fort Wayne College Requirements link above for details. Go to Requirements for the Bachelor of Science Degree.

## English Writing and Speaking: Credits 6

- · See Part A in Arts and Sciences Requirements for the Bachelor of Science Degree for Speaking requirement.
- ENGL 23301 Intermediate Expository Writing Cr. 3. (or other approved writing courses)

## International Language: Credits 6-8

· See Part B in Arts and Sciences Requirements for the Bachelor of Science Degree.

# Core and Concentration (Major) Courses: Credits 21

- PSY 12000 Elementary Psychology Cr. 3.
- PSY 14000 Critical Foundations for Psychology Cr. 3.
- PSY 20100 Introduction to Statistics in Psychology Cr. 3.
- PSY 20300 Introduction to Research Methods in Psychology Cr. 3.
- PSY 31400 Introduction to Learning Cr. 3.
- PSY 32900 Psychobiology II: Principles of Psychobiological Psychology Cr. 3.

or

• PSY 41900 - Psychopharmacology Cr. 3.

## Additional Requirements: Credits 9

Choose three courses from the following:

• PSY 23500 - Child Psychology Cr. 3.

(Credit not given for both PSY 23500 and PSY 36900)

- PSY 24000 Introduction to Social Psychology Cr. 3.
- PSY 35000 Abnormal Psychology Cr. 3.
- PSY 36900 Development Across the Lifespan Cr. 3.

(Credit not given for both PSY 23500 and PSY 36900)

• PSY 42000 - Introduction to Personality Theory Cr. 3.

### Psychology Elective Courses 2000+ Level: Credits 6

In the case of courses which can be repeated for credit (e.g., PSY 39200; PSY 49600), more than one section of the same course number must have substantially different content, as approved by the department chair, if both are to be used toward meeting this requirement. At least three credits must be taken at Purdue Fort Wayne.

# Applied Psychology Courses: Credits 3

Choose one course from the following:

- PSY 43100 Advanced Psychobiology Cr. 3.
- PSY 44100 Advanced Research in Personality and Social Psychology Cr. 3.
- PSY 44600 Advanced Research In Human Memory And Cognition Cr. 3.
- PSY 48500 Issues and Fieldwork in Applied Behavior Analysis Cr. 3.
- PSY 49600 Readings and Research in Psychology Cr. 1-6.
- PSY 49800 Senior Research Cr. 3.
- PSY 49900 Honors Thesis in Psychology Cr. 3.

### Capstone Requirement: Credits 3

Choose one of the following:

The capstone course is a culminating experience in the senior year in which the student develops a major project (literature review, research proposal, empirical study, or service learning project) that demonstrates characteristics of critical thinking, including the ability to identify a problem, evaluate evidence, and use information to analyze existing conclusions, draw new conclusions, or contribute to real-world applications or understanding of larger issues.

#### **Prerequisites**:

- 1. Senior standing (90 credits) or completion of 33 credits in psychology
- 2. Successful completion of PSY 20300 with a grade of C- or better
  - PSY 43100 Advanced Psychobiology Cr. 3.
  - PSY 44100 Advanced Research in Personality and Social Psychology Cr. 3.
  - PSY 44600 Advanced Research In Human Memory And Cognition Cr. 3.
  - PSY 49900 Honors Thesis in Psychology Cr. 3.
  - PSY 54000 History of Psychology Cr. 3.

### Supporting Courses: Credits 25

• MA 15300 - College Algebra Cr. 3.

This course also applies in General Education.

### Category 1: Methodological

Courses may not be used to fulfill another requirement within this major.

Select one course from either Group A or from Group B:

#### Group A:

- PSY 43100 Advanced Psychobiology Cr. 3.
- PSY 44100 Advanced Research in Personality and Social Psychology Cr. 3.
- PSY 44600 Advanced Research In Human Memory And Cognition Cr. 3.

#### Group B:

- MA 22900 Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.
- STAT 34000 Elementary Statistical Methods II Cr. 3.

#### Category 2: Science/Math/Computer Science/Social Science

Courses may not be used to fulfill another requirement within this major.

Select six of the following courses in Human/Animal Biology, Chemistry, Math/Statistics, Physics, Computer Science, or Sociocultural Forces.

At least two courses must be in BIOL, CHM, CS, MA or STAT.

```
• ANTH 20001 - Bioanthropology Cr. 3.
         ANTH 3000+ level
           ANTH 4000+ level
• BIOL 10000 - Introduction To The Biological World Cr. 3.
• BIOL 11700 - Principles Of Ecology And Evolution Cr. 4.
• BIOL 11900 - Principles Of Structure And Function Cr. 4.
• BIOL 12600 - Human Biology Cr. 3.
• BIOL 12700 - Introduction To Human Diseases Cr. 3.
· BIOL 20300 - Human Anatomy And Physiology Cr. 4.

    BIOL 20400 - Human Anatomy And Physiology Cr. 4.

  BIOL 32700 - Biology Of Aging Cr. 3.
• BIOL 33500 - Animal Behavior Cr. 3.
  BIOL 34500 - Vertebrate Biology Cr. 4.
• BIOL 40600 - Human Anatomy Cr. 4.
  BIOL 40900 - Human Physiology Cr. 4.
• CHM 11500 - General Chemistry Cr. 4.
• CHM 11600 - General Chemistry Cr. 4.
• CS 20300 - Advanced Visual Programming Cr. 3.
           CS 29200 (Python Program Data Analytics)
         CS 29200 (Programming In C#)

    CHM 25500 - Organic Chemistry Cr. 3. Take with CHM 25400 lab (see list below)
    CHM 25600 - Organic Chemistry Cr. 3. Take with CHM 25800 lab (see list below)
    CHM 26100 - Organic Chemistry Cr. 3. Take with CHM 26500 lab (see list below)

• CHM 26200 - Organic Chemistry Cr. 3. Take with CHM 26600 lab (see list below)

    CS 11200 - Computer Science For Everyone Cr. 3.
    CS 11400 - Introduction To Visual Programming Cr. 3.

• CS 16000 - Introduction To Computer Science I Cr. 4.
• CS 16100 - Introduction To Computer Science II Cr. 4.
• CS 36800 - Human-Computer Interaction Cr. 3.
• CS 38000 - Artificial Intelligence Cr. 3.
• MA 15400 - Trigonometry Cr. 3.
• MA 16500 - Analytic Geometry and Calculus I Cr. 4.
· MA 16600 - Analytic Geometry and Calculus II Cr. 4.
• MA 17500 - Introductory Discrete Mathematics Cr. 3.
• MA 22700 - Calculus for Technology I Cr. 4. (or higher level)
• PHYS 10500 - Sound and Music Cr. 3.
• PHYS 12000 - Physics of Sports Cr. 3.
• PHYS 12500 - Light and Color Cr. 3.
• PHYS 13100 - Concepts in Physics I Cr. 3.
• PHYS 13600 - Chaos and Fractals Cr. 3.
• PHYS 30200 - Puzzles, Strategy Games, and Problem solving in the Physical Sciences (Honors Course) Cr. 3.
• PHYS 32200 - Optics Cr. 3.

    POL 3000+ level

         POL 4000+ level
• SOC 22500 - Violence Cr. 3.
         SOC 3000+ level
           SOC 4000+ level
• STAT 34000 - Elementary Statistical Methods II Cr. 3.
• STAT 51200 - Applied Regression Analysis Cr. 3. (or higher level)
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## Lab Requirement

Select one of the following courses:

```
• BIOL 10001 - Introduction To The Biological World Laboratory Cr. 1.

    BIOL 11700 - Principles Of Ecology And Evolution Cr. 4.

 BIOL 11900 - Principles Of Structure And Function Cr. 4.
 BIOL 20300 - Human Anatomy And Physiology Cr. 4.
• BIOL 20400 - Human Anatomy And Physiology Cr. 4.
• BIOL 40600 - Human Anatomy Cr. 4.
• BIOL 40900 - Human Physiology Cr. 4.
• CHM 11100 - General Chemistry Cr. 3.
• CHM 11500 - General Chemistry Cr. 4.
 CHM 11600 - General Chemistry Cr. 4.
• CHM 12000 - Chemistry And Art Cr. 3.
• CHM 25400 - Organic Chemistry Laboratory Cr. 1.
• CHM 25800 - Organic Chemistry Laboratory Cr. 1.
• CHM 26500 - Organic Chemistry Laboratory Cr. 2.
· CHM 26600 - Organic Chemistry Laboratory Cr. 2.
• EAPS 10002 - General Geology Laboratory Cr. 1-2.
• EAPS 10300 - Earth Science: Materials And Processes Cr. 3.
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- EAPS 10401 Earth Science: Evolution Of The Earth Cr. 3.
- PHYS 12700 Physics for Computer Graphics and Animation Cr. 3.
- PHYS 13100 Concepts in Physics I Cr. 3.
- PHYS 13101 Concepts In Physics I (Lab) Cr. 1.
- PHYS 15200 Mechanics Cr. 5.
- PHYS 21800 General Physics Cr. 4.
- PHYS 21900 General Physics II Cr. 4.
- PHYS 22000 General Physics Cr. 4.
- PHYS 22100 General Physics Cr. 4.
- PHYS 25100 Heat, Electricity, and Optics Cr. 5.

## Supplemental Requirements:

- · Completion of the FOCUS career guidance tool and a Career Services session to review the results (during PSY 14000)
- Completion of a Career Services session to review resume or curriculum vitae (during junior year)
- · Completion of a Career Services session focused on cover letter review, personal statement review, or mock interview (during senior year)
- Successful completion of the Exit Exam in Psychology

#### General Electives:

· Sufficient additional credits to bring the total to 120

Total Credits: 120

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

#### Additional Course Use:

Courses listed below may also be considered in meeting specific degree requirements.

MA 15300 required; MA 15400 accepted

### **Public Affairs BSPA**

Program: Bachelor of Science in Public Affairs Department of Public Policy College of Professional Studies

Neff Hall 260 Ph: 260-481-6351

The BSPA (Bachelor of Science in Public Affairs) degree program provides a focus on public affairs with a background in the liberal arts. This degree offers a major in Public Administration and Policy with a concentration in Criminal Justice Policy. Internships are strongly encouraged as they provide qualified students with the opportunity to apply classroom theory and techniques to real-life experiences. The internship program is designed for maximum flexibility; internships can be full or part time, paid or unpaid, credit or noncredit.

The Public Administration and Policy curriculum is divided into five categories - Purdue General Education area, Public Policy general knowledge area, Public Policy core, the concentration area, and general electives. No more than 60 credits may be transferred from a junior college. Public Policy requires that 15 hours of course work in the major at the 300 or higher level be completed at Purdue (excluding PPOL 37101). A maximum of 10 credits may be applied from military transfer experience, and a maximum of 12 credits may be awarded for police academy training completed within the past year. Up to 6 credits in Public Affairs Courses (excluding PPOL 37200 and PPOL 37601) may be used in order to meet specific Public Affairs degree requirements in a second Public Affairs courses may be double-counted to satisfy the Purdue University Fort Wayne general-education distribution. Additional public policy courses may be used to satisfy general elective requirements.

Students should be able to:

- · Understand the importance of ideas and theory in the formulation and implementation of public policy.
- · Understand the importance of politics in all substantive public policy areas.
- · Appropriately utilize quantitative approaches for dealing with management and public policy challenges.
- · Understand the origins, processes, and impact of law in the creation and implementation of public policy.

#### Declaring this Major:

• To declare a major in Public Administration and Policy, students must meet with the Public Policy Coordinator of Advising and Student Services to determine eligibility.

## General Requirements:

- · Degree Requirements
- · General Education Requirements
- · Overlapping Content
- Academic Regulations

To earn the Bachelor of Science in Public Affairs at Purdue, students must fulfill the requirements of Purdue (see Regulations, Policies, Rights, & Responsibilities) and the Department of Public Policy, and complete the following course requirements:

## **Program Requirements:**

Public Affairs BSPA - Criminal Justice 4-Year Plan:

# I. General Education Requirements Credits: 33

The identified General Education courses below are program requirements that fulfill the General Education requirements as well.

See Part 2 General Education Requirements for approved courses

A grade of C- or better is required in each course used to satisfy the Purdue Fort Wayne General Education requirements.

# Category A: Foundational Intellectual Skills

- 1. Written Communication Credits: 3
  - ENGL 13100 Reading, Writing, and Inquiry I Cr. 3.
- 2. Speaking and Listening Credits: 3
  - COM 11400 Fundamentals Of Speech Communication Cr. 3.
- 3. Quantitative Reasoning Credits: 3
  - MA 14000 Practical Quantitative Reasoning Cr. 3.
  - MA 15300 College Algebra Cr. 3.
  - MA 22900 Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.

### Or higher level A3 Mathematics course

or higher level A3 Mathematics course

## Category B: Ways of Knowing

### 4. Scientific Ways of Knowing Credits: 6

### 5. Social and Behavioral Ways of Knowing Credits: 6

• PPOL 17000 - Introduction to Public Affairs Cr. 3.

This course meets the B.5 Social and Behavioral Ways of Knowing requirements and is counted as three of the six hours required by Public Policy for the B.5 category.

### 6. Humanistic and Artistic Ways of Knowing Credits: 6

Courses must be in addition to HIST 10501 and 10601, which fulfill requirements under Public Policy Supporting Courses.

## 7. Interdisciplinary or Creative Ways of Knowing Credits: 3

• PPOL 16200 - Environment and People Cr. 3.

This course meets the B.7 Interdisciplinary Ways of Knowing requirements and is counted by Public Policy for completion of the B.7 category and as one of the Public Policy Core classes.

## Category C: Capstone Course Credits: Credits from major course

### 8. Capstone Experience

The identified Capstone courses below are specific to the concentration.

Note: See (III. Concentration Credits) section.

- PPOL 32000 Health Systems Administration Cr. 3.
- PPOL 43900 Crime and Public Policy Cr. 3.
- PPOL 45600 Topics in Public Law Cr. 3.

# II. Public Policy Supporting Courses: Credits: 24

## A. Communication Credits: 3

One of the following:

- ENGL 23202 Introduction to Business Writing Cr. 3.
- ENGL 23301 Intermediate Expository Writing Cr. 3.
  - Or substitution approved by advisor Cr.3.

## B. Quantitative Methods Credits: 3

PPOL 30000 is the preferred statistics course for Public Affairs students.

- PPOL 30000 Statistical Techniques Cr. 3.
- · SOC 35100 Social Statistics Cr. 3.
- STAT 30100 Elementary Statistical Methods I Cr. 3.
- ECON 27000 Introduction to Statistical Theory in Economics and Business I Cr. 3.
- PSY 20100 Introduction to Statistics in Psychology Cr. 3.

## C. Scientific Ways of Knowing Credits: 3

· Any additional B.4 Science Course

## D. Arts & Humanities Requirements Credits: 6

- HIST 10501 American History I Cr. 3.
- HIST 10601 American History II Cr. 3.

## E. Social and Behavioral Sciences Requirements Credits: 9

- ECON 20101 Introduction to Microeconomics Cr. 3. A grade of C- is required to advance to ECON 20201.
- ECON 20201 Introduction to Macroeconomics Cr. 3.
- PPOL 37101 Financing Public Affairs Cr. 3. Prerequisites of PPOL 17000, ECON 20101 and ECON 20201. Completion of Statistics is recommended.

### III. Public Affairs Core Credits: 6

A grade of C- or better is required in each of these courses.

- PPOL 10100 The American Criminal Justice System Cr. 3.
- PPOL 12000 Contemporary Health Issues Cr. 1-3.
- PPOL 16200 Environment and People Cr. 3.
- PPOL 17000 Introduction to Public Affairs Cr. 3.

### IV. Concentration Credits: 27-30

C. Law and Public Policy concentration: 27 credits

The Law and Public Policy concentration in the Public Affairs major requires 27 credit hours for completion (students are required to have a minimum of 120 credit hours with a 2.00 cumulative grade point average and a 2.30 grade point average in core and major area courses in order to receive the Bachelor of Science in Public Affairs degree).

### Criminal Justice Policy concentration: 30 credits

The Criminal Justice Policy concentration in the Criminal Justice major requires 30 credit hours for completion (students are required to have a minimum of 120 credit hours with a 2.00 cumulative grade point average and a 2.30 grade point average in core and major area courses in order to receive the Bachelor of Science in Public Affairs degree). Public Policy [PPOL] 10100 is the pre-requisite course for the Criminal Justice major courses.

- PPOL 20100 Theoretical Foundations of Criminal Justice Policies Cr. 3.
- PPOL 20200 Criminal Justice Data, Methods, and Resources Cr. 3.
- PPOL 30100 Substantive Criminal Law Cr. 3.
- PPOL 32100 American Policing Cr. 3.
- PPOL 33100 Corrections Cr. 3.
- PPOL 37200 Government Finance and Budgets Cr. 3.
- PPOL 37601 Law and Public Policy Cr. 3.
  - PPOL 43900 (Category C Capstone course for Criminal Justice)

### Additional 6 credits of PPOL electives approved by advisor

Two additional PPOL courses, one of which can be PPOL 38001-Internship in Public Affairs

o PPOL 37101 may not be used to meet this requirement

### V. General Electives Credits: 30-33

The total number of electives is dependant on the area of concentration.

Additional courses of interest or minors should be selected in consultation with an advisor. Consult Program Descriptions section of the university catalog for a complete interactive list of minors and/or certificate programs.

Total Credits: 120

## Student Responsibility

Student Responsibilities: You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# Secondary Education - Earth And Space Science (B.S.Ed.)

Program: B.S.Ed. School of Education College of Professional Studies

Neff Hall 250 ~ 260-481-4146

The B.S.Ed. in secondary education-earth and space science is intended to prepare students for successful careers as science teachers of youth in middle school/junior high and high school settings. Upon satisfactory completion of the program, and the other requirements listed under Teacher Licensure in the Special Academic Regulations, you are eligible to apply for an Indiana teaching license. These requirements are subject to change based upon program and state regulations.

To earn the B.S.Ed. in secondary education-earth and space science, you must satisfy the requirements of Purdue University Fort Wayne (Regulations) and the College of Professional Studies.

### **Student Learning Outcomes:**

Upon completion of a major in Secondary Education-Earth and Space Science students will:

- · Become more caring, humane and functional citizens in a global, multicultural, democratic society
- · Improve the human condition by creating positive learning environments
- Become change agents by demonstrating reflective professional practice
- · Solve client problems through clear, creative analyses
- Assess client performance, creating and executing effective teaching, counseling, and educational leadership by utilizing a variety of methodologies reflecting current related research
- Utilize interdisciplinary scholarship, demonstrating technology and critical literacies, and effectively communicating with all stakeholders.

#### Accreditation:

The Secondary Education Earth and Space Science program is accredited by the Council for the Accreditation of Educator Preparation (CAEP) and nationally recognized
as high-quality programs through the National Science Teachers Association (NSTA). Because of these statuses, students who meet specified requirements are eligible
for a secondary teaching license in Earth and Space Science in the state of Indiana. Indiana holds reciprocal licensing agreements with other states.

#### **Program Delivery:**

· This program is available on campus

### **Declaring This Major:**

• You must declare this major with the School of Education

# Program Requirements:

Secondary Education Earch and Space Science (BSEd) 4-Year Plan:

# General Requirements

- Degree Requirements
- · General Education Requirements
- · College Requirements
- Overlapping Content
- Academic Regulations

# General Education Requirements Credits: 34

# General Education Requirements

Some of the following General Education courses may be included in your major. See your Education advisor.

# Category A: Foundational Intellectual Skills

## 1. Written Communication

• ENGL 13100 - Reading, Writing, and Inquiry I Cr. 3.

# 2. Speaking and Listening

• COM 11400 - Fundamentals Of Speech Communication Cr. 3.

# 3. Quantitative Reasoning

• MA 15300 - College Algebra Cr. 3. or higher level General Education Category A3 requirement in Math

# Category B: Interdisciplinary or Creative Ways of Knowing

# 4. Scientific Ways of Knowing

One of the following courses: 3-4 credits

- ASTR 10000 The Solar System Cr. 3.
- ASTR 26400 Descriptive Astronomy: Stars And Galaxies Cr. 3.
- CHM 11500 General Chemistry Cr. 4.
- EAPS 12100 Journey To Mars Cr. 3.
- GEOG 10900 Weather and Climate Cr. 3.

## 5. Social and Behavioral Ways of Knowing

• EDU 34001 - Education And American Culture Cr. 3.

## 6. Humanistic and Artistic Ways of Knowing

• (at least 3 credits and all outcomes in approved courses)

# 7. Interdisciplinary or Creative Ways of Knowing

• PHIL 35100 - Philosophy of Science Cr. 3.

## Category C: Capstone

## 8. Capstone Experience

• (at least 3 credits and all outcomes in approved courses)

Education: Credits: 33

## Pre-Professional Education (3 cr)

Prior to being admitted to the Block 1: Professional Education program you must complete the following Pre-Professional Education requirements:

- EDU 10100 Laboratory/Field Experience Cr. 0.
   EDU 20000 Examining Self As A Teacher Cr. 3.
   EDU 34001 Education and American Culture (Category B5)

# Block 1: Professional Education Cr. 9 (Spring only)

#### P: Pre-Professional Education

P: 28 crs in major

- EDU 30600 Teaching Students With Special Needs In Secondary Classrooms Cr. 3.
- EDU 25000 General Educational Psychology Cr. 1-4.

Credits: 3

• EDU 30100 - Laboratory/Field Experience Cr. 0-3.

• EDU 40500 - The Middle And Junior High School Cr. 3.

## Block 2: Professional Education Cr. 9 (Fall only)

### P: Block 1

- EDU 40100 Laboratory/Field Experience Cr. 0-3.
- EDU 40101 Critical Reading In The Content Area Cr. 1-3.
- EDU 44900 Methods Of Teaching Science In The Secondary Schools Cr. 3.
- EDU 47500 Adolescent Development And Classroom Management Cr. 3.

# Student Teaching (12 cr)

### P: Block 2

P: Take Pearson Content Exam

- EDU 48000 Student Teaching In The Secondary School Cr. 1-16. or
  - EDU 48000 Student Teaching in the Secondary School and EDU 47000, SPED Practicum Cr. 9/3 or
  - $\circ~$  EDU 48000 Student Teaching in the Secondary School  $\underline{and}$  LING 47000, ENL Practicum Cr. 9/3
- EDU 40100 Laboratory/Field Experience Cr. 0-3.

## Earth and Space Science Major Courses: Credits: 36

The following courses also count in General Education: ASTR 10000, ASTR 26400, CHM 11500, EAPS 12100, GEOG 10900, MA 15300 and PHIL 35100.

One of the following two courses:

- ASTR 10000 The Solar System Cr. 3.
- EAPS 12100 Journey To Mars Cr. 3.

and

- ASTR 26400 Descriptive Astronomy: Stars And Galaxies Cr. 3.
- CHM 11500 General Chemistry Cr. 4.
- EAPS 10300 Earth Science: Materials And Processes Cr. 3.
- EAPS 21000 Oceanography Cr. 3.
- EAPS 21100 Introduction To Paleobiology Cr. 3.
- EAPS 22101 Introductory Mineralogy Cr. 3-4.
- EAPS 32300 Structural Geology Cr. 3-4.
- EAPS 42001 Regional Geology Field Trip Cr. 1-2.
- EAPS 45100 Principles Of Hydrogeology Cr. 3.
  - GEOG 10900 Weather and Climate
  - MA 15300 College Algebra
- MA 15400 Trigonometry Cr. 3.
  - PHIL 35100 Philosophy and Science
- PHYS 21800 General Physics Cr. 4. or
- PHYS 15200 Mechanics Cr. 5.
- STAT 30100 Elementary Statistical Methods I Cr. 3.
  - 3 credit elective in Math or Science, 300-level or higher (ASTR, BIOL, CHM, EAPS, GEOG, MA, PHYS and STAT)
- EDU 40001 Man And Environment: Instructional Methods Cr. 3.

## Elective Courses Credits: 17

Note: Since teaching opportunities are limited if you only hold certification in Earth and Space Science, it is strongly recommended that you use your elective credits toward the completion of a minor in another science content area or Mathematics.

Total Credits: 120

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# Secondary Education - Education Policy (Non-Licensure) (B.S.Ed.)

Program: B.S.Ed.(Non-Licensure) **School of Education** College of Professional Studies

Neff Hall 250 ~ 260-481-4146

The B.S.Ed. in secondary education with a concentration in public policy is intended to prepare students for successful careers in diverse areas, including education lobbying, serving as directors of after school programs, or in informal education organizations like Science Central, the Fort Wayne Children's Zoo and the Fort Wayne Urban League.

To earn the B.S.Ed. in Secondary Education - Education Policy, you must satisfy the requirements of Purdue University Fort Wayne (Regulations) and the College of Professional Studies.

#### **Student Learning Outcomes:**

Upon completion of a major in Secondary Education - Education Policy students will:

- · Become more caring, humane and functional citizens in a global, multicultural, democratic society
- Improve the human condition by creating positive learning environments
   Become change agents by demonstrating reflective professional practice
- · Solve client problems through clear, creative analyses
- · Assess client performance, creating and executing effective teaching, counseling, and educational leadership by utilizing a variety of methodologies reflecting current related research
- · Utilize interdisciplinary scholarship, demonstrating technology and critical literacies, and effectively communicating with all stakeholders.

### **Program Delivery:**

· This program is available on campus

#### **Declaring This Major:**

· You must declare this major with the School of Education

Grades of C- or higher are required in each course used toward this degree. Minimum 2.70 cumulative grade point average is required for graduation.

### **General Requirements:**

- · Degree Requirements
- · General Education Requirements
- · College Requirements
- · Overlapping Content
- · Academic Regulations

## **Program Requirements:**

Secondary Education - Education Policy (Non-Licensure) (BSEd) 4-Year Plan:

## General Education Requirements Credits: 33

#### General Education Requirements

Some of the following General Education courses may be included in your major. See your Education advisor.

# Category A: Foundational Intellectual Skills (9 credits)

## 1. Written Communication

• ENGL 13100 - Reading, Writing, and Inquiry I Cr. 3.

## 2. Speaking and Listening

• COM 11400 - Fundamentals Of Speech Communication Cr. 3.

## 3. Quantitative Reasoning

One of the following:

- MA 14000 Practical Quantitative Reasoning Cr. 3.
- MA 15300 College Algebra Cr. 3.
- STAT 12500 Communicating with Statistics Cr. 3.

## Category B: Interdisciplinary or Creative Ways of Knowing (21 credits)

# 4. Scientific Ways of Knowing

- • BIOL 10000 - Introduction To The Biological World Cr. 3. • Refer to Approved List (not BIOL) Cr. 3.
- 5. Social and Behavioral Ways of Knowing
  - PSY 12000 Elementary Psychology Cr. 3.
  - EDU 34001 Education And American Culture Cr. 3.

### 6. Humanistic and Artistic Ways of Knowing

- Refer to Approved List Cr. 3.
- Refer to Approved List Cr. 3.

# 7. Interdisciplinary or Creative Ways of Knowing

• At least 3 credits and all outcomes in approved courses.

# Category C: Capstone (3 credits)

## 8. Capstone Experience

• At least 3 credits and all outcomes in approved courses.

# Additional Educational Studies Requirements: 15-16 credits

- ENGL 23301 Intermediate Expository Writing Cr. 3.
  - General Education B4 (different subject) Cr. 3.
  - · General Education B6 (different subject) Cr. 3.
  - General Education B7 (different subject) Cr. 3.
- PSY 23500 Child Psychology Cr. 3.
  - Science Lab Requirement Cr. 0-1. (Suggested courses with labs include: CHM 11100, CHM 12000, PHYS 12700, PHYS 13100, EAPS 10300, or EAPS 10401.)

# Preprofessional Education Requirements: 6 credits

- · EDU 20000 Examining Self As A Teacher Cr. 3. and
- EDU 10100 Laboratory/Field Experience Cr. 0.
- EDU 20002 Using Computers For Education Cr. 1-3.

# Education Policy: 45-49 credits

#### **Required Education Courses (9 credits)**

## Block 1: (6 credits)

- EDU 30600 Teaching Students With Special Needs In Secondary Classrooms Cr. 3.
- EDU 25000 General Educational Psychology Cr. 1-4. and
- EDU 30100 Laboratory/Field Experience Cr. 0-3.

## Block 2: (3 credits)

- EDU 47500 Adolescent Development And Classroom Management Cr. 3.
- EDU 40100 Laboratory/Field Experience Cr. 0-3.

# First Focus: Public Affairs Minor (15 credits)

### Three required courses:

Three of the next four courses: 9 Credits

- PPOL 10100 The American Criminal Justice System Cr. 3.
- PPOL 12000 Contemporary Health Issues Cr. 1-3.
- PPOL 16200 Environment and People Cr. 3.
- PPOL 17000 Introduction to Public Affairs Cr. 3.

Two of the next three courses: 6 Credits

- PPOL 26300 Public Management Cr. 3.
  - 30000-40000 Level PPOL Elective: Cr. 3
     30000-40000 Level PPOL Elective: Cr. 3

## Second Focus: Select one of the following options based on your professional interests

If none of the following options work for you, you may create a cohesive focus and have it approved by your academic advisor. The focus should be a minimum of 18 credits with at least 12 credits at 300+ level.

### Nonprofit Organization (22 credits):

- BUS 20100 Principles Of Financial Accounting Cr. 3.
- COM 25300 Introduction To Public Relations Cr. 3.
- EDU 40500 The Middle And Junior High School Cr. 3.
- ENGL 42502 Research Methods for Professional Writers Cr. 3. (allows for a focus on grant writing)
- HSRV 10300 Helping Relationship Techniques Cr. 3.
- POL 15001 Foundations of Community Advocacy Cr. 1-3. (1 credit)
  POL 30701 Indiana State Government and Politics Cr. 3. (focus on how government works in IN, state and local)
  - A Content Course Elective in one of the following subject areas: Business, Communication, English, Human Services, Political Science or approved alternative subject course. Cr. 3

### Adolescents Facing Challenges (19 credits):

- COM 25300 Introduction To Public Relations Cr. 3.
- EDU 40500 The Middle And Junior High School Cr. 3.
- HSRV 35000 Drugs and Society Cr. 3.
- POL 15001 Foundations of Community Advocacy Cr. 1-3. (1 credit)
- PSY 36200 Human Development II: Adolescence Cr. 3. (prerequisite: PSY 23500 or PSY 36900)
- SOC 32001 Deviant Behavior and Social Control Cr. 3.
- PPOL 10100 The American Criminal Justice System Cr. 3.

## Diverse Adolescents and Families (19 credits):

- COM 25300 Introduction To Public Relations Cr. 3.
- COM 30300 Intercultural Communication Cr. 3.
- EDU 40500 The Middle And Junior High School Cr. 3.
- POL 15001 Foundations of Community Advocacy Cr. 1-3. (1 credit)
- PSY 36200 Human Development II: Adolescence Cr. 3. (prerequisite: PSY 23500 or PSY 36900)
- · SOC 30000 Race and Ethnic Relations Cr. 3. or
- SOC 31601 The Family Cr. 3. or
- SOC 31701 Social Stratification Cr. 3.
  - · Other World Language Cr. 3.

### Educational Research (18 credits):

- EDU 40000 Topical Exploration In Education Cr. 1-15. (Research in Secondary Education 6 credits, may be divided into 2 courses of 3 credits)
- ENGL 42502 Research Methods for Professional Writers Cr. 3.
- HSRV 41700 Research Methods Cr. 3. or
- SOC 35202 Methods of Social Research Cr. 3.
- PPOL 30000 Statistical Techniques Cr. 3. or
- PSY 20100 Introduction to Statistics in Psychology Cr. 3. or
- SOC 35100 Social Statistics Cr. 3. or
- STAT 30100 Elementary Statistical Methods I Cr. 3.
- PSY 36200 Human Development II: Adolescence Cr. 3. (prerequisite: PSY 23500 or PSY 36900)

## Internship (6 credits)

- EDU 30000 Topical Exploration In Education Cr. 1-3. Internship in Education Policy (Junior Internship; 3 credits; 75 hours minimum)
- EDU 40000 Topical Exploration In Education Cr. 1-15. Internship in Education Policy (Senior Internship; 3 credits; 160 hours minimum)

## Electives (to bring program to 120 credits)

You should use no more that 9 credits of 100 or 200 level courses. This is a good place to begin working toward a university approved minor (see Part 5).

Total Credits: 120 Minimum

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair of dean.

# Secondary Education - Middle School Generalist 5-9 (B.S.Ed.)

Program: B.S.Ed. School of Education College of Professional Studies

Neff Hall 250 ~ 260-481-4146

The B.S.Ed. in secondary education-middle school generalist (grades 5-9) is intended to prepare students for successful careers as teachers of children in middle school/junior high. Upon satisfactory completion of the program, and the other requirements listed under Teacher Licensure in the Special Academic Regulations, you are eligible to apply for an Indiana teaching license.

To earn the B.S.Ed. in secondary education-middle school generalist (grades 5-9), you must satisfy the requirements of Purdue University Fort Wayne (Regulations) and the College of Professional Studies.

### **Student Learning Outcomes:**

Upon completion of a major in Secondary Education-Middle School Generalist students will:

- · Become more caring, humane and functional citizens in a global, multicultural, democratic society
- · Improve the human condition by creating positive learning environments
- Become change agents by demonstrating reflective professional practice
- · Solve client problems through clear, creative analyses
- Assess client performance, creating and executing effective teaching, counseling, and educational leadership by utilizing a variety of methodologies reflecting current related research
- · Utilize interdisciplinary scholarship, demonstrating technology and critical literacies, and effectively communicating with all stakeholders.

#### Accreditation:

• The Secondary Education Middle School Generalist program is accredited by the Council for the Accreditation of Educator Preparation (CAEP) and nationally recognized as a high-quality program through the Association of Middle Level Education (AMLE). Because of these statuses, students who meet specified requirements are eligible for a middle school teaching license in one or more content areas in the state of Indiana. Indiana holds reciprocal licensing agreements with other states.

#### **Program Delivery:**

· This program is available on campus

#### **Declaring This Major:**

· You must declare this major with the School of Education

## **Program Requirements:**

# General Requirements

- · Degree Requirements
- General Education Requirements
- · College Requirements
- Overlapping Content
- Academic Regulations

# General Education Requirements Credits: 33

### General Education Requirements

Some of the following General Education courses may be included in your major. See your Education advisor.

## Category A: Foundational Intellectual Skills

- 1. Written Communication
  - ENGL 13100 Reading, Writing, and Inquiry I Cr. 3.
- 2. Speaking and Listening
  - COM 11400 Fundamentals Of Speech Communication Cr. 3.
- 3. Quantitative Reasoning

One of the following:

- MA 15300 College Algebra Cr. 3.
  MA 14000 Practical Quantitative Reasoning Cr. 3.
  STAT 12500 Communicating with Statistics Cr. 3.

# Category B: Interdisciplinary or Creative Ways of Knowing

## 4. Scientific Ways of Knowing

- BIOL 10000 Introduction To The Biological World Cr. 3.
   Second Science course (Refer to Approved Gen. Ed. B4 List) Cr. 3-5.

In addition/conjunction with the above 2 science courses, complete one science Lab Cr. 0-1. (See below)

 $\circ~$  BIOL 10001, 10800, 10900, 11700, 11900, 20300

- · CHM 11100, 11500, 12000
- · EAPS 10002, 10300, 10401
- o PHYS 11501, 13101, 15200, 21800 22000

## 5. Social and Behavioral Ways of Knowing

- EDU 34001 Education And American Culture Cr. 3.
  - Refer to Approved List Cr. 3.

### 6. Humanistic and Artistic Ways of Knowing

- HIST (Refer to Approved List) Cr. 3.
   Refer to Approved List (not HIST) (Literature Recommended) Cr. 3.

# 7. Interdisciplinary or Creative Ways of Knowing

(at least 3 credits and all outcomes in approved courses)

## Category C: Capstone

## 8. Capstone Experience

(at least 3 credits and all outcomes in approved courses)

# **Education Requirements Credits: 36**

# Pre-Professional Education (6 cr)

- EDU 20000 Examining Self As A Teacher Cr. 3.
- EDU 10100 Laboratory/Field Experience Cr. 0.
- EDU 20002 Using Computers For Education Cr. 1-3.

## Block 1: Professional Education (9 cr)

P: Pre-Professional Education

- EDU 30600 Teaching Students With Special Needs In Secondary Classrooms Cr. 3.
- EDU 25000 General Educational Psychology Cr. 1-4.

Credits: 3

• EDU 30100 - Laboratory/Field Experience Cr. 0-3.

• EDU 40500 - The Middle And Junior High School Cr. 3.

## Block 2: Professional Education (9 cr)

#### P: Block 1

P: 18 credits in each concentration

One of the following:

- EDU 44300 Methods Of Teaching High School Social Studies Cr. 3.
- EDU 44700 Methods Of Teaching Secondary English Cr. 3.
- EDU 44800 Methods Of Teaching High School Mathematics Cr. 2-4.
- EDU 44900 Methods Of Teaching Science In The Secondary Schools Cr. 3.
- EDU 40100 Laboratory/Field Experience Cr. 0-3.

Credits: 0

- EDU 47500 Adolescent Development And Classroom Management Cr. 3.
- EDU 40101 Critical Reading In The Content Area Cr. 1-3.

Credits: 3

· Pearson Content Exams

## Student Teaching (12 cr)

P: Block 2

P: No more than 6 credits remaining in your degree besides student teaching

- EDU 48000 Student Teaching: Secondary Credits: 12 or
- EDU 48000 Student Teaching: Secondary and EDU 47000, SPED Practicum Credits: 9/3 or
- EDU 48000 Student Teaching: Secondary and LING 47000, ENL Practicum Credits: 9/3
- EDU 40100 Laboratory/Field Experience Cr. 0-3.

Electives Variable Credits (to bring total credits to 120) Suggested in certification areas or to add additional area

## Middle School Generalist Content Concentrations: 57 Credits

In addition to the above courses, you must complete 27 credit hours in two of four concentrations (54 credits total), plus an additional 3-credit hour elective in one of these two concentrations (Primary) for a grand total of 57 credits.

## Language Arts (27 credits)

- COM 25000 Mass Communication And Society Cr. 3.
  - British literature before 1700 (ENGL 30102, 40401, 40502, 40601, 40801, 40901, 41501, 41701, 41801, 42204) or British literature after 1700 (ENGL 30202, 42204, 43202, 43501, 34501, 44601, 44700, 44800, 48801) Credits: 3
- American literature elective (ENGL 45101, 45200, 45400, 45501, 45700, 45800, 46401, 47200, 47901)
   Credits: 3
- EDU 40101 Critical Reading In The Content Area Cr. 1-3.

## One of the following: Credits: 3

- ENGL 10101 Ancient And Medieval World Literature Cr. 3.
- ENGL 10201 Modern World Literature Cr. 3.
  - Multi-cultural Literature (ENGL 10700, 46401, 46901 (titled Postcolonial Lit and Theory), 47901) Credits: 3

### One of the following: Credits: 3

- ENGL 20201 Literary Interpretation Cr. 3.
- ENGL 23301 Intermediate Expository Writing Cr. 3.

# One of the following: Credits: 3

- ENGL 20501 Introduction to the English Language Cr. 3.
- ENGL 20600 Introduction to the Study of Grammar Cr. 3.
- LING 10300 Introduction to the Study of Language Cr. 3.

## One of the following: Credits: 3

- ENGL 49002 Children's Literature Cr. 3.
- ENGL 49102 Literature for Young Adults Cr. 3.

### Methods Course: Credits: 3

• EDU 44700 - Methods Of Teaching Secondary English Cr. 3.

# Mathematics (27 credits)

- Computer science elective Credits: 3
- · Mathematics, computer science, or statistics elective Credits: 2-3 (Excluding MA 11100, MA 11101, and MA 12401)
- MA 10100 Mathematics for Elementary Teachers I Cr. 3.
- MA 10200 Mathematics for Elementary Teachers II Cr. 3.
- MA 10300 Mathematics for Elementary Teachers III Cr. 3.

One of the following three courses:

- MA 15300 College Algebra Cr. 3. (or waiver)
- MA 15400 Trigonometry Cr. 3.
- MA 15900 Precalculus Cr. 5.

One of the following two courses:

- STAT 12500 Communicating with Statistics Cr. 3.
- STAT 30100 Elementary Statistical Methods I Cr. 3.

One of the following two courses:

- MA 16500 Analytic Geometry and Calculus I Cr. 4.
- MA 22900 Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.

## Methods Course: Credits: 3

• EDU 44800 - Methods Of Teaching High School Mathematics Cr. 2-4.

## Science (27 credits)

One of the following two courses:

- BIOL 10000 Introduction To The Biological World Cr. 3. (preferred)
- BIOL 11700 Principles Of Ecology And Evolution Cr. 4.

One of the following two courses:

- CHM 11100 General Chemistry Cr. 3.
- CHM 11500 General Chemistry Cr. 4.
- EAPS 10001 General Geology Cr. 3-5.
- GEOG 10700 Physical Systems of the Environment Cr. 3.
- PHYS 22000 General Physics Cr. 4.
- PHYS 22100 General Physics Cr. 4.

One of the following two labs:

• BIOL 10001 - Introduction To The Biological World Laboratory Cr. 1.

- EAPS 10002 General Geology Laboratory Cr. 1-2.
- EDU 40001 Man And Environment: Instructional Methods Cr. 3.

Methods Course: Credits: 3

• EDU 44900 - Methods Of Teaching Science In The Secondary Schools Cr. 3.

### Social Studies (27 credits)

- HIST 10501 American History I Cr. 3.
- HIST 10601 American History II Cr. 3.
- HIST 11300 History of Western Civilization I Cr. 3.
- HIST 11400 History of Western Civilization It Cr. 3.
  HIST 23200 The World in the 20th Century Cr. 3.
  HIST 300-400 level elective Cr. 3
- POL 10300 Introduction to American Politics Cr. 3.

## One of the following: Credits: 3

- ECON 20000 Fundamentals of Economics Cr. 3.
- ECON 20101 Introduction to Microeconomics Cr. 3.

Methods Course: Credits: 3

• EDU 44300 - Methods Of Teaching High School Social Studies Cr. 3.

## Additional Elective in One Concentration (Primary) (3 credits)

Choose one additional elective from a one primary concentration of Language Arts, Mathematics, Science, or Social Studies. Note: if Science is the primary concentration, please select EAPS 12100 Meteorites and Planets or ASTR 10000 The Solar System.

Total Credits: 120

# Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair of dean.

# **Secondary Education - Second Degree**

Program: BSEd in Secondary Education **School of Education** College of Professional Studies

Neff Hall 250 ~ 260-481-4146

The BSEd in secondary education is second degree completed in addition to one of the content area degrees listed below. The second degree is intended to prepare you for a successful career in teaching youth in middle school/high school settings. Upon satisfactory completion of the program, and the other requirements listed under <u>Licensure</u> in the School of Education regulations, you are eligible to apply for an Indiana teaching license. These requirements are subject to change based upon program and state regulations.

Students wishing to become middle school/high school teachers must complete a BSEd in Secondary Education and a bachelor's degree through the Purdue Fort Wayne College of Arts and Sciences with a major in one of the following content areas:

Biochemistry (Chemistry License with option to add Life Sciences)

Biology (Life Science)

Chemistry B.S.

English (Language Arts)

History (Social Studies) Must also complete a minor in one of the following:

- · Economics
- · Political Science
- Psychology
- Sociology

#### Mathematics

Physics

Spanish

#### **Student Learning Outcomes:**

Upon completion of a BSEd in Secondary Education students will:

- · Become more caring, humane and functional citizens in a global, multicultural, democratic society
- · Improve the human condition by creating positive learning environments
- Become change agents by demonstrating reflective professional practice
- · Solve client problems through clear, creative analysis
- Assess client performance, creating and executing effective teaching, counseling, and educational leadership by utilizing a variety of methodologies reflecting current related research
- · Utilize interdisciplinary scholarship, demonstrating technology and critical literacies, and effectively communicating with all stakeholders.

#### Accreditation:

All Secondary Education - Second Degree programs are accredited by the Council for the Accreditation of Educator Preparation (CAEP). In addition all science
programs are nationally recognized as high-quality programs through the National Science Teachers Association (NSTA). Because of these statuses, students who meet
specified requirements are eligible for a secondary teaching license in Chemistry, Earth and Space Science, Economics, French, Government and Citizenship, Historical
Perspectives, Language Arts, Life Science, Mathematics, Physics, Psychology, Sociology, and Spanish in the state of Indiana. Indiana holds reciprocal licensing
agreements with other states.

### **Program Delivery:**

· This program is available on campus

### Declaring/Adding This Degree:

• You must declare/add this degree within the School of Education

## **Program Requirements:**

For an example 4-Year Plan of Study for each primary degree option, click on the degree program title listed above. The Plans can be found through the link under the Program Requirements section.

### General Requirements

- · Degree Requirements
- General Education Requirements
- · College Requirements
- Overlapping Content
- Academic Regulations

### Pre-Professional Education: 6 Credits

• EDU 20000 - Examining Self As A Teacher Cr. 3.

- EDU 10100 Laboratory/Field Experience Cr. 0.
- EDU 34001 Education And American Culture Cr. 3.
  - o (may be double-counted as a Gen. Ed. B5)

### Professional Education: 30 Credits

#### **Admission and Graduation Requirements**

Specific admission requirements exist for admission to Professional Education courses. For admission and graduation requirements see the School of Education page for details.

## Block 1: Spring Only (9 Credits)

- EDU 30600 Teaching Students With Special Needs In Secondary Classrooms Cr. 3.
- EDU 40500 The Middle And Junior High School Cr. 3.
- EDU 25000 General Educational Psychology Cr. 1-4. C: EDU 20100
- EDU 30100 Laboratory/Field Experience Cr. 0-3.

### Block 2: Fall Only (9 Credits)

- EDU 40101 Critical Reading In The Content Area Cr. 1-3. C: EDU 40100
- EDU 40100 Laboratory/Field Experience Cr. 0-3.

Complete one of the following methods courses depending on your content major:

- EDU 44300 Methods Of Teaching High School Social Studies Cr. 3.
- • EDU 44500 - Methods Of Teaching Foreign Languages Cr. 3.
- EDU 44700 Methods Of Teaching Secondary English Cr. 3.
- EDU 44800 Methods Of Teaching High School Mathematics Cr. 2-4.
- EDU 44900 Methods Of Teaching Science In The Secondary Schools Cr. 3.

## Student Teaching: (12 Credits)

- EDU 48000 Student Teaching In The Secondary School Cr. 1-16. C: EDU 40100
- EDU 40100 Laboratory/Field Experience Cr. 0-3. or

EDU 48000 - Student Teaching in the Secondary School Cr. 9. C: EDU 40100

• EDU 47000 - Practicum Cr. 3-8. Special Education

Total Credits: 36

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# Sociology (B.A.)

Program: B.A.
Department of Anthropology and Sociology
College of Arts and Sciences

*Liberal Arts Building 241* ~ 260-481-6842

Courses in sociology provide an understanding of society and of the relationship between the individual and society. Studies in sociology help to prepare you for graduate school and careers in the social services, law, human relations, criminal justice, government, education, and mass media.

## **Student Learning Outcomes:**

Upon completion of this degree, students will:

#### Theoretical:

- · analyze and evaluate major theoretical perspectives in sociology
- · identify the general theoretical orientation
- · apply theoretical analyses of social structure and social processes
- · interpret social issues in terms of the major theoretical perspectives

#### Methodological:

- · utilize and evaluate research methods and data analysis used in sociology
- · demonstrate appropriate use of both quantitative and qualitative methodologies
- · evaluate different research methods
- · interpret the results of data gathering
- · demonstrate appropriate use of statistical techniques
- demonstrate competent use of statistical software

#### **Critical Thinking:**

- · evaluate critically arguments and situations
- · critically evaluate theoretical arguments
- · develop evidence-based arguments
- · critically evaluate published research

#### **Communication Skills:**

- · communicate effectively in both written and oral form
- · write a research report
- · develop an oral research report

#### **Professional Ethics:**

- be knowledgeable of appropriate ethics concerning both professional conduct and the use of human subjects
- · demonstrate a mastery of the ethical standards for conducting research with human subjects
- demonstrate an understanding of the ethical standards of the American Sociological Association

### **Program Delivery:**

• This program is available on-campus and on-line.

### Declaring this Major:

• Declare this major within the Department of Sociology and Anthropology

### **General Requirements:**

- · Degree Requirements
- General Education Requirements
- · College Requirements
- Overlapping Content
- Academic Regulations

## **Program Requirements:**

### Sociology 4-Yr. Plan:

- A grade of C- or higher in all department courses required for the major and an overall GPA of 2.00 or higher for all courses required in the major.
- All sociology courses applied toward graduation must be completed within ten 10 years from the time the first sociology course was completed.
- Although a minor is not required, study in an outside area is recommended. Anthropology, computer science, economics, history, labor studies, political science, psychology, organizational leadership and supervision, and women's studies support the major well. Information on minors can be found in the Program Descriptions section of this Catalog.

To earn the B.A. with a major in Sociology, you must fulfill the following requirements in addition to the General Requirements noted above:

## General Education Requirements: Credits 33

• Click on the Purdue Fort Wayne General Education Requirements link above for details.

• Some majors may require particular General Education courses as specified in their program description. Up to six credits of approved General Education courses satisfying requirements in Area A and B, and three credits satisfying requirements in Area C, may originate in the major. A grade of C- or higher in each course, and an overall GPA of 2.0 is required to satisfy the Purdue Fort Wayne General Education Requirements.

# College of Arts and Sciences Requirements

· Click on the Purdue Fort Wayne College Requirements link above for details. Go to Requirements for the Bachelor of Arts Degree

## English Writing and Speaking: Credits 6

- · See Part A in Arts and Sciences Requirements for the Bachelor of Arts Degree for Speaking requirement
- ENGL 23301 Intermediate Expository Writing Cr. 3.
   (or other approved writing courses)

## International Language: Credits 12-14

• See Part B in Arts and Sciences Requirements for the Bachelor of Arts Degree

### Distribution: Credits 9

- See Part C in Arts and Sciences Requirements for the Bachelor of Arts Degree
- · Choose courses other than SOC

## Cultural Studies: Credits 6

• See Part D in Arts and Sciences Requirements for the Bachelor of Arts Degree

## Core and Concentration (Major) Courses: Credits 16

- ANTH 10005 Anthropology And Sociology Student Success Seminar Cr. 1.
- SOC 16101 Principles of Sociology Cr. 3.
- SOC 34001 Social Theory Cr. 3.
- SOC 35100 Social Statistics Cr. 3.
- SOC 35202 Methods of Social Research Cr. 3.
- SOC 47000 Senior Seminar Cr. 3.

## Sociology Elective Courses: Credits 15

- At least 6 of the 15 additional Sociology elective credit hours required must be at the 2000+ level or above
- At least 9 of the 15 additional Sociology elective credit hours required must be at the 3000+ level or above

## **General Electives**

• Sufficient additional credits to bring the total to 120.

Total Credits: 120

### Time Limit

· All Sociology courses applied toward graduation must be completed within ten (10) years from the time the first Sociology course was completed.

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# Spanish (B.A.)

Program: B.A. Department of International Language and Culture Studies College of Arts and Sciences

Liberal Arts Building 267 ~ 260-481-6836

For details on pursuing a secondary education second degree (BSEd) to teach Spanish in middle school/high school, click on the links to the Secondary Education -Second Degree Program and the School of Education page in this catalog. Note: The BSEd as a second degree in these programs cannot be earned without completion of the bachelor's degree in the content area from the College of Arts and Sciences. See Program Requirements below for a link to the Secondary Education - Second Degree 4-Year Plan.

#### **Student Learning Outcomes:**

Upon completion of this degree, students will have:

- · acquired a broad foundation in language, literature, and culture in preparation for graduate studies or for a career where proficiency in a foreign language and international perspectives are important assets
- · achieved the ACTFL intermediate-high level in speaking and demonstrated the ability to recognize and analyze grammatical and usage errors in own and others' writing
- developed an increased understanding of what it means to belong to a culture and awareness of how culture affects other interconnected issues of identity
- · demonstrated the ability to think critically about these issues and how they shape intercultural communication

## **Program Delivery:**

· This program is available on-campus

### Declaring this Major:

· Declare this major within the Department of International Language and Culture Studies

### **General Requirements:**

- PFW Degree Requirements
- PFW General Education Requirements
- · PFW College Requirements
- PFW Overlapping Content
- · PFW Academic Regulations

To earn the B.A. with a major in Spanish, you must fulfill the following requirements in addition to the General Requirements noted above.

# **Program Requirements:**

#### Spanish BA 4-Year Plan:

· A grade of C- or higher in all department courses required for the major and an overall GPA of 2.00 or higher in all courses required for the major.

### Spanish BA with Secondary Education 4-Year Plan:

# PFW General Education Requirements: Credits 33

- · Click on the Purdue Fort Wayne General Education Requirements link above for details.
- Some majors may require particular General Education courses as specified in their program description. Up to six credits of approved General Education courses satisfying requirements in Area A and B, and three credits satisfying requirements in Area C, may originate in the major. A grade of C- or higher in each course, and an overall GPA of 2.0 is required to satisfy the Purdue Fort Wayne General Education Requirements.

## College of Arts and Sciences Requirements

• Click on the Purdue Fort Wayne College Requirements link above for details. Go to Requirements for the Bachelor of Arts Degree.

## English Writing and Speaking: Credits 6

- · See Part A in Arts and Sciences Requirements for the Bachelor of Arts Degree for Speaking requirement
- · ILCS 30000 Methods of Research and Criticism Cr. 3.

## International Language: Credits 9-12

- SPAN 11101 Elementary Spanish I Cr. 3.
- SPAN 11201 Elementary Spanish II Cr. 3.

or

- SPAN 11300 Accelerated First Year Spanish Cr. 3.
- SPAN 20301 Second-Year Spanish I Cr. 3.
- SPAN 20401 Second-Year Spanish II Cr. 3.

#### Distribution: Credits 9

- See Part C in Arts and Sciences Requirements for the Bachelor of Arts Degree
- Choose courses other than SPAN

### Cultural Studies: Credits 6

- · See Part D in Arts and Sciences Requirements for the Bachelor of Arts Degree for course choices to fulfill the Western Culture requirement
- Recommended course choices to fulfill the Non-Western Culture requirement:
- SPAN 47101 Spanish-American Literature I Cr. 3.
- SPAN 47200 Spanish-American Literature II Cr. 3.
   SPAN 47900 Mexican Literature Cr. 3.
- SPAN 48001 Argentine Literature Cr. 3.

## Core and Concentration (Major) Courses: Credits 15

- ILCS 30000 Methods of Research and Criticism Cr. 3. Recommended to be taken concurrent with SPAN 30101
- SPAN 27500 Hispanic Culture and Conversation Cr. 3.
- SPAN 30101 The Hispanic World I Cr. 3.
- SPAN 31100 Spanish Grammar Cr. 3.

• SPAN 31700 - Spanish Conversation and Diction Cr. 3.

## Spanish Linguistics: Credits 3

One course in Spanish linguistics at the 400xx level

- SPAN 42500 Spanish Phonetics Cr. 3.
- SPAN 42601 Introduction to Spanish Linguistics Cr. 3.
- SPAN 42800 Applied Spanish Linguistics Cr. 3.
- SPAN 49500 Hispanic Colloquium Cr. 1-3.

### Peninsular Literature: Credits 3

One course in Peninsular literature at the 400xx level

- SPAN 40700 Survey of Spanish Literature I Cr. 3.
   SPAN 40801 Survey of Spanish Literature II Cr. 3.
- SPAN 41800 Hispanic Drama Cr. 3.
- SPAN 49500 Hispanic Colloquium Cr. 1-3.

## Spanish-American Literature: Credits 3

One course in Spanish-American literature at the 400xx level

- SPAN 47101 Spanish-American Literature I Cr. 3.
- SPAN 47200 Spanish-American Literature II Cr. 3.
- SPAN 47900 Mexican Literature Cr. 3.
- SPAN 48001 Argentine Literature Cr. 3.
- SPAN 49500 Hispanic Colloquium Cr. 1-3.

### Spanish Culture: Credits 3

One course in Spanish, Spanish-American, or Hispanic Culture at the 400xx level

- SPAN 41100 Spain: The Cultural Context Cr. 3.
- SPAN 41200 Spanish America: The Cultural Context Cr. 3.
- SPAN 41301 Hispanic Culture in the U.S. Cr. 3.
- SPAN 49500 Hispanic Colloquium Cr. 1-3.

## Additional Required Courses: Credits 6

Choose an additional six credits at the 400xx level from the following categories:

- · Spanish, Spanish-American, or Latino culture
- · Spanish language
- Peninsular or Spanish-American literature

# **General Electives**

· Sufficient additional credits to bring the total to 120

Total Credits: 120

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# Theatre (B.A.)

Program: B.A.
Department of Theatre
College of Visual and Performing Arts

Williams Theatre 128 ~ 260-481-6551

#### The student learning outcomes for the degree are as follows:

- Conceptualize the theatre complex Demonstrate in practice, verbally, and in writing, an understanding and appreciation for all of the practical aspects of theatre, including: Acting, Design, Directing, Stage Management, and Technical Production.
- Apply literary analyses to distinct practice analyses Demonstrate the ability to analyze a text to suit the needs of the specific practical areas of theatre in a classroom setting, a rehearsal setting, and in the performance arena.
- Develop a historical timeline Understand the major trends in the development of Western Theatre, including developments in: dramatic literary genres, practical
  applications in production design and technology and performance styles emerging out of various periods and locales.
- Link theatre to its contexts Develop a general familiarity with the various socio-political contexts out of which each period of Dramatic Literature and accompanying production practices have emerged.
- Write critically Be able to demonstrate familiarity with the rudiments of academic critical writing by: drafting an essay in clear thesis, body and conclusion format, focusing the essay's argument on specific aspect(s) of a dramatic work and utilizing a combination of close-reading skills (primary source analysis) and research skills (secondary source analysis).
- Apply rhetorical strategies Use various rhetorical modes to demonstrate the use of critical-thinking skills (both orally and in writing) related to the academic and scholarly elements of theatre history and its various cultural contexts (including movements, practitioners and societies).
- Transform the abstract into the concrete Apply abstract, intellectual concepts about a work of theatre to the various practical areas of production.
- Collaborate Exhibit a collaborative spirit within the classroom, the production process, and the Department as a whole, by forming original ideas about a dramatic work
  and subsequently entering into a group collaboration process, in which one's own concepts become part of the group's conceptual integration process through empathetic
  listening and give and take of ideas.

### **Program Description**

Students who are passionate about Theatre will have the opportunity to immerse in all aspects of the Theatre B.A. program. This nationally accredited Bachelor of Arts degree in Theatre provides the opportunity to concentrate on specific areas of the profession from: acting, musical theatre, directing, and design/technology.

Students study and work one-on-one with dedicated and professionally active faculty. Students benefit from the small size of the department through opportunities to act, direct, and/or design in major productions during their entire four-year course of study, starting in the freshman year. Many professions encompass the theatre complex, including but not limited to scenic design, costume design, special effects and make-up, to technical direction, fight mastery, literary and theoretical scholarship, dramaturgy, sound design, lighting design, and performance. Students will learn the wide array of possibilities.

### Program Delivery:

All courses for this degree program are conducted on-campus.

Declaring This Major:

It is possible to declare a Theatre Major first semester, of the freshman year. Students are not required to audition prior to becoming a Theatre Major. However, interested high school seniors are encouraged to contact the Department of Theatre directly, in order to schedule an audition for consideration of scholarship funding.

### General Education Requirements and Program Requirements:

Theatre Majors must earn a C- or higher in all Statewide General Education core courses, a grade of C- or higher on all Theatre core courses and a grade of D- or higher is required in open electives courses. An oveall grade point average of 2.0 or higher, must be maintained.

The three categories of course completion requirements, collectively total 120 credits for degree completion as detailed below:

- 1. General Education Courses: 33 credits from a specified variety of subject areas across the University's curriculum.(C- or higher required)
- 2. Theatre Core Courses: 42 credits from a specified variety of Theatre subject areas, designed to introduce students to the wide range of specialties that comprise the theatre complex of professions. (C- or higher required)
- 3. Additional Electives: 45 credits of courses from any area of the University's course offerings. The 45 credits of open electives, give students a great deal of flexibility in deciding how they will complete their degree requirements, (D- or higher required) including:
  - a. Theatre Emphasis: Students may elect to complete one of the Department of Theatre's optional emphases in either, Acting, Musical Theatre, Design and Technology or Directing. In order to complete one of the emphases, students take a collection of pre-determined bundles of upper division theatre electives. Each bundle consists of 18 credits. The faculty has grouped together courses as a mode of providing the student an option to specialize in a particular theatre field. Typically, students elect to complete one or more of the emphases because they hope to go on to graduate school, a professional apprenticeship or an internship in their chosen area. If completing one emphasis of 18 credits, the student then has the option to finish out the 27 additional credits for reaching the overall graduation requirement of 120 credits by enrolling in any courses of personal interest, either additional theatre courses or courses across the University curriculum.

- b. A Free Combination of Theatre and General Education Electives: Students not wishing to specialize but still interested in taking an array of upper division Theatre electives, may choose whichever theatre courses they find interesting along with other courses offered across the curriculum of the University up to a total of 45 credits for degree completion.
- c. Specialization in an Additional Field: Students may choose to major or minor in an additional field. The 45 additional electives may function concurrently, therefore, as the core of a secondary major or minor in another department at the University and Theatre electives in the Theatre B.A.

To earn the B.A. with a Major in Theatre, students must satisfy the requirements of Purdue University Fort Wayne (Regulations) and the College of Visual and Performing Arts (Colleges). Theatre majors must earn a C- or higher in all Statewide General Education Core courses and all Theatre Core courses. A grade of D- or higher is required in open electives courses, and an overall grade point average of 2.0 or higher must be maintained.

## **Program Requirements:**

Theatre 4-Year Plan:

## General Education Requirements Credits: 33

General Education Requirements

A grade of C- or better is required in each course used to satisfy the Purdue Fort Wayne general education requirements.

Note: DANC 39000 and THTR 32510 can count toward general education and major requirements. All other courses can only count in one area.

## Theatre Core Courses (42 credits)

- THTR 13800 Acting I Cr. 3.
- THTR 15800 Stagecraft Cr. 3.
- THTR 16800 Theatre Production I Cr. 1.

Must take 4 semesters of this course, 4 credits total.

- THTR 20201 Introduction To Theatre Cr. 3.
- THTR 21300 Voice for the Actor Cr. 2.
- THTR 26100 Introduction to Theatrical Design Cr. 3.
- THTR 26500 Introduction to Stage Management Cr. 3.
- THTR 28400 Textual Analysis Cr. 3.
- THTR 35100 Costume Techniques I Cr. 3. or
- THTR 26200 Lighting Technology I Cr. 3.
- THTR 44000 Directing: Page to Stage Cr. 3.
- THTR 47000 Theatre and Society I Cr. 3.
- THTR 47100 Theatre And Society II Cr. 3.

## Writing Requirements

 $\circ$  THTR 39000 with the following titles: Asian/Asian American Drama, Latin/Latin American Drama or African/African American Drama Credits: 3 or  $\circ$  THTR 32510 - History of Modern Drama Cr. 3.

# One of the following Design Courses: Credits: 3

- THTR 36000 Scenic Design Cr. 3.
- THTR 36100 Costume Design Cr. 3.
- THTR 36200 Light Design Cr. 3.

# Optional Emphasis Area Credits: 18

As explained in the introductory catalog descriptions of the B.A. in Theatre at Purdue Fort Wayne, the 45 electives required to fulfill the degree requirements may be completed in three distinct ways:

- 1. Either by specializing with an emphasis of 18 credits in a single theatre field area plus 27 additional electives from any area of the University as per personal choice.
- A free mixture of Theatre and other university courses from any area of the University curriculum totaling 45 credits as per personal choice.
   Completion of 45 credits entirely outside the Theatre Curriculum as per personal choice.

The following sections of the catalog detail the degree requirements of the Department of Theatre's optional Emphases.

## Optional Emphasis Areas

### Acting (18 credits)

```
• THTR 23800 - Acting II Cr. 3.
• THTR 32300 - Acting: Movement for the Actor Cr. 3.
• THTR 33600 - Rehearsal and Performance II Cr. 1-2.
• THTR 33800 - Acting III Cr. 3.
• THTR 41300 - Advanced Voice for the Stage Cr. 3.
• THTR 43800 - Acting IV Cr. 3.
```

#### Dance courses (choose one):

- · Any DANC course that is offered by the department.
- DANC 10100 Modern Dance Technique I Cr. 2.
- DANC 10200 Ballet I Cr. 2.
- DANC 10300 Jazz Dance I Cr. 2.
- DANC 12100 Tap Dance I Cr. 2.
- DANC 13400 The Study of Movement in Human Society Cr. 3.
- DANC 13600 Teaching Dance: Theories and Methods Cr. 3.
   DANC 20200 Ballet II Cr. 2.
- DANC 20300 Jazz Dance II Cr. 3.
- DANC 22100 Tap Dance II Cr. 2.
- DANC 24000 Dance Composition Cr. 3.
- DANC 25100 Dance History Cr. 3.
- DANC 39000 Introduction To Dance Cr. 3.

# Design and Technology (18 credits)

Select 18 credits from the following courses, with Advisor approval only.

```
• THTR 26400 - Rendering Techniques Cr. 3.
• THTR 36500 - Period Style for the Theatre I Cr. 3.
• THTR 36600 - Period Style for the Theatre II Cr. 3.
• THTR 36000 - Scenic Design Cr. 3.
• THTR 36100 - Costume Design Cr. 3
• THTR 36200 - Light Design Cr. 3.
• THTR 36800 - Theatre Production II Cr. 1-2.
```

- THTR 39000 with the following titles: Advanced Costume Techniques, Drafting for the Theatre or Sound Design and Technology Credits: 3
- THTR 56000 Advanced Scenic Design Cr. 3.
- THTR 56100 Advanced Costume Design Cr. 3.
- THTR 56200 Advanced Light Design Cr. 3.

# Directing (18 credits)

```
• THTR 23800 - Acting II Cr. 3.
```

• THTR 33600 - Rehearsal and Performance II Cr. 1-2.

- THTR 32300 Acting: Movement for the Actor Cr. 3.
- THTR 36500 Period Style for the Theatre I Cr. 3.
- THTR 36600 Period Style for the Theatre II Cr. 3.
- THTR 54000 Advanced Directing Cr. 3.

## Choose one of the following design courses:

THTR 36000 must be taken here if not taken in the Theatre B.A. Core

- THTR 36000 Scenic Design Cr. 3.
- THTR 36100 Costume Design Cr. 3.
- THTR 36200 Light Design Cr. 3.

## Musical Theatre (18 credits)

- MUSC 10900 Rudiments of Music I Cr. 2-4.
- MUSC 20102 Voice Class Cr. 1.

(3 semesters @ 1 credit each)

- THTR 23900 Musical Theatre Performance I Cr. 3.
- THTR 33900 Musical Theatre Performance II Cr. 3.
- THTR 35500 American Musical Theatre Cr. 3.

### Choose two of the following:

- DANC 10100 Modern Dance Technique I Cr. 2.
- DANC 10200 Ballet I Cr. 2.
- DANC 12100 Tap Dance I Cr. 2.
- DANC 13400 The Study of Movement in Human Society Cr. 3.
- DANC 13600 Teaching Dance: Theories and Methods Cr. 3.
- DANC 20200 Ballet II Cr. 2.
- DANC 20300 Jazz Dance II Cr. 3.
- DANC 22100 Tap Dance II Cr. 2.
- DANC 24000 Dance Composition Cr. 3.
- DANC 25100 Dance History Cr. 3.
- DANC 39000 Introduction To Dance Cr. 3.
  - $\circ~$  THTR 39000 Musical Theatre Dance I or II Cr. 2.

Elective Courses Credits: 27

Total Credits: 120

# Student Responsibility

Students are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# Women's Studies (B.A.)

Program: B.A.

Women's Studies Program

#### Department of Political Science College of Arts and Sciences

Liberal Arts Building 209 ~ 260-481-6686

Program Director: Janet Badia, Department of Political Science

Women's Studies is an interdisciplinary area of study that examines gender and its intersections with other categories of identity, including race and ethnicity, sexuality, class, nationality, and disability. As such, it provides students the opportunity to integrate knowledge across diverse academic disciplines, to understand gender within both historical and contemporary contexts, and to develop approaches to investigation, analysis, and research that reflect the complex nature of how gender operates in our lives, how systems of power and oppression function, and how individuals and organizations can bring about meaningful social change.

#### **Student Learning Outcomes:**

Upon completion of this degree, students will:

- · understand the major concepts of feminist critical analysis, including gender, race, class, sexuality, nationality, ability, and age, and the complexities of their intersections
- · understand how gender is socially and historically constructed, how it relates to systems of power, privilege, and oppression, and how it impacts our lives
- · understand a broad range of feminist theories with an appreciation for their cultural and historical contexts
- · understand the history and importance of feminist thought and activism in the U.S. and around the globe
- · understand the diversity of women's experiences, roles, and contributions to society and culture
- understand how gender impacts the production of knowledge and how feminist approaches to learning and research have transformed traditional disciplines and other canons of knowledge
- understand the history and status of women's studies as an academic field of study and the key principles that distinguish it from traditional disciplines, including its interdisciplinary, its commitment to feminist approaches to teaching and learning, and its development of feminist research methods
- · be able to demonstrate effective reading, speaking, writing, and critical thinking skills through the work they complete in women's studies courses
- · be able to apply feminist perspectives to a range of issues and engage critical debates or areas of contention within feminism
- · be able to apply feminist perspectives across disciplines
- · be able to incorporate feminist theories and scholarship in research methods and problem-solving
- · be able to transform knowledge into engagement and articulate effective strategies for change
- · This program is available on-campus.

#### Declaring the Major:

· Declare this major within the Department of Political Science which is the administrative home of the Women's Studies program.

#### **General Requirements:**

- · Degree Requirements
- · General Education Requirements
- · College Requirements
- Overlapping Content
- Academic Regulations

### **Program Requirements:**

Women's Studies 4-Yr. Plan:

- · A grade of C- or higher in all department courses required for the major and an overall GPA of 2.00 or higher for all courses required in the major.
- A thematic focus of at least three courses (9 of the 33 credits in major requirements) must be selected in consultation with your women's studies advisor. The thematic focus provides coherence within this interdisciplinary major and can be defined in several ways: geographically (e.g., women in America, women in Western Europe); chronologically (e.g., women in antiquity, women of the Renaissance); by a category or issue (e.g., women and peace, women of color, etc.).
- If you major in women's studies, you are also required to have a minor or a second major. If you elect to double-major in women's studies and another arts and sciences
  discipline, women's studies may be either your first or second major. See Program Descriptions in this Catalog for details on other majors and minors.
- You may count the courses taken to fulfill this major toward arts and sciences distribution requirements wherever possible. However, no more than two courses may be applied to another major.
- You may count only two courses toward both the women's studies major and College of Arts and Sciences distribution requirements. Only one course may be counted toward both the women's studies major and any other minor.

To earn the B.A. with a major in Women's Studies, you must fulfill the following requirements in addition to the General Requirements noted above:

## General Education Requirements: Credits 33

- · Click on the Purdue Fort Wayne General Education Requirements link above for details.
- Some majors may require particular General Education courses as specified in their program description. Up to six credits of approved General Education courses satisfying requirements in Areas A and B, and three credits satisfying requirements in Area C, may originate in the major. A grade of C- or higher in each course, and an overall GPA of 2.0 is required to satisfy the Purdue Fort Wayne General Education Requirements.

## College of Arts and Sciences Requirements

• Click on the Purdue Fort Wayne College Requirements link above for details. Go to Requirements for the Bachelor of Arts Degree

## English Writing and Speaking: Credits 6

- · See Part A in Arts and Sciences Requirements for the Bachelor of Arts Degree for Speaking requirement
- ENGL 23301 Intermediate Expository Writing Cr. 3.

(or other approved writing course)

## International Language: Credits 12-14

• See Part B in Arts and Sciences Requirements for the Bachelor of Arts Degree

### Distribution: Credits 9

- See Part C in Arts and Sciences Requirements for the Bachelor of Arts Degree
- · Choose courses other than WOST or cross-listed courses with WOST

### Cultural Studies: Credits 6

- See Part D in Arts and Sciences Requirements for the Bachelor of Arts Degree for course choices to fulfill the Western Culture requirement
- WOST 30100 International Perspectives on Women Cr. 3.

(credits included in major requirements)

# Core and Concentration (Major) Courses: Credits 33

## Required Courses: Credits 12

- WOST 21000 Introduction To Women's And Gender Studies Cr. 3.
- WOST 30100 International Perspectives on Women Cr. 3.
- WOST 30400 Feminist Theories Cr. 3.
- WOST 40000 Topics in Women's Studies Cr. 3.

# Supporting Courses: Credits 6

Choose two courses from WOST prefixed or cross-referenced courses offered in the humanities or fine arts:

- ENGL 47201 Composing the Self Cr. 3.
- ENGL 47800 Studies in Women and Literature Cr. 3.
- HIST 23400 Witchcraft and Witch Hunts, c. 1400-1750 Cr. 3.
- HIST 26000 History Of Women In The United States Cr. 3.
- PHIL 30500 Philosophical Theories of Feminism Cr. 3.
- REL 31500 Religion and Women Cr. 3.
- WOST 22500 Gender, Sexuality, and Popular Culture Cr. 3.
- WOST 30200 Topics in Gender Studies Cr. 3.

### Supporting Courses: Credits 6

Choose two courses from WOST prefixed or cross-referenced courses offered in the social sciences or sciences:

- · ANTH 40200 Gender In Cross-Cultural Perspective Cr. 3.
- BIOL 25000 Women And Biology Cr. 3.
- COM 41000 Gender Roles and Communication Cr. 3.
- COM 42200 Women, Men, and Media Cr. 3.
- POL 32400 Gender and Politics Cr. 3.
- POL 32800 Women and the Law Cr. 3.
- PSY 34500 Psychology of Women Cr. 3.
- PSY 36500 Development of Gender Roles in Children Cr. 3.
- WOST 24000 Topics in Feminism Cr. 3.

### Additional Courses: Credits 9

Choose three additional courses from WOST prefixed or cross-referenced courses from the humanities, fine arts, social sciences, or sciences listed above.

#### **General Electives**

· Sufficient additional credits to bring the total to 120.

Total Credits: 120

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

### Certificate

# **Accounting Post-Baccalaureate Certificate**

Program: Certificate
Department of Accounting
Richard T. Doermer School of Business

Neff Hall 350 ~ 260-481-6471

**Doermer School of Business Undergraduate Student Success Center** 

Neff Hall 366 ~ 260-481-6472

The Post-Baccalaureate Certificate in Accounting (P.B.A.) is offered through the Department of Accounting. Typically, students who pursue the P.B.A. are seeking an academic program of recognized quality that will help them prepare for careers in accounting. In combination with a bachelor's degree earned at an appropriately accredited institution, the P.B.A. meets the current minimum accounting educational requirements to sit for the Uniform Certified Public Accounting Examination in Indiana if students select the correct electives. Additional non-accounting business credits may be required.

Admission Admission to the P.B.A. program is limited to holders of bachelor's degrees awarded by institutions that were accredited at the baccalaureate level by the Higher Learning Commission (or comparable regional association) at the time the degree was granted.

To enroll in the program, you must first be formally admitted to Purdue University Fort Wayne. You must provide the Purdue Fort Wayne admissions office with official transcripts documenting completion of your bachelor's degree.

You must meet the prerequisites for each course and earn a grade of C- or better in each course. You must complete at least 12 of the required 24-30 credits at Purdue Fort Wayne to be eligible to receive the certificate.

## Accounting Prerequisites Credits: 6

- BUS 20100 Principles Of Financial Accounting Cr. 3.
   BUS 20200 Principles Of Managerial Accounting Cr. 3.

# Accounting Requirements Credits: 18

- BUS 31100 Intermediate Accounting I Cr. 3.
- BUS 31200 Intermediate Accounting II Cr. 3.
- BUS 31700 Computer-Based Accounting Systems Cr. 3.
- BUS 32500 Cost Accounting Cr. 3.
- BUS 32800 Introduction To Taxation Cr. 3.
- BUS 42400 Auditing & Assurance Services Cr. 3.

# Accounting Electives Credits: 6

Choose two of the following:

- BUS 31800 Fraud Examination I Cr. 3.
- BUS 33100 Taxation Of Business Entities Cr. 3.
- BUS 42200 Advanced Financial Accounting Cr. 3.
- BUS 44100 Special Topics In Assurance Services Cr. 3.

BUS 33100 and BUS 42200 are highly recommended for students preparing for the CPA exam. BUS 20300 is also highly recommended for the CPA exam but is not part of this certificate.

## Special Academic Regulations for P.B.A. Students

Post-Baccalaureate Certificate students are held to the same performance standards specified for students in undergraduate business programs.

Credits from your undergraduate degree MAY be used for some of these requirements.

Current requirements to sit for the CPA Exam in Indiana require that you have completed a total of 150 credit hours; 24 credit hours of accounting courses including: financial accounting, auditing, taxation, and managerial accounting; and at least 24 credit hours of business and/or economics courses that are not accounting courses.

The Doermer School of Business does not play any role in determining if you meet the requirements to sit for the CPA Exam. The state board of accountancy makes that determination. So, if you have any questions about your total number of hours completed or whether specific courses will meet the requirements, you must contact them. The NASBA website, www.nasba.org can be very helpful. At their website, click on Exams, then CPA Exam, then choose Indiana. This site will give you all the current requirements for the State of Indiana as well as contact information.

Total Credits: 24-30

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# Advanced Manufacturing Engineering Certificate In Mechanical Engineering

Program: Certificate

Department: Civil and Mechanical Engineering

College: Engineering, Technology and Computer Science

Engineering, Technology and Computer Science Bldg. Rm. 321 ~ 260-481-6965

Manufacturing is Northeast Indiana's largest sector, involving over 70,000 jobs. Moreover, according to the *In-Demand Career Report* by the Purdue University Fort Wayne Community Research Institute (2016), mechanical and industrial engineers are among the top careers in Northeast Indiana with over 100+ openings projected annually and the majority of those positions related to manufacturing.

Over time, the manufacturing sector has undergone significant changes with a current emphasis on "advanced manufacturing" stressing innovation and employing state-of-the-art technologies. The mechanical engineering program offers a six-course (18-credit hour) certificate in advanced manufacturing engineering.

This curriculum provides students a broad foundation in fundamental manufacturing processes, techniques and principles as well as exposing students to advanced technologies and stressing the integration of new tools into manufacturing processes to raise productivity and enhance value.

Mechanical engineering students<sup>t</sup> interested in a credential to prepare for a career in advanced manufacturing, to update manufacturing expertise, or to move into manufacturing management should consider this certificate.

For more information contact Dr. Don Mueller (don.mueller@pfw.edu)

- \* With approval of the mechanical engineering curriculum committee, course substitution may be permitted.
- <sup>t</sup> Students graduating with a BSME at Purdue Fort Wayne would need only two extra courses to get this certificate. The other four courses could count for the four technical elective courses required for the BSME degree.

#### **Program Delivery:**

While the majority of the courses for this certificate program are delivered as on-campus courses, the possibility of taking some courses on-line from the West Lafayette campus of Purdue exists.

#### Declaring this Major:

Admission to the certificate program requires that students must have the following requirements:

- Finished at least 60 credit hours in the BSME degree program.
- · Achieved a grade point average (GPA) of at least 2.5 at the time of application.
- · Proper course pre-requisites.

Interested students should apply: https://www.pfw.edu/departments/etcs/depts/cme/course/AdvManEngr\_certificate\_program.pdf

## Required Courses

- IET 20400 Techniques of Maintaining Quality Cr. 3.
- ME 43200 Manufacturing Processes Cr. 3.
- ME 48000 Finite Element Analysis Cr. 3.
- MET 33500 Basic Machining Cr. 3.

and two of the following elective courses\*

- IET 47800 Lean Manufacturing and Design Cr. 3.
- ME 54600 CAD/CAM Theory And Advanced Applications Cr. 3.
- SE 55000 Advanced Manufacturing Systems And Processes Cr. 3.
- STAT 51100 Statistical Methods Cr. 3.
- Tech 57400 Advanced Quality Engineering Methods Cr. 3

Total Credits: 18

### Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# **Advanced Manufacturing Management Certificate**

Program: Certificate School of Polytechnic

College of Engineering Technology, and Computer Science

Engineering, Technology, and Computer Science Building 221 ~ 260-481-6338

This 18-hour credit certificate provides state-of-the-art training for working professionals who seek knowledge for career advancement in management and ownership roles in various manufacturing sectors - biomedical, military, automotive, electronics, construction, sports, and more.

To earn the certificate in advanced manufacturing management, you must satisfy the requirements of Purdue University Fort Wayne, fulfill all course prerequisites, and satisfactorily complete the following courses with a grade of C or better, see Regulations.

## **Program Requirements**

- IET 10500 Industrial Management Cr. 3.
- IET 20400 Techniques of Maintaining Quality Cr. 3.
- IET 22400 Production Planning and Control Cr. 3.
- IET 26700 Work Methods Design Cr. 3.
- IET 35000 Engineering Economy Cr. 3.
- IET 47800 Lean Manufacturing and Design Cr. 3.

Total Credits: 18

# Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# **Anthropology Research Certificate**

Program: Research Certificate Department of Anthropology and Sociology College of Arts and Sciences

 $Kettler\ Hall\ G11A \sim 260\text{-}481\text{-}6272$ 

Pursuing a research certificate provides opportunities to engage in active learning situations integrating original research and the undergraduate curricula. You will learn research methods and tools appropriate to your discipline, and research interests within the discipline; the foundations of research relating to the history, philosophy, and theory of the discipline; and advanced communications skills. You will apply knowledge learned by designing and executing a research study or project and communicating the results to others. The certificate can be earned and awarded independent of other degree(s).

Courses in anthropology provide an understanding of the nature of cultures and help you assess various explanations of human behavior; they also assist in the development of analytical and critical abilities. The curriculum is structured to include studies in the history and theory of anthropology, in four anthropological fields (ethnology, archeology, bioanthropology, and linguistics), in at least two different world ethnographic areas, and in topical specializations. The program helps you prepare for graduate study, for teaching, and for careers in which the understanding of various cultures is an asset.

### **Student Learning Outcomes:**

Upon completion of this certificate, students will:

- · achieve familiarity with different cultures in at least two regions of the world
- know the major anthropological approaches to understanding the human condition
- · be able to explain societies in a holistic manner
- · achieve competency in writing
- demonstrate critical thinking
- acquire quantitative skills for analysis
- · demonstrate a willingness to engage learning and scholarship as a life-long endeavor

### **Declaring this Certificate:**

· Declare this certificate within the Department of Sociology and Anthropology or through your major department if you are pursuing another degree

### **Program Requirements:**

- A minimum GPA of 2.00 or higher is required for graduation
- At least 8 credits must be earned as resident credit

To earn the Anthropology Research Certificate, you must fulfill the following requirements in addition to those noted above:

# Research Writing: Credits 3

• ENGL 23301 - Intermediate Expository Writing Cr. 3.

# History, Philosophy, or Theory of the Discipline: Credits 3

• ANTH 44501 - History And Theory Of Anthropology Cr. 3.

## Cognate Research Tools: Credits 3

- · Any STAT course or one of the following:
- POL 39500 Quantitative Political Analysis Cr. 3.
- PSY 20100 Introduction to Statistics in Psychology Cr. 3.
- SOC 35100 Social Statistics Cr. 3.

# Research Methods and Supervised Individual Research: Credits 6

- Each student must present their research in a professional forum approved by the Anthropology faculty.
- ANTH 49500 Individual Readings In Anthropology Cr. 1-4.
- ANTH 40002 Archaeological Methods And Techniques Cr. 2-4.

Total Credits: 15

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# **Bank Management Certificate**

Program: Certificate

Department of Accounting and Finance Richard T. Doermer School of Business

Neff Hall 350 ~ 260-481-6471

Doermer School of Business Undergraduate Student Success Center

Neff Hall 366 ~ 260-481-6472

The student learning outcomes for the certificate include a working knowledge of the areas of:

- · Asset and liability management
- · Commercial bank operations
- · Consumer and commercial banking
- · Credit Analysis
- · Derivative instruments
- · Financial intermediaries
- · Interest rate forecasting
- · Macroeconomics analysis
- · Modeling simulation
- · Regulation
- The Federal Reserve and monetary policy
- Underwriting

#### Admission

Admission to the Certificate in Bank Management Program is open to students currently enrolled in the School of Business with junior or senior standing. Students who pursue this certificate post-baccalaureate must hold bachelor's degrees awarded by institutions which were accredited at the baccalaureate level or higher by the Higher Learning Commission (or comparable regional association) at the time the degree was granted and be formally admitted to Purdue University Fort Wayne.

You must meet the prerequisites for each course and earn a grade of C- or better in each course. You must complete at least 12 of the required 27 credits at Purdue University Fort Wayne to be eligible to receive the certificate.

## Certificate Requirements

You must earn a C- or better in each of the following courses:

- BUS 20100 Principles Of Financial Accounting Cr. 3.
- BUS 20200 Principles Of Managerial Accounting Cr. 3.
- ECON 20101 Introduction to Microeconomics Cr. 3.
- ECON 20201 Introduction to Macroeconomics Cr. 3.
- BUS 30100 Financial Management Cr. 3.
- BUS 34500 Money/Banking/Capital Markets Cr. 3.
- BUS 44600 Bank & Financial Intermediation Cr. 3.
- BUS 45400 Current Topics In Banking Cr. 3.
- BUS 49700 Bank Simulation Course Cr. 3.

**Total Credits: 27** 

# Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# **Behavior Analysis And Techniques Certificate**

Program: Certificate Department of Psychology Behavior Analysis and Techniques Certificate College of Arts and Sciences

Neff Hall 388 ~ 260-481-6403

This certificate trains you in the theory behind behavior analysis and offers hands-on experience that may prepare you to sit for the Registered Behavior Technician (RBT) exam of the Behavior Analyst Certification Board. An RBT is a paraprofessional who works under the supervision of a Board Certified Behavior Analyst to implement intervention or assessment plans for individuals with behavioral problems, such as children with autism. The program includes fieldwork and practicum experience at an area agency that offers interventions based on applied behavior analysis to clients in the community. The certificate can be earned and awarded independent of other degree(s).

### **Student Learning Outcomes:**

Upon completion of this certificate, students will have:

- · acquired knowledge about human development, principles of behavior change, behavioral disorders, and ethical issues related to the field of behavior analysis.
- · applied behavioral intervention skills in a supervised setting where such services are provided.
- · prepared for employment as a behavior technician and to sit for the RBT exam.

#### **Declaring this Certificate:**

· Declare this certificate within the Department of Psychology.

#### **Program Requirements:**

- A minimum GPA of 2.00 or higher is required for graduation.
- · At least 9 credits must be earned as resident credit.
- · A practicum experience at an area agency that offers ABA-based interventions to clients in the community.

To earn the Behavior Analysis and Techniques certificate, you must fulfill the following requirements in addition to those noted above:

# **Program Requirements**

- PSY 12000 Elementary Psychology Cr. 3.
- PSY 23500 Child Psychology Cr. 3. or
- PSY 36900 Development Across the Lifespan Cr. 3.
  - credit given for PSY 23500 or PSY 36900 but not both
- PSY 31400 Introduction to Learning Cr. 3.
- PSY 35000 Abnormal Psychology Cr. 3.
- PSY 53200 Psychological Disorders of Childhood Cr. 3.

## **Practicum**

The practicum experience will be completed at an area agency that offers ABA-based interventions to clients in the community.

• PSY 48500 - Issues and Fieldwork in Applied Behavior Analysis Cr. 3.

Total Credits: 18

### Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# **Bio-Mechanical Engineering Certificate In Mechanical Engineering**

Program: Certificate

Department: Civil and Mechanical Engineering

College: Engineering, Technology and Computer Science

Engineering, Technology and Computer Science Bldg. Rm.  $321 \sim 260\text{-}481\text{-}6965$ 

Northeast Indiana (actually Warsaw, IN) is known as the "Orthopedic Capital of the World" and is home to Zimmer Biomet and Depuy Sythes, as well as numerous other smaller biomedical companies. This region has an unparalleled concentration of medical device industry jobs and is responsible for nearly one-third of the world's orthopedic sales.

This curriculum exposes students to fundamental concepts in anatomy, physiology, and mechanics and then requires students to apply engineering principles to analyze and solve problems involving bio-mechanical systems.

It should be noted that students graduating with B.S. degree in mechanical engineering at Purdue University Fort Wayne would need only two extra courses (BIOL 20300 - Human Anatomy and Physiology) to get this certificate. The other four courses could count for the four technical elective courses required for the BSME degree.

Students interested in a credential to prepare for a career in the orthopedic industry, for graduate study in the field bio-medical engineering, or even for a medical degree should strongly consider this certificate.

For more information contact Dr. Don Mueller (don.mueller@pfw.edu).

#### **Program Delivery:**

While the majority of the courses for this certificate program are delivered as on-campus courses, the possibility of taking some courses on-line from the West Lafayette campus of Purdue exists.

#### Declaring this Major:

Admission to the certificate program requires that students the following requirements:

- · Students must have finished at least 60 credit hours in the BSME degree program.
- Students must have achieved a grade point average (GPA) of at least 2.5 at the time of application.
- · Having proper course pre-requisites

 $Interested \ students \ should \ apply: \ https://www.pfw.edu/departments/etcs/depts/cme/course/BioMechanical\_certificate\_program.pdf$ 

### **Program Requirements**

- BIOL 20300 Human Anatomy And Physiology Cr. 4.
- BIOL 20400 Human Anatomy And Physiology Cr. 4.
- ME 44500 Biomaterials CR. 3.
- ME 48000 Finite Element Analysis Cr. 3.
- ME 49800 Research in Mechanical Engineering I Cr. 0-6.

## Elective Requirement

Students must also select one elective course from the following:

- ME 47100 Vibration Analysis Cr. 3.
- ME 54400 Modeling And Simulation Of Mechanical Engineering Systems Cr. 3.
- ME 54500 Finite Element Analysis: Advanced Theory and Applications Cr. 3.
- ME 55000 Adv Stress Analysis Cr. 3.

Total Credits: 20

### Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# **Biology Research Certificate**

Program: Research Certificate Department of Biology College of Arts and Sciences

Science Building 330 ~ 260-481-6305

Pursuing a research certificate provides opportunities to engage in active learning situations integrating original research and the undergraduate curricula. You will learn research methods and tools appropriate to your discipline, and research interests within the discipline; the foundations of research relating to the history, philosophy, and theory of the discipline; and advanced communications skills. You will apply knowledge learned by designing and executing a research study or project and communicating the results to others. The certificate can be earned and awarded independent of other degree(s).

#### **Student Learning Outcomes:**

Upon completion of this certificate, students will:

have been provided significant hands-on experience and training in the use of scientific methods to test hypotheses and to answer questions.

#### **Declaring this Certificate:**

· Declare this certificate within the Department of Biology or through your major department if you are pursuing another degree.

#### **Program Requirements:**

- A minimum GPA of 2.00 or higher is required for graduation
- · At least 15 credits must be earned as resident credit
- Students earning the Departmental Honors Degree in Biology are not eligible for the Biology Research Certificate

To earn the Biology Research Certificate, you must fulfill the following requirements in addition to those noted above:

# Research Writing: Credits 3

• ENGL 23301 - Intermediate Expository Writing Cr. 3.

# History, Philosophy, or Theory of the Discipline: Credits 19

- BIOL 11700 Principles Of Ecology And Evolution Cr. 4.
- BIOL 11900 Principles Of Structure And Function Cr. 4.
- BIOL 21700 Intermediate Ecology Cr. 3.
- BIOL 21800 Genetics And Molecular Biology Cr. 4.
- · BIOL 21900 Principles Of Functional Biology Cr. 4.

# Cognate Research Tools: Credits 3

• STAT 34000 - Elementary Statistical Methods II Cr. 3.

# Research Methods and Supervised Individual Research: Credits 6

- The BIOL 29500/59500 course/s taken must contain a prefix in the title to signify laboratory or fieldwork involving the design of an original project and collection and analysis of data.
- BIOL 29500 Special Assignments Cr. 1-3.

and/o

• BIOL 59500 - Special Assignments Cr. 1-4.

Total Credits: 31

### Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# **Chemistry Research Certificate**

Program: Research Certificate Department of Chemistry College of Arts and Sciences

Science Building 496 ~ 260-481-6289

Pursuing a research certificate provides opportunities to engage in active learning situations integrating original research and the undergraduate curricula. You will learn research methods and tools appropriate to your discipline, and research interests within the discipline; the foundations of research relating to the history, philosophy, and theory of the discipline; and advanced communications skills. You will apply knowledge learned by designing and executing a research study or project and communicating the results to others.

#### **Student Learning Outcomes:**

#### · Mathematical and quantitative reasoning

Student will be able to analyze, synthesize, and comprehend experimental and computational data describing the physical universe. This skill requires
knowledge of mathematical and statistical techniques that can be used analytically.

#### · Classical and instrumental laboratory techniques: both analytical and synthetic

Students will learn precise measuring techniques as well as careful and meticulous record-keeping. They will master the use of a variety of modern instruments
and will become proficient in fundamental organic synthetic methods.

#### · Individual and collaborative problem-solving

· The student will develop independent problem-solving skills as well as the ability to work collaboratively in a team environment on complex chemical systems.

#### · Chemical literature

The student will learn basic tools and concepts for efficient use of chemical literature, including multiple computerized databases. The student will also be
expected to analyze sources for relevance and authority and to learn how scientific writings are constructed according to style.

#### · Philosophy of Science

 The student will examine topics at the intersection of science and philosophy, specifically addressing fundamental issues in the history, philosophy, and theoretical structure of modern science.

#### · Research in Chemistry

The student will learn research methods and tools appropriate to chemistry and will apply them to the design and execution of a research project. The student will present results of the research project.

#### · Summary of key concepts

In the teaching of Chemistry from the point-of-view of various sub-disciplines, the following concepts form the core course content. It should be noted that courses offered by the Purdue University Fort Wayne Department of Chemistry will include, but are not simply limited to, the following points of emphasis:

#### Analytical Chemistry

- Analytical methods (classical and instrumental)
- · Sensitivity and detection limits
- Statistical treatment of data

#### Biochemistry

Structure, metabolic relationships, and regulation of biomolecules

#### General Chemistry

- Semi-quantitative microscopic model of the physical universe based on macroscopic observations
- Terminology
- Periodic relationships
- · Elementary computational skills
- Introductory laboratory skills

#### Inorganic Chemistry

- Chemical bonding and structure
- Reactivity, reaction mechanisms, and properties
- Solid state and material science
- Organometallic chemistry
- Spectroscopic determination of structure

#### Organic Chemistry

- Chemical bonding and structure including valence bond and molecular orbital theories
- Reactivity, reaction mechanisms, and properties of the important functional groups
- Synthesis
- Spectroscopic determination of structure
- Material science and bio-organic chemistry

#### Physical Chemistry

- Mathematical and physical principles that underlie modern Chemistry
- Detailed understanding of the modern microscopic model of the universe
- The principal topic areas are:
  - Quantum Chemistry
  - 2. Thermodynamics
  - 3. Statistical mechanics
  - 4. Spectroscopy
- 5. Kinetics

#### **Declaring this Certificate:**

· Declare this certificate within the Department of Chemistry

### **Program Requirements:**

- You must earn a GPA of 2.00 or higher for all courses required in the certificate
- The requirements for this certificate are in addition to those needed for the B.S. in Biochemistry, the B.S. in Chemistry, or the B.S.C in Chemistry.

For details on these bachelor's programs, see the Program Descriptions section in this catalog.

To earn the Chemistry Research Certificate, you must fulfill the following requirements in addition to those noted above:

# **Program Requirements:**

### Core Requirement:

• The requirements for the B.S. in Biochemistry, the B.S. in Chemistry, or the B.S.C. in Chemistry must be completed

### History, Philosophy, or Theory of the Discipline: Credits 3

- PHIL 35100 Philosophy of Science Cr. 3.
  - or another course approved by the Department of Chemistry

#### Research Methods and Supervised Individual Research: Credits 3

- CHM 49900 Special Assignments Cr. 1-5
  - Credits: 3

#### Total Credits: 6

(these credits are in addition to those required to complete one of the bachelor's program requirements noted above)

# Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# **Civic Education And Public Advocacy Certificate**

Program: Certificate Department of Political Science College of Arts and Sciences

Liberal Arts Building 209  $\sim$  260-481-6686

Program Coordinator: Andrew Downs

#### **Student Learning Outcomes:**

· The certificate links methods, theory, and skills-based training with active student learning and community-based projects.

#### **Declaring this Certificate:**

- Declare this certificate within the Department of Political Science or through your major department if you are pursuing another degree
- The certificate can be earned and awarded independent of other degree(s)

#### **Program Requirements:**

- A minimum GPA of 2.00 or higher is required for graduation
- A grade of C- or higher in each course required for the certificate
- · At least 10 credits must be earned as resident credit

To earn the Certificate in Civic Education and Public Advocacy, you must fulfill the following requirements in addition to those noted above:

# Program Required Course: Credit 1

• POL 15001 - Foundations of Community Advocacy Cr. 1-3.

Credits: 1

#### Introduction To Government and Politics Credits: 3

- · Choose one of the following:
- POL 10300 Introduction to American Politics Cr. 3.
- POL 30601 State Politics in the United States Cr. 3.
- POL 30701 Indiana State Government and Politics Cr. 3.
- POL 30801 Urban Politics Cr. 3.
- PPOL 17000 Introduction to Public Affairs Cr. 3.
- PPOL 26400 Urban Structure and Policy Cr. 3.

### Essential Communication Skills Credits: 3

- · Choose one of the following:
- COM 21000 Debating Public Issues Cr. 3.
- ENGL 23301 Intermediate Expository Writing Cr. 3.
- · POL 20700 Elements of Political Analysis Cr. 3.
- POL 21200 Making Democracy Work Cr. 3.

### Promise and Problems of Democracy Credits: 6

- Choose two of the following with at least one being a political science course:
- COM 31600 Controversy In American Society Cr. 3.
- ENGL 25001 American Literature Before 1865 Cr. 3.
- ENGL 25100 American Literature Since 1865 Cr. 3.
  HIST 31301 Origins of Modern America, 1865 1917 Cr. 3.
- HIST 34501 American Diplomatic History I Cr. 3.
- PHIL 24000 Social and Political Philosophy Cr. 3.
- POL 10500 Introduction to Political Theory Cr. 3.
- POL 20300 The Promise and Problems of Democracy Cr. 3.
- POL 40101 Studies in Political Science Cr. 3.
- SOC 30000 Race and Ethnic Relations Cr. 3.
- SOC 31701 Social Stratification Cr. 3.

## Policy Formation and Analysis and Government Operations Credits: 3

- · Choose one of the following:
- POL 20001 Contemporary Political Topics Cr. 1-6,

(topic must be approved)

- POL 30101 Political Parties and Interest Groups Cr. 3.
- POL 30301 Policy Making in the United States Cr. 3.
- POL 31700 Voting, Elections, and Public Opinion Cr. 3.
- POL 37800 Problems in Public Policy Cr. 3.
- POL 39400 Public Policy Analysis Cr. 3.
- POL 40101 Studies in Political Science Cr. 3.

(topic must be approved)

- PPOL 36500 Urban Development and Planning Cr. 3.
- PPOL 37200 Government Finance and Budgets Cr. 3.

## Capstone Course Credits: 3

- · Choose one of the following:
- POL 39800 Internship in Urban Institutions Cr. 1-6.
- POL 48200 Practicum Cr. 1-6.

Total Credits: 19

### Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# **Computer Networking Certificate**

Program: Certificate School of Polytechnic

College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building  $205 \sim 260\text{-}481\text{-}4127$ 

#### The student learning outcomes for the certificate are as follows:

Students earning the certificate will have

- The fundamental knowledge, skills, and techniques necessary to understand and relate scientific principles to applications using current computer networking software
  and equipment.
- · The knowledge and ability to continue learning the principles and applications of future network operating systems and devices.

This certificate program in computer networking provides the theoretical and practical knowledge necessary to enable you to work with computer operating systems, data communication and network equipment, networking protocols, network system administration, local area networks, wide area networks, and network security.

The CEIT department also offers the Bachelor and Associate of Science with a major in electrical engineering technology, a Bachelor of Science with a major in computer engineering technology (CPET) and a Bachelor of Science with a major in information technology. In addition to the degrees, the department offers a minor in electronics and certificate programs in advanced microprocessors and computer-controlled systems.

To earn the certificate in computer networking, you must fulfill all course prerequisites, and successfully complete the following courses with a grade of C- or better in each course. This certificate is not available to any student with a major in CPET (B.S.).

### Network Fundamentals: Credits 3

Choose one of the following:

- CPET 28100 Networks Management Cr. 3.

# Security: Credits 3

Choose one of the following:

• ITC 41000 - Information Assurance& Security Cr. 3.

• CPET 36400 - Networking Security Cr. 3.

# Programming: Credits 3-4

Choose one of the following:

- CS 16000 Introduction To Computer Science I Cr. 4.
- ECET 26400 C Programming Language Applications Cr. 3.
- ITC 13000 Programming Fundamentals I Cr. 3.

Electives: Credits 9-10

Choose three of the following:

- ITC 43200 Mobile And Cellular Networking Technologies Cr. 3.
- ITC 44000 Foundations Of Cloud Computing Cr. 3.
- ITC 45000 Network Design Cr. 3.
  - · Wireless Networking:
    - CPET 49300 Wireless Networking Cr. 3 or
    - ITC 33600 Wireless Networking Cr. 3
  - · Data Communication:
    - CPET 35500 Data Communications and Networking Cr.4 or
    - CS 27400 Data Communications Cr. 4. or
    - ECET 35500 Data Communications and Networking Cr. 3

Total Credits: 18-20

### Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate Chair or Dean.

# **Computer-Controlled Systems Certificate**

Program: Certificate School of Polytechnic College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 205 ~ 260-481-4127

#### The student learning outcomes for the certificate are as follows:

- . The fundamental knowledge, skills, and techniques necessary to understand and relate scientific principles to applications using current computer controlled devices.
- The knowledge and ability to continue learning the principles and applications of future computer controlled devices.

This certificate program provides theory and experiments on computer-controlled system design and implementation. Several methods of computer control including - programmable logic controllers (PLC) or Labview graphical programming, General Purpose Interface Bus control (GPIB, HPIB, or IEEE 488), and microcontroller-based systems - are studied. Highlights of the course sequence include data acquisition using low- and high-level languages, control-variable measurement using sensors, D/A and A/D conversions, ladder diagrams, design of pneumatic and hydraulic-controlled systems, sampling and reconstruction, and comparison of continuous and discrete time-controlled systems, and open- and closed-loop controlled systems.

The School of Polytechnic also offers the Bachelor and Associate of Science with a major in electrical engineering technology, a Bachelor of Science with a major in computer engineering technology (CPET) and a Bachelor of Science with a major in information technology. In addition to the degrees, the department offers a minor in electronics and certificate programs in advanced microprocessors, electronic communications, and computer networking.

To earn the certificate in computer-controlled systems, you must satisfy the requirements of Purdue University Fort Wayne (Regulations), fulfill all course prerequisites, and satisfactorily complete the following courses with a grade of C- or better. This certificate is not available to any student with a major in EET (A.S. and/or B.S.).

## **Program Requirements**

- ECET 20500 Introduction to Microprocessors Cr. 4.
- ECET 30200 Introduction to Control Systems Cr. 4.

## One of the following Credits: 4

- CPET 35500 Data Communications and Networking Cr. 4.
- ECET 35500 Data Communications and Networking Cr. 4.

### One of the following Credits: 4

- ECET 36100 Introduction to PLC and Pneumatic Systems Cr. 4.
- ECET 36500 Electrical Measurements Cr. 4.

### Computer-Controlled Systems Project

• CPET 49900 - Computer Engineering Technology Cr. 1-4.

**Total Credits: 17** 

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

## **Death Education Certificate**

Program: Certificate Department of Psychology Death Education Certificate College of Arts and Sciences

Neff Hall  $388 \sim 260\text{-}481\text{-}6403$ 

Despite its certainty for every human being, few people ever receive formal death education-that is, systematic instruction and guided exploration of the multitude of issues surrounding the end of life. As a result, most people are ill-prepared to cope with death and dying when it touches their personal lives. Even those who encounter death and/or dying as professionals typically lack education about end of life. As a result, their abilities to provide structure and leadership for their bereaved or terminally-ill coworkers, patients, clients, or students are limited and largely uninformed. Denial of one's mortality can rob people of perspective and become an impediment to informed and responsible advanced care and end-of-life planning, which puts individuals and their survivors at increased risk financially and emotionally. Students who complete this certificate will acquire knowledge about death and the process of dying. They will acquire an informed awareness regarding bereavement, grief, and mourning, and will learn how to offer meaningful support to those in need. With the enhanced knowledge and awareness that come as a result of formal death education, those those who complete the certificate will be positioned to contribute to their professions in a variety of ways-for example, by knowing how to support dying and/or bereaved people, and guide others toward a better understanding of the role of mortality in our lives. Through developing and refining their communication skills and cultural competencies around this most difficult and challenging topic, they will enhance their general ability to work effectively with people of all ages.

## **Student Learning Outcomes:**

The major outcomes for students who have successfully completed the certificate include:

- Improved comfort and ability to speak about death and dying, and to listen to others speak of both;
- · Knowledge about grief and mourning normative and complicated/traumatic and an ability to support others who are bereaved in an effective manner;
- · Heightened awareness of one's own mortality and how to convert that awareness in order to live higher quality lives;
- Practical knowledge about end-of-life care and advance planning;

· An appreciation of historical, cultural, developmental, and religious differences surrounding death and dying.

#### **Declaring this Certificate:**

· Declare this certificate within the Department of Psychology

#### **Program Requirements:**

- A minimum GPA of 2.5 is required for both admission to and graduation from this program.
- A grade of C- or higher in all courses counting toward the certificate is required
- · At least 9 credits must be earned as resident credit.
- Students who pursue this certificate post-baccalaureate, must first be formally admitted to Purdue University Fort Wayne.

To earn the Death Education Certificate, you must fulfill the following requirements in addition to those noted above:

# **Program Requirements**

### Required Courses: Credits 12

- COM 30300 Intercultural Communication Cr. 3.
- HSRV 39900 Special Topics Cr. 1-3.
  - taken as Trauma and Grief Cr. 3
- PHIL 31200 Medical Ethics Cr. 3.
- PSY 37100 Death and Dying Cr. 3.

## One of the following: Credits 3

• PSY 23500 - Child Psychology Cr. 3.

or

• PSY 36900 - Development Across the Lifespan Cr. 3.

### One of the following: Credits 3

• COM 31000 - Family Communication Cr. 3.

or

• COM 31300 - Introduction To Health Communication Cr. 3.

### One of the following: Credits 3

- GERN 23100 - Introduction to Gerontology Cr. 3.

or

• PSY 36700 - Adult Development and Aging Cr. 3.

# One of the following: Credits 3

- COM 49000 Internship In Communication Cr. 1-3.
- GERN 49400 Gerontology Practicum Cr. 3.
- HSRV 40000 Internship I Cr. 1-4.
- PSY 39200 Special Topics in Psychology Cr. 1-3.
  - taken as Death Education Practicum Cr. 3

Total Credits: 24

### Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# **Financial Economics Certificate**

Program: Certificate

**Department of Economics and Finance** 

Richard T. Doermer School of Business and Management Sciences

Neff Hall 340 ~ 260-481-6794

Doermer School of Business Undergraduate Student Success Center

Neff Hall 366 ~ 260-481-6472

The purpose of the certificate is to prepare students for positions in the financial services industry and provide a working knowledge of the fundamentals of economics and finance.

# Required Courses (3 credit hours each)

- ECON 20101 Introduction to Microeconomics Cr. 3.
- ECON 20201 Introduction to Macroeconomics Cr. 3.
- BUS 20100 Principles Of Financial Accounting Cr. 3.
- BUS 20300 Commercial Law I Cr. 3.
- BUS 32800 Introduction To Taxation Cr. 3.
- ECON 32100 Intermediate Microeconomic Theory Cr. 3.
- ECON 35000 Money and Banking Cr. 3.

OR

• BUS 34500 - Money/Banking/Capital Markets Cr. 3.

OR

• ECON 32201 - Intermediate Macroeconomic Theory Cr. 3.

Choose Two from the below:

- BUS 30100 Financial Management Cr. 3.
- ECON 30600 Undergraduate Seminar in Economics Cr. 3.

Federal Reserve Challenge, Behavioural Economics and Finance and/or Economics of Risk and Uncertainty

- BUS 30300 Intermediate Investments Cr. 3.
- ECON 36001 Public Finance: Survey Cr. 3.
- ECON 47101 Econometric Theory And Practice I Cr. 3.
- MA 27300 Financial Mathematics Cr. 3.

### **Total 27 Credits**

Total 27 credits (15 credits must be taken in the Doermer School of Business)

### Eligibility

Any admitted student is eligible to work on this certificate. You must meet the prerequisites for each course and earn a grade of C- or better in each course. You must complete at least 15 of the required 27 credits in the Doermer School of Business to be eligible to receive the certificate.

# **Gerontology Certificate**

Program: Certificate **Gerontology Certificate** Department of Communication Sciences and Disorders College of Arts and Sciences

Modular Clinic Classroom Bldg 111 ~ 260-481-6410

Program Coordinator: Naomi Gurevich

A certificate in Gerontology is available to all Purdue University Fort Wayne students earning undergraduate degrees. It is also available as a stand-alone program. The multidisciplinary program provides basic academic courses on aging, as well as applied courses on health and social issues involving older adults. A practicum component involves applied work in a setting serving older individuals. The Gerontology Certificate is comprised of 18 credits. The required 3 credit introductory course provides a foundation in biological, psychological, social, and applied aspects of aging. An additional 12 credits are chosen by the student from a variety of disciplinary courses relevant to gerontology. The final 3 credit requirement is a practicum that involves applied work in a setting serving older individuals. The certificate can be earned and awarded independent of other degree(s).

#### **Student Learning Outcomes:**

Upon completion of this certificate, students will:

- · demonstrate knowledge of gerontology including but not limited to biological, social, and psychological issues that impact older adults and those who work with and care for them.
- · demonstrate knowledge of the basic study of aging in several disciplines, complementary areas such as nutrition and medical ethics, and applications dealing with health and social issues involving older adults.
- · demonstrate the ability to apply gerontological knowledge, through a practicum experience in which the student works with, or on behalf of, older adults in a campus, community, or agency setting that serves this population.

#### **Declaring this Certificate:**

· Declare this certificate through the Department of Communication Sciences and Disorders

#### **Program Requirements:**

- Meet all regular Purdue Fort Wayne admission requirements
- · A minimum GPA of 2.00 or higher is required for graduation
- · A grade of C- or higher in each course required for the certificate
- At least 9 credits must be earned as resident credit
- · To be entered into the program, you must meet with one of the Gerontology advisors who will approve your program of study

To earn the Gerontology certificate, you must fulfill the following requirements in addition to those noted above:

# **Program Required Course: Credits 3**

• GERN 23100 - Introduction to Gerontology Cr. 3.

## Supporting Courses: Credits 12

Students may petition for permission to count an independent or directed studies course with appropriate content (including a variable title course not on this list).

- BIOL 32700 Biology Of Aging Cr. 3.
- COM 31000 Family Communication Cr. 3.
- COM 31300 Introduction To Health Communication Cr. 3.
- CSD 43000 Speech-Language Disorders in Healthcare Settings Cr. 3.
   NUTR 30200 Nutrition Education Cr. 3. or
- NUTR 30300 Essentials of Nutrition Cr. 3.
- GERN 49900 Topics in Gerontology Cr. 1-6.
  MUSC 34001 Music Therapy in Healthcare Settings Cr. 3.
- MUSC 41003 Creative Arts, Health, and Wellness Cr. 3.
- PHIL 31200 Medical Ethics Cr. 3.
- PPOL 41100 Chronic and Long-Term Care Administration Cr. 3.
- · PSY 36700 Adult Development and Aging Cr. 3.
- PSY 37100 Death and Dying Cr. 3.
- SOC 31401 Social Aspects of Health and Medicine Cr. 3.

### Practicum in an Approved Gerontological Setting: Credits 3

Approval by a Gerontology advisor is required. The setting must involve, or relate to, individuals 60 years of age or older. You may choose either a practicum or internship course offered by a department, or the gerontology program practicum course (GERN 49400) if you are an interdisciplinary student or are pursuing only the Gerontology Certificate. Approved courses are indicated below. Note that some of these courses may be taken only by those majoring in the sponsoring discipline.

- · COM 49000 Internship In Communication Cr. 1-3.
- CSD 39900 Directed Study in Audiology and Speech Sciences Cr. 1-3.
- CSD 54900 Clinical Practice in Speech/Language Pathology I Cr. 1-8.
- GERN 49400 Gerontology Practicum Cr. 3.
- HSRV 40000 Internship I Cr. 1-4.
- HSRV 40100 Internship Seminar I Cr. 1.
- HSRV 45000 Internship II Cr. 2-4.
- HSRV 45100 Internship Seminar II Cr. 1.
- HTM 30100 Hospitality and Tourism Industry Practicum Cr. 1.
- HTM 30200 Hospitality and Tourism Industry Internship Cr. 1.
- MUSC 35300 Music Therapy Practicum II Cr. 1.
- MUSC 42300 Advanced Music Therapy Practicum Cr. 1-3.
- MUSC 42400 Music Therapy Internship Cr. 1.
- PHIL 48000 Practicum in Applied Ethics Cr. 3.
- POL 39800 Internship in Urban Institutions Cr. 1-6.
- POL 48200 Practicum Cr. 1-6.
- PPOL 38001 Internship Public Affairs Cr. 1-6.
- PSY 48000 Field Experience in Psychology Cr. 3.

**Total Credits: 18** 

### Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# **Information Systems Application Certificate**

Program: Certificate
Department of Computer Science
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building  $125 \sim 260\text{-}481\text{-}6803$ 

The Information Systems field requires entry level employees with base of knowledge and skills that are embodied in the beginning topics of the Bachelor's Degree in Information systems. This Certificate will allow a student to have the "credential" needed to show competency for the entry level position, or for the repositioning within a company field, or reaffirming technical background. The student seeking the Bachelor's Degree in information Systems will be able to compete favorable for entry level positions.

Students in other disciplines who like to work with the computer will find a very good foundation of coursework to give them the effective background to find entry level positions in their disciplines where the companies want some employees with computer technical background. The Certificate coursework will provide the background that will easily provide avenues for working with the Information Systems or Information Technology Departmental staff in the company setting.

This Certificate is available for all students. There are no special admission requirements. Any student at Purdue University Fort Wayne will be able to take advantage of this Certificate Program.

### **Student Learning Outcomes**

- Have an excellent foundation development through programming with a high level language.
- · Understand the role of the Information Systems as used today (with the people, technology, and organizational components) including the globalization role.
- Understand the fundamentals of Enterprise Systems and the issues associated with their implementation.
- · Understand the role of databases, and database management systems, in managing the organizational data and information.
- · Students will be prepared to assume job positions at the entry level of the information systems work in an organization or business.

#### **Program Delivery**

· On-Campus and Distance

#### **General Requirements:**

· Degree Requirements

- · General Education Requirements
- · Overlapping Content
- Academic Regulations

# Program Requirements: Credits 15

To earn the Certificate in Information Systems, you will be required to successfully complete the following courses with a grade C or better in each course.

• IST 16000 - Foundation And Role Of Information Systems Cr. 3.

# Problem Solving Skills: Credits 6

One of the following course sequences

- IST 14000 Introduction To Visual Programming Cr. 3.
- IST 20300 Advanced Visual Programming Cr. 3.

or

- CS 11400 Introduction To Visual Programming Cr. 3.
- CS 20300 Advanced Visual Programming Cr. 3.

or

- CS 16000 Introduction To Computer Science I Cr. 4.
- CS 16100 Introduction To Computer Science II Cr. 4.

# Fundamental of Enterprise Systems within Organizations: Credits 3

• IST 26500 - Enterprise Systems Cr. 3.

# Managing the Organizational Data and Information: Credits 3

- CS 36400 Introduction To Database Systems Cr. 3.

## Academic Regulations

• Only computer science courses in which you have earned a grade of C or better can be applied to the degree or used to satisfy prerequisites.

# Total Credits Required: 15

# Student Responsibility:

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

### **International Studies Certificate**

Program: Certificate Interdisciplinary Studies College of Arts and Sciences

Liberal Arts Building 223 ~ 260-481-0148

Program Coordinator: Lachlan Whalen

The certificate in International Studies is designed for students who are interested in developing a greater understanding of the histories and cultures of other nations, and in studying the various means used to promote and maintain normal relations among them. This certificate can be earned and awarded independent of other degree(s).

#### **Student Learning Outcomes:**

Upon completion of this certificate, students will:

- · demonstrate an appreciation of the histories and cultures of other nations and the various means used to promote and maintain relations among them.
- understand the impact of individual decisions on the world and world events on the individual.
- · demonstrate the ability to think critically about major international issues.

#### **Declaring this Certificate:**

• Declare this certificate through your major department or the program coordinator.

#### **Program Requirements:**

- A minimum GPA of 2.00 or higher is required for graduation
- · A grade of C- or higher in each course required for the certificate
- At least 9 credits must be earned as resident credit

To earn the Certificate in International Studies, you must fulfill the following requirements in addition to those noted above:

# Program Required Course: Credits 3

• INTL 20000 - Introduction to International Studies: Emerging Global Visions Cr. 3.

#### Choose from the following: Credits 6

- BUS 30000 International Business Administration Cr. 3.
- ECON 43000 Introduction to International Economics Cr. 3.
- HIST 23200 The World in the 20th Century Cr. 3.
- ILCS 20800 International Cinema Cr. 3. or
- INTL 20800 International Cinema Cr. 3.
- ILCS 33100 Comparative International Culture Cr. 3.
- ILCS 35000 International Communication Cr. 3.
- MUSC 10500 Traditions in World Music Cr. 3.
- POL 10700 Introduction to Comparative Politics Cr. 3.
- POL 10900 Introduction to International Relations Cr. 3.
- POL 20001 Contemporary Political Topics Cr. 1-6,
- POL 39700 Intervention, Peace, and War Cr. 3.
- POL 40101 Studies in Political Science Cr. 3.
- SOC 40201 The Empire of the United States of America Cr. 3.

### Non-Western Area: Credits 3

Choose at least one course from the following list:

- ANTH 31001 Introduction To The Cultures Of Africa Cr. 3.
- ANTH 33000 Indians Of South America Cr. 3.
- ANTH 45500 Anthropology Of Religion Cr. 3.
- EALC 23100 Japan: The Living Tradition Cr. 3.00
- EALC 27100 Modern And Contemporary Japanese Culture Cr. 3.00
- HIST 20101 Russian Civilization I Cr. 3.
- HIST 31002 Russian Revolutions and Soviet Regime Cr. 3.

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HIST 33201 - African History from Colonial Rule to Independence Cr. 3.
HIST 33503 - Topics in Non-Western History Cr. 3.
HIST 34201 - Latin America: Evolution and Revolution Cr. 3.
HIST 34601 - Modern Mexico Cr. 3.
HIST 42601 - History of Balkans: 1914 to Present Cr. 3.
HIST 4200 - 20th Century Latin American Revolutions Cr. 3.
INTL 15500 - Introduction to Language and Culture in Near Eastern Studies and East Asian Studies Cr. 3.
POL 33900 - Middle Eastern Politics Cr. 3.
POL 34000 - East European Politics Cr. 3.
POL 35501 - Ethnic Conflict and Nationalism Cr. 3.
REL 23000 - Religions of the East Cr. 3.
REL 30100 - Islam Cr. 3
REL 30100 - Islam Cr. 3
REL 38100 - Islam And Modernity
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#### Additional Courses: Credits 6

#### Choose at least six additional credits:

o from the Non-Western course list above

SPAN 41200 - Spanish America: The Cultural Context Cr. 3.
 WOST 30100 - International Perspectives on Women Cr. 3.

- or
- o from the following course list
- AD 39001 Topics In Art History Cr. 3.
  - International Travel
- ANTH 35001 European Ethnography Cr. 3.
- ANTH 40200 Gender In Cross-Cultural Perspective Cr. 3.
- FOLK 11100 World Music And Culture Cr. 3.
- FOLK 30500 Asian Folklore Cr. 3.
- GER 36201 Introduction to Contemporary Germany Cr. 3.
- GER 36300 Introduction To German Cultural History Cr. 3.
- HIST 22801 The Vietnam War Cr. 3.
- HIST 23400 Witchcraft and Witch Hunts, c. 1400-1750 Cr. 3.
- HIST 30502 The Cold War Cr. 3.
- HIST 32701 Modern France And The French Empire Cr. 3.
- HIST 34501 American Diplomatic History I Cr. 3.
- $\bullet \ \ HIST\ 34502\ \ History\ of\ Espionage:\ Spies,\ Intelligence,\ and\ Intelligence\ Agencies\ in\ an\ International\ Context\ Cr.\ 3.$
- HIST 36102 Europe in the 20th Century I Cr. 3.
- HIST 43200 20th Century Latin American Revolutions Cr. 3.
- IDIS 20200 Humanities II: Foundations of the Modern Western World Cr. 3.
- PACS 20000 Introduction to Peace and Conflict Studies Cr. 3.
- POL 20001 Contemporary Political Topics Cr. 1-6,
  - See program coordinator for appropriate titles.
- POL 33501 Western European Politics Cr. 3.
- POL 35001 Politics of the Euoropean Union Cr. 3.
- POL 37101 Workshop in International Topics Cr. 1-3.
- POL 37500 War & International Conflict Cr. 3.
- POL 37600 International Political Economy Cr. 3
   POL 40101 Studies in Political Science Cr. 3.
  - See program coordinator for appropriate titles.
- SOC 41000 Advanced Topics in Social Organization Cr. 3.

taken as one of the following:

- · Contemporary India Society
- Culture of China
- Modern Japanese Society
- SPAN 41100 Spain: The Cultural Context Cr. 3.

# International Language Requirement: Credits 0-8

In addition to the 18 credits stipulated above, students must demonstrate basic proficiency in a language other than English. The proficiency may be demonstrated by:

- placing at the third-semester level or higher on the Foreign Language Placement Test
- successfully completing the first two semesters of an international language at the college level
- students who speak a language other than English may obtain an exemption from this requirement by contacting the Department of International Languages and Culture or the Arts & Sciences's Director of Advising

Total: Credits 18-26

### Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# Lesbian, Gay, Bisexual, And Transgender (LGBT) Certificate

Program: Certificate Interdisciplinary Studies College of Arts and Sciences

Liberal Arts Building 153 ~ 260-481-6019

Program Coordinator: Craig Hill

A certificate in Lesbian, Gay, Bisexual, and Transgender (LGBT) studies is available to all Purdue University Fort Wayne students earning undergraduate degrees. An introductory course and a culminating capstone course in lesbian, gay, bisexual, and transgender issues are required of all students obtaining the certificate. The program consists of three major areas of study, the first is specific to LGBT issues, the second is sexuality issues, and the third is gender issues. Students meeting the certificate requirements must complete three courses from the LGBT Courses group, two courses from the Sexuality Courses Group, and one from the Gender Courses group. One required course in the LGBT Courses group is an LGBT course beyond LGBT 20000, or a course cross-listed as a GNDR course focusing predominately on an LGBT topic, or an independent study from any academic department focusing on an LGBT topic, this course must be at the 2000+ level or higher. The two courses selected within the Sexuality Area must be from different academic departments. Furthermore, two courses fulfilling the LGBT Certificate requirements must be at the 4000+ level or greater. The certificate can be earned and awarded independent of other degree(s).

#### **Student Learning Outcomes:**

Upon completion of this certificate, students will:

- · demonstrate knowledge of issues relevant to lesbian, gay, bisexual, and transgender individuals and communicate this knowledge effectively to others
- identify and apply the methods of inquiry for the disciplines that examine issues relevant to LGBT individuals and use those methods to evaluate information about LGBT individuals and other issues pertinent to sexual orientation and sexual identity
- · recognize harassment and discrimination based on sexual orientation, and identify appropriate legal resources used to assist victims of such harassment/discrimination
- develop citizenship skills and knowledge of LGBT resources in the community
- · investigate companies' policies and organizational cultures to determine attitudes toward LGBT employees

#### **Declaring this Certificate:**

• Declare this certificate through your major department, the program coordinator or the secretary for interdisciplinary studies in the College of Arts and Sciences office.

#### **Program Requirements:**

- A minimum GPA of 2.00 or higher is required for graduation
- · A grade of C- or higher in each course required for the certificate
- At least 12 credits must be earned as resident credit
- · No courses may be taken on a pass/not pass basis
- · Additional information is found in the introduction above and in the program requirements section below

To earn the Certificate in Lesbian, Gay, Bisexual and Transgender Studies, you must fulfill the following requirements in addition to those noted above:

### **Program Requirements**

LGBT Courses: Credits 7

- LGBT 20000 Introduction to Scholarship on Lesbian, Gay, Bisexual, and Transgender Issues Cr. 3.
- LGBT 40000 Capstone Independent Study on Lesbian, Gay, Bisexual, and Transgender Issues Cr. 3.
- LGBT 40100 LGBT Certificate Portfolio Evaluation Cr. 1.

### Sexuality Courses: Credits 6

There are no prerequisites for courses unless indicated.

• PSY 44400 - Human Sexual Behavior Cr. 3.

P: Junior/Senior standing and PSY 12000

Choose one of the following WOST courses:

- WOST 22500 Gender, Sexuality, and Popular Culture Cr. 3. or
- WOST 34001 Topics In LGBTQ Studies Cr. 3.

### Gender Courses: Credits 3

Select one course from the following list. There are no prerequisites for courses unless indicated.

- ANTH 40200 Gender In Cross-Cultural Perspective Cr. 3.
- COM 41000 Gender Roles and Communication Cr. 3.

P: COM 11400

• OLS 45400 - Gender and Diversity in Management Cr. 3.

P: OLS 25200

- PHIL 30500 Philosophical Theories of Feminism Cr. 3.
- PSY 34500 Psychology of Women Cr. 3.

P: PSY 12000

• PSY 36500 - Development of Gender Roles in Children Cr. 3.

P: PSY 23500 or PSY 36900

- WOST 21000 Introduction To Women's And Gender Studies Cr. 3.
- WOST 24000 Topics in Feminism Cr. 3.
  - Other courses focusing predominantly on gender approved by an LGBT certificate advisor Cr.3.

### Additional LGBT Course: Credits 3

Choose one of the following options:

- an LGBT course beyond the level of LGBT 20000
- a course cross-listed as a GNDR course focusing on an LGBT topic at the 2000+ level or higher
- an independent study course from any academic department focusing on an LGBT topic at the 2000+ level or higher. Students may request to substitute an LGBT-relevant course from another academic department in the place of the independent study, if approved by the LGBT program coordinator.

# Total: Credits 19

# Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

### **Mathematical Sciences Research Certificate**

Program: Research Certificate Department of Mathematical Sciences College of Arts and Sciences

Kettler Hall ~ 260-481-6821

#### **Student Learning Outcomes:**

Upon completion of this certificate, students will:

• learn research methods and tools appropriate to the mathematical sciences, learn the foundations of research in the theory of the discipline, learn the advanced communication skills, and apply what they have learned by executing a research project and communicating the results to others.

#### **Declaring this Certificate:**

- Declare this certificate within the Department of Mathematical Sciences
- The certificate can be earned and awarded independent of other degree(s)

#### **Program Requirements:**

- A minimum GPA of 2.00 or higher is required for graduation
- · At least 9 credits must be earned as resident credit

To earn the Mathematical Sciences Research Certificate, you must fulfill the following requirements in addition to those noted above:

# Research Writing: Credits 3

• ENGL 23301 - Intermediate Expository Writing Cr. 3.

## History, Philosophy, or Theory of the Discipline: Credits 3

- MA 30500 - Foundations of Higher Mathematics Cr. 3.

#### Research Methods and Supervised Individual Research: Credits 6

- MA 35100 Elementary Linear Algebra Cr. 3.
- MA 49000 Topics in Mathematics for Undergraduates Cr. 1-5.

Credits: 3

# Upper or Dual-Level Course: Credits 3

Choose one of the following:

- MA 44100 Real Analysis Cr. 3.
- MA 45300 Elements of Algebra Cr. 3.
- MA 57500 Graph Theory Cr. 3.
- STAT 51700 Statistical Inference Cr. 3.

# Cognate Research Tools: Credits 3-4

Choose one of the following:

- CS 16000 Introduction To Computer Science I Cr. 4.
- MA 17500 Introductory Discrete Mathematics Cr. 3.
- STAT 51100 Statistical Methods Cr. 3.

Total Credits: 18-19

### Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# **Medical Ethics Certificate**

Program: Certificate College of Arts and Sciences

Liberal Arts Building 17 ~ 260-481-6971

Program Coordinator: Abe Schwab

A certificate in Medical Ethics is available to all Purdue University Fort Wayne students earning undergraduate degrees. It is also available as a post-baccalaureate stand-alone program. Students who pursue this certificate post-baccalaureate, must first be formally admitted to Purdue University Fort Wayne. The multidisciplinary program provides basic academic courses on health care system, aging, as well as applied ethics courses. A practicum component involves applied work in health care setting.

The Medical Ethics Certificate is comprised of 18 credits. The required introductory courses provide a foundation for understanding the workings of the health care system and ethical issues that arise. Additional credits are chosen by the student from a variety of disciplinary courses relevant to the ethics of the health care system. The final requirement is a practicum that ideally will involve applied work in a health care setting. The certificate can be earned and awarded independent of other degree(s).

#### **Student Learning Outcomes:**

Upon completion of this certificate, students will:

- demonstrate understanding of the foundational features of the existing health care system
- · demonstrate awareness of the ethical issues that frame conversations when medical decisions need to be made
- demonstrate the ethical issues specific to their particular interests (e.g., Nursing, Dentistry, etc.)

#### Declaring this Certificate:

- · Declare this certificate through the Medical Ethics Program Director, or through your major department if you are pursuing another degree.
- Your program of study must be approved by the Medical Ethics Certificate Program Director. It is highly recommended that you meet with the Program Director when
  declaring the program.

#### **Program Requirements:**

- · Meet all regular Purdue Fort Wayne admission requirements
- A minimum GPA of 2.00 or higher is required for graduation
- A grade of C- or higher in each course required for the certificate
- At least 9 credits must be earned as resident credit

To earn the Certificate in Medical Ethics, you must fulfill the following requirements in addition to those noted above:

### Required Courses: Credits 6

No more than four PHIL courses (including the PHIL 49300 practicum) can be used to fulfill requirements for the Certificate in Medical Ethics.

- PHIL 31200 Medical Ethics Cr. 3.
- PPOL 32000 Health Systems Administration Cr. 3.

### Ethics Requirement: Credits 3

Choose one of the following courses:

- PHIL 11100 Introduction To Ethics Cr. 3.
- PHIL 32900 Foundations of Professional Ethics Cr 3.

Foundations of Professional Ethics - May only be used as either the "Ethical" requirement or the "Medical/Legal" requirement, but not for both.

• PHIL 50400 - Human Rights Ethics Cr. 3.

# Medical/Legal Requirement: Credits 6

Choose two of the following courses:

- PHIL 26000 Philosophy and Law Cr. 3.
- PHIL 32900 Foundations of Professional Ethics Cr 3.

Foundations of Professional Ethics - May only be used as either the "Ethical" requirement or the "Medical/Legal" requirement, but not for both.

- PPOL 12000 Contemporary Health Issues Cr. 1-3.
- HSRV 16900 Introduction to Wellness and Stress Management Cr. 3.
- MUSC 34001 Music Therapy in Healthcare Settings Cr. 3.

Practicum: Credit 1-3

• PHIL 49300 - Interdisciplinary Undergraduate Seminar Cr. 1-3.

PHIL 49300 will be overseen by the certificate program director.

- $\circ~$  A typical one-hour project would be a short case analysis in the student's area of interest.
- A typical three-hour project would involve an internship with an appropriate organization and a written report submitted about the experience and the ethical issues that arose.

Total credits: 18

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

### **Peace And Conflict Studies Certificate**

Program: Certificate Interdisciplinary Studies College of Arts and Sciences

Liberal Arts Building 209 ~ 260-481-6686

Program Coordinator: Craig Ortsey

The inherently interdisciplinary mission of the Peace and Conflict Studies program is to explore the sources, causes, and consequences of conflict, as well as the frontiers of nonviolent alternatives to conflict using a broad set of empirical and normative approaches. Its primary goal is to foster students' insights into the origins of human conflict, cooperation, and peaceful conflict resolution from the interpersonal to the global level. The certificate can be earned and awarded independent of other degree(s).

#### **Student Learning Outcomes:**

Upon completion of this certificate, students will:

- be able to discuss sources of conflict as rooted in human interests and institutions, competition for power and resources, inequality, injustice, and the environment.
- be able to depict the dynamics of conflict at various social levels, including the interpersonal, group, institutional, community, societal, and global levels.
- be able to describe violent techniques of conflict resolution such as war, terrorism, and oppression.
- be able to explain varying perspectives on peace and different paths to achieving it.
- be able to demonstrate an understanding of social justice and nonviolent conflict resolution.
- · be able to articulate how social change occurs.

#### **Declaring this Certificate:**

· Declare this certificate through your major department, the department of Political Science, or the program coordinator.

#### **Program Requirements:**

- A minimum GPA of 2.00 or higher is required for graduation
- . A grade of C- or higher in each course required for the certificate
- · At least 8 credits must be earned as resident credit

To earn the Certificate in Peace and Conflict Studies, you must fulfill the following requirements in addition to those noted above:

## **Program Requirements**

### Part A - Core Requirement: Credits 3

• PACS 20000 - Introduction to Peace and Conflict Studies Cr. 3.

#### Part B - Additional Core Courses: Credits 3

Choose one course from the following list:

- INTL 20000 Introduction to International Studies: Emerging Global Visions Cr. 3.
- POL 10700 Introduction to Comparative Politics Cr. 3.
- POL 10900 Introduction to International Relations Cr. 3.

### Part C - Understanding Conflict: Credits 3

Choose one course from the following list:

- · ANTH 43000 Archaeology Of Violence And Conflict Cr. 3.
- COM 21000 Debating Public Issues Cr. 3.
- COM 31600 Controversy In American Society Cr. 3.
- HIST 22801 The Vietnam War Cr. 3.
- HIST 30201 Revolutionary America Cr. 3.
- HIST 30502 The Cold War Cr. 3.
- HIST 31002 Russian Revolutions and Soviet Regime Cr. 3.
- HIST 31102 Holocaust and Modern Genocides Cr. 3.
- HIST 34201 Latin America: Evolution and Revolution Cr. 3.
- HIST 34502 History of Espionage: Spies, Intelligence, and Intelligence Agencies in an International Context Cr. 3.
- · HIST 35101 The United States in World War II Cr. 3.
- HIST 43200 20th Century Latin American Revolutions Cr. 3.
- PACS 49700 Readings In Conflict Studies Cr. 1-3.
- POL 35501 Ethnic Conflict and Nationalism Cr. 3.
- POL 37500 War & International Conflict Cr. 3.
- POL 39700 Intervention, Peace, and War Cr. 3.
- SOC 22500 Violence Cr. 3.

### Part D - Understanding the Roots of Conflict: Credits 3

Choose one course from the following list:

- ANTH 40200 Gender In Cross-Cultural Perspective Cr. 3.
- ANTH 45500 Anthropology Of Religion Cr. 3.
- ANTH 45700 Ethnic Identity Cr. 3.
- BIOL 34900 Environmental Science Cr. 3.
- LGBT 20000 Introduction to Scholarship on Lesbian, Gay, Bisexual, and Transgender Issues Cr. 3.
- · OLS 45400 Gender and Diversity in Management Cr. 3.
- PHIL 32700 Environmental Ethics Cr. 3.
- POL 31300 Envronmental Policy Cr. 3.
- POL 32400 Gender and Politics Cr. 3.
- POL 32800 Women and the Law Cr. 3.
- PPOL 16200 Environment and People Cr. 3. • PSY 33500 - Stereotyping and Prejudice Cr. 3.
- PSY 34500 Psychology of Women Cr. 3.
- · SOC 30000 Race and Ethnic Relations Cr. 3.

- SOC 31300 Religion and Society Cr. 3.
- SOC 31701 Social Stratification Cr. 3.
- SOC 41300 Sex Inequality in Society Cr. 3.
- · SOC 43001 Environmental Sociology
- WOST 21000 Introduction To Women's And Gender Studies Cr. 3.

## Part E - Understanding Peace and Conflict Resolution: Credits 3

Choose one course from the following list:

- COM 30300 Intercultural Communication Cr. 3.
- COM 37500 Conflict And Negotiation Cr. 3
- COM 47100 Communicating Peace Cr. 3.
- HIST 34501 American Diplomatic History I Cr. 3.
- OLS 47700 Conflict Management Cr. 3.
- PACS 49800 Readings In Peace Studies Cr. 1-3.
- POL 20300 The Promise and Problems of Democracy Cr. 3.
- POL 21100 Introduction to Law Cr. 3.
- POL 21200 Making Democracy Work Cr. 3.
- POL 30401 Constitutional Law Cr. 3.
- POL 30501 Constitutional Rights and Liberties Cr. 3.
- POL 35001 Politics of the Euoropean Union Cr. 3.
- POL 36001 U.S. Foreign Policy Cr. 3.
- POL 37101 Workshop in International Topics Cr. 1-3. taken as: International Human Rights Law
- REL 32100 Religion and the Civil Rights Movement Cr. 3
- SOC 33300 Collective Behavior and Social Movements Cr. 3.

#### Part F - Additional Course: Credits 3

Choose one additional course from:

• the following list (Part F)

or

- Part C, Part D, or Part E (listed above)
- ANTH 10501 Culture And Society Cr. 3.
- · ANTH 33000 Indians Of South America Cr. 3.
- $\bullet\,$  ANTH 34800 - Peoples And Cultures Of Russia, Ukraine, And Newly Independent States Cr. 3.
- ANTH 37001 Ancient Civilizations Of The Andes Cr. 3.
- ANTH 39800 Peoples And Cultures Of Central Asia Cr. 3.
- ANTH 42100 Moche Archaeology Seminar Cr. 3.
- COM 35300 Problems In Public Relations Cr. 3.
- HIST 31401 Recent U.S. History I, 1917-1945 Cr. 3.
- HIST 31501 Recent U.S. History II, 1945-Present Cr. 3.

  HIST 22701 M. J. T. F. J. F. J.
- HIST 32701 Modern France And The French Empire Cr. 3.
- HIST 35501 Europe: Louis XIV to French Revolution Cr. 3.
   PACS 49900 Internship In Peace And Conflict Studies Cr. 1-3.
- POL 34000 East European Politics Cr. 3.
- PSY 24000 Introduction to Social Psychology Cr. 3.
- PSY 33400 Cross Cultural Psychology Cr. 3.

# Part G - Portfolio Review: Credit 1

• PACS 49500 - Portfolio Review In Peace And Conflict Studies Cr. 1.

Total Credits: 19

### Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# **Physics Research Certificate**

Program: Research Certificate Department of Physics College of Arts and Sciences

Kettler Hall 126B ~ 260-481-6306

Pursuing a research certificate provides opportunities to engage in active learning situations integrating original research and the undergraduate curricula. You will learn research methods and tools appropriate to your discipline, and research interests within the discipline; the foundations of research relating to the history, philosophy, and theory of the discipline; and advanced communications skills. You will apply knowledge learned by designing and executing a research study or project and communicating the results to others. The certificate can be earned and awarded independent of other degree(s).

#### **Student Learning Outcomes:**

Upon completion of this certificate, students will:

· be able to apply knowledge learned by designing and executing a research study or project and communicating the results to others

#### **Program Delivery:**

· This program is available on-campus and hybrid

#### **Declaring this Certificate:**

· Declare this certificate within the Department of Physics

#### **Program Requirements:**

- · A minimum GPA of 2.00 or higher is required for graduation
- · A minimum of 10 credits must be earned as resident credit

To earn the Physics Research Certificate, you must fulfill the following requirements in addition to those noted above:

## Research Writing: Credits 3

• ENGL 23301 - Intermediate Expository Writing Cr. 3.

# History, Philosophy, or Theory of the Discipline: Credits 3

• PHYS 34200 - Modern Physics Cr. 3.

# Cognate Research Tools: Credits 4

Choose one of the following:

- CS 16000 Introduction To Computer Science I Cr. 4.
- MA 26100 Multivariate Calculus Cr. 4.

## Research Methods and Supervised Individual Research: Credit 1

• PHYS 34300 - Modern Physics Laboratory Cr. 1.

### One of the following Credits: 3-4

- PHYS 32200 Optics Cr. 3.
- PHYS 32500 Scientific Computing Cr. 3.
- PHYS 36100 Electronics for Scientists Cr. 4.
- PHYS 40500 Atomic and Molecular Physics Cr. 3.
- PHYS 52000 Mathematical Physics Cr. 3.

# Additional Courses: Credits 6

- PHYS 27000 Special Topics in Physics Cr. 1-5.
- PHYS 47000 Special Topics in Physics Cr. 1-5.

Total Credits: 20-21

### Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

### **Professional Sales Certificate**

Program: Certificate

Department of Management and Marketing Richard T. Doermer School of Business

Neff Hall 340 ~ 260-481-6470

**Doermer School of Business Undergraduate Student Success Center** 

Neff Hall  $366 \sim 260\text{-}481\text{-}6472$ 

The Professional Selling Certificate is designed to teach students to effectively employ marketing processes that deliver value through well designed marketing mix strategies that consider product, pricing, promotion, and place (distribution)-not just pushing goods and services to exchange in the marketplace.

Any student admitted to Purdue University Fort Wayne who has completed at least 60 credit hours or an Associate degree is eligible to declare this certificate.

You must meet the prerequisites for each course and earn a grade of C- or better in each course. You must complete at least 9 of the required 15 credits at Purdue Fort Wayne to be eligible to receive the certificate.

## Certificate Requirements

- BUS 30101 Introduction To Marketing Cr. 3.
- BUS 31202 Retail Marketing Cr. 3.
- BUS 40500 Consumer Behavior Cr. 3.
- BUS 41300 Personal Selling Cr. 3.
- BUS 42600 Sales Management Cr. 3.

**Total Credits: 15** 

# Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# **Quality Certificate**

Program: Certificate School of Polytechnic

College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 221 ~ 260-481-6338

#### The student learning outcomes for the degree are as follows:

• An appropriate mastery of the knowledge, techniques, skills and modern tools of quality, metrology, SPC, SQC, TQM, ISO standards, and DOE.

This certificate program prepares graduates with skills in techniques related to quality, such as design of experiments, metrology, and statistical process control. The program provides focused study in the techniques of maintaining and improving quality of manufacturing processes.

Credits earned in the certificate program may be applied toward the associate and bachelor's programs in industrial engineering technology.

# **Program Requirements**

To earn the certificate, you must fulfill the requirements of Purdue University Fort Wayne (Student Services) and complete the following courses, earning a grade of C or better in those courses that serve as prerequisites:

- IET 10500 Industrial Management Cr. 3.
- IET 20400 Techniques of Maintaining Quality Cr. 3.

Grade of C or better required

- IET 30400 Advanced Metrology Cr. 3.
- IET 45400 Statistical Process Control Cr. 3.
- STAT 30100 Elementary Statistical Methods I Cr. 3.

Grade of C or better required

### One of the following: Credits: 5-6

- MA 15300 College Algebra Cr. 3. and
- MA 15400 Trigonometry Cr. 3. or

Grade of C or better required

• MA 15900 - Precalculus Cr. 5.

Grade of C or better required

Total Credits: 20-21

### Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# **Small Business Management Certificate**

Program: Certificate

Department of Management and Marketing

Richard T. Doermer School of Business and Management Sciences

Neff Hall 340 ~ 260-481-6470

**Doermer School of Business Undergraduate Student Success Center** 

Neff Hall 366 ~ 260-481-6472

#### The student learning outcomes for the certificate are as follows:

- · To develop an understanding of entrepreneurship and entrepreneurial orientation
- · To develop a business plan for the enterprise
- · To use marketing and financial information to advance/promote the plan
- · To understand available financing providers including "angels", venture capitalists, and strategic partners

The Small Business Management Certificate is designed to provide students with the very basic skills needed to understand the business environment and to make sound decision while running their own business. Any student admitted to Purdue University Fort Wayne is eligible to work on this certificate.

You must meet the prerequisites for each course and earn a grade of C- or better in each course. You must complete at least 9 of the required 15 credits at Purdue Fort Wayne to be eligible to receive the certificate.

## Certificate Requirements

You must earn a C- or better in each of the following courses:

- BUS 10001 Principles Of Business Administration Cr. 3.
- BUS 20000 Foundations Of Accounting Cr. 3.
- ECON 20000 Fundamentals of Economics Cr. 3.
- BUS 20102 Marketing For The Small Business Cr. 3.

Additional Course Use

Courses listed below may also be considered in meeting specific degree requirements.

BUS 20102 required, BUS 30101 accepted

- BUS 20103 Small Business Management Capstone Cr. 3. or
- BUS 31201 Entrepreneurship Cr. 3-6.

**Total Credits: 15** 

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# **Supervisory Leadership Certificate**

Program: Certificate
Department of Organizational Leadership
College of Engineering, Technology, and Computer Science

Neff Hall 288 ~ 260-481-6420

#### The student learning outcomes for the degree are as follows:

- · Students will demonstrate an understanding of contemporary issues and theories in the areas of leadership, human resources systems and team design and facilitation.
- · Students will be able to apply theories to real organizational and leadership problems.
- Students will demonstrate effective oral and written communication skills.

This certificate program helps you prepare for supervisory leadership positions in any industry. The classes can later be applied toward an associate degree and bachelor's degree with a major in organizational leadership. Interested individuals must apply for the program before completing 9 hours of applicable course work.

The certificate option is available to community members who enter as non-degree seeking students and to students in good academic standing who are enrolled in non-OL plans of study. OL-degree-seeking students are not eligible to enter the certificate program.

To earn the certificate, you must fulfill the requirements of Purdue University Fort Wayne (Regulations) and the College of Engineering Technology and Computer Science, Department of Organizational Leadership (Colleges), complete the following courses, and earn a grade of C- or better in each course. OLS courses taken more than 10 years ago will not count towards the certificate requirements.

## Program Requirements: Credits 18

- COM 11400 Fundamentals Of Speech Communication Cr. 3.
- ENGL 13100 Reading, Writing, and Inquiry I Cr. 3.
- OLS 25200 Human Relations in Organizations Cr. 3.
- OLS 26800 Elements of Law Cr. 3.
- OLS 27400 Applied Leadership Cr. 3.
- OLS 37500 Training Methods Cr. 3. or
- OLS 37600 Human Resources Issues Cr. 3.

# OLS Electives: Credits 3

- OLS 28000 Computer Applications for Supervisors Cr. 3.
- OLS 32000 Customer Service and Commitment Cr. 3.
- OLS 33100 Occupational Safety and Health Cr. 3.
- OLS 34200 Interviewing Strategies in Organizations Cr. 3.
- OLS 35000 Applied Creativity for Business and Industry Cr. 3.
- OLS 35100 Innovation And Entrepreneurship Cr. 3.
- OLS 37000 Managing Job Stress and Health Cr. 3.
- OLS 37500 Training Methods Cr. 3.
- OLS 37600 Human Resources Issues Cr. 3.
- OLS 38400 Leadership Process Cr. 3.
- OLS 39900 Special Topics Cr. 3.

Total Credits: 21

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

## **Teaching English As A New Language Certificate**

Program: Certificate Department of English and Linguistics College of Arts and Sciences

Liberal Arts Building 145 ~ 260-481-6841

Program Coordinator: Shannon Bischoff

The undergraduate certificate in Teaching English as a New Language (TENL) prepares students for Teaching English to Speakers of Other Languages (TESOL) in a variety of learning venues world-wide. It is intended primarily for students who, while they work towards a baccalaureate degree, wish to develop credentials for teaching English as a new or additional language. Other potential audiences include individuals who wish to obtain professional training in teaching English to speakers of other languages for career opportunities overseas. The TENL certificate will require satisfactory completion of eighteen credit hours of course work in the areas of TESOL pedagogy and materials preparation, second language acquisition theories, sociolinguistics and cultural issues, English grammar, and practical classroom experiences.

Our TENL program matches most other similar academic programs nationwide. The required courses will familiarize students with major theoretical perspectives, pedagogies, and resources for English language teaching. The capstone course, TENL Practicum, provides students with real-world experience through teaching English language learners in classroom settings.

The undergraduate TENL certificate will be available to any student who has completed the program requirements successfully. It can stand alone as a separate credential or be integrated within the requirements of the B.A. program in English as an option in the English Language Concentration. Some courses may also apply to a degree from the College of Education and Public Policy. The certificate can be earned and awarded independent of other degree(s).

#### Note:

- An add-on license in the content area of "Teachers of English Learners" license is available to TENL certificate students who are licensed teachers, candidates who are
  already licensed in specific content area(s) at specific grade levels, or prospective teachers who are in the process of obtaining such a license. Please see the special
  requirements below
- An option to earn an Accelerated TENL Certificate is available. Please contact the Department of English and Linguistics for details.

#### **Student Learning Outcomes:**

Upon completion of this certificate, students will:

• be prepared to teach English to speakers of other languages in a variety of learning venues world-wide.

#### Accreditation:

• The Teaching English as a New Language Certificate program is accredited by the Council for the Accreditation of Educator Preparation (CAEP) and nationally recognized as a high-quality program through the Teaching of English to Speakers of Other Languages (TESOL) organization. Because of these statuses, students who meet specified requirements are eligible for the Teachers of English Learners license in the state of Indiana. Indiana holds reciprocal licensing agreements with other states.

### **Declaring this Certificate:**

Declare this certificate within the Department of English and Linguistics

#### **Program Requirements:**

- · Students must meet with the TENL Program Director for advising when admitted to this program
- A minimum GPA of 2.00 or higher is required for graduation
- A grade of C or higher in each course required for the certificate
- Satisfactory completion of LING 10300 or equivalent is a prerequisite for all courses at the 3000+ level and higher
- At least 9 credits must be earned as resident credit

To earn the Certificate in Teaching English as a New Language, you must fulfill the following requirements in addition to those noted above:

## **TENL Certificate Requirements**

LING 10300 or equivalent is a prerequisite for all TENL courses at the 3000+ level or higher.

Grammar: Credits 3

• ENGL 40203 - Structure of Modern English (TESOL) Cr. 3.

Sociolinguistics: Credits 3

• LING 46000 - Language in Society Cr. 3.

Language Acquisition: Credits 3

• ENGL 43200 - Second Language Acquisition Cr. 3.

Methods: Credits 6

- LING 42102 Methods and Materials for TESOL I Cr. 3.
- LING 42203 Methods and Materials for TESOL II Cr. 3.

Practicum: Credits 3

• LING 47000 - TENL Practicum Cr. 3.

Total Credits: 18

### Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

### **Women's Studies Certificate**

Program: Certificate Women's Studies Program Department of Political Science College of Arts and Sciences

Liberal Arts Building 209 ~ 260-481-6688 Program Coordinator: Janet Badia

Women's Studies is an interdisciplinary area of study that examines gender and its intersections with other categories of identity, including race and ethnicity, sexuality, class, nationality, and disability. As such, it provides students the opportunity to integrate knowledge across diverse academic disciplines, to understand gender within both historical and contemporary contexts, and to develop approaches to investigation, analysis, and research that reflect the complex nature of how gender operates in our lives, how systems of power and oppression function, and how individuals and organizations can bring about meaningful social change.

The Women's Studies Certificate is designed for students majoring in academic programs outside the College of Arts and Sciences who are interested in a concentration of course work in women's studies. This program is also appropriate for community members who wish to augment or update past academic studies in a field that has relevance for today's more diverse workforce and society. The certificate can be earned and awarded independent of other degree(s).

#### **Student Learning Outcomes:**

Upon completion of this certificates, students will:

- · understand the major concepts of feminist critical analysis, including gender, race, class, sexuality, nationality, ability, and age, and the complexities of their intersections
- · understand how gender is socially and historically constructed, how it relates to systems of power, privilege, and oppression, and how it impacts women's lives
- · be aware of the history and importance of feminist thought and activism in the U.S. and around the globe
- · be aware of the diversity of women's experiences, roles, and contributions to society and culture
- · be able to demonstrate effective reading, speaking, writing, and critical thinking skills through the work they complete in women's studies courses
- · be able to apply feminist perspectives to a range of issues and engage critical debates or areas of contention within feminism and across disciplines

#### **Declaring this Certificate:**

 Declare this certificate within the Department of Political Science which is the administrative home for Women's Studies, or through your major department if you are pursuing another degree

#### **Program Requirements:**

- · A minimum GPA of 2.00 or higher is required for graduation
- · A grade of C- or higher in each course required for the certificate
- · At least 11 credits must be earned as resident credit

To earn the Certificate in Women's Studies, you must fulfill the following requirements in addition to those noted above:

### Women's Studies Certificate Requirements

## Required Courses: Credits 6

- WOST 21000 Introduction To Women's And Gender Studies Cr. 3.
- WOST 30100 International Perspectives on Women Cr. 3.

## Supporting Courses: Credits 12

- Choose one WOST cross-referenced course from the student's program department, division, or school to be counted in the student's major as well as in the certificate, or
  any other WOST prefixed or cross-referenced course. Check with advisor for course options.
- Choose one WOST prefixed or cross-referenced course. Check with advisor for course options.

#### Fine Arts or Humanities:

Choose one WOST prefixed or cross-referenced course in Fine Arts or Humanities:

- • ENGL 47201 - Composing the Self Cr. 3.
- ENGL 47800 Studies in Women and Literature Cr. 3.
- HIST 23400 Witchcraft and Witch Hunts, c. 1400-1750 Cr. 3.
- HIST 26000 History Of Women In The United States Cr. 3.
- PHIL 30500 Philosophical Theories of Feminism Cr. 3.
- REL 31500 Religion and Women Cr. 3.
- WOST 22500 Gender, Sexuality, and Popular Culture Cr. 3.
- WOST 30200 Topics in Gender Studies Cr. 3.

### Sciences or Social Sciences:

Choose one WOST prefixed or cross-referenced course in Sciences or Social Sciences:

- ANTH 40200 Gender In Cross-Cultural Perspective Cr. 3.
- BIOL 25000 Women And Biology Cr. 3.
- COM 41000 Gender Roles and Communication Cr. 3.
- COM 42200 Women, Men, and Media Cr. 3.
- POL 32400 Gender and Politics Cr. 3.

- POL 32800 Women and the Law Cr. 3.
- PSY 34500 Psychology of Women Cr. 3.
- PSY 36500 Development of Gender Roles in Children Cr. 3.
- WOST 24000 Topics in Feminism Cr. 3.

## Capstone Course: Credits 3

• WOST 40000 - Topics in Women's Studies Cr. 3.

Total Credits: 21

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

#### Certification

# Early Childhood Education Certification Only (Preschool - Grade 3)

Program: Early Childhood Education Certification Only School of Education College of Professional Studies

Neff Hall 250 ~ 260-481-4146

The early childhood education certification only program is designed for candidates who hold a bachelor's degree from a regionally accredited college and desire to teach in preschool or elementary primary (P-3) school settings. Upon successful completion, candidates may apply for an Indiana teaching license. Candidates must demonstrate competencies in four content areas of Reading/English Language Arts, Mathematics, Science/Health/PE, and Social Studies/Fine Arts by passing content exams in each area prior to student teaching.

### Note: C- OR BETTER IS REQUIRED FOR ALL COURSES USED TOWARD THIS PROGRAM

#### **Student Learning Outcomes**

Upon completion this program in Early ChildhoodCertification Only students will:

- · Become more caring, humane and functional citizens in a global, multicultural, democratic society
- Improve the human condition by creating positive learning environments
- Become change agents by demonstrating reflective professional practice
- · Solve client problems through clear, creative analyses
- Assess client performance, creating and executing effective teaching, counseling, and educational leadership by utilizing a variety of methodologies reflecting current related research
- Utilize interdisciplinary scholarship, demonstrating technology and critical literacies, and effectively communicating with all stakeholders.

#### Accreditation

Our education programs are accredited through CAEP (Council for the Accreditation of Educator Preparation). We are nationally recognized as a high-quality program through the National Association for the Education of Young Children. Because of these statuses, students who meet specified requirements are eligible for the early childhood education teaching license in the state of Indiana. Indiana holds reciprocal licensing agreements with other states.

#### **Program Delivery**

This program is available on campus

#### **Declaring This Program**

You must declare this program with the School of Education

# General Requirements

· College Requirements

· Academic Requirements

### **Program Requirements**

#### Pre-Professional Education: 15 Credits

- EDU 20000 Examining Self As A Teacher Cr. 3. \*
- EDU 20001 Introduction To Scientific Inquiry Cr. 1-3. \*
- EDU 20002 Using Computers For Education Cr. 1-3. \*

\*These 3 courses above may be waived with appropriate documentation of 3 years full-time teaching experience in P-3 classrooms.

- EDU 32700 Social Studies Methods And The Family: Focus On Young Children Cr. 3.
- EDU 34900 Teaching And Learning For All Young Children I: Focus on Birth To Age 3 Cr. 3.
- EDU 30100 Laboratory/Field Experience Cr. 0-3.

### Professional Education: 36 credits

#### Requirements for Admission to Block 1

- 1. Bachelor's degree from a regionally accredited college
- 2. Take the Pearson content exams for Early Childhood Education
- 3. Completion of each course with grade of C- or higher. Courses may be repeated one time to earn minimum grade
- 4. Successfully complete all Pre-professional Education courses and program Signature Assessments
- 5. Minimum 3.0 cum. GPA in pre-professional education courses
- 6. Pass a Criminal History Check and all other checks/screens as required for each agency.

### Block 1: 15 Credits

- EDU 22200 Early Childhood Multilingual Learners Cr. 3.
- EDU 30500 Teaching The Exceptional Learner In The Elementary School Cr. 3.
- EDU 34001 Education And American Culture Cr. 3.
- EDU 35500 Issues In Infancy And Early Childhood Mental Health Cr. 3.
- EDU 35200 Teaching And Learning In Preschool/Kindergarten Cr. 3.
- EDU 40100 Laboratory/Field Experience Cr. 0-3.

#### Block 2: 12 Credits

- EDU 33300 Inquiry In Mathematics And Science Cr. 3.
- EDU 37000 Language Arts & Reading I Cr. 3.
- EDU 30100 Laboratory/Field Experience Cr. 0-3.
- EDU 41000 Trends And Issues In Special Education Cr. 3.
- EDU 46500 Service Delivery Systems And Consultation Strategies Cr. 3.

### Student Teaching: 9 Credits

### Requirements for Admission to Student Teaching

- $1. \ \ Complete \ an \ application \ for \ student \ teaching \ \underline{one \ year} \ before \ intended \ student \ teaching \ semester.$
- 2. Schedule an appointment and meet with the Director of Student Teaching one year before student teaching semester
- 3. Pass all required Pearson CORE exams for early childhood education generalist.
- 4. Maintain 3.0 cum. GPA with no grade below a C- in any required course.
- EDU 42600 Student Teaching: Early Childhood Cr. 1-16.
- EDU 45000 Child Development Seminar Cr. 3.
- EDU 47000 Practicum Cr. 3-8.
- EDU 40100 Laboratory/Field Experience Cr. 0-3.

### **Total Credits: 51**

#### **Final Assessment:**

- 1. Pass Pearson pedagogy exam
- 2. Successfully complete all program Signature Assessments
- 3. Provide evidence of CPR certification and suicide prevention training.
- 4. 3.0 cum. GPA
- 5. Apply for license.

# **Elementary Education Certification Only (K-6)**

Program: B.S.Ed. **School of Education** College of Professional Studies

Neff Hall 250 ~ 260-481-4146

The certification only program in elementary education is intended to prepare students for successful careers as teachers of children in elementary generalist (K-6) classroom settings. Candidates must demonstrate competencies in four content areas of Reading/English Language Arts, Mathematics, Science/Health/PE, and Social Studies/Fine Arts by passing content exams in each area prior to student teaching. Elementary Education students will also supplement their program with a Specialty Area in a concentration, dual license, or minor. See the list of options under the Specialty Area heading below. Upon satisfactory completion of the program, you are eligible to apply for an Indiana teaching

To earn the license in elementary education, you must satisfy the requirements of Purdue University Fort Wayne (Regulations) and the College of Professional Studies.

#### **Student Learning Outcomes:**

Upon completion of the certification only program in Elementary Education students will:

- · Become more caring, humane and functional citizens in a global, multicultural, democratic society
- Improve the human condition by creating positive learning environments
- · Become change agents by demonstrating reflective professional practice
- · Solve client problems through clear, creative analyses
- · Assess client performance, creating and executing effective teaching, counseling, and educational leadership by utilizing a variety of methodologies reflecting current
- · Utilize interdisciplinary scholarship, demonstrating technology and critical literacies, and effectively communicating with all stakeholders.

#### Accreditation:

· Our education programs are accredited through CAEP (Council for the Accreditation of Educator Preparation) and nationally recognized as a high-quality program through the Association for Childhood Education International (ACEI). Because of these statuses, students who meet specified requirements are eligible for the elementary education teaching license in the state of Indiana. Indiana holds reciprocal licensing agreements with other states.

#### **Program Delivery:**

· This program is available on campus

#### **Declaring This Program:**

· You must declare this program with the School of Education

#### Pre-Professional Education: 12 Credits

- EDU 20000 Examining Self As A Teacher Cr. 3.
- EDU 20001 Introduction To Scientific Inquiry Cr. 1-3. • EDU 20002 - Using Computers For Education Cr. 1-3.
- EDU 25000 General Educational Psychology Cr. 1-4.
- EDU 10100 Laboratory/Field Experience Cr. 0.

### Professional Education: 49 credits

### Requirements for Admission to Block 1:

1. Bachelor's degree from a regionally accredited college

- 2. Take Pearson content exams for elementary education generalist
- 3. Minimum 2.70 cum. GPA in Pre-Professional Education courses and completion of each course with grade of C- or higher.
- 4. Candidates may retake a Pre-Professional Education course only one time.
- 5. Pass a Criminal History Report. Criminal History Reports are valid for one year and will be repeated when necessary.

#### Block 1: 9 Credits

Courses in each Block are co-requisites to each other, so they must be taken together. Blocks must be taken in sequence of 1, 2, and 3.

- $\bullet \ \ EDU\ 36900\ \ Culturally\ Relevant,\ Multilingual\ Literacy\ Education\ For\ Elementary\ Educators\ Cr.\ 3.$
- EDU 31500 Child Development Cr. 3.
- EDU 30100 Laboratory/Field Experience Cr. 0-3.
- EDU 30500 Teaching The Exceptional Learner In The Elementary School Cr. 3.

### Additional Required Courses: 8 Credits

These courses may be taken at any time during Blocks 1, 2, or 3.

- EDU 34001 Education And American Culture Cr. 3.
- EDU 32300 The Teaching Of Music In The Elementary Schools Cr. 2-3.
- EDU 33301 Art Experiences For The Elementary Teacher Cr. 2.

#### Block 2: 9 Credits

- EDU 33700 Classroom Learning Environments Cr. 3.
- EDU 37000 Language Arts & Reading I Cr. 3.
- EDU 37500 Classroom And Community Leadership Cr. 3.
- EDU 30100 Laboratory/Field Experience Cr. 0-3.

#### Block 3: 12 Credits

- EDU 32500 Social Studies In The Elementary Schools Cr. 3.
- EDU 32800 Science In The Elementary Schools Cr. 3.
- EDU 34300 Mathematics In The Elementary School Cr. 3.
- EDU 37100 Language Arts And Reading II Cr. 3.
- EDU 40100 Laboratory/Field Experience Cr. 0-3.

#### Student Teaching: 12 Credits

### Requirements for Admission to Student Teaching:

- 1. Complete an application for student teaching and meet with the Director of Student Teaching ONE YEAR before intended student teaching semester. See Student Teaching Office for exact dates.
- 2. Minimum 3.00 cum. program GPA
- 3. Candidates may retake a Professional Education course only one time
- 4. Pass a Criminal History Report. Criminal History Reports are valid for one year and will be repeated when necessary.
- 5. Pass all Pearson content exams for elementary education generalist.

#### Must Select One of the Following 3 Options:

# Option 1: No Dual License

- EDU 42500 Student Teaching: Elementary Cr. 1-16.
- EDU 40100 Laboratory/Field Experience Cr. 0-3.

#### Option 2: Dual License in Special Education or Early Childhood

- EDU 42500 Student Teaching: Elementary Cr. 1-16. 9 credits
- EDU 47000 Practicum Cr. 3-8. 3 credits
- EDU 40100 Laboratory/Field Experience Cr. 0-3.

#### Option 3: Dual License in English as a New Language

- EDU 42500 Student Teaching: Elementary Cr. 1-16. 9 credits
- LING 47000 TENL Practicum Cr. 3. 3 credits
- EDU 40100 Laboratory/Field Experience Cr. 0-3.

# Total Credits: 62 (not counting a Specialty Area)

#### **Requirements for Certification**

- 1. Completion of Student Teaching and all course requirements
- Minimum 3.00 cum. program GPA and completion of each course with grade of C- or higher
   Pass the Elementary Education Pedagogy test
- 4. Provide evidence of CPR/AED/Suicide Prevention certification
- 5. Apply for license

# Specialty Area

All elementary education candidates must complete one specialty area of a concentration, dual license, or an approved PFW minor. For an exception to any of these specialty areas, please see your advisor.

#### Concentrations

A concentration does not lead directly to a license in that area.

### Exceptional Needs Education: 9 Credits

- EDU 30500 Teaching The Exceptional Learner In The Elementary School Cr. 3.
- EDU 37001 Introduction To Learning Disabilities Cr. 3.
- EDU 46500 Service Delivery Systems And Consultation Strategies Cr. 3.

## Language Arts Education: 15 Credits

- ENGL 23301 Intermediate Expository Writing Cr. 3.
- ENGL 49002 Children's Literature Cr. 3.

One of the Following 3 Courses:

- ENGL 10101 Ancient And Medieval World Literature Cr. 3.
- ENGL 10201 Modern World Literature Cr. 3.
- ENGL 10700 Masterpieces of Asia Cr. 3.
- ENGL 46401 Native American Literature Cr. 3.
- ENGL 47901 American Ethnic and Minority Literature Cr. 3.
- FOLK 35200 Native American Folklore Cr. 3.

One of the Following 2 Courses:

- ENGL 10302 Introductory Creative Writing Cr. 3.
- ENGL 20301 Creative Writing Poetry Cr. 3.

One of the Following 3 Courses:

- ENGL 20501 Introduction to the English Language Cr. 3.
- ENGL 20600 Introduction to the Study of Grammar Cr. 3.

· LING 10300 - Introduction to the Study of Language Cr. 3.

#### Mathematics Education: 15 Credits

- MA 10100 Mathematics for Elementary Teachers I Cr. 3.
- MA 10200 Mathematics for Elementary Teachers II Cr. 3.
- MA 10300 Mathematics for Elementary Teachers III Cr. 3.

One of the Following 2 Courses:

- MA 14000 Practical Quantitative Reasoning Cr. 3.
   MA 15300 College Algebra Cr. 3.

One of the following 2 courses:

- EDU 44301 Teaching Elementary Mathematics Problem Solving Cr. 3. (preferred)
- MA 15400 Trigonometry Cr. 3.

#### Science Education: 14 Credits

- BIOL 10000 Introduction To The Biological World Cr. 3.
- BIOL 10001 Introduction To The Biological World Laboratory Cr. 1.
- PHYS 21000 The Nature of Physical Science I Cr. 3.
- GEOG 10700 Physical Systems of the Environment Cr. 3.
- EAPS 10002 General Geology Laboratory Cr. 1-2.

One of the Following 3 Courses:

- CHM 11100 General Chemistry Cr. 3.
- EAPS 12100 Journey To Mars Cr. 3.
- EDU 40001 Man And Environment: Instructional Methods Cr. 3.

#### Social Studies Education: 18 Credits

- HIST 10501 American History I Cr. 3.
- HIST 10601 American History II Cr. 3.
- HIST 23200 The World in the 20th Century Cr. 3.
- POL 10300 Introduction to American Politics Cr. 3.
  - 30000-40000 Level History Elective: Cr. 3
  - · 30000-40000 Level Political Science Elective: Cr. 3.

## **Dual Licenses**

A dual license does lead to a license.

### Early Childhood Education: 21 Credits

- EDU 31500 Child Development Cr. 3.
- EDU 33700 Classroom Learning Environments Cr. 3.
- EDU 37000 Language Arts & Reading I Cr. 3.
- EDU 35200 Teaching And Learning In Preschool/Kindergarten Cr. 3.
- EDU 35500 Issues In Infancy And Early Childhood Mental Health Cr. 3.
- EDU 40100 Laboratory/Field Experience Cr. 0-3.
- EDU 45000 Child Development Seminar Cr. 3.
- EDU 47000 Practicum Cr. 3-8.

#### English as a New Language: 21 Credits

- · LING 10300 Introduction to the Study of Language Cr. 3.
- LING 42102 Methods and Materials for TESOL I Cr. 3.
- LING 42203 Methods and Materials for TESOL II Cr. 3.
- LING 46000 Language in Society Cr. 3.
- ENGL 40203 Structure of Modern English (TESOL) Cr. 3.

- ENGL 43200 Second Language Acquisition Cr. 3.
- LING 47000 TENL Practicum Cr. 3.

### Exceptional Needs - Mild Intervention: 21 Credits

- EDU 30500 Teaching The Exceptional Learner In The Elementary School Cr. 3.
- EDU 37001 Introduction To Learning Disabilities Cr. 3.
- EDU 35201 Education Of Children With Learning Problems (LD and EMR) Cr. 3.
- EDU 20100 Laboratory/Field Experience Cr. 0-3.
- EDU 37101 Assessment And Individualized Instruction In Reading and Mathematics Cr. 3.
- EDU 30100 Laboratory/Field Experience Cr. 0-3.
- EDU 45300 Management Of Academic And Social Behavior Cr. 3.
- EDU 46500 Service Delivery Systems And Consultation Strategies Cr. 3.
- EDU 47000 Practicum Cr. 3-8.

### Minors: Variable Credits

You may complete one of the following university minors:

Art History, Biology, Chemistry, Communication Studies, Computer Science, Creative Writing, Economics, English, Fine Arts, Folklore, French, Geology, German, History, Human Services, Journalism, Linguistics, Mathematics, Media Production, Music, Philosophy, Physics, Political Science, Professional Writing, Psychology, Public Affairs, Religious Studies, Sociology, Spanish, and Theatre.

Minors do not lead directly to licensure. See Undergraduate catalog Colleges for specific course requirements for each minor.

# **Secondary Education - Certification Only (5-9 or 5-12)**

**Program: Secondary Education Certification Only** School of Education **College of Professional Studies** 

Neff Hall 250 ~ 260-481-4146

The secondary education certification-only program is a 36-credit hour program designed for teacher candidates who hold a bachelor's degree and desire to teach in middle or high school settings. Upon successful completion of this program, teacher candidates may apply for an Indiana teaching license. Candidates must have a bachelor's degree from a regionally accredited college to enroll in this program. Candidates must select one of the following content areas to complete their certification. Candidates must demonstrate their competencies in that content area by passing a licensing content exam(s) prior to student teaching.

## Two Options. Students may choose from two options to complete the program.

Option 1: A 3-semester sequence beginning in the Spring semester.

Option 2: A 4-semester sequence beginning in the Fall Semester. (Note: Option 2 may be spread out over a longer period if desired.)

To receive a breakdown of Option 1 and Option 2 semester sequence of courses, please contact the School of Education.

### Note: C- OR BETTER IS REQUIRED FOR ALL COURSES USED TOWARD THIS PROGRAM

### **CONTENT AREA:**

Middle School (grades 5-9). Select at least one:

- · Language Arts
- · Mathematics
- · Science
- · Social Studies

Middle and High School (grades 5-12). Select at least one:

- · Biology/Life Science
- · Chemistry
- · Earth and Space Science
- English/Language Arts
- French
- · Mathematics
- Physics
- Spanish
- Social Studies: Select at least one of these content areas:
  - Economics
  - Government & Citizenship
  - Historical Perspectives
  - Psychology
  - Sociology

#### **Student Learning Outcomes:**

Upon completion of the Secondary Education Certification Only program students will:

- · Become more caring, humane and functional citizens in a global, multicultural, democratic society
- Improve the human condition by creating positive learning environments
- · Become change agents by demonstrating reflective professional practice
- · Solve client problems through clear, creative analysis
- · Assess client performance, creating and executing effective teaching, counseling, and educational leadership by utilizing a variety of methodologies reflecting current related research
- Utilize interdisciplinary scholarship, demonstrating technology and critical literacies, and effectively communicating with all stakeholders.

#### Accreditation:

· Our education programs are currently accredited through CAEP (Council for the Accreditation of Educator Preparation). In addition all science programs are nationally recognized as high-quality programs through the National Science Teachers Association (NSTA). Because of these statuses, students who meet specified requirements are eligible for a teaching license in the state of Indiana. Indiana holds reciprocal licensing agreements with other states.

### **Program Delivery:**

• This program is available on campus

#### Declaring/Adding This Program:

· You must declare/add this program with the School of Education

## **General Requirements**

- · College Requirements
- · Academic Regulations

## **Program Requirements**

Pre-Professional Education: 6 Credits

- EDU 20000 Examining Self As A Teacher Cr. 3.
  EDU 10100 Laboratory/Field Experience Cr. 0.
- EDU 34001 Education And American Culture Cr. 3.

## Professional Education: 30 Credits

### Requirements for Admission to Block 1

- 1. Bachelor's degree from a regionally accredited college
- 2. Take the Pearson content exam(s) for the content area(s) you wish to teach
- 3. Pass a Criminal History Report. Criminal History Reports are valid for one year and will be repeated when necessary
- 4. Completion of each course with grade of C- or higher.

## Block 1: 9 Credits

- EDU 25000 General Educational Psychology Cr. 1-4.
- EDU 30100 Laboratory/Field Experience Cr. 0-3.
- EDU 30600 Teaching Students With Special Needs In Secondary Classrooms Cr. 3.
- EDU 40500 The Middle And Junior High School Cr. 3.

### Block 2: 9 Credits

P: Block 1 with 2.70 GPA

- EDU 47500 Adolescent Development And Classroom Management Cr. 3.
- EDU 40101 Critical Reading In The Content Area Cr. 1-3.
- EDU 40100 Laboratory/Field Experience Cr. 0-3.

Select one of the following methods courses from your content area:

- EDU 44300 Methods Of Teaching High School Social Studies Cr. 3.
- EDU 44500 Methods Of Teaching Foreign Languages Cr. 3.
- EDU 44700 Methods Of Teaching Secondary English Cr. 3.
- EDU 44800 Methods Of Teaching High School Mathematics Cr. 2-4.
- EDU 44900 Methods Of Teaching Science In The Secondary Schools Cr. 3.

### Student Teaching: 12 Credits

#### Requirements for Admission to Student Teaching:

- Complete an application for student teaching and meet with the Director of Student Teaching ONE YEAR beforehand
- Completion of Block 2 with each course having a grade of C- or higher
  Minimum 3.00 cum. program GPA Minimum 3.00 cum. program GPA and completion of each course with grade of C- or higher
- 4. Pass a Criminal History Report. Criminal History Reports are valid for one year and will be repeated when necessary
- Candidates may retake a Professional Education course only one time.
- 6. Pass the Pearson content exam(s).
- EDU 48000 Student Teaching In The Secondary School Cr. 1-16.
- EDU 40100 Laboratory/Field Experience Cr. 0-3.

Total Credits: 36

### Final Assessment:

- 1. Completion of student teaching and all course requirements
- Pass the Pedagogy Exam
- 3. Obtain valid CPR/AED and Suicide Prevention certifications
- Apply for license

# **Dual Degree**

# 5 Year BS/MSE Combined Degree Program

Program: B.S./M.S.E.

**Department of Electrical and Computer Engineering** College of Engineering, Technology and Computer Science

Engineering, Technology and Computer Science Building 327 ~ 260-481-6362

The Department of Electrical and Computer Engineering (ECE) offers a five-year program through which students can obtain a Bachelor of Science degree in Electrical Engineering or in Computer Engineering as well as a Master of Science in Engineering (MSE) degree with the area of concentration in Electrical Engineering, Computer Engineering or Systems Engineering.

The BS and MSE degrees offered through this program are identical to the individual BS and MSE degrees offered by the ECE department. The combined five-year degree program provides students with the opportunity to obtain these degrees in less time than would be required when pursuing them independently.

Students accepted into this dual-degree 5-yr BS/M.S.E. program with concentration areas can use 12 credits, among which ECE400 level courses (beyond BS degree requirements), graduate 500 or higher level courses with grade B- or above can be included, in the combined BS/M.S.E. plan of study. These courses must satisfy both degree requirements and appropriate advising is needed. This reduces the total number of required credits by the MSE degree to 18.

### **Student Learning Outcomes:**

· Students in the 5 Year BS/MSE Combined Degree program will be held accountable for the Student Learning Outcomes associated with the undergraduate degree program that they are enrolled in, either Computer Engineering or Electrical Engineering.

#### Accreditation:

· Both of the undergraduate programs are accredited by the Engineering Accreditation Commission of ABET.

#### **Program Delivery:**

For this combined program, most of the undergraduate courses are delivered primarily as on-campus courses; however, some of the General Education courses are
available as hybrid and/or on-line courses and those can be used to satisfy program requirements. When it comes to the graduate level courses, there are several
opportunities to take courses on-line from the West Lafayette campus of Purdue University, but students need to check with their advisor before registering for any such
course.

#### Declaring this Major:

Admission to the combined five-year BS/MSE program may be granted under the following conditions:

- 1. Students must enroll in the BSEE or BSCmpE program at Purdue University Fort Wayne and have not yet received an undergraduate BSEE or BSCmpE degree
- 2. Students must have finished at least sixty (60) credit hours in the respective BSEE/BSCmpE bingo sheet
- 3. Students must have achieved an undergraduate grade point average (GPA) of at least 3.0 or equivalent at the time of application
- 4. Student must have completed the mathematics sequence of courses equivalent to:
  - MA 16500 (Calculus I)
  - MA 16600 (Calculus II)
  - MA 26100 (Multivariable Calculus)
  - MA 35100 (Linear Algebra)
  - MA 36300 (Differential Equations)
- 5. Student must have complete the physics sequence of courses equivalent to:
  - · PHYS 15200 (Mechanics)
  - · PHYS 25100 (Heat, Electricity and Optics)
- 6. The area of concentration for MSE must be declared at the time of application
- 7. Acceptance into the program is conditional upon admission to the Purdue Fort Wayne Graduate program
- 8. No Graduate Record Examination (GRE) score is required

Students that meet the admission criteria and wish to enroll in the 5-year BS/MSE program should consult with their academic advisor during the second semester of their junior year or earlier, and

- Complete and submit the Five Year BS/MSE Program Application: http://www.pfw.edu/departments/etcs/depts/ece/5-year-bsmse-program/PreliminaryApplication
   BS-MSE.pdf
- 2. Update their Undergraduate Student One Year Plan of Study accordingly
- 3. Complete and submit Form GS-27: <a href="http://www.purdue.edu/gradschool/faculty/forms.html">http://www.purdue.edu/gradschool/faculty/forms.html</a>
- 4. Complete the regular application to graduate school of Purdue University: <a href="http://gradapply.purdue.edu/apply">http://gradapply.purdue.edu/apply</a>

#### **General Requirements:**

- Degree Requirements
- · General Education Requirements
- · Overlapping Course Content
- Academic Regulations

## Combined Program Requirements:

- · The requirements for the BSEE/BSCmpE degree and MSE degree stay the same for students pursuing the degrees separately.
- For BSEE and BSCmpE degree requirements, please refer to the corresponding program requirements in this catalog.
- All students must complete a total of 30 credit hours as described in Section 3 in the MSE Graduate Guidelines.
- · The BS degree must be awarded prior to the MSE degree.

Students accepted into this dual-degree 5-yr BS/M.S.E. program with concentration areas can use 12 credits, among which ECE400 level courses (beyond BS degree requirements), graduate 500 or higher level courses with grade B- or above can be included, in the combined BS/M.S.E. plan of study.

Among the 500 or higher level courses, only those listed below can be counted toward the 5-year BS/M.S.E. Combined Program. Other ECE 500 or higher level courses may also be counted towards five-year BS/MSE combined program with the approval of the Computer Engineering or Electrical Engineering Committee.

## **Group I for Computer Engineering**

- ECE 50600 Biomedical Instrument Design Cr. 3.
- ECE 50700 Introduction To Biomedical Imaging Cr. 3.
- ECE 53800 Digital Signal Processing I Cr. 3.
- ECE 54700 Introduction To Computer Communication Networks Cr. 3.
- ECE 56000 Body Sensors and And Body Communications Networks Cr. 3.
- ECE 56700 FPGA Design For Signal Processing Applications Cr. 3
- ECE 60000 Random Variables And Signals Cr. 3.
  ECE 66100 Computer Vision Cr. 3.

## **Group II for Computer Engineering**

- ECE 54300 Wireless Communication Networks Cr. 3.
- ECE 54900 Software-Defined Radio Cr. 3.
- ECE 56900 Introduction To Robotic Systems Cr. 3.
- ECE 58400 Linear Control Systems Cr. 3.
- SE 52000 Engineering Economics Cr. 3.
- SE 53000 Systems Engineering Management Cr. 3.
- SE 54000 Systems Architecture Cr. 3.
- SE 55000 Advanced Manufacturing Systems And Processes Cr. 3.

# Group I for Electrical Engineering

- ECE 50600 Biomedical Instrument Design Cr. 3.
- ECE 53800 Digital Signal Processing I Cr. 3.
- ECE 54300 Wireless Communication Networks Cr. 3.
- ECE 54900 Software-Defined Radio Cr. 3.
- ECE 56000 Body Sensors and And Body Communications Networks Cr. 3.
- ECE 56900 Introduction To Robotic Systems Cr. 3.
- ECE 58400 Linear Control Systems Cr. 3.
- ECE 60000 Random Variables And Signals Cr. 3.

# Group II for Electrical Engineering

- ECE 50700 Introduction To Biomedical Imaging Cr. 3.
- ECE 54700 Introduction To Computer Communication Networks Cr. 3.
- ECE 56700 FPGA Design For Signal Processing Applications Cr. 3
- SE 52000 Engineering Economics Cr. 3.

01

- SE 53000 Systems Engineering Management Cr. 3.
- SE 54000 Systems Architecture Cr. 3.

or

• SE 55000 - Advanced Manufacturing Systems And Processes Cr. 3.

## **GPA Requirement**

It is required that an Undergraduate GPA of at least 3.0 be maintained while enrolled in the 5-Year BS/MSE Combined Program.

Total Credits: 138 (approx.)

# Student Responsibility

Students are responsible for satisfying the graduation requirements specified for their selected program. Thus, it is essential that they develop a thorough understanding of the required courses, academic policies, and procedures governing their academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the director of the graduate program.

# 5 Year BSME/MSE Combined Degree Program

Program: B.S.M.E./M.S.E.

Department of Civil and Mechanical Engineering College of Engineering, Technology and Computer Science

Engineering, Technology and Computer Science Bldg. Rm. 321 ~ 260-481-6965

The Department of Civil and Mechanical Engineering (CME) offers a five-year program through which qualified students can obtain a Bachelor of Science degree in Mechanical Engineering (BSME) as well as a Master of Science in Engineering (MSE) degree with the area of specialization in Mechanical Engineering.

The BSME and MSE degrees offered through this program are identical to the individual BSME and MSE degrees offered by the CME department. The combined five-year degree program provides students with the opportunity to obtain these degrees in less time than would be required when pursuing them independently.

#### Benefits of the Program

- Save Time Receive both Bachelor's Degree (BSME) and Master of Science in Engineering (MSE) degree with the area of specialization in Mechanical Engineering in 5 years.
- Save Money Take three graduate courses (500-level or higher) in Bachelor's Degree program. These three courses will also be counted as three courses in the Master's Degree program.
- Earn More Earn more salary with an advanced degree upon completion of this combined program.

#### **Student Learning Outcomes:**

· Students in the 5 Year BSME/MSE Combined Degree program will be held accountable for the Student Learning outcomes associated with the undergraduate degree program

#### Accreditation:

· The undergraduate program are accredited by the Engineering Accreditation Commission of ABET, www.abet.org.

#### **Program Delivery:**

· For this combined program, most of the undergraduate courses are delivered primarily as on-campus courses; however, some of the General Education courses are available as hybrid and/or on-line courses and those can be used to satisfy program requirements. When it comes to the graduate level courses, there are several opportunities to take courses on-line from the West Lafayette campus of Purdue University, but students need to check with their advisor before registering for any such course.

#### Declaring this Major:

Admission to the combined five-year BSME/MSE program may be granted under the following conditions:

- 1. Students must be enrolled in the BSME program at Purdue University Fort Wayne and have not yet received an undergraduate BSME degree
- 2. Students must have finished at least sixty (60) credit hours in the respective BSME curriculum
- 3. Students must have achieved an undergraduate grade point average (GPA) of at least 3.0 or equivalent at the time of application
- 4. Student must have completed the mathematics sequence of courses equivalent to:
- MA 16500 (Calculus I)
- MA 16600 (Calculus II)
- MA 26100 (Multivariable Calculus)
- MA 35100 (Linear Algebra)
- MA 36300 (Differential Equations)
- 5. Student must have complete the physics sequence of courses equivalent to:
- · PHYS 15200 (Mechanics)
- PHYS 25100 (Heat, Electricity and Optics)
- 6. Acceptance into the program is conditional upon admission to the Purdue University Fort Wayne Graduate program
- 7. No Graduate Record Examination (GRE) score is required

Students that meet the admission criteria and wish to enroll in the combined BSME/MSE program should consult with their academic advisor during the second semester of their junior year or earlier, and

- 1. Complete and submit the Five Year BSME/MSE Program Application (https://www.pfw.edu/departments/etcs/depts/cme/5-year-
- program/F2018 Five%20Year%20BSME-MSE%20Application.pdf)

  Complete and submit Form GS-27 (https://www.pfw.edu/departments/etcs/depts/cme/5-year-program/gs-form-27.pdf) 3. Complete the regular application to graduate school of Purdue University (https://www.purdue.edu/gradschool/)

#### **General Requirements:**

- · Degree Requirements
- · General Education Requirements
- · Overlapping Course Content
- · Academic Regulations

# **Combined Program Requirements**

## **Combined Degree Requirements**

The requirements for the BSME degree and MSE degree stay the same for students pursuing the degrees separately.

For BSME degree requirements, please refer to the corresponding program requirements in the catalog. All students must complete a total of 30 credit hours as described in the MSE Graduate Guidelines. The BSME degree must be awarded prior to the MSE degree.

Students can count up to nine (9) credit hours (three 500-level or higher graduate courses) from the lists provided below:

Course Number	Course Name	Credit Hour	Pre- and Co-requisites
ME 50500	Intermediate Heat Transfer	3	P: ME 32100
ME 50900	Intermediate Fluid Mechanics	3	P: ME 31800
ME 54400	Modeling and Simulation of Mechanical Systems	3	P: Graduate Standing or Instructor Permission
ME 54500	Finite Element Analysis: Advanced Theory & Applications	3	P: ME 48000 or Graduate Standing
ME 54600	CAD/CAM Theory and Advanced Applications	3	P: ME 16000, ME 43200, or Graduate Standing
ME 54700	Mechatronics, Robotics, and Automation	3	P: ME 36100 or Graduate Standing
ME 55000	Advanced Stress Analysis	3	P: ME 25200, ME 30300 and MA 36300
SE 55000	Advanced Manufacturing Systems and Processes	3	P: ENGR 41000 or ME 48700 or Graduate Standing
STAT 51100	Statistical Methods	3	P: 2 semesters of Calculus

# **GPA Requirement**

It is required that an Undergraduate GPA of at least 3.0 be maintained while enrolled in the 5-Year BSME/MSE Combined Program.

Total Credits: 141 (approx.)

# Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

## **Honors**

# **Honors Program Certificate**

Program: Certificate All Baccalaureate Degrees

Honors Program Center 2nd Floor, Helmke Library, LB 201 ~ 260-481-6924

#### The student learning outcomes for the certificate are as follows:

Students are expected to demonstrate the following skills:

- · Critical thinking
- · Analysis and synthesis
- Problem solving
- · Clear oral and written expression
- · Ability to conduct research
- · Independent thinking

The Honors Program is an undergraduate program that seeks to create learning opportunities and an environment of intellectual excitement and discovery through enriched courses of study and activities within a learning community. Through involvement with the Honors Program, honors students enter into a partnership of learning that extends well beyond the classroom to incorporate an interdisciplinary approach with career-oriented skills. Rich course opportunities and tailored projects create an individual curriculum for each student

The program is open to students of all majors and undergraduate degrees. Traditional incoming students become eligible for the Honors Program by meeting any one of the following criteria: placing in the top 10 percent of their high school's graduating class, scoring a 1200 or higher SAT in any one category, or attaining a 1800 SAT (or 27 ACT) composite score. Any student may participate in the Honors Program after 12 or more credit hours with GPA-related grades at Purdue University Fort Wayne and a 3.3 GPA or higher. Transfer students eligible for the program must have at least 12 credit hours of GPA-related grades (A, B, C, D, F, IF) with an equivalent of at least a 3.5 GPA on a 4.0 scale from the transferring institution.

To earn the certificate along with the Honors Pin, you must fulfill the requirements of Purdue Fort Wayne (Regulations) and the Honors Program, which are as follows:

- · 18 credits of honors coursework through honors courses or H-options
- · An honors project (including presentation and paper).
- · Honors courses that represent at least two disciplines.
- At least three honors credits at the 300-level or above.
- · Both cumulative and honors GPA of 3.5 or higher.
- · Fulfill the requirements for a baccalaureate degree at Purdue Fort Wayne.

Because the Honors Program is an undergraduate program, all of the requirements of the program must be completed while the student is pursuing an undergraduate degree. Upon completion of such a degree, further completion of program requirements will not take effect unless work toward a different undergraduate baccalaureate degree is undertaken.

## Student Responsibility

Students are responsible for satisfying the graduation requirements specified for his/her selected program. Thus, it is essential to develop a thorough understanding of the required courses, academic policies, and procedures governing the student's academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

## **Minor**

# **Accounting Minor (For Business Majors)**

Program: Minor

**Undergraduate Student Success Center Richard T. Doermer School of Business** 

Neff Hall 366 ~ 260-481-6472

The minor in accounting allows business students to have a greater depth of knowledge in more than one business discipline and to expand job placement opportunities.

If you are pursuing a B.S.B. with a major in business economics, finance, management or marketing, you may earn a minor in accounting by completing the following 12 credits with a grade of C- or better in each course. You must complete at least 6 of the required 12 credits at Purdue University Fort Wayne to be eligible to receive the minor.

You must contact the Doermer School of Business Student Success Center to declare this minor.

# Minor Requirements Credits: 12

All 4 courses must be unique and separate from your major.

Check the pre-requisites to make sure that all the pre-requisites are met for the selected course.

You must earn a C- or better in each of the required courses.

Choose four of the following:

• BUS 31700 - Computer-Based Accounting Systems Cr. 3.

- BUS 32500 Cost Accounting Cr. 3.
- BUS 32800 Introduction To Taxation Cr. 3.
- BUS 31000 Financial Statement Analysis Finance Perspective Cr. 3.

<u>OR</u>

• BUS 31100 - Intermediate Accounting I Cr. 3.

If above classes overlap with major courses, choose from:

- BUS 31200 Intermediate Accounting II Cr. 3.
- BUS 33100 Taxation Of Business Entities Cr. 3.
- BUS 31800 Fraud Examination I Cr. 3.

### Note

Non-business majors are not eligible to earn this minor and should consider the minor in Business Studies.

Total Credits: 12

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

## **Actuarial Science Minor**

Program: Minor Department of Mathematical Sciences College of Arts and Sciences

Kettler Hall 200 ~ 260-481-6821

Your selection of courses should be appropriate for your major. This minor program must be approved by the Math Department's program review committee.

### Declaring this Minor:

- · Declare this minor within the Department of Mathematical Sciences
- Students cannot declare a major and a minor in the same program

#### **Program Requirements:**

- The catalog term for the minor will match that of your major degree program
- At least 6 credits must be earned as resident credit at the 200+ level or above
- You must earn a grade of C- or higher for all courses required in the minor
- · A minor is not awarded if requirements are not completed by the time your major degree is certified for graduation
- You must have an overall GPA of 2.3 or higher in all courses included in the minor
- No more than one grade as low as C- will be accepted in this minor

## Requirements

Calculus Course Sequence: Credits 6-8

### Choose one of the following sequences:

- MA 16500 Analytic Geometry and Calculus I Cr. 4. or
- MA 22900 Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.

and

- MA 16600 Analytic Geometry and Calculus II Cr. 4. or
- MA 23000 Calculus for the Managerial, Social, and Biological Sciences II Cr. 3.

# Courses Leading to Society of Actuaries Exams: Credits 6-12

Complete coursework supporting two of the following actuarial exams:

## Exam FM: (Financial Mathematics)

• MA 27300 - Financial Mathematics Cr. 3.

### Exam IFM: (Investments & Financial Markets)

- BUS 30500 Intermediate Corporate Finance Cr. 3.
- STAT 47301 Introduction To Arbitrage-Free Pricing Of Financial Derivatives Cr. 3.

## Exam P: (Probability)

• STAT 51600 - Basic Probability and Applications Cr. 3.

### Exam SRM: (Statistics for Risk Modeling)

- STAT 51200 Applied Regression Analysis Cr. 3.
- STAT 52000 Time Series And Applications Cr. 3.

# Validation by Educational Experience (VEE): Credits 3-6

Complete coursework required for one of the following Validation by Educational Experience choices:

## VEE in Economics:

- ECON 20101 Introduction to Microeconomics Cr. 3.
- ECON 20201 Introduction to Macroeconomics Cr. 3.

# VEE in Accounting and Finance:

- BUS 20100 Principles Of Financial Accounting Cr. 3.
- BUS 30100 Financial Management Cr. 3.

### VEE in Mathematical Statistics:

• STAT 51700 - Statistical Inference Cr. 3.

## Sample Minor Programs:

### Sample Actuarial Minor for Business: Credits 18

- ECON 20101 Introduction to Microeconomics Cr. 3.
- ECON 20201 Introduction to Macroeconomics Cr. 3.
- MA 22900 Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.
- MA 23000 Calculus for the Managerial, Social, and Biological Sciences II Cr. 3.
- MA 27300 Financial Mathematics Cr. 3.
- STAT 47301 Introduction To Arbitrage-Free Pricing Of Financial Derivatives Cr. 3.

### Sample Actuarial Minor for Engineering/Math/Sciences: Credits 21

- MA 16500 Analytic Geometry and Calculus I Cr. 4.
- · MA 16600 Analytic Geometry and Calculus II Cr. 4.
- MA 26100 Multivariate Calculus Cr. 4.
- MA 27300 Financial Mathematics Cr. 3.
- STAT 51600 Basic Probability and Applications Cr. 3.
- STAT 51700 Statistical Inference Cr. 3.

Total Credits: 15-26

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# **Anthropology Minor**

Program: Minor Department of Anthropology and Sociology College of Arts and Sciences

Kettler Hall G11A ~ 260-481-6272

## Declaring this Minor:

- Declare this minor within the Department of Sociology and Anthropology or through your major department
- Students cannot declare a major and a minor in the same program

## Program Requirements:

- The catalog term for the minor will match that of your major degree program
- At least 6 credits must be earned as resident credit at the 300+ level or above
- You must earn a grade of C- or higher for all courses required in the minor
- · A minor is not awarded if requirements are not completed by the time your major degree is certified for graduation

To earn the minor in Anthropology, you must fulfill the following requirements in addition to those noted above:

## Core Requirements

Required Course: Credits 3

• ANTH 10501 - Culture And Society Cr. 3.

### Choose one: Credits 3

Choose one additional course from the following list:

- ANTH 20001 Bioanthropology Cr. 3.
- ANTH 20002 Language And Culture Cr. 3.
- ANTH 20003 Introduction To Prehistoric Archaeology Cr. 3.

### Additional Courses: Credits 9

· Choose nine additional credits in ANTH courses with at least six credits at the 300+ level or above.

Total Credits: 15

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# **Art And Design Minor**

Program: Art and Design Minor Department of Art and Design College of Visual and Performing Arts

Visual Arts Building  $117 \sim 260-481-6709$ 

#### Upon completion of the Art and Design minor, students will be able to demonstrate the following learning outcomes:

- Develop creative ways to solve problems in art and design media, show knowledge in their chosen area of concentration, and competency in drawing to visualize ideas.
- . Develop an ability to enhance their artwork through an understanding of the techniques and skills within their chosen area of concentration.
- · Analyze and critique artwork in spoken and written forms.
- Implement 2-D design principles to create compelling and effective artwork in a variety of media, including black and white, color, and digital imagery.
- · Implement 3-D design principles to create compelling and effective artwork in a variety of media, depending on the students choice of studio electives.
- Develop fundamental visual literacy skills and gain aptitude in applying those skills, leading to a heightened ability to communicate to a given audience.

### **Program Description**

Even if art is not your major, you can join our minor program that includes 15 credit hours of art courses. This program allows flexibility so that you can pursue your particular interests along with a 6-hour core of art studio classes. From the start in Drawing and Design, you'll be ready to sample the diverse menu of studio and art history courses we offer as you compliment your education by continuing your artistic study.

#### Accreditation:

• The Department of Art and Design is accredited by the National Association of Schools of Art and Design (NASAD).

### **Program Delivery:**

• Department of Art and Design courses are offered on campus, with some distance and hybrid course offerings.

## Declaring this minor:

Students who wish to declare an Art and Design major should follow these steps:

- 1. Verify with your advisor that the Art and Design minor is available to students in your degree program.
- 2. Meet with the Art and Design Department Chair to a) confirm the requirements for this minor b) verify that you are accepted to this minor.
- 3. The Art and Design Department will fill out a Registrar's Form 42, Academic Information Change.
- 4. The student's major division/department will certify that the requirements of the minor are complete during graduation certification.

### Art and Design Majors

- 1. Art and Design B.F.A. majors who wish to have an area of emphasis outside of their area of concentration.
- 2. These students will not be required to take AD 12100 and AD 10202, as these are already part of their B.F.A. curriculum.

#### **General Requirements:**

### Degree Requirements

#### **General Education Requirements**

Overlapping Content

Academic Regulations

The Art and Design minor is designed for Purdue University Fort Wayne students in majors outside of the Department of Art and Design program, or for Art and Design B.F.A. majors who wish to have an area of emphasis outside of their area of concentration. Purdue Fort Wayne students can earn a minor in art and design by completing 15 credit hours within the Department of Art and Design while maintaining a minimum GPA of 2.0 within the classes. Eligible classes will have the AD pre-fix; non-majors classes will not count towards the minor.

#### **Additional Requirements:**

- · 20000 level classes must precede 30000 level classes
- 30000 level classes must precede 40000 level classes
- Art History classes can be used as part of the additional classes if AD 11100 and AD 11201 are taken in sequence before the advanced art history classes.
- · Studio availability outside of class time might be restricted for Art and Design majors.

This minor must be officially added to a student's academic records before any classes can be taken. AD12100 and AD10202 are pre-requisites for all other classes, and must completed before any higher level studio classes can be taken. Classes approved for this minor are ones relegated for art majors.

**GPA Requirements** - Students must maintain a minimum GPA of 2.0 in all Art and Design classes.

Student Responsibilities - You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only be written approval from the appropriate chair or dean.

Repeat Limits - No classes can be taken beyond the 15 credit hours of the minor requirements unless the student becomes an Art and Design major.

Program Transfer credit limitations - Completion of at least 9 resident credits are required for the minor, and at least 6 resident credits are required for the advanced studio

## Required Courses Credits: 6

Purdue Fort Wayne students can earn a minor in art by completing 15 credit hours within the Department of Art and Design, while maintaining a 2.0 GPA within the classes.

All paperwork concerning the request to complete a minor, must be completed and be on file in the appropriate departments before any classes can be taken.

AD 12100 - Drawing Fundamentals I and AD 10202 - Introduction to 2-D Design must be taken and completed before any higher level classes can be taken.

AD 10101 - Art Appreciation and all Non-major studio classes do not count towards degree requirements. Non-major studio courses include AD

#### Art and Design Majors

Art and Design B.F.A. majors without a concentration in Imaging and Photography may declare the Art and Design major in order to take the photography courses.

These students will not be required to take AD 12100 and AD 10202, as these are already part of their B.F.A. curriculum.

- AD 12100 Drawing Fundamentals I Cr. 3.
- AD 10202 Introduction To 2-D Design Cr. 3.

## Additional Art and Design: Credits 9

Select three (3) additional classes within the Department of Art and Design program.

- 20000 level studio classes must precede 30000 level studio classes.
- 30000 level studio classes must precede 40000 level studio classes.
- · Studio availability outside of class time might be restricted for Art and Design minors.
- AD 11100 History Of Art I: Prehistoric To Medieval Cr. 3.
- AD 11201 History Of Art II: Renaissance To Contemporary Cr. 3.
  AD 20101 History Of Graphic Design I Cr. 3.
- · AD 20501 History Of Photography Cr. 3.
- AD 23501 Ceramics Fundamentals Cr. 3.
- · AD 32301 Ancient Greek Art Cr. 3.
- AD 32401 Roman Art Cr. 3
- · AD 33501 Advanced Ceramics I Cr. 3.
- · AD 33601 Advanced Ceramics II Cr. 3.
- AD 32101 Advanced Drawing I Cr. 3.
- · AD 32201 Advanced Drawing II Cr. 3.
- AD 22301 Figure Drawing I Cr. 3.
- AD 23301 Metalsmithing Fundamentals Cr. 3. • AD 33302 - Advanced Metalsmithing I Cr. 3.
- AD 33401 Advanced Metalsmithing II Cr. 3.
- AD 22501 Painting Fundamentals I Cr. 3.
- · AD 32501 Advanced Painting I Cr. 3.

- AD 32601 Advanced Painting II Cr. 3.
- AD 20701 Photography I: Portraiture Cr. 3.
- · AD 30103 Photography II: Applied Imaging Cr. 3.
- AD 30201 Photography III: Conceptual Imaging Cr. 3.
- AD 30702 Photography IV: Editorial Imaging Cr. 3.
- AD 30801 Photography V: Special Projects/Portfolio Cr. 3.
- AD 24101 Printmaking Fundamentals Cr. 3.
- AD 34102 Advanced Printmaking I Cr. 3.
- AD 34202 Advanced Printmaking II Cr. 3.
- AD 23101 Sculpture Fundamentals Cr. 3.
- AD 33101 Advanced Sculpture I Cr. 3.
- AD 33202 Advanced Sculpture II Cr. 3. AD 34101 - Italian Renaissance Art Cr. 3.
- AD 34201 Northern Renaissance Art Cr. 3.
- AD 35101 Nineteenth-Century Art Cr. 3.
- AD 35200 Twentieth-Century Art Cr. 3.
- AD 36301 African Art Cr. 3.
- AD 39001 Topics In Art History Cr. 3.
- AD 39002 Topics In Studio Fine Art Cr. 1-6.
- AD 49001 Topics In Art History Cr. 3.
- AD 49002 Topics In Studio Fine Arts Cr. 1-6.
- AD 49003 Topics In Studio Fine Arts Cr. 1-6.
- AD 49500 Readings And Research In Art History Cr. 1-4
- AD 49501 Independent Study In Fine Arts Cr. 3.

**Total Credits: 15** 

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# **Art History Minor**

Program: Art History Minor Department: Art and Design College of Visual and Performing Arts

Visual Arts Building 117 ~ 260-481-6709

#### Upon completion of the Art History minor, students will be able to demonstrate the following learning outcomes:

- · Demonstrate an understanding of the visual arts as an important context in which a wide array of human experiences find expression.
- · Identify key features of major artistic movements and historical periods.
- Describe and analyze art objects with precision in both verbal and written forms of communication.
- Demonstrate an understanding of writing as a process of intellectual discovery that includes multiple drafts, collaboration, and reflection.
- · Develop an ability to read, critically analyze, and discuss both primary and secondary textual sources.

#### **Program Description**

Minor in art history and examine some of the most stimulating creations in human history. The program-18 credit hours of art history courses-complements any number of majors and aims at cultivating skills that provide for future successes, both in college and beyond.

In a real sense, you will recover traces of antiquity in Greece, Rome, and Egypt. You will enter the hushed interiors of Europe's Renaissance churches, travel through the busy streets of nineteenth-century Paris, experience anew the hustle of New York's art scene after World War II, and immerse yourself in our nation's continuously evolving memorial landscape. Along the way, you will consider the dynamic relationship between globalization and artistic endeavor and come to see the world with fresh eyes.

#### Accreditation:

· The Department of Art and Design is accredited by the National Association of Schools of Art and Design (NASAD).

#### **Program Delivery:**

· Department of Art and Design courses are offered on campus, with some distance and hybrid course offerings.

### Declaring this minor:

Students who wish to declare an Art History minor should follow these steps:

- 1. Verify with your advisor that the Art History minor is available to students in your degree program.
- 2. Meet with the Art and Design Department Chair to a) confirm the requirements for this minor b) verify that you are accepted to this minor.
- 3. The Art and Design Department will fill out a Registrar's Form 42, Academic Information Change.
- 4. The student's major division/department will certify that the requirements of the minor are complete during graduation certification.

#### **General Requirements:**

- · Degree Requirements
- · General Education Requirements
- · Overlapping Course Content
- · Academic Regulations

## **Program Requirements**

- A student may earn a minor in Art History by completing 18 credit hours of AD Art History classes. The six, 3 credit hour classes must include AD 11100 History of Art I; Prehistoric to Medieval and AD 11201 History of Art II; Renaissance to Contemporary.
- Art Education B.A. students are required to take 12 credits of Art History for their degree, and can complete the Art History minor by completing an additional 6 credits of upper level Art History classes. The 12 credits of required Art History classes for Art and Design majors will count twice, once for the major, and a second time for the Art History minor. Additionally, AD 11100 and 11201 count towards general education requirements along with major and minor.
- · Art and Design B.F.A. and Design B.A. students are required to take 12 credits of Art History for their degree, and can complete the Art History minor by completing an additional 6 credits of upper level Art History classes. The 12 credits of required Art History classes for Art and Design majors will count twice, once for the major, and a second time for the Art History minor.
- · All students must declare the Art History minor, regardless of their major; see "Declaring this Minor" above for complete information.
- AD 10101 Art Appreciation and any Non-major studio classes do not count towards degree requirements.
- All courses must be completed with a C- or higher and the minimum GPA requirement is 2.5.

#### Resident Requirements - Students must complete at least 9 resident credits at Purdue University Fort Wayne in upper level Art History classes.

- AD 11100 History Of Art I: Prehistoric To Medieval Cr. 3.
- AD 11201 History Of Art II: Renaissance To Contemporary Cr. 3.
- AD 32301 Ancient Greek Art Cr. 3.
- AD 32401 Roman Art Cr. 3
- AD 34101 Italian Renaissance Art Cr. 3.
- AD 34201 Northern Renaissance Art Cr. 3.
- AD 35101 Nineteenth-Century Art Cr. 3.
- AD 35200 Twentieth-Century Art Cr. 3.
- AD 36301 African Art Cr. 3.
- AD 39001 Topics In Art History Cr. 3.
- AD 39003 Topics In Art History Cr. 3.
- AD 49001 Topics In Art History Cr. 3.
- AD 49500 Readings And Research In Art History Cr. 1-4

Total Credits: 18

### Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# **Astronomy Minor**

Program: Minor Department of Physics College of Arts and Sciences

Kettler Hall 126B ~ 260-481-6306

If you are interested in neutron stars, black holes, near earth asteroids, exoplanets and dark matter, join us and earn a minor in astronomy. The department offers a number of opportunities for students including educational events held at the UFO - "Undergraduate Fun Observatory".

#### Declaring this Minor:

• Declare this minor within the Department of Physics

### **Program Requirements:**

- The catalog term for the minor will match that of your major degree program
- At least 6 credits must be earned as resident credit at the 200+ level or above
- · You must earn a grade of C- or higher for all courses required in the minor
- · A minor is not awarded if requirements are not completed by the time your major degree is certified for graduation

To earn the minor in Astronomy, you must fulfill the following requirements in addition to those noted above:

## Course Requirements

- ASTR 36400 Stars And Galaxies Cr. 3.
  ASTR 37000 Cosmology Cr. 3.
- ASTR 40100 Introduction To Astrophysics Cr. 3.
- PHYS 15200 Mechanics Cr. 5.
  PHYS 25100 Heat, Electricity, and Optics Cr. 5.
- PHYS 34200 Modern Physics Cr. 3.

Total Credits: 22

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# **Biology Minor**

Program: Minor Department of Biology College of Arts and Sciences

Science Building  $330 \sim 260\text{-}481\text{-}6305$ 

### Declaring this Minor:

- Declare this minor within the Department of Biology or through your major department
- · Students cannot declare a major and a minor in the same program

### **Program Requirements:**

- The catalog term for the minor will match that of your major degree program
- At least 6 credits must be earned as resident credit at the 200+ level or above
- You must earn a grade of C- or higher for all courses required in the minor
- · A minor is not awarded if requirements are not completed by the time your major degree is certified for graduation

To earn the minor in Biology, you must fulfill the following requirements in addition to those noted above:

## Course Requirements

- BIOL 11700 Principles Of Ecology And Evolution Cr. 4.
- BIOL 11900 Principles Of Structure And Function Cr. 4.
- BIOL 21700 Intermediate Ecology Cr. 3.
- BIOL 21800 Genetics And Molecular Biology Cr. 4.
- BIOL 21900 Principles Of Functional Biology Cr. 4.

Total Credits: 19

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# **Business Studies Minor**

Program: Minor Undergraduate Student Success Center Richard T. Doermer School of Business

Neff Hall 366 ~ 260-481-6472

The minor in business studies provides a fundamental background in the principles of business and economics. The minor is available to any Purdue University Fort Wayne student majoring in a non-business bachelor's degree program. Your eligibility for this program is governed by the policies of the college/school/department in which you are enrolled. Please see your academic advisor for additional information.

All courses in this minor have specific prerequisites. You must meet the prerequisites for each course and earn a grade of C- or better in each course. You must complete at least 12 of the required 18 credits at Purdue Fort Wayne to be eligible to receive the minor.

You may contact the Doermer School of Business Student Success Center or your primary advisor/major advisor to declare this minor.

## Minor Requirements Credits: 15

You must earn a grade of C- or better in each of the following courses:

- BUS 20100 Principles Of Financial Accounting Cr. 3.
- BUS 20101 The Computer In Business Cr. 3
- ECON 20101 Introduction to Microeconomics Cr. 3.
- BUS 30200 Management And Behavior In Organizations Cr. 3
- BUS 20102 Marketing For The Small Business Cr. 3. or
- BUS 30101 Introduction To Marketing Cr. 3.

### **Business Elective Credits: 3**

Choose one course (3 credits) from the list of courses below. Check the pre-requisites carefully to make sure all the pre-requisites are met for the selected course.

- BUS 31700 Computer-Based Accounting Systems Cr. 3.
- BUS 32800 Introduction To Taxation Cr. 3.
- BUS 30000 International Business Administration Cr. 3.
- BUS 30100 Financial Management Cr. 3.
- BUS 20300 Commercial Law I Cr. 3.
- BUS 30102 Operations Management Cr. 3.
- BUS 20103 Small Business Management Capstone Cr. 3.
  - Any 30000 or 40000 level ECON course (check pre-requisites).

### Note

As a major in another bachelor's degree program, you are not eligible to enroll in any additional business or economics courses. No more than 25 percent of a non-business student's baccalaureate curriculum may be in subjects available in the Richard T. Doermer School of Business.

**Total Credits: 18** 

# Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# **Chemistry Minor**

Program: Minor Department of Chemistry School of Arts and Sciences

Science Building 496 ~ 260-481-6289

#### Declaring this Minor:

- · Declare this minor within the Department of Chemistry
- Students cannot declare a major and a minor in the same program

#### **Program Requirements:**

- The catalog term for the minor will match that of your major degree program
- At least 6 credits must be earned as resident credit at the 200+ level or above
- You must earn a grade of C- or higher for all courses required in the minor
- · A minor is not awarded if requirements are not completed by the time your major degree is certified for graduation

To earn the minor in Chemistry, you must fulfill the following requirements in addition to those noted above:

# Core Requirements

Required Courses: Credits 16

- CHM 11500 General Chemistry Cr. 4.
- CHM 11600 General Chemistry Cr. 4.
- CHM 24100 Introductory Inorganic Chemistry Cr. 4.
- CHM 32100 Analytical Chemistry I Cr. 4.

## Organic Chemistry Sequence: Credits 8-10

Choose one of the following sequences:

- CHM 25400 Organic Chemistry Laboratory Cr. 1.
- CHM 25500 Organic Chemistry Cr. 3.
- CHM 25600 Organic Chemistry Cr. 3.
- CHM 25800 Organic Chemistry Laboratory Cr. 1.

or

- CHM 26100 Organic Chemistry Cr. 3.
- CHM 26200 Organic Chemistry Cr. 3.

  CHM 26200 Organic Chemistry Cr. 3.
- CHM 26500 Organic Chemistry Laboratory Cr. 2.
- CHM 26600 Organic Chemistry Laboratory Cr. 2.

Additional Course: Credits 4

Choose one of the following:

- CHM 37200 Physical Chemistry Cr. 4.
- CHM 38300 Physical Chemistry Cr. 4.

Total Credits: 27-30

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# Additional Course Use

CHM 32100 required, CHM 22400 accepted

## **Communication Studies Minor**

Program: Minor
Department of Communication
College of Arts and Sciences

Neff Hall 230 ~ 260-481-6825

### Declaring this Minor:

• Declare this minor within the Department of Communication

## **Program Requirements:**

- The catalog term for the minor will match that of your major degree program
- At least 6 credits must be earned as resident credit at the 200+ level or above
- You must earn a grade of C- or higher for all courses required in the minor
- A minor is not awarded if requirements are not completed by the time your major degree is certified for graduation
- The department strongly suggests that students consult with a Department of Communication advisor to select their courses
- COM 32300 is not available for credit toward any Communication major or minor program

To earn the minor in Communication Studies, you must fulfill the following requirements in addition to those noted above:

# Core Requirements

Required Courses: Credits 9

- COM 10100 Introduction To Communication Cr. 3.
- COM 20300 Communication Theory Cr. 3.
- COM 31800 Principles Of Persuasion Cr. 3.

Communication Courses: Credits 6

The Department strongly suggests that students consult with a Department of Communication advisor to select courses to be used in this category:

· COM courses numbered 300+ or above, approved for Communication B.A. majors

Additional Course: Credits: 3

Choose one course from the following list:

- COM 21200 Approaches To The Study Of Interpersonal Communication Cr. 3.
- COM 24800 Introduction To Media Criticism and Analysis Cr. 3.
- · COM 25000 Mass Communication And Society Cr. 3.

Total Credits: 18

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# **Computer Science Minor**

Program: Minor
Department of Computer Science
College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 125  $\sim 260\text{-}481\text{-}6803$ 

Computer Science is a growing field with a high demand for capable individuals who possess skills in programming, development of software systems, computing, and the flexibility to adapt as technology changes. The Computer Science program provides students a durable technical foundation in an environment of rapid technical change, promotes their professional growth through contact with the best professional practice, and enables them to play a role in resource and technical leadership in the global society. Students of the program gain the skills and knowledge in Computer Programming, Software Engineering, Data Science, Security, Artificial Intelligence, Web Technology, Computer Graphics & Visualization, Computer Systems & Networks, Database Systems, Human-Computer Interaction, Computer Architecture, and Theory of Computation. Earning a Bachelor of Science in Computer Science will prepare you for a career as a computer professional, which is highly sought after and constantly evolving. It will also equip you with the knowledge and skills needed in order to pursue advanced studies in a graduate program.

### **Student Learning Outcomes:**

The graduates from the Computer Science program are expected to know and gain the ability to:

- · Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions
- · Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline
- · Communicate effectively in a variety of professional contexts
- Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles
- Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline
- · Apply computer science theory and software development fundamentals to produce computing-based solutions

### Accreditation:

 $\bullet \ \ \text{The B.S. program in Computer Science is accredited by the Computing Accreditation Commission of ABET.}$ 

#### **Program Delivery:**

• The Computer Science program is mainly delivered through on-campus courses. However, limited number of courses are available as hybrid courses.

### **General Requirements:**

- Degree Requirements
- General Education Requirements
- Overlapping Course Content
- Academic Regulations

#### **Program Requirements:**

· If you are pursuing a major other than computer science, you may earn a minor in computer science by completing the following courses.

## **Required Courses: Credits 14**

- CS 16000 Introduction to Computer Science I Cr. 4.
- CS 16100 Introduction to Computer Science II Cr. 4.
- CS 26000 Data Structures Cr. 3.
- MA 17500 Introductory Discrete Mathematics Cr. 3.

### CS 20000+ Electives: Credits 6

Any CS 20000 level, CS 30000 level, or CS 40000 level courses except CS 30600.

# **GPA Requirement**

You must satisfy the Purdue Fort Wayne and the College of Engineering, Technology, and Computer Science Cumulative GPA requirement for graduation.

## Academic Regulations

- · Only computer science courses in which you have earned a grade of C or better can be applied to the degree or used to satisfy prerequisites.
- At least 10 credits must be completed at Purdue Fort Wayne or another Purdue Campus.

## Total Credits Required: 20

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# **Creative Writing Minor**

Program: Minor Department of English and Linguistics College of Arts and Sciences

Liberal Arts Building 145 ~ 260-481-6841

This program is available to all Purdue University Fort Wayne students except those pursuing the writing concentration with a major in English.

### Declaring this Minor:

• Declare this minor within the Department of English and Linguistics or through your major department

## Program Requirements:

- The catalog term for the minor will match that of your major degree program
- At least 6 credits must be earned as resident credit at the 200+ level or above
- You must earn a grade of C- or higher for all courses required in the minor
- · A minor is not awarded if requirements are not completed by the time your major degree is certified for graduation

To earn the minor in Creative Writing, you must fulfill the following requirements in addition to those noted above:

## Core Requirements

### Required Courses: Credits 9

- One additional writing course at the 3000+ level or above (ENGL 30103, 30301, 33101, 36402, 39500, 39800, 40001, 40101, 40301, 40501, 42002, 42101, 42202, 42502, 46201, 46500, 46700, 47201, 47600, 49001 or 49700)
  One additional course chosen from the following (except CLCS 10000, 15000, 20000, 25000, ENGL 12900, 13100, 14000 and 23301)
- - Classics
  - Comparative Literature
  - English
  - Film
  - Folklore

  - LinguisticsCOM 43600
  - · THTR 37600
- ENGL 20301 Creative Writing Poetry Cr. 3.

## 3000+ Requirement: Credits 3

- · Choose one of the following:
- ENGL 30103 Writing Fiction Cr. 3.
- ENGL 30301 Writing Poetry Cr. 3.

# 4000+ Requirement: Credit 3

- · Choose one of the following:
- ENGL 40101 Advanced Fiction Writing Cr. 3.
- ENGL 40301 Advanced Poetry Writing Cr. 3.

Total Credits: 15

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

## **Criminal Justice Minor**

Program: Minor **Department of Public Policy** College of Professional Studies

Neff Hall 260 ~ 260-481-6351

The minor in criminal justice offers students the opportunity to become more knowledgeable in the field of criminal justice and its policy implications. It is available to students who are enrolled in baccalaureate programs other than the Bachelor of Science in Public Affairs degree program with a major in Criminal Justice. The minor can enhance the career opportunities for liberal arts and other majors.

## **Program Requirements**

Each minor requires 15 credit hours of specified courses with a 2.00 grade point average. Public Policy majors may only double-count 6 of the required 15 credit hours in other Public Policy major or minor requirements. Students may earn more than one minor from Public Policy, but each minor must have at least 9 credit hours that are not satisfying other major or minor requirements. In addition, at least 6 resident credits must be at the 200-level or above.

• PPOL 10100 - The American Criminal Justice System Cr. 3.

C- or better required.

## One of the following: Credits: 3

- PPOL 20100 Theoretical Foundations of Criminal Justice Policies Cr. 3.
- PPOL 30100 Substantive Criminal Law Cr. 3.

### An additional 9 credits of Criminal Justice electives at the 300-level or above.

- PPOL 30100 Substantive Criminal Law Cr. 3.
- PPOL 30200 Procedural Criminal Law Cr. 3.
- PPOL 30500 Juvenile Justice Cr. 3.
- PPOL 30600 The Criminal Courts Cr. 3.
- PPOL 32001 Criminal Investigation Cr. 3.
- PPOL 32100 American Policing Cr. 3.
- PPOL 33100 Corrections Cr. 3.
- PPOL 37000 Seminar in Criminal Justice Cr. 3.
- PPOL 37600 Principles of Public Safety Cr. 3.
- PPOL 38000 Internship in Criminal Justice Cr. 3.
- PPOL 43900 Crime and Public Policy Cr. 3.
- PPOL 46000 Police in the Community Cr. 3.
- PPOL 48000 Research in Criminal Justice Cr. 1-6.

Total Credits: 15

# Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

## **Economics Minor**

Program: Minor Department of Economics and Finance College of Arts and Sciences

Neff Hall Room 340 ~ 260-481-6497

#### **Declaring this Minor:**

- · Declare this minor within the Department of Economics and Finance
- Students cannot declare a major and a minor in the same program

#### **Program Requirements:**

- The catalog term for the minor will match that of your major degree program
- At least 6 credits must be earned as resident credit at the 200+ level or above
- You must earn a grade of C- or higher for all courses required in the minor
- · A minor is not awarded if requirements are not completed by the time your major degree is certified for graduation

 $To \ earn \ the \ minor \ in \ Economics, you \ must \ fulfill \ the \ following \ requirements \ in \ addition \ to \ those \ noted \ above:$ 

## Core Requirements

## Required Courses: Credits 6

- ECON 20101 Introduction to Microeconomics Cr. 3.
- ECON 20201 Introduction to Macroeconomics Cr. 3.

### Additional Courses: Credits 6

· Choose two additional courses at the 3000-4000+ level

## Supporting Course: Credits 3

- · Choose one of the following courses:
- ECON 32100 Intermediate Microeconomic Theory Cr. 3.
- ECON 32201 Intermediate Macroeconomic Theory Cr. 3.

**Total Credits: 15** 

# Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

## **Electronics Minor**

Program: Minor School of Polytechnic College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 205  $\sim$  260-481-4127

The minor in electronics provides a fundamental technical background in analog and digital electronics to enable you to understand, analyze, and troubleshoot basic circuits. It also enables you to specialize and gain an in-depth knowledge of a particular area of electronics.

The School of Polytechnic also offers the Bachelor and Associate of Science with a major in electrical engineering technology (EET), a Bachelor of Science with a major in computer engineering technology (CPET) and a Bachelor of Science with a major in information technology. In addition to the degrees, the department offers certificate programs in computer-controlled systems, electronic communications, power electronics systems, and computer networking. EET and CPET majors are not eligible for the Electronics Minor.

To earn a minor in electronics, you must complete the following courses with a C- or higher and, unless you have already completed them, the 6 credits of mathematics prerequisites (MA 15300 & MA 15400):

### Fundamental Courses: Credits 16

- ECET 10200 Electrical Circuits I Cr. 4.
- ECET 11100 Digital Circuits Cr. 4.
- ECET 15200 Electrical Circuits II Cr. 4.
- ECET 20400 Analog Electronics II Cr. 4.

## Advanced Course: Credits 4

One of the following:

- ECET 30200 Introduction to Control Systems Cr. 4.
- ECET 30300 Communications I Cr. 4.
- ECET 35500 Data Communications and Networking Cr. 4.
- ECET 36100 Introduction to PLC and Pneumatic Systems Cr. 4.

Total Credits: 20

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# **English Minor**

Program: Minor Department of English and Linguistics College of Arts and Sciences

Liberal Arts Building 145 ~ 260-481-6841

#### **Declaring this Minor:**

- Declare this minor within the Department of English and Linguistics or through your major department
- · Students cannot declare a major and a minor in the same program

### **Program Requirements:**

- The catalog term for the minor will match that of your major degree program
- At least 6 credits must be earned as resident credit at the 200+ level or above
- You must earn a grade of C- or higher for all courses required in the minor
- A minor is not awarded if requirements are not completed by the time your major degree is certified for graduation

To earn the minor in English, you must fulfill the following requirements in addition to those noted above:

# Core Requirements

## Required Courses: Credits 15

Three credits in American Literature:

- ENGL 25001 American Literature Before 1865 Cr. 3.
- $\bullet$  ENGL 25100 - American Literature Since 1865 Cr. 3.
- ENGL 45101 American Literature 1800-1865 Cr. 3.
- ENGL 45200 American Literature 1865-1914 Cr. 3.
- ENGL 45400 American Literature Since 1914 Cr. 3.
- ENGL 45501 American Fiction to 1900 Cr. 3.
- ENGL 45700 20th Century American Poetry Cr. 3.
- ENGL 45800 20th Century American Fiction Cr. 3.
- ENGL 46401 Native American Literature Cr. 3.
  ENGL 47200 Contemporary American Fiction Cr. 3.
- ENGL 47901 American Ethnic and Minority Literature Cr. 3.

Three credits in British Literature before 1700:

- ENGL 22001 Introduction to Shakespeare Cr. 3.
- ENGL 30102 Critical and Historical Survey of English Literature I Cr. 3.

- ENGL 40401 Old English Language and Literature Cr. 3.
- ENGL 40502 Chaucer Cr. 3.
- ENGL 40601 Middle English Literature Cr. 3.
- ENGL 40801 Elizabethan Drama and Its Background Cr. 3.
- ENGL 40901 Elizabethan Poetry Cr. 3.
- ENGL 41501 Major Plays of Shakespeare Cr. 3.
- ENGL 41701 English Poetry of the Early 17th Century Cr. 3.
- ENGL 41801 Milton Cr. 3.
- ENGL 42204 English Literature, 1660-1789 Cr. 3.

Three credits in British Literature after 1700:

- CMPL 21700 Detective And Mystery Literature Cr. 3.
- ENGL 30202 Critical and Historical Survey of English Literature II Cr. 3.
  - ENGL 42204 English Literature, 1660-1789 Cr. 3. (can be used once in Before 1700 or After 1700 category, not both)
- ENGL 43202 Romantic Literature Cr. 3.
- ENGL 43501 Victorian Literature Cr. 3.
- ENGL 44501 20th Century British Poetry Cr. 3.
- ENGL 44601 20th Century British Fiction Cr. 3.
- ENGL 44700 British Fiction to 1800 Cr. 3.
- ENGL 44800 19th Century British Fiction Cr. 3.
- ENGL 48801 Studies in Irish Literature and Culture Cr. 3.

### Additional Courses: Credits 6

Refer to the English B.A. for list of courses in the following categories or check with your advisor:

• 6 credits in ENGL and LING courses, except ENGL writing courses between 1000-2990+

Total Credits: 15

# Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

## **Ethics, Professional And Applied - Minor**

Program: Minor Department of English and Linguistics College of Arts and Sciences

Liberal Arts Building 17 ~ 260-481-6971

A minor in Professional and Applied Ethics enhances your ability for ethical reflection, introduces you to the ethical dimensions of business and the professions, and prepares you to deal with the ethical dilemmas you are likely to encounter. It complements a major in such fields as anthropology, biology, business, communication, English, health sciences, history, nursing, psychology, or sociology. The minor will also help you to prepare for graduate study in any of these fields or in law, medicine, natural science, religion and theology, or social work.

## Declaring this Minor:

• Declare this minor within the Department of English and Linguistics or through your major department

#### **Program Requirements:**

- The catalog term for the minor will match that of your major degree program
- At least 6 credits must be earned as resident credit at the 200+ level or above
- · You must earn a grade of C- or higher for all courses required in the minor
- Other courses approved for the minor may be available, contact the minor's Program Director
- A minor is not awarded if requirements are not completed by the time your major degree is certified for graduation

To earn the minor in Professional and Applied Ethics, you must fulfill the following requirements in addition to those noted above:

## Core Requirements

### Required Courses: Credits 15

- PHIL 11100 Introduction To Ethics Cr. 3.
- PHIL 31200 Medical Ethics Cr. 3.
- PHIL 32600 Business Ethics Cr. 3.
- PHIL 32900 Foundations of Professional Ethics Cr 3.
- PHIL 48000 Practicum in Applied Ethics Cr. 3.

**Total Credits: 15** 

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

## Film And Media Studies Minor

Program: Minor College of Arts and Sciences

Liberal Arts Building 153 ~ 260-481-6160

Coordinator: Steven Carr

The minor in film and media studies provides a coherent introduction to the basics of film/media literacy. The program is designed to develop a critical understanding of the historical, theoretical, aesthetic, cultural and institutional contexts of film, television, and other electronic and digital mass media.

#### **Declaring this Minor:**

· Declare this minor through your major department, the department of Communication or the program's coordinator.

## **Program Requirements:**

- · The catalog term for the minor will match that of your major degree program
- At least 6 credits must be earned as resident credit at the 200+ level or above
- · You must earn a grade of C- or higher for all courses required in the minor
- · A minor is not awarded if requirements are not completed by the time your major degree is certified for graduation

To earn the minor in Film and Media Studies, you must fulfill the following requirements in addition to those noted above:

# Core Requirements

Film/Media Aesthetics: Credits 3

Choose one of the following:

- COM 24800 Introduction To Media Criticism and Analysis Cr. 3.
- FVS 10100 Introduction to Film Cr. 3.

## Film/Media History: Credits 3

Choose one of the following:

- COM 25000 Mass Communication And Society Cr. 3.
- FVS 20100 Survey of Film History Cr. 3.

# Upper Level Requirement: Credits 6

Choose two of the following:

- COM 33800 Documentary Or Experimental Film And Video Cr. 3.
- COM 42100 Media Genres Cr. 3.
- FVS 39000 The Film and Society Cr. 3.

### Additional Course: Credits 3

Choose one of the following:

- COM 42200 Women, Men, and Media Cr. 3.
- COM 43600 Script Writing Cr. 3.
- COM 49100 Special Topics In Communication Cr. 1-3.

(with appropriate topic)

- FR 46000 French Fiction in Film Cr. 3
- POL 27500 Politics and Film Cr. 3.

Total Credits: 15

# Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# **Finance Minor (For Business Majors)**

Program: Minor Undergraduate Student Success Center Richard T. Doermer School of Business

Neff Hall 366 ~ 260-481-6472

The minor is finance allows business students to have a greater depth of knowledge in more than one business discipline and to expand job placement opportunities.

If you are pursuing a B.S.B. wiith a major in accounting, business economics, management or marketing, you may earn a minor in finance by completing the following 12 credits with a grade of C- or better in each course. You must complete at least 6 of the required 12 credits at Purdue University Fort Wayne to be eligible to receive the minor.

You must contact the Doermer School of Business Student Success Center to declare this minor.

## Minor Requirements:

All 4 courses must be unique and separate from your major.

Check the pre-requisites to make sure that all the pre-requisites are met for the selected course.

You must earn a C- or better in each of the required courses.

Choose four of the following:

- BUS 32500 Cost Accounting Cr. 3.
- BUS 30300 Intermediate Investments Cr. 3.
- BUS 30500 Intermediate Corporate Finance
- BUS 31000 Financial Statement Analysis Finance Perspective Cr. 3.

If above classes overlap with major courses, choose from:

- BUS 30800 Risk Management And Insurance Cr. 3.
- BUS 34500 Money/Banking/Capital Markets Cr. 3.
- BUS 42000 Equity And Fixed Income Investments Cr. 3.
- BUS 49400 International Finance Cr. 3.

### Note

Non-business majors are not eligible to earn this minor and should consider the minor in Business Studies.

Total credits: 12

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

## **Folklore Minor**

Program: Minor Department of English and Linguistics College of Arts and Sciences

Liberal Arts Building 145 ~ 260-481-6841

The minor in folklore familiarizes you with the international body of folklore as well as the theories, techniques, and history of folkloristics. The folklore minor is particularly appropriate for degree programs in anthropology, education, English, history, sociology, and other humanities and social sciences.

## Declaring this Minor:

- Declare this minor within the Department of English and Linguistics or through your major department
- . This program is available to all Purdue University Fort Wayne students except those pursuing the teacher-certification concentration with a major in English.

### **Program Requirements:**

- The catalog term for the minor will match that of your major degree program
- At least 6 credits must be earned as resident credit at the 200+ level or above
- You must earn a grade of C- or higher for all courses required in the minor
- · A minor is not awarded if requirements are not completed by the time your major degree is certified for graduation

To earn the minor in Folklore, you must fulfill the following requirements in addition to those noted above:

## Core Requirements

Required Courses: Credits 6

• FOLK 10100 - Introduction to Folklore Cr. 3.

• FOLK 25100 - Folklore Methods and Theories Cr. 3.

### Additional Courses: Credits 9

- · Choose three additional courses in folklore or in folklore-related courses in anthropology, classics, or other disciplines approved by the department
- At least two of the courses must be above the 2000+ level

Total Credits: 15

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# **Food And Beverage Minor**

Program: Minor (for non HTM majors only) Department of Hospitality and Tourism Management **College of Professional Studies** Neff Hall 330 ~260-481-6562

To be eligible for this minor, you must complete each specified courses with a grade of C- or better, and complete at least 13 of the required 22 credits at Purdue University Fort Wayne.

# Minor Requirements:

- HTM 10000 Introduction to the Hospitality and Tourism Industry Cr. 1-3.
- HTM 14100 Financial Accounting for the Service Industries Cr. 3.
- NUTR 20400 Food, History & Culture Cr. 3.
- HTM 21400 Introduction to Food Selection and Preparation Cr. 3.
- HTM 30200 Hospitality and Tourism Industry Internship Cr. 1.
- HTM 31000 Food and Beverage Operation Management Cr. 4.
- NUTR 40300 Advanced Nutrition: Food from Farm to Fork Cr. 3.
- HTM 49100 Beverage Management Cr. 2.

Total Credits: 22

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# French Minor

Program: Minor Department of International Language and Culture Studies College of Arts and Sciences

Liberal Arts Building 267 ~ 260-481-6836

Study Abroad:

Both majors and non majors are encouraged to study abroad. For those who wish to study French, opportunities are available in Belgium, Canada, France, Switzerland, the French Antilles, Senegal or La Reunion.

#### **Declaring this Minor:**

- · Declare this minor within the Department of International Language and Culture Studies or through your major department
- · Students cannot declare a major and a minor in the same program

### **Program Requirements:**

- The catalog term for the minor will match that of your major degree program
- At least 6 credits must be earned as resident credit at the 200+ level or above
- You must earn a grade of C- or higher for all courses required in the minor
- · A minor is not awarded if requirements are not completed by the time your major degree is certified for graduation

To earn the minor in French, you must fulfill the following requirements in addition to those noted above:

# Core Requirements

Required Courses: Credits 6

- FR 20401 Second-Year French II Cr. 3.
- FR 21301 Second-Year French Composition Cr. 3.

## French Language Skills Courses: Credits 6

Choose two 3000+ courses from the following list:

- FR 31700 French Language Skills I Cr. 3.
- FR 31800 French Language Skills II Cr. 3.
- FR 32600 French in the Business World Cr. 3.
- FR 33001 Introduction to Translating French and English Cr. 3.
- FR 33200 Conversational Practice Cr. 3.

## French Literature, Culture, or Film Course: Credits 3

Choose one 3000+ course from the following list:

- FR 30500 Chefs-D'Oeuvre de la Litterature Française I Cr. 3.
- FR 30600 Chefs-D'Oeuvre de la Litterature Française II Cr. 3.
- FR 34000 Introduction to Contemporary French Society Cr. 3.
- FR 35600 Introduction to French Cinema Cr. 3.

Total Credits: 15

# Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# **Geology Minor**

Program: Minor Department of Physics College of Arts and Sciences

Kettler Hall 126B ~ 260-481-6306

The geology minor is designed to provide students with a basic knowledge of geological concepts. Learn about the structure, materials, and features that make up the earth (or any planet!).

#### Declaring this Minor:

- Declare this minor within the Department of Physics or through your major department
- Students cannot declare a major and a minor in the same program

#### **Program Requirements:**

- The catalog term for the minor will match that of your major degree program
- At least 6 credits must be earned as resident credit at the 200+ level or above
- · You must earn a grade of C- or higher for all courses required in the minor
- · A minor is not awarded if requirements are not completed by the time your major degree is certified for graduation

To earn the minor in Geology, you must fulfill the following requirements in addition to those noted above:

# Required Core: Credits 3-5

Choose one of the following:

- EAPS 10001 General Geology Cr. 3-5. and
- EAPS 10002 General Geology Laboratory Cr. 1-2.

• EAPS 10003 - General Geology Honors Cr. 5.

## Two Courses: Credits 6

Choose two courses from the following list:

- ASTR 10000 The Solar System Cr. 3.
- ASTR 10500 Stars And Galaxies Cr. 3-4.
- EAPS 21000 Oceanography Cr. 3.
  GEOG 10900 Weather and Climate Cr. 3.

## Two Courses: Credits 6

Choose two courses from the following list:

- EAPS 21100 Introduction To Paleobiology Cr. 3.
- EAPS 41500 Geomorphology Cr. 3-4.
- GEOG 23700 Mapping Our World Cr. 3.

### Two Courses: Credits 6

Choose two courses from the following list:

- EAPS 22101 Introductory Mineralogy Cr. 3-4.
- EAPS 32300 Structural Geology Cr. 3-4.
- EAPS 41000 Undergraduate Research In Geology Cr. 1-2; 1-6 in summer.
- EAPS 42001 Regional Geology Field Trip Cr. 1-2.
- EAPS 45100 Principles Of Hydrogeology Cr. 3.

Total Credits: 21-23

# Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# German Minor

Program: Minor Department of International Language and Culture Studies College of Arts and Sciences

Liberal Arts Building 267 ~ 260-481-6836

#### Study Abroad

Both majors and non majors are encouraged to study abroad. For those who wish to study German, opportunities are available in Austria, Germany, or Switzerland.

### Declaring this Minor:

- · Declare this minor within the Department of International Language and Culture Studies or through your major department
- Students cannot declare a major and a minor in the same program

#### **Program Requirements:**

- The catalog term for the minor will match that of your major degree program
- At least 6 credits must be earned as resident credit at the 200+ level or above
- You must earn a grade of C- or higher for all courses required in the minor
- · A minor is not awarded if requirements are not completed by the time your major degree is certified for graduation

To earn the minor in German, you must fulfill the following requirements in addition to those noted above:

## Core Requirements

Required Courses: Credits 12

- GER 20401 Second-Year German II Cr. 3.
  - $\circ~3$  credits in German language skills courses at the 3000+ level
  - 6 credits in GER elective courses at the 3000+ level

Additional Course: Credits 3

Choose one of the following:

- GER 36201 Introduction to Contemporary Germany Cr. 3.
- GER 36300 Introduction To German Cultural History Cr. 3.

**Total Credits: 15** 

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# **History Minor**

Program: Minor **Department of History** College of Arts and Sciences

Liberal Arts Building 209 ~ 260-481-6686

#### **Declaring this Minor:**

- · Declare this minor within the Department of History or through your major department
- · Students cannot declare a major and a minor in the same program

#### **Program Requirements:**

- · The catalog term for the minor will match that of your major degree program
- At least 6 credits must be earned as resident credit at the 200+ level or above
- You must earn a grade of C- or higher for all courses required in the minor
- · A minor is not awarded if requirements are not completed by the time your major degree is certified for graduation

To earn the minor in History, you must fulfill the following requirements in addition to those noted above:

## **Required Courses:**

At least one course that primarily covers the period before 1800 must be included in the credits used toward graduation with the history minor.

These courses include: HIST 10501, 11300, 20101, 20500, 22200, 30101, 30201, 31001, 33101, 35102, 35202, 38601, 38801, 39301, 40201.

Occasionally there may be special offerings, check with the department or your advisor if you have questions.

# History Courses at the 1000+ Level: Credits 9

Choose 9 credits from the following list:

- HIST 10501 American History I Cr. 3.
- HIST 10601 American History II Cr. 3.
  HIST 11300 History of Western Civilization I Cr. 3.
  HIST 11400 History of Western Civilization II Cr. 3.

# History Courses at the 2000+ Level: Credits 9

Choose 9 credits at the 2000+ level. Courses must include offerings from at least two of the following lists:

## American History:

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HIST 23200 may not be used to fulfill this category.
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    HIST 22500 - Special Topics in History Cr. 1-3.

HIST 22501 - The Windows Co. 2.

HIST 22501 -
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- HIST 22801 The Vietnam War Cr. 3.
- HIST 30101 Colonial America Cr. 3.
- HIST 30201 Revolutionary America Cr. 3.
- HIST 30302 The United States from 1789 to 1865 I Cr. 3.
- HIST 30502 The Cold War Cr. 3.
- HIST 31001 Survey of American Indians I Cr. 3.
- HIST 31101 Survey of American Indians II Cr. 3
- HIST 31301 Origins of Modern America, 1865 1917 Cr. 3.
- HIST 31401 Recent U.S. History I, 1917-1945 Cr. 3.
- · HIST 31501 Recent U.S. History II, 1945-Present Cr. 3.
- HIST 31801 The American West Cr. 3.
- HIST 32503 Topics in History Cr. 3.
- HIST 33502 American History Through Music Cr. 3.
- HIST 34501 American Diplomatic History I Cr. 3.
- HIST 34502 History of Espionage: Spies, Intelligence, and Intelligence Agencies in an International Context Cr. 3.
- HIST 35002 History Of Modern Medicine Cr. 3.
- HIST 35101 The United States in World War II Cr. 3.
- HIST 36001 Atlantic World, 1400-1900 Cr. 3
- HIST 37701 The History of American Sports Cr. 3.
- HIST 37801 American Constitutional History 3 cr.
- HIST 38201 The Sixties Cr. 3.
- HIST 41601 Slavery In Americas Cr. 3.
- HIST 44700 US-Latin American Relations Cr. 3.

## Western European History:

HIST 23200 may not be used to fulfill this category.

- HIST 20500 Ancient Civilization Cr. 3.
- HIST 22500 Special Topics in History Cr. 1-3.
- HIST 23400 Witchcraft and Witch Hunts, c. 1400-1750 Cr. 3.
- HIST 24101 Nationalism in the Modern World Cr. 3.
- HIST 31102 Holocaust and Modern Genocides Cr. 3.
- HIST 31402 Europe From The New World To Napoleon Cr. 3.
- HIST 32503 Topics in History Cr. 3.
- HIST 32701 Modern France And The French Empire Cr. 3.
- HIST 34502 History of Espionage: Spies, Intelligence, and Intelligence Agencies in an International Context Cr. 3.
- HIST 35102 Western Europe in the Early Middle Ages Cr. 3.
- HIST 35202 Western Europe in the High And Later Middle Ages Cr. 3.
- HIST 35501 Europe: Louis XIV to French Revolution Cr. 3.
- HIST 36001 Atlantic World, 1400-1900 Cr. 3
  HIST 36102 Europe in the 20th Century I Cr. 3.
- HIST 36102 Europe in the 20th Century I Cr
   HIST 37802 Germany: 1871-Present Cr. 3.
- HIST 38601 Greek History Cr. 3.
- HIST 38801 Roman History Cr. 3.
- HIST 39002 Decline & Fall Of Roman Empire Cr. 3.
- MARS 20100 Medieval Encounters Cr. 3

### World History:

HIST 232 may not be used to fulfill this category.

- HIST 20500 Ancient Civilization Cr. 3.
- HIST 22500 Special Topics in History Cr. 1-3.
- HIST 22801 The Vietnam War Cr. 3.
- HIST 24101 Nationalism in the Modern World Cr. 3.
- HIST 30502 The Cold War Cr. 3.
- HIST 31002 Russian Revolutions and Soviet Regime Cr. 3.
- HIST 32701 Modern France And The French Empire Cr. 3.
- HIST 33101 African History from Ancient Times to Empires and City States Cr. 3.
- HIST 33201 African History from Colonial Rule to Independence Cr. 3.
- HIST 33503 Topics in Non-Western History Cr. 3.
- HIST 34101 Latin America: Conquest And Empire Cr. 3.
- HIST 34201 Latin America: Evolution and Revolution Cr. 3.
- HIST 34502 History of Espionage: Spies, Intelligence, and Intelligence Agencies in an International Context Cr. 3.
- HIST 34601 Modern Mexico Cr. 3.
- HIST 36001 Atlantic World, 1400-1900 Cr. 3
- HIST 39301 Ottoman History Cr. 3.
- HIST 40201 Byzantine History and Civilization II Cr. 3.
- HIST 41601 Slavery In Americas Cr. 3.

- HIST 42601 History of Balkans: 1914 to Present Cr. 3.
- HIST 43200 20th Century Latin American Revolutions Cr. 3.
- HIST 44700 US-Latin American Relations Cr. 3.

**Total Credits: 18** 

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

# **Human Services Minor**

Program: Minor Department of Human Services College of Professional Studies

Neff Hall 130

Administrative Assistant: 260-481-6424

Peer Advisor: 260-481-6986

The minor in human services is available to students enrolled in baccalaureate programs other than the Bachelor of Science in human services. The minor can enhance the career opportunities for liberal arts, general studies, and other majors. The minor requires 15 credit hours of specified courses, which must be completed with a grade of C- or better. Students should contact the Department of Human Services at 260-481-6986 to set up an appointment with our peer advisor to discuss our minor requirements.

## **Program Requirements**

- HSRV 10000 Introduction to Human Services Cr. 3.
- HSRV 31500 Introduction to Theories and Therapies Cr. 3.
- HSRV 32000 Case Methods Cr. 3.

One of the following: Credits: 3

- HSRV 35000 Drugs and Society Cr. 3.
- HSRV 42000 Substance Abuse Prevention Cr. 3.

One of the following: Credits: 3

- HSRV 10300 Helping Relationship Techniques Cr. 3.
- HSRV 10500 Basic Interviewing Skills Cr. 3.
- HSRV 21100 The Dynamics of Group Behavior Cr. 3.

Total Credits: 15

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

## **Information Systems Minor**

Program: Minor

**Department of Computer Science** 

College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building  $125 \sim 260\text{-}481\text{-}6803$ 

The Minor in Information Systems provides a fundamental background for students interested in designing, developing, and managing software for business/organization systems and applications.

#### **Student Learning Outcomes:**

- · Analyze a complex computing problem and apply principles of computing and other relevant disciplines to identify solutions
- · Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline
- · Communicate effectively in a variety of professional contexts
- · Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles
- · Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline
- · Support the delivery, use, and management of information systems within an information systems environment.

#### **Program Delivery:**

· On-campus and Distance

#### **General Requirements:**

- · Degree Requirements
- · General Education Requirements
- · Overlapping Content
- Academic Regulations

## Program Requirements: Credits 18

• To earn a minor in Information Systems, you must complete the following required courses with a grade of C or better in each course:

### Information Systems Foundation: Credits 6

- IST 16000 Foundation And Role Of Information Systems Cr. 3.
- IST 26500 Enterprise Systems Cr. 3.

### Problem-Solving Skill: Credits 3

- IST 14000 Introduction To Visual Programming Cr. 3. or

## Enterprise Information and Process Management: Credits 6

- IST 27000 Data And Information Management Cr. 3. or
- CS 36400 Introduction To Database Systems Cr. 3. and
- IST 34000 Business Process Management Cr. 3.

### Analysis, Design and Development of Systems: Credits 3

• IST 37000 - Systems Analysis And Design Cr. 3.

## **GPA Requirement**

· You must satisfy the Purdue Fort Wayne and the College of Engineering, Technology, and Computer Science Cumulative GPA requirement for graduation.

## Academic Regulations

- · Only computer science courses in which you have earned a grade of C or better can be applied to the degree or used to satisfy prerequisites.
- At least 10 credits must be completed at Purdue Fort Wayne or another Purdue Campus.
- · No credit toward graduation will be given for courses or sequences with overlapping content.

Total Credits: 18

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

## **Information Technology Minor**

**Program: Information Technology Minor** School of Polytechnic College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building 205 ~ 260-481-4127

Information Technology is part of the School of Polytechnic.

The Information Technology Minor can complement nearly every major as most majors have some degree of involvement with technology. The minor provides insight into how technology is designed, developed, and implemented, providing a snapshot into the ever-expanding Information Technology field. There are no special requirements (GPA or class standing) for a student wishing to add the IT minor.

For more information, contact Michelle Parker (parkerm@pfw.edu), 260-481-5716, ET 205G.

#### Minor Core Courses:

Students must earn a C- or higher in each minor course.

- ITC 11000 Information Technology Fundamentals Cr. 3.
- ITC 13000 Programming Fundamentals I Cr. 3. or
- ECET 11400 Introduction to Visual Basic Cr. 3.
- ITC 21000 Information Technology Systems Cr. 3.
- ITC 33100 Networks I Cr. 3.
   ITC 35000 Databases Cr. 3.
- ITC 37000 Human Computer Interaction Cr. 3. or
- ITC 38000 Project Analysis Design And Implementation Cr. 3.

**Total Credits: 18** 

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

## Jazz Minor

Program: Minor School of Music College of Visual and Performing Arts

Rhinehart Music Center 144 ~ 260-481-6714

A minor in jazz music is designed for students who wish to explore the field of jazz music while majoring in another area. The student may customize the curriculum to realize their own musical and creative potential. To earn this minor, you must complete the courses listed below and earn a grade of C- or better in each.

#### The student learning outcomes for the jazz minor music are as follows relative to areas of chosen study:

- · Students will demonstrate knowledge of jazzf music theory sufficient to analyze musical forms, structures, and styles; to create within basic musical structures; and to relate theoretical concepts to sound.
- · Students will demonstrate performance ability as jazz ensemble members, as conductors, and as soloists on both a primary instrument and/or a secondary instrument in
- · Students will demonstrate knowledge of the history and literature of jazz music, with an understanding of the social, political and cultural impacts which shaped its development.
- · Students will demonstrate proficiency in utilizing appropriate technology to notate and create music, to investigate and report scholarly research, and to support the specific demands of their area of focused study.

#### **Program Description**

Our minor in jazz music allows you to explore the field of Jazz music while majoring in another area. The program allows you to customize your curriculum to realize your musical and creative potential and explore this truly American art form with classes in improvisation, pedagogy, jazz history and of course, applied jazz lessons and ensembles like big band and jazz combo.

### **Program Delivery:**

· This program is available on campus though some courses may be available as distance learning.

#### **Declaring this Minor:**

· Students wishing to declare this minor will pass a basic playing audition with the director of jazz studies. For more information contact the Music Department Office.

## Required Courses

Select 15-18 hours from the courses below:

• MUSC 04200 - Jazz Ensemble Cr. 1.

Three semesters required

• MUSC 04000 - University Instrumental Ensembles Cr. 1-2.

Jazz/Commercial Combo

- MUSC 32100 Jazz Improvisation Cr. 2.
- MUSC 39300 History of Jazz Cr. 3.
- MUSC 20101 Jazz Piano Class I Cr. 2
- MUSC 47000 Pedagogy of Jazz Cr. 2.

This course requires MUSC 04200 as a co-requisite

### **Electives**

Choose 3-6 hours from the electives below. These courses will be taught under the variable title course number MUS 41900.

- Jazz Improvisation II Credits: 2
- · Styles and Analysis of Jazz Credits: 2
- Jazz/Commercial Combo Credits 1 (2 credits maximum)
- Jazz Applied Lessons Credits: 1 (2 credits maximum)
- Fundamentals in Jazz Theory Credits: 1
- · Jazz Chamber Ensemble Credits: 1
- · Research in Jazz Credits: 3

### Total: Credits 18 minimum

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

## Journalism Minor

Program: Minor Department of Communication College of Arts and Sciences

Neff Hall 230 ~ 260-481-6825

A journalism minor provides underpinning for those interested in various media. This minor is not open to students pursuing the journalism concentration in the communication major. Those with a desire to write or report in some content area should consider a major in the area itself. Reporters need a content area such as political science or history; basic science students will discover that science writing is an especially valuable and challenging career goal.

#### Declaring this Minor:

- Declare this minor within the Department of Communication
- This minor is not open to students pursuing the journalism concentration in the communication major.

#### Program Requirements:

- · The catalog term for the minor will match that of your major degree program
- At least 6 credits must be earned as resident credit at the 200+ level or above
- You must earn a grade of C- or higher for all courses required in the minor
- · A minor is not awarded if requirements are not completed by the time your major degree is certified for graduation

To earn the minor in Journalism, you must fulfill the following requirements in addition to those noted above.

## Core Requirements

## Required Courses: Credits 12

- COM 13500 Introduction To News Writing Cr. 3
- COM 14000 Introduction To Media Production Cr. 3.
- COM 25000 Mass Communication And Society Cr. 3.
- COM 20000 Reporting, Writing And Editing I Cr. 3.

## Practicum/Internship: Credits 3

Choose one course from the following list:

- COM 43100 Practicum In Radio Cr. 2.
- COM 43200 Practicum In Television Cr. 2.
- COM 49000 Internship In Communication Cr. 1-3.

#### Additional Course: Credits 3

Choose one of the following:

- COM 20101 Reporting, Writing, And Editing II Cr. 3.
- COM 21001 Visual Communication Cr. 3.
- COM 31001 Editorial Practices Cr. 3.
- COM 31501 Feature Writing Cr. 3.
- COM 31700 Digital Storytelling Cr. 3.
- COM 33501 Interviewing For Media Production Cr. 3.

Total: Credits 18

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

## **Linguistics Minor**

Program: Minor Department of English and Linguistics College of Arts and Sciences

Liberal Arts Building 145 ~ 260-481-6841

Linguistics is the study of the characteristics of language. Accordingly, linguistics courses are valuable preparation for the study of such subjects as anthropology, communication, education, English, international languages, psychology, sociology, and speech and audiology.

### Declaring this Minor:

- · Declare this minor within the Department of English and Linguistics or through your major department
- . This program is available to all Purdue University Fort Wayne students except those pursuing the language concentration with a major in English.

- The catalog term for the minor will match that of your major degree program
- At least 6 credits must be earned as resident credit at the 200+ level or above
- · You must earn a grade of C- or higher for all courses required in the minor
- · A minor is not awarded if requirements are not completed by the time your major degree is certified for graduation

To earn the minor in Linguistics, you must fulfill the following requirements in addition to those noted above:

## Core Requirements

### Group 1: Credits 3

Choose one course from the following list:

- ANTH 20002 Language And Culture Cr. 3.
- ANTH 40001 Seminar In The Ethnography Of Communication Cr. 3.
- LING 46000 Language in Society Cr. 3.

## Group 2: Credits 3

Choose one course from the following list:

- LING 10300 Introduction to the Study of Language Cr. 3.
- LING 30300 Introduction to Linguistic Analysis Cr. 3.

## Group 3: Credits 3

Choose one course in the structure or linguistics of an international language approved by the department

OR

Choose one course from the following list:

- CSD 18100 First Course in American Sign Language Cr. 3.
- ENGL 20501 Introduction to the English Language Cr. 3.
- ENGL 20600 Introduction to the Study of Grammar Cr. 3.
- LING 49001 Linguistic Structures Cr. 3.

## Group 4: Credits 3

Choose one course above the 2000+ level in linguistics or a related discipline approved by the department

OR

Choose one course from the following list:

- CSD 30600 Introduction to Phonetics Cr. 3.
- CSD 30900 Language Development Cr. 3.
- PHIL 45000 Metalogic Cr. 3.
- PSY 42600 Language Development Cr. 3.
- PSY 52600 Psycholinguistics Cr. 3.

Additional Course: Credits 3

Choose one additional LING course numbered 3000+ or above except LING 30300

Total Credits: 15

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

## **Management Minor (For Business Majors)**

Program: Minor Undergraduate Student Success Center Richard T. Doermer School of Business

Neff Hall 366 ~ 260-481-6472

The minor in management allows business students to have a greater depth of knowledge in more than one business discipline and to expand job placement opportunities.

If you are pursuing a B.S.B. with a major in accounting, business economics, finance or marketing, you may earn a minor in management by completing the following twelve credits with a grade of C- or better in each course. You must complete at least 6 of the required 12 credits at Purdue University Fort Wayne to be eligible to receive the minor.

You must contact the Doermer School of Business Student Success Center to declare this minor.

## Minor Requirements Credits: 12

All four courses must be unique and separate from your major.

Check the pre-requisites to make sure that all the pre-requisities are met for the selected course.

You must earn a C- or better in each of the required courses.

Choose four of the following:

- BUS 30000 International Business Administration Cr. 3.
- BUS 32700 Deterministic Models In Operations Research Cr. 3.
- BUS 49003 Independent Study In Decision Sciences Cr. 1-6.

With the topic of Business Simulation or Lean and Black Belt Six Sigma

• BUS 49005 - Independent Study In Operations Management Cr. 1-3.

With the topic of Project Management

• BUS 44000 - Personnel: Human Resources Management Cr. 3.

### Note

Non-business majors are not eligible to earn this minor and should consider the minor in Business Studies.

Total Credits: 12

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

## **Marketing Minor (For Business Majors)**

Program: Minor Undergraduate Student Success Center Richard T. Doermer School of Business

Neff Hall 366 ~ 260-481-6472

The minor in marketing allows business students to have a greater depth of knowledge in more than one business discipline and to expand job placement opportunities.

If you are pursuing a B.S.B. with a major in accounting, business economics, finance or management, you may earn a minor in marketing by completing the following 12 credits with a C- or better in each course. You must complete at least 6 of the required 12 credits at Purdue University Fort Wayne to be eligible to receive the minor.

You must contact the Doermer School of Business Student Success Center to declare this minor.

## Minor Requirements Credits: 12

All four courses must be unique and separate from your major.

Check the pre-requisites to make sure that all the pre-requisites are met for the selected course.

You must earn a C- or better in each of the required courses.

Choose four of the following:

- BUS 30000 International Business Administration Cr. 3.
- BUS 30302 Marketing Research Cr. 3.
- BUS 40500 Consumer Behavior Cr. 3.
- BUS 41500 Advertising And Promotion Management Cr. 3.
- BUS 42600 Sales Management Cr. 3.
- BUS 45000 Marketing Strategy And Policy Cr. 3.

### Note

Non-business majors are not eligible to earn this minor and should consider the minor in Business Studies.

Total credits: 12

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

## **Materials Engineering Technology Minor**

Program: Minor School of Polytechnic

College of Engineering, Technology, and Computer Science

Engineering, Technology, and Computer Science Building ~ ET 221 260-481-6339

Mechanical design engineers, manufacturing engineers, and process engineers need a solid understanding of engineering materials. This minor in Materials Engineering Technology complements the mechanical engineering, mechanical engineering technology, and industrial engineering technology undergraduate programs. The program includes practical laboratory skills, an introduction to the broad field of materials, and specialized courses in materials important to industry in our region, such as steelmaking and biomaterials.

#### **Student Learning Outcomes:**

Upon completion of the Materials Engineering Technology minor, students will:

- Understand microstructure/property relationships of a broad range of engineering materials.
- Understand a variety of materials processing operations, and their effects on materials properties.
- · Have basic skills in materials testing, sample preparation, and analysis.

### **Program Delivery:**

• The program is on-campus.

#### **General Requirements:**

- · Degree Requirements
- · General Education Requirements
- Overlapping Course Content

· Academic Regulations

#### **Program Requirements:**

- · There are no specific admission requirements for this minor
- Students must have completed MA 15300 or equivalent before starting this minor
- · No general education courses are required for this minor
- A grade of C- or higher is required in all courses

## Required Courses: Credits 18

Two required courses:

- · MET 18000 Materials and Processes Cr. 3. or
- ME 30300 Material Science and Engineering Cr. 2. and
- ME 30400 Mechanics and Materials Laboratory Cr. 1.
- ET 22000 Materials Characterization Cr. 3.

Four of the following courses:

- ET 23000 Introduction To Polymers Cr. 3.
- ET 24000 Steelmaking, Forming And Heat Treating Cr. 3.
- ET 31000 Failure Analysis Cr. 3.
- ET 32000 Biomedical Materials Cr. 3.
- ET 34000 Corrosion Control Cr. 3.
- MET 38100 Engineering Materials Cr. 3.
  - · Related materials course approved by faculty advisor

Total Credits: 18

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

## **Materials Science Minor**

Program: Minor Department of Physics College of Arts and Sciences

 $Kettler\ Hall\ 126B \sim 260\text{-}481\text{-}6306$ 

The minor in Materials Science lets you learn in-depth about the structure of materials as well as learning how to make measurements of materials. This minor is of use to students who are not physics majors but want to learn about this field.

### Declaring this Minor:

- Declare this minor within the Department of Physics or through your major department
- · Students cannot declare a major and a minor in the same program

#### **Program Requirements:**

- The catalog term for the minor will match that of your major degree program
- At least 6 credits must be earned as resident credit at the 200+ level or above
- You must earn a grade of C- or higher for all courses required in the minor
- · A minor is not awarded if requirements are not completed by the time your major degree is certified for graduation

To earn the physics minor in Materials Science, you must fulfill the following requirements in addition to those noted above:

## Core Requirements

### Required Courses: Credits 16-18

• CHM 24100 - Introductory Inorganic Chemistry Cr. 4.

- CHM 26100 Organic Chemistry Cr. 3.
- EAPS 22101 Introductory Mineralogy Cr. 3-4.
- ET 20000 Strength of Materials Cr. 3.
- MET 18000 Materials and Processes Cr. 3.
- PHYS 14204 Materials Science: Materials Laboratory Cr. 1.
- PHYS 34200 Modern Physics Cr. 3.

#### Additional Course: Credits 3

Choose at least three credits from the following list:

- PHYS 14201 Materials Science: Semiconductors, Conductors and Superconductors Cr. 1.
- PHYS 14202 Materials Science: Optical And Magnetic Materials Cr. 1.
   PHYS 14203 Materials Science: Thermal Properties Cr. 1.
- PHYS 23601 Electron Microscopy Cr. 1.
- PHYS 23602 X-Ray Analysis Cr. 1.
- PHYS 23603 Scanning Probe Microscopy Cr. 1.

#### Additional Courses: Credits 3

Choose at least three credits from the following list:

• CHM 38300 - Physical Chemistry Cr. 4.

- CHM 38400 Physical Chemistry Cr. 2.
- CHM 42400 Analytical Chemistry II Cr. 4.
- EAPS 42500 Scanning Electron Microscopy Cr. 2-3.
- PHYS 44200 Quantum Mechanics Cr. 3.

Total Credits: 22-24

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

## **Mathematics Minor**

Program: Minor Department of Mathematical Sciences College of Arts and Sciences

Kettler Hall 200 ~ 260-481-6821

Your selection of courses should be appropriate for your major. This minor program must be approved by the Math Department's program review committee.

#### Declaring this Minor:

- · Declare this minor within the Department of Mathematical Sciences
- · Students cannot declare a major and a minor in the same program

#### **Program Requirements:**

- The catalog term for the minor must match that of your major degree program
- At least 6 credits must be earned as resident credit at the 200+ level or above
- · You must earn a grade of C- or higher for all courses required in the minor
- · A minor is not awarded if requirements are not completed by the time your major degree is certified for graduation
- Two calculus courses must be included
- · College algebra or trigonometry courses are excluded
- One computer science course may be substituted for a mathematics or statistics course
- · You must have a GPA of 2.3 or higher in all courses included in your minor
- · No more than one grade as low as C- will be accepted in this minor

## Sample Minor Programs for Various Majors

Please see an advisor in the Department of Mathematical Sciences to explore possible course choices and complete an application for the minor program.

## **Business and Management Majors**

## Computer Programming:

- CS 11400 Introduction To Visual Programming Cr. 3. or
- CS 16000 Introduction To Computer Science I Cr. 4.

### Calculus:

- MA 16500 Analytic Geometry and Calculus I Cr. 4. and
- MA 16600 Analytic Geometry and Calculus II Cr. 4. or
- MA 22900 Calculus for the Managerial, Social, and Biological Sciences I Cr. 3. and
- MA 23000 Calculus for the Managerial, Social, and Biological Sciences II Cr. 3.

### Finite or Discrete Math:

- MA 17500 Introductory Discrete Mathematics Cr. 3. or
- MA 21300 Finite Mathematics I Cr. 3.  $\,or\,$
- MA 27500 Intermediate Discrete Math Cr. 3.

## Modeling:

• MA 31400 - Introduction to Mathematical Modeling Cr. 3.

#### Statistics:

- ECON 27000 Introduction to Statistical Theory in Economics and Business I Cr. 3. or
- STAT 51100 Statistical Methods Cr. 3.

## Computer Science Majors

## Numerical Analysis:

• CS 38400 - Numerical Analysis Cr. 3.

#### Calculus:

- MA 16500 Analytic Geometry and Calculus I Cr. 4. and
   MA 16600 Analytic Geometry and Calculus II Cr. 4.

## Discrete Mathematics:

- MA 17500 Introductory Discrete Mathematics Cr. 3. or
- MA 27500 Intermediate Discrete Math Cr. 3.

### Linear Algebra:

• MA 35100 - Elementary Linear Algebra Cr. 3.

### Statistics:

- STAT 51100 Statistical Methods Cr. 3. or
   STAT 51600 Basic Probability and Applications Cr. 3.

## Liberal Arts Majors

## Computer Programming:

- CS 11400 Introduction To Visual Programming Cr. 3. or
   CS 16000 Introduction To Computer Science I Cr. 4.

## Calculus:

- MA 16500 Analytic Geometry and Calculus I Cr. 4. and
  MA 16600 Analytic Geometry and Calculus II Cr. 4. or
  MA 22900 Calculus for the Managerial, Social, and Biological Sciences I Cr. 3. and
  MA 23000 Calculus for the Managerial, Social, and Biological Sciences II Cr. 3.

## Finite Mathematics:

• MA 21300 - Finite Mathematics I Cr. 3.

## Modeling:

• MA 31400 - Introduction to Mathematical Modeling Cr. 3.

### Statistics:

• STAT 12500 - Communicating with Statistics Cr. 3.

## Life Sciences Majors

### Computer Programming:

- CS 11400 Introduction To Visual Programming Cr. 3. or
   CS 16000 Introduction To Computer Science I Cr. 4.

### Calculus:

- MA 16500 Analytic Geometry and Calculus I Cr. 4. and
- MA 16600 Analytic Geometry and Calculus II Cr. 4. or
- MA 22900 Calculus for the Managerial, Social, and Biological Sciences I Cr. 3. and
- MA 23000 Calculus for the Managerial, Social, and Biological Sciences II Cr. 3.

## Finite Mathematics:

• MA 21300 - Finite Mathematics I Cr. 3.

## Modeling:

• MA 31400 - Introduction to Mathematical Modeling Cr. 3.

### Statistics:

- STAT 24000 Statistical Methods for Biology Cr. 3.
- STAT 34000 Elementary Statistical Methods II Cr. 3.

## Physical Sciences and Engineering Majors

## Calculus:

- MA 16500 Analytic Geometry and Calculus I Cr. 4. and
- MA 16600 Analytic Geometry and Calculus II Cr. 4. and
- MA 26100 Multivariate Calculus Cr. 4.

## Differential Equations:

• MA 36300 - Differential Equations Cr. 3.

### Advanced Calculus:

• MA 51000 - Vector Calculus Cr. 3.

## Complex Analysis or Linear Algebra:

- MA 35100 Elementary Linear Algebra Cr. 3. or
- MA 51100 Linear Algebra with Applications Cr. 3. or
- MA 52500 Introduction to Complex Analysis Cr. 3.

## **Technology Majors**

### Computer Programming:

- CS 11400 Introduction To Visual Programming Cr. 3. or
   CS 16000 Introduction To Computer Science I Cr. 4.

#### Calculus:

- MA 16500 Analytic Geometry and Calculus I Cr. 4. and
- MA 16600 Analytic Geometry and Calculus II Cr. 4. or
- MA 22700 Calculus for Technology I Cr. 4. and
- MA 22800 Calculus for Technology II Cr. 3.

### Discrete or Finite Math:

- MA 17500 Introductory Discrete Mathematics Cr. 3. or
- MA 21300 Finite Mathematics I Cr. 3. or
- MA 27500 Intermediate Discrete Math Cr. 3.

### Mathematics Elective:

- MA 32100 Applied Differential Equations Cr. 3.  $\,$  or
- MA 35100 Elementary Linear Algebra Cr. 3.

## Statistics:

- STAT 30100 Elementary Statistical Methods I Cr. 3. or
- STAT 51100 Statistical Methods Cr. 3.

Total Credits: 18-21

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

## **Media Production Minor**

Program: Minor **Department of Communication** College of Arts and Sciences

#### Declaring this Minor:

· Declare this minor within the Department of Communication

#### **Program Requirements:**

- The catalog term for the minor will match that of your major degree program
- At least 6 credits must be earned as resident credit at the 200+ level or above
- · You must earn a grade of C- or higher for all courses required in the minor
- · A minor is not awarded if requirements are not completed by the time your major degree is certified for graduation

To earn the minor in Media Production, you must fulfill the following requirements in addition to those noted above:

## Core Requirements

## Required Course: Credits 3

• COM 14000 - Introduction To Media Production Cr. 3.

### Additional Courses: Credits 18

Choose 18 credits from the following list of courses:

- COM 24800 Introduction To Media Criticism and Analysis Cr. 3.
- COM 32101 Specialized Broadcasting Cr. 3.
- COM 33100 Audio Production Cr. 3.
- COM 33200 Television Studio Production Cr. 3.
- COM 33300 Film Production Cr. 3.
- COM 33501 Interviewing For Media Production Cr. 3.
- COM 43001 Documentary Production Cr. 3.
- COM 43100 Practicum In Radio Cr. 2.

(2 credits, may be repeated once)

• COM 43200 - Practicum In Television Cr. 2.

(2 credits, may be repeated once)

- · COM 43600 Script Writing Cr. 3.
- COM 44401 Nonlinear Editing
- COM 49000 Internship In Communication Cr. 1-3.
- COM 20000 Reporting, Writing And Editing I Cr. 3.
   COM 21001 Visual Communication Cr. 3.
- AD 10502 Digital Imaging Cr. 3.

Total Credits: 21

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

## **Medieval Studies Minor**

Program: Minor Interdisciplinary Studies College of Arts and Sciences

Liberal Arts Building 149 ~ 260-481-0192

Coordinators: Damian Fleming, Suzanne LaVere

The minor in Medieval Studies is interdisciplinary, drawing faculty from and providing course work in the areas of art history, English and linguistics, history, foreign languages, philosophy, and religious studies. Any undergraduate student who wishes to diversify their approach to primary sources while deepening their knowledge in this area will benefit. This minor will also benefit students who plan to pursue graduate studies in English, history, philosophy, religious studies, foreign languages, or art history.

#### **Declaring this Minor:**

· Declare this minor through your major department or the minor's program coordinators.

#### **Program Requirements:**

- · The catalog term for the minor will match that of your major degree program
- · At least 6 credits must be earned as resident credit at the 200+ level or above
- You must earn a grade of C- or higher for all courses required in the minor
- · A minor is not awarded if requirements are not completed by the time your major degree is certified for graduation

To earn the minor in Medieval Studies, you must fulfill the following requirements in addition to those noted above:

## Core Requirements

### Required Course: Credits 3

• MARS 20100 - Medieval Encounters Cr. 3

## Area I - History: Credits 3

- Choose one course from the following list. Special Topics courses or other relevant courses may be substituted with the permission of the minor's Program Coordinators.
- HIST 23400 Witchcraft and Witch Hunts, c. 1400-1750 Cr. 3.
- HIST 35102 Western Europe in the Early Middle Ages Cr. 3.
- HIST 35202 Western Europe in the High And Later Middle Ages Cr. 3.
- HIST 38801 Roman History Cr. 3.
- HIST 39002 Decline & Fall Of Roman Empire Cr. 3.
- HIST 40201 Byzantine History and Civilization II Cr. 3.

## Area II - Literature: Credits 3

- · Choose one course from the following list. Special Topics courses or other relevant courses may be substituted with the permission of the minor's Program Coordinators.
- · CLCS 20500 Classical Mythology Cr. 3.
- ENGL 40401 Old English Language and Literature Cr. 3.
- ENGL 40502 Chaucer Cr. 3.
- ENGL 40601 Middle English Literature Cr. 3.
- SPAN 40700 Survey of Spanish Literature I Cr. 3.

## Area III - Religion/Philosophy: Credits 3

· Choose one course from the following list. Special Topics courses or other relevant courses may be substituted with the permission of the minor's Program Coordinators.

- PHIL 30200 History of Medieval Philosophy Cr. 3.
- REL 30100 Islam Cr. 3
- REL 30200 Christianity Cr. 3
- REL 40200 Mysticism Cr. 3.

## Area IV - Art/Music/Theatre: Credits 3

- · Choose one course from the following list. Special Topics courses or other relevant courses may be substituted with the permission of the minor's Program Coordinators.
- AD 11100 History Of Art I: Prehistoric To Medieval Cr. 3.
- AD 33201 Early Medieval Art Cr. 3
- MUSC 20100 Music Literature I Cr. 2.

\*course has prerequisites; primarily for Music majors

- MUSC 40300 History of Music I Cr. 3.
  - \*course has prerequisites; primarily for Music majors
- THTR 36500 Period Style for the Theatre I Cr. 3.

Total Credits: 15

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

## Mild Intervention Minor/Dual License

Program: Minor School of Education College of Professional Studies

 $Neff\,Hall\,\,240 \sim 260\text{-}481\text{-}6861$ 

#### Accreditation:

• The Mild Intervention Minor program is accredited by the Council for the Accreditation of Educator Preparation (CAEP) and nationally recognized as a high-quality program through the Council for Exceptional Children (CEC). Because of these statuses, students who meet specified requirements are eligible for a Mild Intervention teaching license in the state of Indiana. Indiana holds reciprocal licensing agreements with other states.

#### Declaring this Minor

• Declare this minor with the Program Director of the Special Education Program within the School of Education.

#### **Program Requirements:**

- · The catalog term for the minor will match that of your major degree.
- You must earn a grade of C- or higher for all courses required in the minor.
- You must be admitted to Block 1 or receive permission from the Special Education Program Director.

In addition to the major in elementary education, secondary education, or an all-grade program students can earn a minor in exceptional needs-mild. This minor qualifies a teacher to teach students who have Mild Intellectual Impairment, Moderate Intellectual Disability, Learning Disabilities, Autism Spectrum Disorder, and Emotional Disabilities. Completers of the 21-credit hour mild intervention minor courses are eligible for an Indiana Exceptional Needs-Mild Intervention Teaching License.

## **Required Courses**

One of the following: 3 Credits (Depending on course of study)

- EDU 30500 Teaching The Exceptional Learner In The Elementary School Cr. 3.
- EDU 30600 Teaching Students With Special Needs In Secondary Classrooms Cr. 3.

#### Each of the following: 18 credits

- EDU 35201 Education Of Children With Learning Problems (LD and EMR) Cr. 3.
- EDU 20100 Laboratory/Field Experience Cr. 0-3.
- EDU 37001 Introduction To Learning Disabilities Cr. 3.
- EDU 37101 Assessment And Individualized Instruction In Reading and Mathematics Cr. 3.
- EDU 30100 Laboratory/Field Experience Cr. 0-3.
- EDU 45300 Management Of Academic And Social Behavior Cr. 3.
- EDU 46500 Service Delivery Systems And Consultation Strategies Cr. 3.
- EDU 47000 Practicum Cr. 3-8. (Last Course)

### **Total Credits: 21**

This program is only available to teacher candidates enrolled in an undergraduate degree program at Purdue University Fort Wayne. Teachers who have already earned a teaching license must complete our Special Education Graduate Certificate in Mild Intervention.

Teacher candidates will receive an Exceptional Needs-Mild Intervention license in P-12.

Teacher candidates wishing to add a Mild Intervention teaching license to their license must complete all courses above and pass the Pearson Exam.

- Exceptional Needs Mild Intervention (P-12) test number 025 (Addition to Early Childhood or Elementary)
- Exceptional Needs- Mild Intervention (5-12) Tests numbers 025 and 064 (Addition to Secondary and all grade programs)

Website for testing information and registration www.in.nesinc.com

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

## **Military Science Minor**

Program: Minor

College of Engineering, Technology, and Computer Science

Engineering, Technology and Computer Science Building 243 ~ 260-481-6839

A minor in Military Science prepares students enrolled in the Army ROTC program for various government and civilian career paths, especially those within the U.S. Department of defense and the department of Homeland security. Practical exercises, leadership vignettes, and hands-on military training complement the academic study of warfare and diplomacy. Interdisciplinary course work emphasizes leadership, dynamic problem solving, decision-making skills, and effective communication techniques characterized within the complexities of modern conflicts.

Requirements for Minor in Military Science/Army Reserve Officer's Training Corps (ROTC)

### Curriculum Courses Cr: 18

- MSL 10100 Foundation Officership Cr. 1-2.
- MSL 10200 Basic Leadership Cr. 1-2.
- MSL 20100 Individual Leadership Cr. 2-3.
- MSL 20200 Leadership and Teamwork Cr. 2-3.
- MSL 30100 Leadership and Problem Solving Cr. 3-4.
- MSL 30200 Leadership and Ethics Cr. 3-4.
- MSL 40100 Leadership and Management Cr. 3-4.
- MSL 40200 Officership Cr. 3-4

### OLS Course Cr: 3

One of the following approved Purdue University Fort Wayne Organizational Leadership Courses:

- OLS 26800 Elements of Law Cr. 3.
- OLS 27400 Applied Leadership Cr. 3.

## History Course Cr: 3

One of the following approved Purdue Fort Wayne History Courses:

- HIST 30302 The United States from 1789 to 1865 I Cr. 3.
- HIST 10501 American History I Cr. 3.
- HIST 10601 American History II Cr. 3.
- HIST 23200 The World in the 20th Century Cr. 3.
  HIST 32503 Topics in History Cr. 3.

Total Credits: 24

### Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

## **Music Minor**

Program: Minor School of Music College of Visual and Performing Arts

Rhinehart Music Center (RC) 144 ~ 260-481-6714

A minor in music is designed for students who wish to explore the field of music while majoring in another area. The student may customize the curriculum to realize their own musical and creative potential. To earn this minor, you must complete the courses listed below and earn a grade of C- or better in each. Students are required to meet all course prerequisite and proficiency level expectations. 6 resident credits must be earned at the 200 level or above.

The student learning outcomes for the music minor are as follows:

- 1. Students will demonstrate knowledge of music theory sufficient to analyze basic musical forms and structures and to relate theoretical concepts to sound.
- 2. Students will develop basic performance ability as ensemble members or soloists.
- 3. Students will demonstrate knowledge of the history and literature of at least one era or style of music, including its social, political, and cultural contexts.

#### **Program Description**

Students can join in the music making, even if music is not their major, with a music minor program that includes 18 credit hours of music courses. This allows students flexibility to pursue their interests along with an 8 hour core of music classes.

#### **Program Delivery:**

This program is available on campus though some courses may be available as distance learning.

Declaring this Minor:

Students wishing to declare this minor must have a basic performance audition and interview with an appropriate music faculty member. Music minors are declared in the School of Music main office, RC 144.

## **Program Requirements: Credits 8**

### Music Fundamentals: Credits 3

Select one of the following courses:

• MUSC 10900 - Rudiments of Music I Cr. 2-4.

• MUSC 11300 - Music Theory I Cr. 3.

• MUSC 14000 - Introduction to Musical Expression Cr. 3.

## Music History and Literature: Credits 3

Select one of the following courses:

• MUSC 10101 - Music for the Listener Cr. 3.

- MUSC 10500 Traditions in World Music Cr. 3.
- MUSC 20103 History of Rock and Roll Music Cr. 3.
- MUSC 39300 History of Jazz Cr. 3.

### Applied Study and/or Ensemble: Credits 2

Students are required to complete a minimum of 2 hours credit in ensembles or applied study. Placement in ensembles and/or applied studios is by audition or permission of the instructor.

- Applied Study: (1-2 credits per semester) 100 level; or 200 and 300 level with a jury examination for the final requirement. Available for the study of voice, piano, organ, winds, brass, orchestral strings, guitar and percussion.
- Ensemble: (1-2 credits per semester) Any School of Music ensemble.

## Music Electives - 10 credits

- MUSC 10300 Music Recording And Production I Cr. 3.
- MUSC 20300 Music Recording And Production II Cr. 3.
  - \* For MUSC 10300 and MUSC 20300, PHYS 10500 Sound and Music Cr. 3. is a prerequisite, and counts toward the university General Education B4 Scientific Ways of Knowing requirements.
- MUSC 18203 Survey Of Music Industry And Copyright Cr. 3.
- MUSC 28211 VT-Perspectives In Music Cr. 3.
- MUSC 41800 Psychology of Music Cr. 3.
  - Students may also choose from any of the other courses in the above Music Core Requirements, including applied study and ensembles.
  - Other music (MUSC) courses may be taken with instructor permission.

Total Credits: 18

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

## **Organizational Leadership Minor**

Program: Minor Department of Organizational Leadership College of Engineering, Technology and Computer Science

Neff Hall 288 ~ 260-481-6420

If you are pursuing a major other than organizational leadership, you may earn a minor in organizational leadership by completing the following courses with a grade of C- or better in each course and earning at least 9 resident credits at Purdue University Fort Wayne. OLS courses taken more than 10 years ago will not count towards the minor. Regardless if you are able to enroll in a course, you must obtain a C- or better before advancing into the next course that requires the prerequisite.

## Program Requirements: Credits 15

- OLS 25200 Human Relations in Organizations Cr. 3.
- OLS 26800 Elements of Law Cr. 3.
- OLS 27400 Applied Leadership Cr. 3.
- OLS 37500 Training Methods Cr. 3.
- OLS 37600 Human Resources Issues Cr. 3.

## OL Electives: Credits 3

- OLS 28000 Computer Applications for Supervisors Cr. 3.
- OLS 32000 Customer Service and Commitment Cr. 3.
- OLS 33100 Occupational Safety and Health Cr. 3.
- OLS 34200 Interviewing Strategies in Organizations Cr. 3.
- OLS 35000 Applied Creativity for Business and Industry Cr. 3.
- OLS 35100 Innovation And Entrepreneurship Cr. 3.
- OLS 37000 Managing Job Stress and Health Cr. 3.
- OLS 37800 Labor Relations Cr. 3.
- OLS 38400 Leadership Process Cr. 3.
- OLS 39900 Special Topics Cr. 3.
- OLS 46800 Personnel Law Cr. 3.
- OLS 47600 Compensation Planning and Management Cr. 3.
- OLS 47700 Conflict Management Cr. 3.
- OLS 47900 Staffing Organizations Cr. 3.
- OLS 48400 Leadership Strategies for Quality and Productivity Cr. 3.

Total: Credits 18

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

## **Philosophy Minor**

Program: Minor Department of English and Linguistics College of Arts and Sciences

Liberal Arts Building 145 ~ 260-481-6751

#### Declaring this Minor:

- · Declare this minor within the Department of English and Linguistics or through your major department
- Students cannot declare a major and a minor in the same program

#### **Program Requirements:**

- The catalog term for the minor will match that of your major degree program
   At least 6 credits must be earned as resident credit at the 2000+ level or above
- You must earn a grade of C- or higher for all courses required in the minor
- · A minor is not awarded if requirements are not completed by the time your major degree is certified for graduation
- Substitutions for these courses may be made with the approval of the program director.

To earn the minor in Philosophy, you must fulfill the following requirements in addition to those noted above:

## Core Requirements

Required Course: Credits 3

Choose one of the following courses:

- PHIL 12000 Critical Thinking Cr. 3.
- PHIL 15000 Principles of Logic Cr. 3.

Additional Courses: Credits 12

Choose four additional Philosophy courses and meet the following criteria:

- One of the four courses must be at the 2000+ level or higher
- · One of the four courses must be at the 3000+ level or higher

Total Credits: 15

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

## **Physics Minor**

Program: Minor Department of Physics College of Arts and Sciences

Kettler Hall 126B ~ 260-481-6306

If you are interested in understanding physics, from Newtonian to Quantum Mechanics, then this minor lets you choose courses to satisfy your curiosity.

#### **Declaring this Minor:**

- · Declare this minor within the Department of Physics
- · Students cannot declare a major and a minor in the same program

#### **Program Requirements:**

- · The catalog term for the minor will match that of your major degree program
- At least 6 credits must be earned as resident credit at the 200+ level or above
- You must earn a grade of C- or higher for all courses required in the minor
- · A minor is not awarded if requirements are not completed by the time your major degree is certified for graduation

To earn the minor in Physics, you must fulfill the following requirements in addition to those noted above:

### Core Requirements

Required Courses: Credits 13

- PHYS 15200 Mechanics Cr. 5.
- PHYS 25100 Heat, Electricity, and Optics Cr. 5.
- PHYS 34200 Modern Physics Cr. 3.

Additional Courses: Credits 6-8

· Choose your additional credits in any 30000+ level Physics (PHYS) courses excluding PHYS 30200 and PHYS 36100.

Total Credits: 19-21

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

## **Political Science Minor**

Program: Minor Department of Political Science College of Arts and Sciences

Liberal Arts Building 209 ~ 260-481-6686

## Declaring this Minor:

- · Declare this minor within the Department of Political Science or through your major department
- Students cannot declare a major and a minor in the same program

## **Program Requirements:**

- The catalog term for the minor will match that of your major degree program
- At least 6 credits must be earned as resident credit at the 200+ level or above
- You must earn a grade of C- or higher for all courses required in the minor
- · A minor is not awarded if requirements are not completed by the time your major degree is certified for graduation

To earn the minor in Political Science, you must fulfill the following requirements in addition to those noted above:

## Required Courses: Credits 18

- · A total of 18 credits in POL courses
- A maximum of 6 credits may be earned in POL 1000+ level courses
- A minimum of 6 credits in POL courses must be at the 3000+ level or above (not including POL 39800 or 48200)
  - Neither POL 39800 (Internship in Urban Institutions) nor POL 48200 (Practicum) may count for more than 6 of the 18 credits
  - $\circ~$  Together POL 39800  $\,$  and POL 48200 may not count for more than 9 of the 18 credits

Total Credits: 18

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

## **Professional Writing Minor**

Program: Minor Department of English and Linguistics College of Arts and Sciences

Liberal Arts Building 145 ~ 260-481-6841

#### **Declaring this Minor:**

• Declare this minor within the Department of English and Linguistics or through your major department

#### **Program Requirements:**

- The catalog term for the minor will match that of your major degree program
- At least 6 credits must be earned as resident credit at the 2000+ level or above
- You must earn a grade of C- or higher for all courses required in the minor
- · A minor is not awarded if requirements are not completed by the time your major degree is certified for graduation

To earn the minor in Professional Writing, you must fulfill the following requirements in addition to those noted above:

## Core Requirements

### Preparatory Writing Course: Credits 3

Choose one course from the following list:

- ENGL 23202 Introduction to Business Writing Cr. 3.
- ENGL 23301 Intermediate Expository Writing Cr. 3.
- ENGL 23401 Technical Report Writing Cr. 3.
- ENGL 33101 Business and Administrative Writing Cr. 3.

### Advanced Professional Writing Courses: Credits 9

Choose a minimum of three courses from the following list:

- ENGL 39800 Internship in Writing Cr. 1-3.
- ENGL 42002 Argumentative Writing Cr. 3.

- ENGL 42101 Technical Writing Projects Cr. 1-3.
- ENGL 42502 Research Methods for Professional Writers Cr. 3.
- ENGL 46201 Studies in Rhetoric and Composition Cr. 3.

(Only topics specifically related to professional writing)

### Additional Courses: Credits 3

Choose a minimum of 3 credits from the following options:

- · Any course from the above two areas not used to fulfill the area distribution requirements
- Any other course at the 2000+ level or above which supports your interest in professional writing. Examples include but are not limited to the following:
- · COM 20000 Reporting, Writing And Editing I Cr. 3.
- COM 31001 Editorial Practices Cr. 3.
- COM 32400 Introduction To Organizational Communication Cr. 3.
- ENGL 40501 Writing Prose Creative Nonfiction Cr. 2-3.

Total Credits: 15

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

## **Psychology Minor**

Program: Minor Department of Psychology College of Arts and Sciences

Neff Hall 388 ~ 260-481-6403

### Declaring this Minor:

- Declare this minor within the Department of Psychology or through your major department.
- Students cannot declare a major and a minor in the same program.

#### **Program Requirements:**

- The catalog term for the minor will match that of your major degree program.
- At least 6 credits must be earned as resident credit at the 2000+ level or above.
- You must earn a grade of C- or higher for all courses required in the minor.
- A minor is not awarded if requirements are not completed by the time your major degree is certified for graduation.

To earn the minor in psychology, you must fulfill the following requirements in addition to those noted above:

## Core Requirements

Required Course: Credits 3

• PSY 12000 - Elementary Psychology Cr. 3.

## Required Area Courses: Credits 6

Choose one course in at least two of the areas below:

#### Area I:

• PSY 23500 - Child Psychology Cr. 3.

• PSY 36900 - Development Across the Lifespan Cr. 3.

Credit not given for both PSY 23500 and PSY 36900

### Area II:

- PSY 24000 Introduction to Social Psychology Cr. 3.
   PSY 33500 Stereotyping and Prejudice Cr. 3.

### Area III:

- PSY 35000 Abnormal Psychology Cr. 3.
  PSY 42000 Introduction to Personality Theory Cr. 3.

## Supporting Course: Credits 3

Choose one course from the following list:

- PSY 31100 Human Memory Cr. 3.
- PSY 31400 Introduction to Learning Cr. 3.
   PSY 32900 Psychobiology II: Principles of Psychobiological Psychology Cr. 3.
- PSY 41600 Cognitive Psychology Cr. 3.

## Additional Course: Credits 3

• Choose one additional PSY course numbered 2000+ or above.

**Total Credits: 15** 

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

## **Public Affairs Minor**

Program: Minor Department of Public Policy College of Professional Studies

Neff Hall 260 Ph: 260-481-6351

The minor in public affairs offers students the opportunity to become more knowledgeable in the field of public administration and the policy implications of the public sector. It is available to students who are enrolled in baccalaureate programs and can enhance career opportunities for liberal arts and other majors.

## **Program Requirements**

Each minor requires 15 hours of specified courses with a grade of C- or higher AND a 2.0 grade point average. Public Policy majors may only double-count 6 of the required 15 credit hours in other Public Policy major or minor requirements. Students may earn more than one minor from Public Policy, but each minor must have at least 9 credit hours that are not satisfying other major or minor requirements. In addition, at least 6 resident credits must be at the 200-level or above.

#### Choose three of these four courses: 9 credits

- PPOL 10100 The American Criminal Justice System Cr. 3.
- PPOL 12000 Contemporary Health Issues Cr. 1-3.
- PPOL 16200 Environment and People Cr. 3.
- PPOL 17000 Introduction to Public Affairs Cr. 3.

### Two of the following courses and/or course options: 6 credits

- PPOL 26300 Public Management: CR 3
- 30000-40000 level PPOL Elective: CR 3
- 30000-40000 level PPOL Elective: CR 3

Total Credits: 15

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies, and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

### **Public Relations Minor**

Program: Minor
Department of Communication
College of Arts and Sciences

Neff Hall 230  $\sim$  260-481-6825

The public relations minor will appeal to those wishing to concentrate in the corporate communications or advertising/public relations industries. This minor is especially appropriate for communication concentrations.

### Declaring this Minor:

· Declare this minor within the Department of Communication

#### **Program Requirements:**

- · The catalog term for the minor will match that of your major degree program
- At least 6 credits must be earned as resident credit at the 200+ level or above
- · You must earn a grade of C- or higher for all courses required in the minor
- · A minor is not awarded if requirements are not completed by the time your major degree is certified for graduation

To earn the minor in Public Relations, you must fulfill the following requirements in addition to those noted above:

## Core Requirements

Required Courses: Credits 15

- COM 13500 Introduction To News Writing Cr. 3
- COM 20000 Reporting, Writing And Editing I Cr. 3.
- COM 25300 Introduction To Public Relations Cr. 3.
- COM 35300 Problems In Public Relations Cr. 3.
- COM 49000 Internship In Communication Cr. 1-3.

Additional Course: Credits 3

- · Choose one course from the following list:
- COM 14000 Introduction To Media Production Cr. 3.
- COM 21001 Visual Communication Cr. 3.
- COM 31501 Feature Writing Cr. 3.
- COM 39001 Corporate Publications Cr. 1-3.

Total Credits: 18

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

## **Religious Studies Minor**

Program: Minor Department of History College of Arts and Sciences

Liberal Arts Building 209~ 260-481-6609

Program Coordinator: Erik Ohlander

Transdisciplinary in approach and global in scope, the minor in religious studies provides students with a firm grounding in the academic study of religion through the informed investigation of the phenomenon of religion in diverse historical, social, cultural, and political contexts. Coupling the acquisition of broad knowledge of the world's religious traditions-past and present-with a critical apprehension of the methods and tools scholars use to study them, the minor in religious studies can serve as an excellent complement to a variety of majors, including anthropology, general studies, history, political science, sociology and women's studies.

#### **Declaring this Minor:**

• Declare this minor within the Department of History or through your major department

## **Program Requirements:**

- · The catalog term for the minor will match that of your major degree program
- At least 6 credits must be earned as resident credit at the 200+ level or above
- You must earn a grade of C- or higher for all courses required in the minor
- A minor is not awarded if requirements are not completed by the time your major degree is certified for graduation

· Substitutions for these courses may be made with the approval of the Religious Studies Program Coordinator.

To earn the minor in Religious Studies, you must fulfill the following requirements in addition to those noted above:

## Core Requirements

### Required Courses Credits: 9

- REL 11200 Religion and Culture Cr. 3.
- REL 23000 Religions of the East Cr. 3.
- REL 23100 Religions of the West Cr. 3.

### Religious Traditions Credits: 3

- REL 30000 Religions of the Ancient World Cr. 3.
- REL 30100 Islam Cr. 3
- REL 30200 Christianity Cr. 3
- REL 30600 Hinduism Cr. 3.
- REL 30700 Buddhism Cr. 3.
- REL 31100 African Traditional Philosophy and Religion Cr. 3

### Topical, Thematic or Cognate Credits: 3

• ANTH 20000 - Topics In Anthropology Of Culture And Society Cr. 3

taken as: Ritual in Human Life Cr. 3

- CLCS 20500 Classical Mythology Cr. 3.
- CLCS 40500 Comparative Mythology Cr. 3-4.
- FOLK 30500 Asian Folklore Cr. 3.
- FOLK 35200 Native American Folklore Cr. 3.
- HIST 23400 Witchcraft and Witch Hunts, c. 1400-1750 Cr. 3.
- HIST 39301 Ottoman History Cr. 3.
- PHIL 20600 Introduction To Philosophy Of Religion Cr. 3.
- PHIL 30200 History of Medieval Philosophy Cr. 3.
- REL 29300 Topics in Religious Studies Cr. 3.
- REL 31200 The Black Religious Experience Cr. 3
- REL 31400 Religion and Violence Cr. 3.
- REL 31500 Religion and Women Cr. 3.
- REL 32100 Religion and the Civil Rights Movement Cr. 3
- REL 32300 Religion and Popular Culture Cr. 3.
- REL 37500 Islamic Thought Cr. 3.
- REL 37800 The Qur'an In Muslim Life Cr. 3.
  REL 38100 Islam And Modernity
- REL 40100 Studies in Sacred Texts Cr. 3
- REL 40100 Studies in Sacred Texts Cr.
- REL 40200 - Mysticism Cr. 3.
- REL 49300 Undergraduate Seminar Cr. 3
- REL 49500 Individual Readings in Religious Studies Cr. 3.
- SOC 31300 Religion and Society Cr. 3.
- WOST 30100 International Perspectives on Women Cr. 3.

## taken as either:

- Women and Faith: Global Perspectives Cr. 3
- Beyond the Harem: Women in North Africa and the Middle East Cr. 3

Total Credits: 15

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

## **Resort And Tourism Minor**

Program: Minor

Department of Hospitality and Tourism Management (for non HTM majors only)

**College of Professional Studies** 

Neff Hall 330 ~ 260-481-6562

To be eligible for this minor, you must complete each specified courses with a grade of C- or better, and complete at least 13 of the required 22 credits at Purdue University Fort Wayne.

## Minor Requirements: Credits 22

- HTM 10000 Introduction to the Hospitality and Tourism Industry Cr. 1-3.
- HTM 18100 Lodging Management Cr. 3.
- HTM 30200 Hospitality and Tourism Industry Internship Cr. 1.
- HTM 32400 Distribution Management Cr. 3.
- HTM 37400 Revenue Management Cr. 3.
- HTM 37600 Sustainable Tourism Development Cr. 3. \*
- HTM 37700 Resort Property, Rental And Services Management Cr. 3. \*
- HTM 37800 Destination And Resort Marketing Cr. 3 \*
  - \* Courses only offered in Florida require participation in Purdue Fort Wayne Florida semester offered only in spring semester
  - \*Students attending Purdue Fort Wayne Florida semester must complete HTM 30200 Internship work experience at the Gasparilla Inn (FL)

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

## **Room Division Minor**

Program: Minor (for non HTM majors only) Department of Hospitality and Tourism Management College of Professional Studies

Neff Hall 330 ~ 260-481-6562

To be eligible for this minor, you must complete each specified courses with a grade of C- or better, and complete at least 13 of the required 22 credits at Purdue University Fort Wayne.

## Minor Requirements: Credits 22

• HTM 10000 - Introduction to the Hospitality and Tourism Industry Cr. 1-3.

- HTM 18100 Lodging Management Cr. 3.
- HTM 30200 Hospitality and Tourism Industry Internship Cr. 1.
- HTM 32400 Distribution Management Cr. 3.
- HTM 37100 Introduction to Tourism Cr. 3.
- HTM 37400 Revenue Management Cr. 3.
- HTM 43000 Hospitality Strategic Management Cr. 3.
- CFS 39900 Special Topics In CFS Cr. 1-4. (Emerging Technologies)

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

## **Sociology Minor**

Program: Minor Department of Sociology and Anthropology College of Arts and Sciences

Liberal Arts Building 241 ~ 260-481-6842

#### Declaring this Minor:

- Declare this minor within the Department of Sociology and Anthropology or through your major department
- · Students cannot declare a major and a minor in the same program

#### **Program Requirements:**

- The catalog term for the minor will match that of your major degree program
- At least 6 credits must be earned as resident credit at the 200+ level or above
- You must earn a grade of C- or higher for all courses required in the minor
- · A minor is not awarded if requirements are not completed by the time your major degree is certified for graduation

To earn the minor in Sociology, you must fulfill the following requirements in addition to those noted above:

## Core Requirements

Required Courses: Credits 15

- Choose 15 credits of SOC prefixed courses
- A minimum of 9 credits must be at the 3000+ level or above
- No more than 3 credits of SOC 49500 or directed study will apply

Total Credits: 15

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

## **Spanish Minor**

Program: Minor

Department of International Language and Culture Studies

College of Arts and Sciences

Liberal Arts Building 267 ~ 260-481-6836

#### Study Abroad

Both majors and non majors are encouraged to study abroad. For those who wish to study Spanish, opportunities are available in Argentina, Bolivia, Chile, Colombia, Costa Rica, Mexico, Nicaragua, Puerto Rico, Spain, or Uruguay.

#### **Declaring this Minor:**

- · Declare this minor within the Department of International Language and Culture Studies or through your major department
- · Students cannot declare a major and a minor in the same program

#### **Program Requirements:**

- · The catalog term for the minor will match that of your major degree program
- At least 6 credits must be earned as resident credit at the 200+ level or above
- You must earn a grade of C- or higher for all courses required in the minor
- · A minor is not awarded if requirements are not completed by the time your major degree is certified for graduation

To earn the minor in Spanish, you must fulfill the following requirements in addition to those noted above:

## Core Requirements

Required Courses: Credits 12

- SPAN 20401 Second-Year Spanish II Cr. 3.
- SPAN 27500 Hispanic Culture and Conversation Cr. 3.
- SPAN 30101 The Hispanic World I Cr. 3.
- SPAN 31100 Spanish Grammar Cr. 3.

Additional Course: Credits 3

• Choose one additional SPAN course at the 3000+ level.

**Total Credits: 15** 

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

### **Theatre Minor**

Program: Minor Department of Theatre College of Visual and Performing Arts

Williams Theatre 128 ~ 260-481-6551

## **Program Requirements**

You may earn a theatre minor by completing the following courses and earning a grade of C or better in each:

- THTR 13400 Fundamentals of Performance Cr. 3.
- THTR 13800 Acting I Cr. 3.
- THTR 16800 Theatre Production I Cr. 1.

Must be repeated once for total of 2 credits

- THTR 20100 Theatre Appreciation Cr. 3.
  THTR 26100 Introduction to Theatrical Design Cr. 3.
- THTR 28400 Textual Analysis Cr. 3.

### One of the following: Credits: 3

- THTR 47000 Theatre and Society I Cr. 3.
- THTR 47100 Theatre And Society II Cr. 3.

Theatre electives Credits: 3

Total Credits: 23

### Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

## Women's Studies Minor

Program: Minor Women's Studies Program Department of Political Science College of Arts and Sciences

Liberal Arts Building 209 ~ 260-481-6688

Program Director: Janet Badia, Department of Political Science

Women's Studies is an interdisciplinary area of study that examines gender and its intersections with other categories of identity, including race and ethnicity, sexuality, class, nationality, and disability. As such, it provides students the opportunity to integrate knowledge across diverse academic disciplines, to understand gender within both historical and contemporary contexts, and to develop approaches to investigation, analysis, and research that reflect the complex nature of how gender operates in our lives, how systems of power and oppression function, and how individuals and organizations can bring about meaningful social change

## **Declaring this Minor:**

- · Declare this minor within the Department of Political Science which is the administrative home for the Women's Studies program, or through your major department
- · Students cannot declare a major and a minor in the same program

#### **Program Requirements:**

- · The catalog term for the minor will match that of your major degree program
- At least 6 credits must be earned as resident credit at the 200+ level or above
- · You must earn a grade of C- or higher for all courses required in the minor

To earn the minor in Women's Studies, you must fulfill the following requirements in addition to those noted above:

## Core Requirements

## Required Course: Credits 3

• WOST 21000 - Introduction To Women's And Gender Studies Cr. 3.

Supporting Courses: Credits 6

### Choose one:

Choose one course from WOST prefixed or cross-referenced courses offered in humanities or fine arts:

- ENGL 47201 Composing the Self Cr. 3.
  ENGL 47800 Studies in Women and Literature Cr. 3.
- HIST 23400 Witchcraft and Witch Hunts, c. 1400-1750 Cr. 3.
- HIST 26000 History Of Women In The United States Cr. 3.
- PHIL 30500 Philosophical Theories of Feminism Cr. 3.
- REL 31500 Religion and Women Cr. 3.
- WOST 22500 Gender, Sexuality, and Popular Culture Cr. 3.
   WOST 30200 Topics in Gender Studies Cr. 3.

#### Choose one:

Choose one course from WOST prefixed or cross-referenced courses offered in social sciences or sciences:

- ANTH 40200 Gender In Cross-Cultural Perspective Cr. 3.
- BIOL 25000 Women And Biology Cr. 3.
- COM 41000 Gender Roles and Communication Cr. 3.
  COM 42200 Women, Men, and Media Cr. 3.
- POL 32400 Gender and Politics Cr. 3.
- POL 32800 Women and the Law Cr. 3.
- PSY 34500 Psychology of Women Cr. 3.
  PSY 36500 Development of Gender Roles in Children Cr. 3.
  WOST 24000 Topics in Feminism Cr. 3.

## Additional Courses: Credits 6

· Choose additional credits in WOST prefixed or cross-referenced courses from the humanities, fine arts, social sciences, or sciences listed above.

Total Credits: 15

## Student Responsibility

You are responsible for satisfying the graduation requirements specified for your selected program. Thus, it is essential that you develop a thorough understanding of the required courses, academic policies and procedures governing your academic career. All requests for exceptions to specific requirements must be made in writing and may be granted only by written approval from the appropriate chair or dean.

## **Special Programs**

## **Business And Leadership Pathway**

Program: Pathway

Department: Student Success and Transitions School/College: Unit of Affiliated Programs

Kettler Hall 112 ~ 260-481-0404

Purdue University Fort Wayne and Student Success and Transitions (SST) care about the futures of all of our students. To that end, the Pathway Program was implemented to allow students a more targeted approach to choosing a major. We recognize the importance and often times difficulty in making this decision - you are not alone. The staff in SST assists students in exploring options and connecting with faculty and staff in academic departments, by promoting analysis and exploration through an individualized pathway plan.

Students who choose the Business and Leadership Pathway have an interest in solving problems, inspiring others, social justice, and/or engaging in the community. Many who choose this pathway would describe themselves as goal-orientated, innovative, organized, strategic and motivated. Those in Business and Leadership are thoughtful decision makers and may consider themselves to be "balanced people" or have "balanced interests," meaning they have varied skills and abilities. For example, someone in this pathway may like working with people in a management, business or political environment, but not in a profession akin to social work or nursing. Some skills related to majors and careers in this pathway: problem solving, global awareness, communication, ethical reasoning skills, commitment, integrity, courage, straightforwardness, and imagination.

#### **Program Delivery:**

· Students may take advantage of the wide variety of daytime, evening, weekend, hybrid, and online courses at Purdue Fort Wayne. See an advisor for more information.

#### **Declaring This Major:**

• Students may declare by visiting the SST office and meeting with an advisor.

#### **General Requirements:**

- · Degree Requirements
- · General Education Requirements
- · Overlapping Course Content
- · Academic Regulations

### **Program Requirements:**

#### Business and Leadership Pathway 1-Yr. Plan:

Academic planning is essential!

Academic advisors help ensure that the classes you choose to take align with placement test results, interests, previously earned credits and requirements for the general education and any majors you may be considering. Students should meet with their advisor at least once per semester.

#### Suggested Courses: Credits 30

- · Gen Ed A1 Written Communication ENGL 13100 or GA1
- Gen Ed A1 Written Communication 2nd Semester ENGL 23301 or GA1
- Gen Ed A2 Speaking and Listening COM 11400 or GA2
- Gen Ed A3 Quantitative Reasoning GA3
- Gen Ed B4 Scientific Ways of Knowing GB4
- Gen Ed B5 Social and Behavioral Ways of Knowing PSY 12000, SOC 16101 or GB5
- Gen Ed B6 Humanistic and Artistic Ways of Knowing PHIL 11100 or GB6
- · Gen Ed B7 Interdisciplinary of Creative Ways of Knowing GB7
- Pathway Courses HTM 10000, PPOL 10100, BUS 10000, BUS 10001, OLS 25200, or other courses recommended by your advisor
- · Students interested in teaching should consider EDU 20000, ask advisor for details.

# **Engineering And Science Pathway**

Program: Pathway

Department: Student Success And Transitions School/College: Unit of Affiliated Programs

 $Kettler\ Hall\ 112 \sim 260\text{-}481\text{-}0404$ 

Purdue University Fort Wayne and Student Success and Transitions (SST) care about the futures of all of our students. To that end, the Pathway Program was implemented to allow students a more targeted approach to choosing a major. We recognize the importance and often times difficulty in making this decision - you are not alone. The staff in SST assists students in exploring options and connecting with faculty and staff in academic departments, by promoting analysis and exploration through an individualized pathway plan.

Students who choose the Engineering and Science Pathway enjoy solving problems and are generally very analytical, linear, rational, and theoretical. Many seek to understand things on a higher level - why things work the way that they do, not simply how they work. Those who choose this pathway enjoy complex puzzles and games that involve strategy and love the challenge of applying scientific/logical methods to solve problems. Most within this pathway excel in math and data analysis and/or have an interest in

understanding more about the world in which we live. Research in areas such as the natural world, environment, human body, computer programming, and other technical systems are generally of interest to students who choose this pathway.

#### **Program Delivery:**

• Students may take advantage of the wide variety of daytime, evening, weekend, hybrid, and online courses at Purdue Fort Wayne. See an advisor for more information.

#### **Declaring This Major:**

· Students may declare by visiting the SST office and meeting with an advisor.

#### **General Requirements:**

- · Degree Requirements
- · General Education Requirements
- · Overlapping Course Content
- · Academic Regulations

#### **Program Requirements:**

#### Engineering and Science Pathway 1-Yr. Plan:

Academic planning is essential!

Academic advisors help ensure that the classes you choose to take align with placement test results, interests, previously earned credits and requirements for the general education and any majors you may be considering. Students should meet with their advisor at least once per semester.

#### Suggested Courses: Credits 30

- Gen Ed A1 Written Communication ENGL 13100 or GA1
- Gen Ed A1 Written Communication 2nd Semester GA1
- Gen Ed A2 Speaking and Listening COM 11400 or GA2
- Gen Ed A3 Quantitative Reasoning GA3
- Gen Ed B4 Scientific Ways of Knowing CHM 11500 or GB4
- Gen Ed B5 Social and Behavioral Ways of Knowing GB5
- Gen Ed B6 Humanistic and Artistic Ways of Knowing PHIL 11100 or GB6
- Gen Ed B7 Interdisciplinary of Creative Ways of Knowing GB7
- · Pathway Courses Any courses recommended by advisor
- Students interested in teaching should consider EDU 20000, ask advisor for details.

## First Year Engineering

#### First-Year Engineering

#### Department: Electrical & Computer

#### School/College: Computer Engineering

The First-year Engineering Program is the entry point for all beginning engineering students. All engineering students at Purdue University Fort Wayne must complete the first-year engineering requirements before entering the engineering program of their choice. This core curriculum includes courses in math, chemistry, physics, computer programming and communication skills, as well as an introductory to engineering design course. The freshman program coordinators, the engineering faculty and staff are dedicated to assisting engineering students with their first-year experience.

Recommended courses to be taken in the first year:

#### First semester:

- MA 16500
- CHM 11500
- ENGR 12700
- ENGL 13100 or General Education B5/B6

#### Total number of credits: 15

#### Second semester:

- MA 1660
- PHYS 15200
- ENGR 12800
- ME 16000 only applies to students pursuing the Bachelor of Degree in Mechanical Engineering at a later time
- COM 11400 or General education B5/B6

Total number of credits: 15 or 18.

 $Students\ also\ have\ the\ option\ to\ take\ COM\ 11400\ in\ the\ first\ semester\ and\ take\ ENGL\ 13100\ in\ the\ second\ semester.$ 

### **Humanities And Social & Behavioral Science Pathway**

Program: Pathway

Department: Student Success And Transitions School/College: Unit of Affiliated Programs

Purdue University Fort Wayne and Student Success and Transitions (SST) care about the futures of all of our students. To that end, the Pathway Program was implemented to allow students a more targeted approach to choosing a major. We recognize the importance and often times difficulty in making this decision - you are not alone. The staff in SST assists students in exploring options and connecting with faculty and staff in academic departments, by promoting analysis and exploration through an individualized pathway plan.

The humanities and social sciences are academic disciplines that examine human culture and society, as well as relationships among individuals. The humanities are those disciplines that focus on human belief systems, human culture and art, societies, relationships, and in the ways in which humans express themselves and create meaning. The social sciences investigate and analyze human nature and behavior, including human social structures and governments as well as how humans communicate with each other within these social structures. Students within this very broad pathway are concerned with understanding human institutions, how the mind works, and how we interact with one another. Students in this pathway can be caring, compassionate, able to improvise, and often choose helping professions; many have strong empathetic or sympathetic tendencies. Others within this pathway are curious about the world and its people, cultures, societies, relationships, language, and belief systems. Still others are interested in how we construct governing bodies, how the mind works, how we interact in society, and how we express ourselves and create meaning. Some skills and attributes related to majors and careers in this pathway include the following: global awareness, communication, critical thinking and reasoning skills, empathy, compassion, a desire to learn new concepts and theories, ability and desire to be a part of a team and open-mindedness. Students who choose this pathway are often interested in how many different disciplines work together to help paint a broad picture of the world in which we live, and they use this broad understanding of the world in order to solve problems, analyze situations, data, and texts, and communicate clearly within the global marketplace.

#### **Program Delivery:**

. Students may take advantage of the wide variety of daytime, evening, weekend, hybrid, and online courses at Purdue Fort Wayne. See an advisor for more information.

#### **Declaring This Major:**

• Students may declare by visiting the SST office and meeting with an advisor.

#### **General Requirements:**

- · Degree Requirements
- General Education Requirements
- Overlapping Course Content
- · Academic Regulations

#### **Program Requirements:**

Humanities and Social & Behavioral Science Pathway 1-Yr Plan:

Academic planning is essential!

Academic advisors help ensure that the classes you choose to take align with placement test results, interests, previously earned credits and requirements for the general education and any majors you may be considering. Students should meet with their advisor at least once per semester.

#### Suggested Courses: Credits 30

- Gen Ed A1 Written Communication ENGL 13100 or GA1
- Gen Ed A1 Written Communication 2nd Semester ENGL 23301 or GA1
- Gen Ed A2 Speaking and Listening COM 11400 or GA2
- Gen Ed A3 Quantitative Reasoning GA3
- Gen Ed B4 Scientific Ways of Knowing GB4
- · Gen Ed B5 Social and Behavioral Ways of Knowing PSY 12000, SOC 16101 or GB5
- Gen Ed B6 Humanistic and Artistic Ways of Knowing PHIL 11000/11100 or GB6
- Gen Ed B7 Interdisciplinary of Creative Ways of Knowing GB7
- Pathway Courses ANTH 10501, HIST 10501/10601, HSRV 10000, POL 10300, WOST 21000, a Language Sequence, or other courses recommended by your academic advisor
- Students interested in teaching should consider EDU 20000, ask advisor for details.

### Titan To Mastodon Program

Program: Titan to Mastodon Connection Department: Student Success And Transitions School/College: Unit of Affiliated Programs

The Titan to Mastodon Connection Program (T2M) is a collaborative initiative between Purdue University Fort Wayne and Ivy Tech Community College. It was created for students with High School GPAs below 2.3 (on a 4.0 scale), to provide advising, orientation, and on-going support in their transition to eventual full-time enrollment at Purdue Fort Wayne. T2M students will have an individually tailored academic plan with enrollment in courses concurrently at Ivy Tech Community College and Purdue Fort Wayne. Participation in T2M is by invitation only and all participants must sign a financial aid consortium agreement and program contract for every term they wish to be in the program.

T2M students will be degree-seeking at Ivy Tech, which will serve as their "home institution" for Financial Aid purposes, and will work with their T2M advisor to select an Associate's degree program that aligns with their educational goals. Concurrently, students will be in non-degree seeking status at Purdue Fort Wayne, with the ultimate goal of fully transferring to PFW and earning a Bachelor's degree. T2M students will have full access to resources, events and facilities at both campuses.

Students eligible for the T2M program can elect to not participate and be a part-time student at Purdue Fort Wayne. Students may take up to 11 credit hours a semester but should be aware that attending part-time may impact their financial aid.

#### **Program Delivery:**

Students may take advantage of the wide variety of daytime, evening, weekend, hybrid, and online courses at Purdue Fort Wayne. See a T2M advisor for more information.

#### **General Requirements:**

- Degree Requirements
- General Education Requirements
- Overlapping Course Content
- Academic Regulations

#### **Program Requirements:**

Academic planning is essential! Academic advisors help ensure that the classes you choose to take align with placement test results, interests, previously earned credits and requirements for the general education and any degree programs you may be considering. T2M students should meet with their advisor at least once per semester.

#### Suggested Courses: Credits 30

- Gen Ed A1 Written Communication ENGL 13100
- Gen Ed A2 Speaking and Listening COM 11400 or GA2
- Gen Ed A3 Quantitative Reasoning GA3
- · Gen Ed B4 Scientific Ways of Knowing GB4
- · Gen Ed B5 Social and Behavioral Ways of Knowing PSY 12000, SOC 16101 or GB5
- Gen Ed B6 Humanistic and Artistic Ways of Knowing PHIL 11000/11100 or GB6
- Gen Ed B7 Interdisciplinary of Creative Ways of Knowing GB7
- · IDIS 1100 Freshman Success
- Pathway Courses ANTH 10501, HIST 10501/10601, HSRV 10000, POL 10300, WOST 21000, a Language Sequence, or other courses recommended by your T2M academic advisor

### **Visual And Performing Arts Pathway**

Program: Pathway

Department: Student Success And Transitions School/College: Unit of Affiliated Programs

Kettler Hall 112 ~ 260-481-0404

Purdue University Fort Wayne and Student Success and Transitions (SST) care about the futures of all of our students. To that end, the Pathway Program was implemented to allow students a more targeted approach to choosing a major. We recognize the importance and often times difficulty in making this decision - you are not alone. The staff in SST assists students in exploring options and connecting with faculty and staff in academic departments, by promoting analysis and exploration through an individualized pathway plan

Students who choose the Engineering and Science Pathway enjoy solving problems and are generally very analytical, linear, rational, and theoretical. Many seek to understand things on a higher level - why things work the way that they do, not simply how they work. Those who choose this pathway enjoy complex puzzles and games that involve strategy and love the challenge of applying scientific/logical methods to solve problems. Most within this pathway excel in math and data analysis and/or have an interest in understanding more about the world in which we live. Research in areas such as the natural world, environment, human body, computer programming, and other technical systems are generally of interest to students who choose this pathway.

#### **Program Delivery:**

• Students may take advantage of the wide variety of daytime, evening, weekend, hybrid, and online courses at Purdue Fort Wayne. See an advisor for more information.

#### **Declaring This Major:**

· Students may declare by visiting the SST office and meeting with an advisor.

#### General Requirements:

- Degree Requirements
- · General Education Requirements
- Overlapping Course Content
- Academic Regulations

#### **Program Requirements:**

#### Visual and Performing Arts Pathway 1-Yr. Plan:

Academic planning is essential!

Academic advisors help ensure that the classes you choose to take align with placement test results, interests, previously earned credits and requirements for the general education and any majors you may be considering. Students should meet with their advisor at least once per semester.

#### Suggested Courses: Credits 30

- Gen Ed A1 Written Communication ENGL 13100 or GA1
- Gen Ed A2 Speaking and Listening COM 11400, THTR 11400 or GA2

- Gen Ed A3 Quantitative Reasoning MA 14000, STAT 12500 or GA3
- Gen Ed B4 Scientific Ways of Knowing GB4
- · Gen Ed B5 Social and Behavioral Ways of Knowing PSY 12000 or GB5
- Gen Ed B6 Humanistic and Artistic Ways of Knowing GB6
- Gen Ed B7 Interdisciplinary of Creative Ways of Knowing GB7
- Pathway Courses AD 11100, AD 10502, MUSC 10500, THTR 13400 and any other courses recommended by advisor
- · Students interested in teaching should consider EDU 20000, ask advisor for details.

#### TransferIN.net: Indiana Core Transfer Library

### TransferIN.net: Indiana Core Transfer Library

#### What is the CTL?

Indiana is working to help you transfer college credits more easily. To enable students to connect college credits, Indiana has developed the Core Transfer Library (CTL) - a list of courses that will transfer among all Indiana public college and university campuses, assuming adequate grades.

Core Transfer Library courses will meet the general education or free elective requirements of undergraduate degree programs, and most CTL courses will also count toward degree program requirements - if an equivalent course is taught at your new campus.

At the time of publication, the Purdue University Fort Wayne courses listed below have been approved as part of the CTL. Additional courses are being added. For complete and up-to-date information, visit www.transferIN.net

#### Course List:

- AD 10101 Art Appreciation Cr. 3. • AD 10801 - Introduction To Drawing for Non-Majors Cr. 3.
- · AD 11100 History Of Art I: Prehistoric To Medieval Cr. 3.
- AD 11201 History Of Art II: Renaissance To Contemporary Cr. 3.
- · ASTR 10000 The Solar System Cr. 3.
- BIOL 10000 Introduction To The Biological World Cr. 3.
- BIOL 10001 Introduction To The Biological World Laboratory Cr. 1.
- · BIOL 11700 Principles Of Ecology And Evolution Cr. 4. • BIOL 11900 - Principles Of Structure And Function Cr. 4.
- BIOL 22000 Microbiology For Allied Health Professionals Cr. 4.
- BUS 20100 Principles Of Financial Accounting Cr. 3.
- BUS 20200 Principles Of Managerial Accounting Cr. 3.
- BUS 26000 Personal Finance Cr. 3.
- BUS 10001 Principles Of Business Administration Cr. 3.
- CHM 11100 General Chemistry Cr. 3.
- · CHM 11200 General Chemistry Cr. 3.
- CHM 11500 General Chemistry Cr. 4.
- CHM 11600 General Chemistry Cr. 4.
- COM 11400 Fundamentals Of Speech Communication Cr. 3.
- COM 21200 Approaches To The Study Of Interpersonal Communication Cr. 3.
- COM 25000 Mass Communication And Society Cr. 3.
- EAPS 10001 General Geology Cr. 3-5.
- ECON 20000 Fundamentals of Economics Cr. 3.
- ECON 20101 Introduction to Microeconomics Cr. 3.
- ECON 20201 Introduction to Macroeconomics Cr. 3.
- ENGL 10101 Ancient And Medieval World Literature Cr. 3.
- ENGL 10201 Modern World Literature Cr. 3.
- ENGL 20201 Literary Interpretation Cr. 3.
- ENGL 25001 American Literature Before 1865 Cr. 3. • ENGL 25100 - American Literature Since 1865 Cr. 3.
- ENGL 20100 American Englands
  ENGL 10302 Introductory Creative Writing Cr. 3.
  ENGL 13100 Reading, Writing, and Inquiry I Cr. 3.
- ENGL 23301 Intermediate Expository Writing Cr. 3.
- ENGL 23401 Technical Report Writing Cr. 3.
- ETCS 10600 Introduction to Computers Cr. 3. • FR 11100 - Elementary French I Cr. 3.
- FR 11201 Elementary French II Cr. 3.
- FR 20301 Second-Year French I Cr. 3.
- FR 20401 Second-Year French II Cr. 3.
- · GEOG 10700 Physical Systems of the Environment Cr. 3.
- GER 11100 Elementary German I Cr. 3.
- GER 11201 Elementary German II Cr. 3.
- GER 20301 Second-Year German I Cr. 3.
- GER 20401 Second-Year German II Cr. 3.
- HIST 10501 American History I Cr. 3.
- HIST 10601 American History II Cr. 3. • HPER 16000 - First Aid Cr. 1-2.
- · LING 10300 Introduction to the Study of Language Cr. 3.
- MA 14000 Practical Quantitative Reasoning Cr. 3.
- MA 15300 College Algebra Cr. 3.
- MA 15400 Trigonometry Cr. 3.

- MA 16500 Analytic Geometry and Calculus I Cr. 4.
- MA 16600 Analytic Geometry and Calculus II Cr. 4.
- MA 21300 Finite Mathematics I Cr. 3.
- · MA 22700 Calculus for Technology I Cr. 4
- MA 22800 Calculus for Technology II Cr. 3.
- MA 22900 Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.
- MA 23000 Calculus for the Managerial, Social, and Biological Sciences II Cr. 3.
- MUSC 10101 Music for the Listener Cr. 3.
- NUTR 30300 Essentials of Nutrition Cr. 3.
- PHIL 11000 The Big Questions: Introduction to Philosophy Cr. 3.
- PHIL 11100 Introduction To Ethics Cr. 3.
- PHIL 20600 Introduction To Philosophy Of Religion Cr. 3.
- PHYS 15200 Mechanics Cr. 5.
- PHYS 22000 General Physics Cr. 4.
- PHYS 22100 General Physics Cr. 4.
- PHYS 25100 Heat, Electricity, and Optics Cr. 5.
- POL 10101 Introduction to Political Science Cr. 3.
- POL 10300 Introduction to American Politics Cr. 3.
- POL 10900 Introduction to International Relations Cr. 3.
- PPOL 10100 The American Criminal Justice System Cr. 3.
- PSY 12000 Elementary Psychology Cr. 3.
- PSY 24000 Introduction to Social Psychology Cr. 3.
- PSY 35000 Abnormal Psychology Cr. 3.
- PSY 36900 Development Across the Lifespan Cr. 3.
- PSY 44400 Human Sexual Behavior Cr. 3.
- SOC 16101 Principles of Sociology Cr. 3.
- SOC 16300 Social Problems Cr. 3.
- SPAN 11101 Elementary Spanish I Cr. 3.
- SPAN 11201 Elementary Spanish II Cr. 3.
- SPAN 20301 Second-Year Spanish I Cr. 3.
- SPAN 20401 Second-Year Spanish II Cr. 3.
- THTR 13400 Fundamentals of Performance Cr. 3.
- THTR 20100 Theatre Appreciation Cr. 3.

## **Course Descriptions**

Course descriptions are listed in alphabetical order.

Standard information for each course includes the number, title, and credits (sometimes called credit hours or semester hours). For some courses, you will find information on the hours of class, laboratory, or studio for which the course is scheduled in each week of a regular semester; these weekly hours are expanded during summer sessions. Fees for courses are assessed on the basis of credits and other factors.

The course-numbering system generally suggests levels of difficulty and appropriateness. Courses at the 100 and 200 levels comprise introductory offerings and those are most commonly taken by freshmen and sophomores. Courses at the 300 and 400 levels are primarily for juniors and seniors. In some Purdue programs, undergraduates take courses at the 500 level, but generally courses numbered 500 and above are for graduate students.

Preparation for courses is indicated as follows:

P: indicates a prerequisite that must precede your enrollment in the course described. You may find one or more specific course numbers, the number of credits you should already have in a subject, a placement-test level, or other conditions.

C: indicates a corequisite that must be taken no later than the same semester in which you take the course described.

R: indicates a recommendation concerning conditions to be met for enrollment in the course.

When no subject code is shown for prerequisites, corequisites, and recommended courses, they are in the same subject area as the course being described. If you lack a prerequisite or corequisite, or if you wish to take a course numbered at a higher level than your present status, you should seek the department's or instructor's consent to enroll in the course.

V.T. means Variable Title and is shown for courses for which the title may be changed to specify the topic or other special focus of each offering.

Purdue University Fort Wayne reserves the right to add, withdraw, or change courses without notice.

#### **ACS 52100 - Topics In Computer Graphics**

## **ACS 52100 - Topics In Computer Graphics**

This is a survey of advanced concepts in computer graphics. Topics include a review of fundamentals, curves and surface design, ray tracing, radiosity, animation, texture mapping, anti-aliasing, and selected topics depending on current research trends. Students are expected to complete substantial programming projects having research content.

#### Preparation for Course

P: CS 32100 or Instructor Permission Required.

Cr. 3. Dual Le

**Dual Level Course** 

Dual Level, Undergraduate-Graduate

## ACS 54500 - Cryptography And Network Security

This is an in-depth course to cryptography and network security. Topics include cryptography, security principles, treats, architecture and protocol for security services, security verification and design, and securing network systems and applications. Design projects and/or research papers are required.

#### **Preparation for Course**

P: CS 37400 And CS 48600.

Cr 3

**Dual Level Course** 

Undergraduate-Graduate

#### ACS 56000 - Software Engineering

### **ACS 56000 - Software Engineering**

This course surveys the engineering aspects of software system design. It concentrates on such matters as formal specification and acceptance requirements, testing and quality management techniques, and the use of CASE tools as an aid to development. Depending on time available, it may include an introduction to database design, performance analysis, and project management tools. The course forms part of the required core for the ACS master's degree.

#### **Preparation for Course**

P: CS 36000 or Instructor Permission Required

Cr. :

**Dual Level Course** 

Dual Level, Undergraduate-Graduate

#### ACS 56400 - Human-Computer Interaction

### ACS 56400 - Human-Computer Interaction

A survey of human-computer interaction (HCI) concepts, theory, and practice, including its interdisciplinary nature. Examination of human needs and capabilities, as well as technological opportunities in the design of interactive systems. Provides an overview and introduction to the field of human-computer interaction and a systematic approach to human-computer design, including tools, techniques, and sources of knowledge. Students are expected to design and evaluate user interface designs in small projects.

#### **Preparation for Course**

P: ACS 56200.

Cr 3

**Dual Level Course** 

Dual Level, Undergraduate-Graduate

#### ACS 56700 - Software Project Management

## ACS 56700 - Software Project Management

Consideration of managing the software development process and the implementation of information technologies. Advanced material in project planning, cost and time estimation, mechanisms for monitoring and controlling projects, quality assurance, change management, and leadership and team building. Other topics include project tracking, managing multiple projects, data sharing, communicating plans, and transnational considerations in areas such as staffing and vendor support. Students apply project management software to case studies.

#### **Preparation for Course**

P: ACS 56200.

Cr. 3.

Notes

If you are majoring in this discipline, you may want to consider the Science and Engineering Research Semester. See information under Arts and Sciences (Part 3).

#### ACS 57400 - Advanced Computer Networks

## **ACS 57400 - Advanced Computer Networks**

Introduction to communication networks, the Internet, circuit and packet switching, interfaces between computers and network hardware. Network architecture: OSI seven layer protocol stack, reliable delivery over unreliable channels, transport protocols, datagrams, virtual circuits, internetworking as a fundamental design concept. Network management

concepts, client server principles and paradigms, addressing and address resolution algorithms, and remote procedure cells.

#### **Preparation for Course**

P: CS 27400.

Cr. 3.

#### **Dual Level Course**

Dual Level, Undergraduate-Graduate

#### ACS 57500 - Database Systems

### ACS 57500 - Database Systems

Introduction to the fundamentals of relational database system implementation with emphasis on database engine core technology. Topics include storage management, indexing, materialized views, query processing algorithms and optimization, transaction and concurrency control, logging and recovery. Exposure to one or more of the following active research areas: XML, data integration, streaming databases, data mining, and distributed database systems.

#### **Preparation for Course**

P: CS 36400.

Cr. 3.

**Dual Level Course** 

Dual Level, Undergraduate-Graduate

#### ACS 57700 - Knowledge Discovery And Data Mining

### ACS 57700 - Knowledge Discovery And Data Mining

Data mining has emerged as one of the most exciting and dynamic fields in computer science. With an explosive growth in computer and database technology, the huge amount of data has been collected. Data mining is the process to extract interesting and novel knowledge from large amount of data. ACS 57700 is designed to provide graduate students a broad background in the design and use of data mining algorithms, exposure to software tools, specialized expertise in applying these ideas to a rel-life situation through a term project. Topics include data preprocess, data exploration, frequent pattern mining, classification and clustering analysis.

Cr. 3.

#### **Dual Level Course**

Undergraduate-Graduate

#### AD 10101 - Art Appreciation

## AD 10101 - Art Appreciation

Objectives: to acquaint students with outstanding works of art and to provide an approach to appreciation through knowledge of purposes, techniques, form, and content. No credit toward a fine arts degree.

Cr. 3.

Notes

Indiana Core Transfer Library course.

AD 10102 - Color

### **AD 10102 - Color**

This foundational course presents color and its use in design in various media and contexts. Color will be discussed in quantitative terms (blue, value, saturation) and qualitative terms relating to psychology, symbol, and culture. The course is comprised of reading assignments, lecture, demonstration, and practical exercises.

Cr 3.

#### AD 10202 - Introduction To 2-D Design

## AD 10202 - Introduction To 2-D Design

This course introduces the creative design as well as formal principles and elements used in two-dimensional design. The course includes regular readings, lectures, demonstrations, discussions, studio assignments in various media, and group critiques of student work. Minimum grade of C- toward all Art and Design degree program requirements.

#### AD 10401 - Introduction To Typography

## AD 10401 - Introduction To Typography

This course uses pre-digital methodologies to ensure that students experience letterforms at the level of drawing them first, before using them to communicate messages. Students will learn the anatomy of type, as well as the units, terminology, and principles of designing with type. Minimum grade of C- for credit toward major requirements.

Cr. 3. **Hours** Lab. 6.

AD 10502 - Digital Imaging

### AD 10502 - Digital Imaging

Knowledge in digital imaging software is useful in graphic and web design, image manipulation, photo restoration, digital illustration, and even in creating textures, and lighting maps for 3D modeling and animation. This is a course that introduces basic skills and functions of digital imaging. Minimum grade of C- toward Art and Design degree requirements.

Cr. 3. Hours

AD 10801 - Introduction To Drawing for Non-Majors

### AD 10801 - Introduction To Drawing for Non-Majors

Introduces the student to the basic elements of drawing. Line, shape, value, and perspectives will be studied before moving on to the more complex use of color. Landscape and still life will be the source of subject matter for the semester. Credit can not be applied towards any Art and Design major degree requirements, except towards Liberal Arts electives.

Cr. 3. Hours

Class 3, Studio 3,

AD 11100 - History Of Art I: Prehistoric To Medieval

## AD 11100 - History Of Art I: Prehistoric To Medieval

A survey of art from prehistoric times through the 14th century. Minimum grade of C- for all Art and Design degree programs.

Cr. 3.

Notes

Indiana Core Transfer Library course.

AD 11201 - History Of Art II: Renaissance To Contemporary

## AD 11201 - History Of Art II: Renaissance To Contemporary

A survey of art from the 14th century to the present. Minimum grade of C- towards all Art and Design degree program requirements.

Cr. 3.

Indiana Core Transfer Library course.

AD 12100 - Drawing Fundamentals I

## AD 12100 - Drawing Fundamentals I

The fundamentals of representation are taught through the drawing of simple objects, forms, and volumes in line, tone, and texture using simple tools and free-hand drawing

skills with a variety of media; emphasis on sound understanding of values, proportion, and perspective. Minimum grade of C- for credit towards all Art and Design degree programs.

Cr. 3. **Hours** Studio 3,

#### AD 13300 - Metalsmithing Fundamentals for Non-Art Majors

### AD 13300 - Metalsmithing Fundamentals for Non-Art Majors

Students will learn various basic fabricating techniques using non-Ferris metals (copper, brass, silver) on a small object/jewelry scale. Processes studied will include silver brazing with acetylene gas torches, metal stretching and forming by hand using polished hammers, wax working, and silver lost-wax casting. Credit may not be applied to major requirements for Art and Design degree programs, except towards liberal arts electives.

Cr. 3

#### AD 15200 - Introduction To 3-D Design

### AD 15200 - Introduction To 3-D Design

In Design Fundamentals, the student becomes familiar with the vocabulary and elements of the visual language. Also, the expressive powers of the elements of line, shape, texture, space, and color are explored through a series of sequential exercises. Many different problems in building visual units provide the training artists need to make individual, yet clear, expressive, and complete statements. Minimum grade of C- toward all Art and Design degree program requirements.

Cr. 3.
Hours
Studio 3.

#### AD 16500 - Ceramics for Non-Majors

### **AD 16500 - Ceramics for Non-Majors**

Introduction to ceramics is a creative art course in which students use handbuilding techniques to create tile, pottery form, and ceramic sculpture. Various lowfire surfaces and firing atmospheres will be explored. Slide lectures will accompany projects, exposing students to the work of various cultures and ceramic artists. Classroom projects and discussions will promote a greater understanding of form and creative processes. Minimum grade C- for all Art and Design degree programs, except towards liberal arts electives.

Cr. 3.
Hours
Class 3, Lab. 3,

#### AD 19600 - Printmaking For Non-Majors

## AD 19600 - Printmaking For Non-Majors

Understanding of basic printmaking techniques through handson experience with monotype, relief, and intaglio (etching). Appreciation and sensitivity to the art of the print will be cultivated.

Course can not be used for credit toward Art and Design major degree requirements, except liberal arts electives.

Cr. 3. **Hours** Studio 6.

### AD 20101 - History Of Graphic Design I

## **AD 20101 - History Of Graphic Design I**

This course will survey graphic design from prehistory through the Industrial Revolution. It will locate graphic design within the history of art and examine connections between social phenomena and development of visual communication. Major styles will be analyzed and compared, and influences identified. Minimum grade of C- for all Art and Design degree program requirements.

Cr. 3

## AD 20201 - Introduction To Photography

This course introduces the student to the basic elements and principles of design as they apply to the field of photography and imaging. Through lectures, demonstrations, projects, and exercises, students will develop a body of work that will demonstrate their understanding of the fundamentals of photography. Minimum grade of C- for credit towards all Art and Design degree program major requirements.

#### **Preparation for Course**

P: AD 10502.

Cr. 3.

Hours

Lab. 6.

AD 20301 - Web Design I: Introduction to Web Design

### AD 20301 - Web Design I: Introduction to Web Design

This course introduces the fundamentals of Web design, emphasizing best practices in HTML, CSS, basic interactivity, and visual design for the Web. Students will learn navigation structures, information architecture, usability, and accessibility. They will be enabled to plan, design, build, and publish a small static Web site. Minimum grade of C-for credit towards all Art and Design major degree requirements.

#### **Preparation for Course**

P: 10502.

Cr. 3.

Hours

Lab. 6.

AD 20402 - Introduction To 3-D Design

## AD 20402 - Introduction To 3-D Design

This course introduces the creative design process, as well as formal principles and elements used in three-dimensional design. The course includes regular readings, lectures, discussions, audio assignments in various media, and group critiques of student work.

Cr. 3

Hours

Studio 6

#### AD 20501 - History Of Photography

## AD 20501 - History Of Photography

This course explores and critically examines the development of Photography from 19th century through the 21st century. Artistic and cultural perspectives will be analyzed in the context of social and political conditions that shape the direction of photography. Minimum grade of C- for credit towards all Art and Design major degree requirements.

Cr. 3.

#### AD 20502 - Graphic Design I: Introduction To Graphic Design

## AD 20502 - Graphic Design I: Introduction To Graphic Design

This course introduces the student to the basic elements and principles of design as they apply to the field of graphic design. Through exercises, demonstrations, projects, and exercises, students will see Photoshop and Illustrator as design tools and begin to understand how these programs are used in the field. Minimum grade of C- for credit towards all Art and Design major degree requirements.

#### **Preparation for Course**

P: AD 10202 and 10502.

Cr. 3.

Hours

Lab. 6.

### AD 20601 - Illustration I: Dry Media

This course focuses on using "dry media" techniques in illustration. Students will learn different techniques of using the various dry media in solving illustration problems. Gathering of critical information on each assignment is stressed to enable transformation of a conceptual sketch into an illustration with effective communicative energy. Minimium grade of C- for credit towards all Art and Design major degree requirements.

**Preparation for Course** 

P: AD 12100 and 22301.

Cr. 3.

Hours

Lab. 6.

AD 20701 - Photography I: Portraiture

### AD 20701 - Photography I: Portraiture

This course is an examination of the fundamentals of portrait photography both in a studio setting and outdoors. Projects will be assigned to advance each student's ability to create photographic portraiture under a variety of conditions. Basic issues concerning posing, exposure, ratios and lighting will be examined. Minimum grade of C- for credit towards all art and design major degree program requirements.

**Preparation for Course** 

P: AD 20201

Cr. 3.

Hours

AD 20801 - Video And Inter-Media I

## AD 20801 - Video And Inter-Media I

This course introduces video editing for use in film, video portfolio and the web. The student will become familiar with editing software, basic camera work and the processes involved in linear and non-linear editing. Students will also glean an understanding of editing using a script and/or storyboard. Minimum grade of C- for credit towards all Art and Design major degree requirements.

Cr. 3.

Hours

AD 22301 - Figure Drawing I

## **AD 22301 - Figure Drawing I**

Introduction to drawing the human figure using various media and techniques. Basic anatomy; the skeletal and muscular structure of the human figure as related to drawing is included. Minimum grade of C- for all Art and Design degree program requirements.

Cr. 3.

AD 22501 - Painting Fundamentals I

## AD 22501 - Painting Fundamentals I

Introduction to painting methods and media and the further application of basic principles of composition through varied pictorial problems from still life, landscape, memory, and imagination. Minimum grade of C- for credit towards all Art and Design major degree requirements.

Cr. 3.

AD 23101 - Sculpture Fundamentals

## AD 23101 - Sculpture Fundamentals

Student will work in a wide variety of sculptural mediums. Assignments will focus on idea-based expression as well as a thorough introduction to different tools and processes of sculptural construction. Projects will allow student expression within a guideline that explores natural and abstract images. Minimum grade of C- for credit towards all Art and

Design major degree requirements.

Cr. 3. Hours Studio 3,

#### AD 23301 - Metalsmithing Fundamentals

### **AD 23301 - Metalsmithing Fundamentals**

Understanding of the possibilities of the materials and an appreciation of the use of the tools essential for the creation of forms and objects in metal. Basic techniques, raising, planishing, casting, forging, and fabrication are taught. Inventiveness within the discipline imposed by this traditional art form is encouraged. Minimum grade of C- for credit towards all Art and Design major degree requirements.

Cr. 3. **Hours** Studio 3,

#### AD 23501 - Ceramics Fundamentals

### **AD 23501 - Ceramics Fundamentals**

Fundamental techniques of forming by hand-building methods, glazing and firing clay objects. Introduction to the creative possibilities of this craft through projects in tile, pottery form, and sculpture. Emphasis on self-expression through good design and understanding the medium. Minimum grade of C- for all Art and Design degree program requirements.

Cr. 3. Hours Studio 3.

#### AD 23900 - Painting For Non-Majors

### **AD 23900 - Painting For Non-Majors**

Introduction to painting in oil. Study of the spatial and expressive qualities of color, with an emphasis on composition and pictorial design. Development of technical skills in image making through exploration of traditional and modern methods of paint application. Introduction to surface preparation, framing, and display of paintings. Credit cannot be used to satisfy Art and Design major degree requirements except towards liberal arts electives.

Cr. 3.
Hours
Studio 6

### AD 24101 - Printmaking Fundamentals

## **AD 24101 - Printmaking Fundamentals**

Study of materials, tools, processes in the various methods of printmaking (block printing, lithography, and intaglio) as they are used for contemporary graphic concerns.

**Preparation for Course** 

P: AD 12100, 12200, 15100 and 15200.

Cr. 3. **Hours**Studio 3,

### AD 25501 - Art And Design

## AD 25501 - Art And Design

Instills visual literacy by exposing students to fundamental vocabulary, concepts, processes and materials of art and design. Hands-on studio eperiences, build critical and analytical skills needed to make intelligent and informed visual decisions. Studio exercises may include drawing, color, book design, graphic design, photography, three-dimensional design. Required for elementary education majors. No credit towards art and design or fine arts majors.

Cr. 3. Hours Studio 6,

### **AD 30101 - History Of Animation**

This class will survey Animation from its emergence in the late 19th century to new directions in the 21st century. Students will examine stylistic trends in aesthetic, cultural and visual communication contexts, and analyze the work of leading animation artists. The class will provide conceptual support for animation courses. This course must be completed with a C- or higher for all Art and Design degree program requirements.

#### AD 30103 - Photography II: Applied Imaging

### AD 30103 - Photography II: Applied Imaging

This course is an exploration of photographic techniques specific to medical and forensic photography, small and large product photography, and still life photography. This course must be completed with a C- or higher for all Art and Design degree program requirements.

#### **Preparation for Course**

P: AD 10502 and 20201.

Hours

Lab. 6

AD 30201 - Photography III: Conceptual Imaging

### AD 30201 - Photography III: Conceptual Imaging

This course will focus on methods for developing conceptual skills. Global issues encompassing literature, art, culture and diversity will be examined through visual imagery. A comparison of creative thinking versus critical thinking will be emphasized as we explore the role of creative thinking in conceptual photography.

P: AD 10502 or VCD P105 and 20201 or VCD P202 with a C- or higher.

Hours

AD 30301 - Graphic Design II: Identity and Branding

## AD 30301 - Graphic Design II: Identity and Branding

This course will focus on the fundamentals of branding and how to create visual identities that extend past simple logo design. Students will research companies and products and craft specific, informed narratives with Illustrator-based designs in order to target appropriate audiences. Min. grade C- for credit towards Art and Design major degree requirements.

#### **Preparation for Course**

P: AD 20502.

Hours

AD 30401 - Graphic Design III: Publication Design

## **AD 30401 - Graphic Design III: Publication Design**

Students will work with longer narratives in magazines, annual reports, and product catalogs. Students are encouraged to consider the function of these publications and how they fit within an increasingly digital age through use of typesetting tools and layout programs such as InDesign and QuarkXPress.

#### Preparation for Course

P: AD 20502/P205 with a grade of C- or higher.

Cr. 3.

Hours

Lab. 6.

### AD 30501 - Illustration II: Wet Media

This course focuses on using "wet media" techniques in illustration. Students will learn different techniques of using the various wet media, as well as mixing wet and dry media, in solving illustration problems. Assignments will involve transformation of a conceptual sketch into an illustration with effective communicative energy. Minimum grade of C-for credit towards all Art and Design major degree requirements.

Cr. 3. **Hours** Lab. 6.

AD 30601 - Illustration III: Vector

#### AD 30601 - Illustration III: Vector

Students will learn advanced vector-based illustration tools through programs such as Illustrator to complete assignments based in the areas of character, product, package, and mechanical concepts. The student will begin to develop a personal illustration style through exercises concerned with creative and conceptual thinking skills. Minimum grade of C- for credit toward Art and Design degrees.

#### **Preparation for Course**

P: AD 10401, 10502, 20502.

Cr. 3. **Hours** Lab. 6.

AD 30702 - Photography IV: Editorial Imaging

### AD 30702 - Photography IV: Editorial Imaging

This course explores the use of images in narrative, documentary, and editorial form as they relate to social and political issues. Methods of idea generation, research, and story development will be explored as students create companion text that accompanies multiple or consecutive images for their photo essays. Minimum grade of C- for credit towards Art and Design degrees.

#### **Preparation for Course**

P: AD 10502 and 20201.

Cr. 3.
Hours

AD 30801 - Photography V: Special Projects/Portfolio

## AD 30801 - Photography V: Special Projects/Portfolio

This course enables students to apply cumulative skills to create independent projects that reflect the students' interests and strengths in photography and imaging. Students will develop a portfolio and Artist Statement that fully and accurately represent their artistic vision and style. Minimum grade of C- for credit towards Art and Design degrees.

#### **Preparation for Course**

P: AD 10502 and 20201.

Cr. 3. Hours
Studio 6.

AD 30901 - Video And Intermedia II

### AD 30901 - Video And Intermedia II

This course presents an advanced approach to video production and editing for use in film, video portfolio, and video publication. The student will develop greater proficiency with editing software, camera work, and production processes, and will create a completed portfolio-ready project of a professional standard. Minimum grade of C- for credit towards Art and Design degrees.

#### AD 31001 - Introduction To 3D Computer Modeling

## AD 31001 - Introduction To 3D Computer Modeling

This course will provide a student with a comprehensive knowledge of methods for 3D modeling production. Students will develop skills in actual sculpting and modeling and will apply knowledge of computer 3D modeling technologies and techniques, including mapping, texturing, lighting, and rendering. Minimum grade of C- for credit towards Art and Design degrees.

#### **Preparation for Course**

P: AD 10502.

Cr. 3. Hours Studio 6

#### AD 31102 - Intermediate 3D Computer Modeling

## AD 31102 - Intermediate 3D Computer Modeling

Students will work with ideas and concepts from their studies in Visual Communication, and from personal experiences, to create interesting and well-drafted 3- dimensional forms. Student will explore these elements through appropriate computer modeling software. Minimum grade of C- for credit towards Art and Design degrees.

#### **Preparation for Course**

P: AD 31001.

Cr. 3. Hours Studio 6.

#### AD 31201 - Storyboarding

## AD 31201 - Storyboarding

Students will be introduced to preproduction methods in 3D modeling and animation, with emphasis on storyboard, storylines and narrative structures. Cinema terminology and trends will be learned and selected work by prominent animation artists examined.

Cr. 3.
Hours

### AD 31301 - Art Of The Renaissance And Baroque

## AD 31301 - Art Of The Renaissance And Baroque

A comprehensive study of the art and art theory in the Renaissance and Baroque periods. Minimum grade of C- for credit towards Art and Design degrees.

Preparation for Course P: AD 11100 And 11201.

Cr 3

### AD 31302 - Animation I: Stop Motion To Digital

## AD 31302 - Animation I: Stop Motion To Digital

This class is concerned with working with different methods of creating modern animations. We will explore hybrid types of animation, including stop-motion and live-action approaches. The student will use model clay, cut-outs, props, silhouettes, vector graphics, bitmaps, and live action to create exciting motion graphics to tell their stories. Minimum grade of C- for credit towards Art and Design degrees.

**Preparation for Course** 

P: AD 10502.

#### AD 31401 - Animation II: Character Development

## AD 31401 - Animation II: Character Development

Understanding character modeling software is an important skill for character development in contemporary animation. This class will provide the student with an introduction to the software and the work that one can do with it, such as creating dynamic particles, cloth and hair. The student will use these skills to create animated features. Minimum grade of C- for credit towards Art and Design degrees.

#### **Preparation for Course**

P: AD 31001 and 31302.

Cr. 3. Hours

Studio 6.

#### AD 32101 - Advanced Drawing I

## AD 32101 - Advanced Drawing I

Continuation of AD 12100 and 22301. Minimum grade of C- for credit towards Art and Design degrees.

#### **Preparation for Course**

P: AD 10202, 12100 and 22301.

Cr. 3. Hours Studio 3.

#### AD 32201 - Advanced Drawing II

### **AD 32201 - Advanced Drawing II**

Continuation of AD 32101. Minimum grade of C- for credit towards Art and Design degrees.

#### Preparation for Course

P: AD 32101.

Cr. 3. **Hours**Studio 3.

#### AD 32301 - Ancient Greek Art

### AD 32301 - Ancient Greek Art

A study of ancient Greek art from the eighth through the second century BCE. Minimum grade of C- for credit towards Art and Design degrees.

#### **Preparation for Course**

P: AD 11100 and 11201.

Cr. 3

**Session Indicators** 

Typically offered every two years.

#### AD 32401 - Roman Art

### AD 32401 - Roman Art

A study of ancient Roman art from the Republic through the fourth century CE. Minimum grade of C- for credit towards Art and Design degrees.

#### **Preparation for Course**

P: AD 11100 and 11201.

#### AD 32501 - Advanced Painting I

## AD 32501 - Advanced Painting I

Continuation AD 22501.

**Preparation for Course** 

P: AD 12100 and 22501.

Cr. 3. Hours

Hours Studio 3,

#### AD 32601 - Advanced Painting II

## AD 32601 - Advanced Painting II

Continuation of AD 32501. Minimum grade of C- for credit towards Art and Design degrees.

**Preparation for Course** 

P: AD 32501.

Cr. 3.

Hours Studio 3.

AD 33101 - Advanced Sculpture I

### AD 33101 - Advanced Sculpture I

Continuation of AD 23101. Advanced problems related to individual interests and objectives. Minimum grade of C- for credit towards Art and Design degrees.

**Preparation for Course** 

P: AD 23101.

Cr. 3.

Hours

Studio 3,

### AD 33201 - Early Medieval Art

## AD 33201 - Early Medieval Art

A study of early medieval art from the emergence of Christian art in the third century through the end of the first millennium. Minimum grade of C- for credit towards Art and Design degrees.

Preparation for Course

P: AD 11100 and 11201.

Cr. 3

AD 33202 - Advanced Sculpture II

## **AD 33202 - Advanced Sculpture II**

Continuation of AD 33101. Advanced problems related to individual interests and objectives. Minimum grade of C- for credit towards Art and Design degrees.

**Preparation for Course** 

P: AD 33101.

Cr. 3.

Hours Studio 3,

### AD 33302 - Advanced Metalsmithing I

Advanced problems in metalsmithing determined by the student's skill, interest, and major objectives. Minimum grade of C- for credit towards Art and Design degrees.

#### **Preparation for Course**

P: AD 23301.

Cr. 3.

Hours

Studio 3,

#### AD 33401 - Advanced Metalsmithing II

### AD 33401 - Advanced Metalsmithing II

Advanced problems in metalsmithing determined by the student's skill, interest, and major objectives. Minimum grade of C- for credit towards Art and Design degrees.

#### **Preparation for Course**

P: AD 33302.

Cr. 3.

Hours

AD 33501 - Advanced Ceramics I

### AD 33501 - Advanced Ceramics I

Advanced problems in ceramics focusing on wheel throwing and pottery form. Stoneware and porcelain will be used and an understanding of glazing techniques will be emphasized. Minimum grade of C- for credit towards Art and Design degrees.

#### **Preparation for Course**

P: AD 23501.

Cr. 3.

Hours

Studio 3,

#### AD 33601 - Advanced Ceramics II

#### AD 33601 - Advanced Ceramics II

Advanced problems in ceramics focusing on wheel throwing and pottery form. Stoneware and porcelain will be used and an understanding of glazing techniques will be emphasized. Minimum grade of C- for credit towards Art and Deisgn degrees.

#### **Preparation for Course**

P: AD 33501.

Cr. 3. Hours

Studio 3,

AD 33701 - Site Specific Ceramic Artworks: The Design, Construction, And Installation Of A Ceramic Artwork

# AD 33701 - Site Specific Ceramic Artworks: The Design, Construction, And Installation Of A Ceramic Artwork

Develop techniques and concepts in designing and creating site specific ceramic tile murals and sculptural installations. Exposure to historical precedents in the use of ceramic in architecture and architectural settings. Develop techniques for creating ceramic tile and sculpture for indoor and outdoor application. Minimum grade of C- for credit towards Art and Design degrees.

#### **Preparation for Course**

P: AD 23501.

#### AD 34101 - Italian Renaissance Art

### AD 34101 - Italian Renaissance Art

A study of Italian Renaissance art. Minimum grade of C- for credit towards Art and Design degrees.

P: AD 11100 and 11201.

#### AD 34102 - Advanced Printmaking I

### AD 34102 - Advanced Printmaking I

Students will concentrate on the use of their preferred print techniques (wood-cut, serigraphy, intaglio, lithography) while seeking their own personal images.

#### **Preparation for Course**

P: AD 24101.

Cr. 3. Hours

Studio 3,

#### AD 34201 - Northern Renaissance Art

### AD 34201 - Northern Renaissance Art

A study of Northern Renaissance art. Minimum grade of C- for credit towards Art and Design degrees.

#### **Preparation for Course**

P: AD 11100 and 11201.

Cr. 3.

#### AD 34202 - Advanced Printmaking II

## AD 34202 - Advanced Printmaking II

Students will concentrate on the use of their preferred print techniques (wood-cut, serigraphy, intaglio, lithography) while seeking their own personal images. Minimum grade of C- for credit towards Art and Design degrees.

#### **Preparation for Course**

P: AD 34102.

Hours Studio 3,

AD 34501 - American Art To 1913

### **AD 34501 - American Art To 1913**

American architecture, sculpture, painting, photography, and graphics from the 17th century to the Armory Show of 1913. Minimum grade of C- for credit towards Art and Design degrees.

#### **Preparation for Course**

P: AD 11100 And 11201.

## AD 34801 - History Of Photography

A survey of photography as a medium of art and of communication, with a primary emphasis beginning in the 1920s. Photographic genres, as well as developments in optical, chemical, and mechanical technology, will be studied. The evolution of photographic vision will be covered through examples of master works.

Cr. 3.

#### AD 35101 - Nineteenth-Century Art

### AD 35101 - Nineteenth-Century Art

A study of European art in the nineteenth century. Minimum grade of C- for credit towards Art and Design degrees.

#### **Preparation for Course**

P: AD 11100 and 11201.

Cr. 3.

#### AD 35200 - Twentieth-Century Art

## **AD 35200 - Twentieth-Century Art**

A study of art in the twentieth century. Minimum grade of C- for credit towards Art and Design degrees.

#### **Preparation for Course**

P: AD 11100 and 11201.

Cr. 3.

#### AD 36301 - African Art

### AD 36301 - African Art

A study of African art. Minimum grade of C- for credit towards Art and Design degrees.

#### **Preparation for Course**

P: AD 11100 and 11201.

Cr. 3.

#### AD 39001 - Topics In Art History

## AD 39001 - Topics In Art History

In-depth projects and studies in special directions of art history, closely related to existing areas of concentration. Minimum grade of C- for credit towards Art and Design degrees.

#### **Preparation for Course**

P: AD 11100 And 11201.

Cr. 3.

### AD 39002 - Topics In Studio Fine Art

## AD 39002 - Topics In Studio Fine Art

In-depth projects and studies of special studio art topics closely related to existing areas of concentration. Minimum grade of C- for credit towards Art And Design degrees.

Cr. 1-6. **Hours** Studio 1-6, **Variable Title** (V.T.)

### AD 39003 - Topics In Art History

In-depth projects and studies in special directions of art history, closely related to existing areas of concentration. Minimum grade of C- for credit towards Art and Design degrees.

#### **Preparation for Course**

P: AD 11100 And 11201.

Cr. 3.

May be repeated.

AD 40101 - Illustration IV: Raster

## AD 40101 - Illustration IV: Raster

Students will learn advanced raster-based illustration tools through programs such as Photoshop and others to complete assignments dealing with concepts of metaphor, abstraction and humor. Further techniques for drawing, coloring, texture, masking and light control are explored as effective illustration tools. Minimum grade of C- for credit towards Art and Design degrees.

#### **Preparation for Course**

P: AD 30601.

Cr. 3.

Hours

Studio 6

AD 40201 - Graphic Design IV: Packaging And Display

### AD 40201 - Graphic Design IV: Packaging And Display

This course is concerned with solving communication problems through an understanding of the identities of both a company and its products. Students will create packages, shopping bags, wall displays, kiosk and point-of-sale environments with an informed use of their design skills and give professional presentations of their work. Minimum grade of C- for credit towards Art and Design degrees.

#### **Preparation for Course**

P: AD 10502, 15200 and 20502.

Cr. 3.

Hours

Studio 6.

AD 40301 - Graphic Design V: Digital Prepress/Portfolio

## AD 40301 - Graphic Design V: Digital Prepress/Portfolio

This course will enable students to apply communication and design strategies to shape their work into innovative and effective portfolio formats. The class will explore various methods to professionally prepare their artwork for offset printing or digital publication by demonstrations and field trips to local design and printing firms. Minimum grade of C- for credit towards Art and Design degrees.

#### **Preparation for Course**

P: AD 20502.

Cr. 3.

Hours Studio 6

AD 40401 - Game And Virtual Worlds

### AD 40401 - Game And Virtual Worlds

This course deals with video game production and developing virtual worlds through use of 3D modeling techniques. Video games are a multidisciplinary medium that, through a storyboarding and experimental process, the student will use skills acquired in previous classes to create unique interactive experiences. This course is for non-majors.

#### **Preparation for Course**

P: AD 31401.

Cr. 3. Hours Studio 6.

#### AD 40501 - Animation 4: Special Projects/Portfolio

## AD 40501 - Animation 4: Special Projects/Portfolio

This course teaches the student how to create an effective portfolio in digital, analog and hybrid forms. We will focus on concepts such as: target audience, styles and communication strategies that will enable the student to present his or her work in well-organized, concise and accessible formats. Minimum grade of C- for credit towards Art and Design degrees.

#### **Preparation for Course**

P: AD 40401.

Cr. 3.

Hours Studio 6.

AD 40601 - Advanced 3D Computer Modeling

### AD 40601 - Advanced 3D Computer Modeling

Students will learn advanced rendering, lighting, texturing and mapping to enable the creation of photorealistic and non-photorealistic surfaces. A variety of exercises and assignments will integrate ideas sourced in design principles with personal visual narratives in creative problem solving. Minimum grade of C- for credit towards Art and Design degrees.

#### Preparation for Course

P: AD 31001

Cr. 3.

Hours Studio 6

AD 40701 - Professional Practice Internship

## **AD 40701 - Professional Practice Internship**

This course enables collaboration between students and local businesses in a partnership context. Sourced in a community engagement paradigm, the course empowers students to provide professional standard graphic and electronic design or photography, while the community partners provide real-life work environments for students. Minimum grade of C- for credit towards Art and Design degrees.

#### **Preparation for Course**

P: Pass second portfolio review.

Cr. 3.

Hours

Internship 6.

AD 40801 - Independent Study

## AD 40801 - Independent Study

This course is a student-initiated effort to pursue (with a member of the AD faculty) advanced interests in graphic design, imaging and photography, or modeling and animation, that are extensions of coursework, or that are not available via the usual curriculum. Minimum grade of C- for credit towards Art and Design degrees.

**Preparation for Course** 

P: Junior standing.

### **AD 42101 - Advanced Drawing III**

Continuation of 32201. May be repeated for up to 18 credits. Minimum grade of C- for credit towards Art and Design degrees.

#### **Preparation for Course**

P: AD 32201.

Cr. 3.

Hours Studio 3,

**Dual Level Course** 

Eligible for graduate credit.

#### AD 42201 - Advanced Drawing IV

## **AD 42201 - Advanced Drawing IV**

Continuation of Ad 42101. Eligible for graduate credit. Minimum grade of C- for credit towards Art and Design degrees.

#### **Preparation for Course**

P: AD 42101.

Cr. 3.

Hours Studio 3,

**Dual Level Course** 

Eligible for graduate credit.

#### AD 42301 - Advanced Figure Drawing

### **AD 42301 - Advanced Figure Drawing**

The expressive power of the human figure, its familiarity and its complexity, make it the most challenging of subjects and therefore worthy of intense study. In this class students will be engaged in the further exploration of both formal and conceptual aspects of drawing the human figure. Through drawing the human form, each student's sense of perception and ability to visualize will be challenged and raised to new levels. The insight gained from figure drawing will allow students to find their own approaches to selfexpression through the human form and art as a whole. Also, throughout the semester a wide range of drawing approaches and media will be introduced and explored.

Notes

Studio

#### AD 42501 - Advanced Painting III

## **AD 42501 - Advanced Painting III**

Continuation of AD 32601. Eligible for graduate credit. Minimum grade of C- for credit towards Art and Design degrees.

#### **Preparation for Course**

P: AD 32601.

Cr. 3. Hours

Studio 3,

**Dual Level Course** 

Eligible for graduate credit.

#### AD 42601 - Advanced Painting IV

## **AD 42601 - Advanced Painting IV**

Continuation of 32601. May be repeated for up to 18 credits.

#### Preparation for Course

P: AD 12100, 12200, 15100, 15200 and 32601.

Cr. 3.

Hours
Studio 3,
Dual Level Course
Eligible for graduate credit.

#### AD 43102 - Advanced Sculpture III

### **AD 43102 - Advanced Sculpture III**

Continuation of AD 33202 with advanced problems determined in relation to the major objectives and interests of the student. Eligible for graduate credit. Minimum grade of C-for credit towards Art and Design degrees.

#### **Preparation for Course**

P: AD 33202 and senior standing.

Cr. 3. Hours Studio 3,

**Dual Level Course** 

Eligible for graduate credit.

#### AD 43202 - Advanced Sculpture IV

## **AD 43202 - Advanced Sculpture IV**

Continuation of AD 43102 with advanced problems determined in relation to the major objectives and interests of the student. Eligible for graduate credit. Minimum grade of C-for credit towards Art and Design degrees.

#### Preparation for Course

P: AD 43102, and senior class standing.

Cr. 3. Hours Studio 3, Dual Level Course

Eligible for graduate credit.

AD 43300 - Advanced Metalsmithing III

## AD 43300 - Advanced Metalsmithing III

Advanced problems in metalsmithing determined by the skills, interests, and major objectives of the student. Eligible for graduate credit. Minimum grade of C- for credit towards Art and Design degrees.

#### Preparation for Course

P: AD 33401.

Cr. 3. **Hours**Studio 3.

Dual Level Course

Eligible for graduate credit.

#### AD 43401 - Advanced Metalsmithing IV

## AD 43401 - Advanced Metalsmithing IV

Advanced problems in metalsmithing determined by the skills, interests, and major objectives of the student. May be repeated for up to 18 credits.

#### Preparation for Course

P: AD 12100, 12200, 15100, 15200, 33302 and 33401.

Cr. 3. Hours Studio 3,

**Dual Level Course** 

Eligible for graduate credit.

### AD 43501 - Advanced Ceramics III

Advanced problems in ceramics determined by the skills, interests, and major objectives of the student. Eligible for graduate credit. Minimum grade of C- for credit towards Art and Design degrees.

#### **Preparation for Course**

P: AD 33601.

Cr. 3. Hours

Studio 3,

**Dual Level Course** 

Eligible for graduate credit.

#### AD 43600 - Advanced Ceramics IV

### AD 43600 - Advanced Ceramics IV

Advanced problems in ceramics determined by the skills, interests, and major objectives of the student. Eligible for graduate credit. Minimum grade of C- for credit towards Art and Design degrees.

#### **Preparation for Course**

P: AD 43501.

Cr. 3.

Hours

Studio 3,

**Dual Level Course** 

Eligible for graduate credit.

#### AD 44100 - Advanced Printmaking III

## AD 44100 - Advanced Printmaking III

Continuation of 34202. Advanced problems in printmaking determined in relation to the major objectives and interests of the student. Eligible for graduate credit. Minimum grade of C- for credit towards Art and Design degrees.

#### Preparation for Course

P: AD 34202 and senior standing.

Cr. 3.

Hours

Studio 3,

Dual Level Course

Eligible for graduate credit.

#### AD 44201 - Advanced Printmaking IV

## AD 44201 - Advanced Printmaking IV

Continuation of AD 44100. Advanced problems in printmaking determined in relation to the major objectives and interests of the student. Eligible for graduate credit. Minimum grade of C- for credit towards Art and Design degrees.

#### **Preparation for Course**

P: AD 44100, and senior class standing.

Cr. 3.

Hours

Studio 3.

**Dual Level Course** 

Eligible for graduate credit.

#### AD 46201 - B.F.A. Ceramics: Clay Body and Glaze Preparation

### AD 46201 - B.F.A. Ceramics: Clay Body and Glaze Preparation

Continuing opportunity for extensive practice in ceramic glaze techniques. Does include body preparation, glaze, and clay body. Minimum grade of C- for credit towards Art and Design degrees.

**Preparation for Course** 

P: AD 33501.

Cr. 3.

AD 46700 - Entrepreneurship In The Arts

### AD 46700 - Entrepreneurship In The Arts

This course is intended to meet the general education requirements outlined and pertaining to the learning outcomes for a general education Capstone course and is intended to examine business and entrepreneurial practices in the arts. The course will include discussions and study of arts administration, accounting practices, grant seeking/writing, marketing and publicity, personnel relations and not-for-profit regulations/procedures. Specific attention will be given to the ideas and concepts of business entrepreneurship as they relate specifically to the arts including producing a research-based fundable grant proposal.

Cr. 3

AD 47100 - Web Design II: Intermediate Web Design

### AD 47100 - Web Design II: Intermediate Web Design

This course is a continuation of Web Design I. Best practices in HTML and CSS will be reviewed and students will delve deeper into user experience and visual design. Databases will be introduced allowing students to plan, design, build, and published a site with heavier content loads and user interactions.

Cr. 3.

AD 47200 - User Interface & Experience

## AD 47200 - User Interface & Experience

This course introduces the principles of UX or user experience. Focusing on the user centered design approach, students will learn how to apply these concepts in the realm of digital interface design, both in the critique of existing websites and applications and the creation of new ones. The class will have a focus in website and mobile app UI design.

Cr. 3.

AD 47300 - Social Media Management Design

## AD 47300 - Social Media Management Design

This course introduces the fundamentals of social media management design. Students will learn about the various platforms connected to social media and how to combine the strengths of the various platforms with branding and target audience research to create engaging and cohesive design campaigns.

Cr. 3.

AD 49001 - Topics In Art History

## AD 49001 - Topics In Art History

In-depth projects and studies in special directions of art history closely related to existing areas of concentrations. Minimum grade of C- for credit towards Art and Design degrees.

**Preparation for Course** 

P: AD 11100 And 11201.

#### AD 49002 - Topics In Studio Fine Arts

### **AD 49002 - Topics In Studio Fine Arts**

In-depth projects and studies of special studio art topics closely related to existing areas of concentration. Minimum grade of C- for credit towards Art and Design degrees.

Cr. 1-6. **Hours** Studio 1-6, **Variable Title** (V.T.)

#### AD 49003 - Topics In Studio Fine Arts

### **AD 49003 - Topics In Studio Fine Arts**

In-depth projects and studies of special studio art topics closely related to existing areas of concentration. Minimum grade of C- for credit towards Art and Design degrees.

Cr. 1-6. **Hours** Studio 1-6, **Variable Title** (V.T.)

#### AD 49500 - Readings And Research In Art History

## AD 49500 - Readings And Research In Art History

For students wishing to pursue undergraduate research. Eligible for graduate credit. Minimum grade of C- for credit towards Art and Design degrees.

#### **Preparation for Course**

P: AD 11100 And 11201.

Cr. 1-4
Variable Title
(V.T.)
Dual Level Course
Eligible for graduate credit.

#### AD 49501 - Independent Study In Fine Arts

## **AD 49501 - Independent Study In Fine Arts**

This course provides the opportunity for a student to pursue studio interests (such as mixed media) not served in other course offerings. Projects may vary. May be repeated.

#### **Preparation for Course**

P: senior standing and permission of chair.

Cr. 3.
Hours
Studio 3,
Variable Title
(V.T.)
Dual Level Course
Eligible for graduate credit.

#### AD 49502 - Thesis Seminar And Exhibition I

### AD 49502 - Thesis Seminar And Exhibition I

This course enables students to organize a body of work as a major thesis intended for exhibition. The subject must be approved by the department chairman and thematic constructs guided by the course instructor and discipline specialists. Students will also be prepared for seeking employment or applying to Graduate School. Minimum grade of C- for credit towards Art and Design degrees.

### AD 49600 - Thesis Seminar And Exhibition II

The approved thesis project organized in the previous semester will be completed in readiness for a public group exhibition. Students will create their theses statements and be involved in planning, marketing and executing the exhibition. They will also be prepared for public gallery talk presentations. Minimum grade of C- for credit towards Art and Design degrees.

**Preparation for Course** 

P: AD 49502.

Cr. 3.

AGR 10100 - Introduction To Agriculture And Purdue

### AGR 10100 - Introduction To Agriculture And Purdue

Students are introduced to the College of Agriculture and Purdue University. Specific areas discussed include the diversity of career opportunities within agriculture, the relationships between different areas of agriculture; ethics; the impact of undergraduate course work, including the core curriculum, on scholarship and career preparation; and the challenges facing the food, agricultural, and natural resource systems. The use of guest lecturers provides a networking opportunity for students. Enrollment in this course is restricted to beginning freshmen students. Course meets during weeks 1-8.

Cr. 0.5.

**ANSC 10100 - Animal Agriculture** 

## **ANSC 10100 - Animal Agriculture**

Importance of livestock in the field of agriculture, and the place of meats and other animal products in the human diet.

Cr. 3.

**ANSC 22100 - Principles Of Animal Nutrition** 

## **ANSC 22100 - Principles Of Animal Nutrition**

Classification and function of nutrients, deficiency symptoms, digestive processes, characterization of feedstuffs, and formulation of diets for domestic animals.

#### **Preparation for Course**

P: CHM 11200 Or equivalent.

Cr. 3.

ANTH 10005 - Anthropology And Sociology Student Success Seminar

## ANTH 10005 - Anthropology And Sociology Student Success Seminar

Provides new Anthropology and Sociology majors with an understanding of their major, the resources available to help them along their path to receiving their degree, and ways to apply that degree and the skills they have learnt in pursuing various professional and career trajectories. Students will also learn about specific resources and opportunities to help them be successful at Purdue and in the world of work and post-graduate education. Required for all students who have declared Anthropology or Sociology as their primary major within the past year. May be taken by Anthropology and Sociology minors.

Cr. 1.

ANTH 10501 - Culture And Society

## **ANTH 10501 - Culture And Society**

An introduction to the variations and diversities of living human groups. Social structure, religion, ecology, marriage, and personality variations of peoples of the world. Emphasis on preliterate cultures.

### ANTH 20000 - Topics In Anthropology Of Culture And Society

## ANTH 20000 - Topics In Anthropology Of Culture And Society

Selected topics in the anthropological study of social and cultural institutions. Emphasizes understanding and developing anthropological approaches to questions about social, economic, political, and historical relationships among groups and individuals in contexts across the globe. Course topics may utilize ethnographic, archaeological, linguistic, and historical information.

Cr. 3 Variable Title (V.T.) Notes

May be repeated for up to six credit hours.

ANTH 20001 - Bioanthropology

## ANTH 20001 - Bioanthropology

An introduction to the biological nature of mankind. The evolution of human beings. An examination of speciation, race, and racial groups. The future evolution of humans.

Cr. 3.

### ANTH 20002 - Language And Culture

### **ANTH 20002 - Language And Culture**

An introduction to the study of language and its relations to the rest of culture.

Cr. 3.

#### ANTH 20003 - Introduction To Prehistoric Archaeology

## ANTH 20003 - Introduction To Prehistoric Archaeology

World archaeology in the framework of major prehistoric cultural innovations. History, techniques, methods, and significance of archaeological research.

Cr. 3.

#### ANTH 30000 - Topics In Prehistory

## **ANTH 30000 - Topics In Prehistory**

World archaeology in the framework of major cultural stages. The methods, analysis, and significance of archaeological research.

Cr. 3.

#### **ANTH 31001 - Introduction To The Cultures Of Africa**

#### **ANTH 31001 - Introduction To The Cultures Of Africa**

Explores the vitality and diversity of African cultures today in communities ranging from town neighborhoods to remote villages and from desert to rainforest. Demonstrates the tenacity and creativity of human societies facing severe political, social, and ecological pressures, but also contributes new questions and answers to global debates about family values, ethnicity, terrorism, hunger, and economic growth.

#### ANTH 31300 - Archaeology Of North America

### **ANTH 31300 - Archaeology Of North America**

Archaeological overview of North America emphasizing Indigenous cultures prior to the arrival of Europeans, but including Contact and Post-Contact communities of the Historic Period. Topics will include the peopling of the Americas, culture and environment, social complexity, and Cultural Resource Management.

Cr. 3.

#### ANTH 33000 - Indians Of South America

### **ANTH 33000 - Indians Of South America**

The cultural development and contemporary life of aboriginal societies in the tropical and marginal areas of the continent. Ethnic relationship and characteristics of major cultural groups are examined through detailed study of representative tribal units.

#### **Preparation for Course**

P: ANTH 10501.

Cr. 3.

Note

Approved by Arts and Sciences for the Cultural Studies (Non-Western Culture) requirement.

ANTH 34800 - Peoples And Cultures Of Russia, Ukraine, And Newly Independent States

# ANTH 34800 - Peoples And Cultures Of Russia, Ukraine, And Newly Independent States

An introduction to the peoples and cultures of Eurasia, especially the former Soviet Union. Use case studies and ethnographies to learn about the histories of specific regions and groups, and to discuss religion and tradition, historical memory and cultural heritage, gender, childhood, and popular culture. Typically offered every other spring.

Cr. 3

#### ANTH 35001 - European Ethnography

## ANTH 35001 - European Ethnography

European peoples and cultures. Emphasis on comparison of cultural assumption and social organization of selected European cultures; techniques for anthropological research in European societies.

#### **Preparation for Course**

P: ANTH 10501 or consent of instructor.

Cr. 3.

#### ANTH 35002 - Archaeology Of Ancient Mexico

## **ANTH 35002 - Archaeology Of Ancient Mexico**

Surveys the archaeology of ancient Mexico. Traces cultural developments of indigenous peoples from the Olmec to the Aztec, and examines issues, controversies, and current debates in Mexican archaeology. Topics include the transition to settled villages, initial complexity, craft production, urbanization, ideology, gender, religion, warfare, and the conquest.

Cr. 3.

#### **ANTH 35600 - Polynesian Cultures**

## **ANTH 35600 - Polynesian Cultures**

This course will provide students with a broad overview of the peoples and distinctive cultures of the Central and South Pacific island worlds of Polynesia. We will examine Polynesia over time beginning when the islands were settled in the prehistoric era, discuss the transformations that occurred through Western contact and colonialization, and consider the more recent impacts of globalization. We will explore many of the central topics in anthropological studies of Polynesia, including: political and social organization;

economics; gender and sexuality; identity and personhood; art and dance; and religious belief and practice. We will finish the course by looking at important contemporary issues, such as transnational migration, tourism, public health dilemmas, and transformations in cultural and ethnic identities. Readings and films have been selected to give students experience with a variety of different Polynesian societies, including Hawai'i, Samoa, the Kingdom of Tonga, Tahiti, Tuvalu, the Cook Islands, Rotuma, and the Maori of Aotearoa (New Zealand).

Cr. 3.

#### **ANTH 37001 - Ancient Civilizations Of The Andes**

### **ANTH 37001 - Ancient Civilizations Of The Andes**

Evidence for successive migrations into the continent, the subsequent development of local cultures, and civilization in the central Andes.

#### **Preparation for Course**

P: ANTHP200 or consent of instructor.

Cr. 3.

Notes

Approved by Arts and Sciences for the Cultural Studies (Non-Western Culture) requirement.

#### ANTH 37500 - Cultural Psychiatry

### **ANTH 37500 - Cultural Psychiatry**

This course surveys contemporary theory and research on the complex interaction of culture and mental health. We will examine a range of mental disorders in various societies, forms of psychiatric treatment and healing, and key concepts and methods used in the study of mental health and culture.

Cr. 3.

#### ANTH 37600 - Archaeology Of Death

## ANTH 37600 - Archaeology Of Death

Examination of mortuary behavior using archaeological and biological data. Methods of studying variation in mortuary practices. Identification of skeletal remains in laboratory setting.

**Preparation for Course** 

P: ANTH 20003.

Cr. 3.

#### ANTH 38501 - Topics In Anthropology

## **ANTH 38501 - Topics In Anthropology**

A conceptual examination of selected topics in the field of anthropology.

#### **Preparation for Course**

P: ANTH 20001 or 10501 or 20002 or 20003.

Cr. 3.

### ANTH 39800 - Peoples And Cultures Of Central Asia

## **ANTH 39800 - Peoples And Cultures Of Central Asia**

A general anthropological introduction to the societies and cultures of the contemporary Muslim successor states of former Soviet Central Asia and the adjacent areas of Iran and Afghanistan --i.e., western and southern Turkistan. Topics include ecology, ethnohistory and the structure of traditional subsistence strategies (nomadic pastoralism, sedentary farming, and urban mercantilism); social institutions (marriage, family, kinship, gender relations, identities and organization; religious beliefs and practices); and the assessment of socio-economic change and recent political transformations experienced by the peoples of this region under the colonial rules of tsarist and Soviet Russia, and the modern nation states of Iran and Afghanistan. The consequences of war on terrorism, volatile sociopolitical conditions and future prospects for the peoples of this region will be also critically examined. No special knowledge of the region on the part of students is presumed. However, a background in general anthropology would be helpful, but not essential. The course will consist of lectures, reading assignments, film and slide presentations and class discussions.

Cr. 3

### ANTH 40000 - Undergraduate Seminar

This course explores the field of ancient DNA research, including an historical perspective on the development of the science, and a review of the current trends and exciting new results. The ability to access ancient molecules (not only DNA but also proteins, lipids, and other interesting molecules) has opened new doors in our understanding of the prehistory of our planet. This course will focus on applications within Anthropology, but will also touch on palaeontological and forensic applications of this science, and will include discussion of the work currently in progress in the instructor's Ancient DNA laboratory in the IU Institute of Molecular Biology. Grades are based on discussion participation, five written critical commentaries on assigned readings, and a research paper, with each component contributing one-third of the course grade. Although there are no specific prerequisites for the course, I will assume a good knowledge of bioanthropology as well as some basic genetics. This course requires a significant amount of reading of primary literature.

#### **Preparation for Course**

ANTH 20001 and junior class standing or three courses in biology or anatomy.

Cr. 3. Variable Title

ANTH 40001 - Seminar In The Ethnography Of Communication

### **ANTH 40001 - Seminar In The Ethnography Of Communication**

Current issues in linguistic anthropology, designed to acquaint the student with readings and points of view not covered in the introductory courses. Topics such as (1) languages of the world, (2) variation in language, (3) problems in linguistic structure, and (4) culture and communication.

Cr. 3.

Variable Title

(V.T.)

Notes

May be repeated once for credit with a different topic.

#### **ANTH 40002 - Archaeological Methods And Techniques**

### **ANTH 40002 - Archaeological Methods And Techniques**

Methods and mechanics of archaeology in field and laboratory. Use of survey instruments, drawing tools, and photographic equipment, treatment of recovered materials leading to printed report.

#### Preparation for Course

P: Intructor Permission Required.

Cr. 2-4.

**Dual Level Course** 

Eligible for graduate credit. Maximum of 4 credits.

#### ANTH 40200 - Gender In Cross-Cultural Perspective

## **ANTH 40200 - Gender In Cross-Cultural Perspective**

This course considers the meaning and social implications of gender in human society. Cultural definitions of "male" and "female" gender categories as well as associated behavioral and structural differentiation of gender roles will be analyzed using current anthropological concepts and theories.

Cr. 3.

#### ANTH 40500 - Ethnographic Methods

## **ANTH 40500 - Ethnographic Methods**

This course introduces students to the basic methods of ethnographic research: the collection, analysis, and presentation of data derived from the systematic, direct observation of human behavior and interviewing of key informants. Students are required to complete a field project.

#### ANTH 40501 - Fieldwork In Archaeology

### ANTH 40501 - Fieldwork In Archaeology

Archaeological work directed toward field techniques: excavation and preservation of materials, surveying, photography, cataloguing.

Cr 1-8

Notes

One credit hour per full week of fieldwork.

**Dual Level Course** 

Eligible for graduate credit. Maximum of 8 credits.

#### ANTH 40502 - Fieldwork In Bioanthropology

### ANTH 40502 - Fieldwork In Bioanthropology

Fieldwork In Bioanthropology.

Cr. 1-8.

### ANTH 40600 - Visual Anthropology

### ANTH 40600 - Visual Anthropology

This course explores the use of visual media, including both ethnographic films and still photography, as a tool for anthropologists as we seek to understand the human condition.

Cr. 3.

#### ANTH 41700 - State Of The World

#### ANTH 41700 - State Of The World

In this course we will examine a series of urgent issues facing the global community through reading ethnography and studying social theory. For each issue, we will read recent ethnographic research that illuminates the issue as well as social theories that connect the issue to long-standing zones of theorizing among social scientists. Through careful reading and discussion, students will learn about the urgent issues that will shape their professional and personal lives, become familiar with theoretical approaches that illuminate these issues, and engage in discussion and debate about these issues in a diverse classroom. The following issues is a sample of the types of global issues that the course will cover: the environment (i. e., global warming, environmental critiques of capitalism, the struggle for indigenous rights to land, the energy economy), global struggles for rights (for indigenous peoples, women, the LGBTQ community, the global underclass, stateless stateles s peoples), the state system (to include an examination of the nature of the state, authoritarian and leaderless states, democracy in crisis, the warlord state), technological change (social media, AI, cyberwarfare), and violence (weak states, the global arms trade, the nuclear threat). Theoretical perspectives to be covered include historical materialism, world systems theory, gender studies, subaltern studies, postcolonialism, poststructuralism, and others.

Cr. 3.

#### ANTH 42100 - Moche Archaeology Seminar

## **ANTH 42100 - Moche Archaeology Seminar**

The Moche were an archaeological culture from the desert coast of Peru that provide an opportunity to explore anthropological theories regarding nascent state formation, priestly elites, feasting and ritual, human sacrifice, conflict and warfare, environmental degradation, and societal collapse. We will explore these topics using a comparative, four-field anthropological approach.

Cr. 3.

#### ANTH 42600 - Human Osteology

## ANTH 42600 - Human Osteology

This course explores the types of information that can be recovered from bones, including age, sex, size, pathology, diet, and demography as well as how this information can be utilized to obtain an integrated picture of an individual. The skills learned are applicable to forensic anthropology, archeology, human evolution and anatomy.

### ANTH 43000 - Archaeology Of Violence And Conflict

In this course we will examine how we identify violence and warfare in the past. Second, we will explore how violence has affected societies around the world and through time. We review multidisciplinary literature on violence and ask how and why violent acts and institutions of violence develop and persist.

Cr. 3.

#### ANTH 44500 - Seminar In Medical Anthropology

### **ANTH 44500 - Seminar In Medical Anthropology**

An examination of the cross-cultural properties of disease and curing. Focus on investigations into the ideology and meaning of illness, the relationship between patient and healer, and how responsibility for illness is assigned. Medical anthropology is concerned with knowledge about sociocultural contexts of disease and healing and with how such knowledge might inform the management of our own health problems.

Cr. 3

Notes

Approved by Arts and Sciences for the Cultural Studies (Non-Western Culture) requirement.

**Dual Level Course** 

Eligible for graduate credit.

#### ANTH 44501 - History And Theory Of Anthropology

### ANTH 44501 - History And Theory Of Anthropology

An examination of the historical development of the field of anthropology concentrating upon the intellectual roots and context that surrounded its emergence as well as contemporary problems, perspectives, methods, and theories. Course designed for graduating anthropology majors.

#### **Preparation for Course**

P: ANTH 10501 And ANTH 20001 With Grade of C- Or Higher.

Cr. 3.

#### ANTH 45500 - Anthropology Of Religion

## ANTH 45500 - Anthropology Of Religion

Critical evaluation of current approaches to the analysis of religious myth, ritual, and symbolism. Problems in understanding religious beliefs of other cultures. Modern development of the anthropology of religion.

Cr. 3.

Note

Approved by Arts and Sciences for the Cultural Studies (Non-Western Culture) requirement.

**Dual Level Course** 

Eligible for graduate credit.

#### ANTH 45700 - Ethnic Identity

## ANTH 45700 - Ethnic Identity

Nature of ethnic groups and identity viewed in cross-cultural perspective: effects of colonialism and nationalism on ethnic groups; use of identity as an adaptive strategy; stereotypes and stereotyping; symbols and styles of ethnic identity; and retention and elaboration of local styles.

Cr. 3

### ANTH 47000 - Psychological Anthropology

## ANTH 47000 - Psychological Anthropology

The similarity and diversity of human personalities. How culture forms personalities and is formed by them. Focus on individual variation within a cultural framework.

Approved by Arts and Sciences for the Cultural Studies (Non-Western Culture) requirement.

**Dual Level Course** 

Eligible for graduate credit.

#### **ANTH 49000 - Development And Anthropology**

## ANTH 49000 - Development And Anthropology

The vast majority of the world's people live in poverty, and lack access to many basic resources, services and rights. They face problems and challenges that are difficult for most Americans to understand. It is even harder for us to find ways of helping these people solve their economic, social and political problems.

#### ANTH 49500 - Individual Readings In Anthropology

### **ANTH 49500 - Individual Readings In Anthropology**

**Preparation for Course** 

P: Instructor Permission Required.

Cr. 1-4. Variable Title

(V.T.) **Dual Level Course** 

Eligible for graduate credit. Maximum of 4 credits.

#### ANTH 49600 - Field Study In Anthropology

### ANTH 49600 - Field Study In Anthropology

Planning of research project during year preceding summer in field. Time spent in research must amount to at least one week for each credit hour granted. Research paper must be presented by end of semester following field study.

Preparation for Course

P: Instructor And Department Chair Permission Required.

Cr. 3-8.

Notes

Maximum of 8 credits.

#### ARET 11000 - Sketching For Technology And Design

## ARET 11000 - Sketching For Technology And Design

Focusing on problems of the built environment this course teaches students how to represent proportionately objects, planes, and volumes by developing observational skills and hand to eye coordination. Students are introduced to fundamental knowledge in composition, line work, lettering, contour drawing, sketching, shades, shadows, multiview drawings, sectional views, isometrics, and perspective drawing. Skills are developed in the use of multiple media including pen and ink, pencil, and monotone marker rendering.

Cr. 3.

#### ARET 12300 - Digital Graphics For Built Environment I

## **ARET 12300 - Digital Graphics For Built Environment I**

An introduction to graphic communication in the architectural, engineering, and construction (AEC) industry. Manual drafting, technical sketching, and CAD software are utilized in the production of working drawings. Project emphasis is distributed among architectural, civil engineering, and interior design topics.

Cr 3

Hours

Class 2, Lab. 2-4.

## **ARET 12400 - Architectural Engineering Construction I**

A study of residential building and the graphic and written documents required for its construction. CAD familiarity is required and a model may be required.

#### **Preparation for Course**

P: ARET 12300 with a grade of C- or better

Cr. 3.

Class 1, Lab. 4-6.

#### **ARET 16700 - Construction Systems And Materials**

### **ARET 16700 - Construction Systems And Materials**

Properties of construction materials and components and an introduction to their use in various construction systems.

Cr. 3.

#### ARET 21000 - Architecture And Urban Form

### **ARET 21000 - Architecture And Urban Form**

Study of the forces that shape the built environment: theories of design, design principles, historic styles, topography, structure, materials, including political, social, cultural influences, and sustainability.

Cr. 3.

#### **ARET 22200 - Architectural Engineering Construction II**

## **ARET 22200 - Architectural Engineering Construction II**

Preparation of graphic and written documents to construct an intermediate-sized commercial or institutional building. A model may be required. Computer applications.

#### **Preparation for Course**

P: ARET 12400 with a grade of C- or better

Class 1, Lab. 4-6.

#### ARET 22300 - Digital Graphics For Built Environment II

## **ARET 22300 - Digital Graphics For Built Environment II**

An advanced presentation of digital graphic communication for the architectural, Engineering, and Construction (AEC) industry.

#### **Preparation for Course**

P: ARET 12400 With A grade of C- Or Better

#### ARET 22500 - Creative House Design

## **ARET 22500 - Creative House Design**

Using fundamentals of space planning and pattern language students design their own home. A written justification for design decisions will be required.

Class 2, Lab. 2-3.

#### ARET 28100 - Environmental Equipment For Buildings I

### **ARET 28100 - Environmental Equipment For Buildings I**

A survey of basic environmental control parameters of heating, ventilating, air conditioning, plumbing, lighting, electricity, and their equipment (size and shapes) and the physiological effects on mankind. Emphasis placed on definitions, types of systems, and physical characteristics of equipment.

#### **Preparation for Course**

P: ARET 12400 With A Grade Of C- Or Better

Cr. 3.

#### ARET 31000 - Architecture And Urban Form In The Modern World

### ARET 31000 - Architecture And Urban Form In The Modern World

A survey of architectural and engineering developments by site visitations.

#### **ARET 32400 - Sustainable Construction**

#### **ARET 32400 - Sustainable Construction**

This course approaches sustainable construction for buildings by examining the physiology required for human functions and considers how building components and systems affect human performance and well-being. Examines the construction process from site planning through construction process, to commissioning and occupancy. Develops understanding of Leadership in Energy and Environmental Design (LEED) criteria. A model may be required. Computer application.

#### Preparation for Course

P: CNET 44500 with a grade of C- or better

Cr. 3. Hours Class 1, Lab. 6.

#### **ARET 49900 - Architectural Engineering Technology**

## **ARET 49900 - Architectural Engineering Technology**

As determined by CAET faculty. Authorized equivalent courses or consent of instructor may be used in satisfying course pre- and corequisites.

#### **Preparation for Course**

P: Must be in CNTB program/CNET major.

Cr. 1-4. Hours Class 1-4, Lab. 0-6. Variable Title (V.T.)

#### ASTR 10000 - The Solar System

## ASTR 10000 - The Solar System

Celestial sphere, measurement of time, earth as a planet, moon, eclipses, planets and their satellites, comets, meteors, theories on origin of solar system.

Notes

Indiana Core Transfer Library course.

## **ASTR 10500 - Stars And Galaxies**

Introduction to the physical universe. Topics include: constellations, gravity, radiation, the Sun, structure and evolution of stars, neutron stars and black holes, the Milky Way galaxy, normal galaxies, active galaxies, quasars, cosmology, and the search for extraterrestrial life.

Cr. 3-4.

Notes

Credit is not given for both AST A105 and AST A110.

ASTR 26400 - Descriptive Astronomy: Stars And Galaxies

## **ASTR 26400 - Descriptive Astronomy: Stars And Galaxies**

A descriptive, non-mathematical course in astronomy intended for non-physics majors. Topics include properties of stars; stellar birth and death; the Hertzsprung-Russel diagram; main sequence stars; binary systems; stellar clusters; red giants and white dwarfs, nova and supernova; neutron stars and black holes; galaxies and the cosmological red shift

Cr. 3.

Hours

Class 2, Lab. 2.

**ASTR 36400 - Stars And Galaxies** 

### **ASTR 36400 - Stars And Galaxies**

This course is intended for students in Science or Engineering. This is the second of a two-semester introductory sequence on astronomy and astrophysics, although it is designed to be a standalone course. It is intended mainly for Science and Engineering majors who are comfortable with calculus-based contents. The course provides an overview on the formation and evolution of stars, galaxies, and clusters of galaxies. Selected topics that are covered in more detail include stellar structure and atmosphere, properties of black holes, neutron stars, and white dwarfs, galactic dynamics, and dark matter in galaxies and clusters of galaxies.

#### Preparation for Course

P: PHYS 15200 or 21800 or 22000.

Cr. 3.

Note

Not available to students with credit in ASTR 26400.

ASTR 37000 - Cosmology

# ASTR 37000 - Cosmology

The picture of how the Universe came to be and how it has evolved has recently come into sharp focus. This progress is the result of improved observational techniques that have resulted in high resolution images of very distant galaxies, a more accurate mapping of the Large Scale Structure of the Universe or the high resolution picture of the young universe provided by Cosmic Microwave Background observations. We will present a historical perspective of how ideas and data have shaped Cosmology through the centuries. In addition, we will review the theoretical models that are in agreement with the current observations. Our goal will be to provide the students with a broad overview of the current research in Cosmology with an eye toward stimulating the students curiosity about the many questions still awaiting answers in this field.

### **Preparation for Course**

Basic physics and math knowledge will be assumed.

Cr. 3.

Notes

Intended for science and engineering majors.

#### **ASTR 40100 - Introduction To Astrophysics**

# **ASTR 40100 - Introduction To Astrophysics**

This course is an overview of astrophysics with an emphasis on how physics is applied to astronomy. It will explore the fundamental physical concepts and apply basic principles such as Newton's laws of motion, Newtonian gravitation and orbital mechanics, electromagnetic waves and behavior, kinetic theory of gases, special and general relativity, and quantum mechanics to astronomical systems.

#### **Preparation for Course**

P: PHYS 25100, with a grade of C or better or MA 26100.

#### ASTR 45100 - Galaxies And Large Scale Structure

## **ASTR 45100 - Galaxies And Large Scale Structure**

The course covers basic observed properties and models of galactic structure, dynamics of stars, physics of the interstellar medium and intergalactic medium, formation of galaxies, properties of clusters of galaxies, and dark matter.

#### **Preparation for Course**

P: MA 26100 with a grade of 2.0 or better and PHYS 34200 with a grade of 2.0 or better.

Cr. 3.

#### **ASTR 47100 - Stellar Evolution**

### **ASTR 47100 - Stellar Evolution**

We will discuss observations related to stellar astrophysics. These will include formation of galaxies and stars; evolution of stars; cosmology; cosmic rays, their origin and acceleration; radio astronomy, radio galaxies; the H-21 cm line; gravitational radiation; stellar X-rays and gamma rays.

#### **Preparation for Course**

P: MA 26100 with a grade of 2.0 or better and PHYS 34200 with a grade of 2.0 or better.

Cr. 3.

#### **BIOL 10000 - Introduction To The Biological World**

# **BIOL 10000 - Introduction To The Biological World**

Principles of biological organization from molecules through ecosystems. Emphasis on processes common to all organisms and on concepts related to problems of current importance. No credit towards a degree in IU Allied Health. Credit given for only one of the following: BIOL 10000, BIOL 25000, or BIOL N200.

Cr. 3.

Notes

Indiana Core Transfer Library course.

**BIOL 10001 - Introduction To The Biological World Laboratory** 

# **BIOL 10001 - Introduction To The Biological World Laboratory**

Laboratory exercises and experiments that illustrate selected principles of biology.

### **Preparation for Course**

P Or C: BIOL 10000.

Cr. 1.

Hours

Lab. 2. Notes

Indiana Core Transfer Library course.

### **BIOL 10500 - Medical Terminology**

# **BIOL 10500 - Medical Terminology**

Emphasis on learning the meanings of the more common word elements associated with medicine and applying that knowledge to define medical terms.

Cr. 1

Session Indicators

(fall, spring)

Notes

Indiana Core Transfer Library course.

# **BIOL 11700 - Principles Of Ecology And Evolution**

Principles of organismic and evolutionary biology; a phylogenetic synopsis of the major groups of organisms from viruses to vertebrates; an introduction to genetic, evolutionary, and ecological processes; population biology; community ecology; and behavior. This course is open only to science majors. Instructor's permission required for non-biology majors.

#### **Preparation for Course**

P: Placement At Or Above MA 15300 Or Equivalent).

Cr. 4.

Hours

Class 3, Lab. 3.

Note

Indiana Core Transfer Library course.

### **BIOL 11900 - Principles Of Structure And Function**

## **BIOL 11900 - Principles Of Structure And Function**

Introduction to the structure and function of biological organisms at the cellular and organismal levels. Principles of cell structure, function, and information; energy flow within cells; structure of function of plants and animals; integration of physiological processes; development of plants and animals. This course is open only to science majors. Instructor's permission required for non-biology majors.

#### **Preparation for Course**

P: Placement At Or MA 15300 (Or Equivalent).

Cr. 4.

Hours

Class 3, Lab. 3.

Notes

Indiana Core Transfer Library course.

### **BIOL 12000 - Biology Resource Seminar**

# **BIOL 12000 - Biology Resource Seminar**

Provides incoming Biology majors with an overview of the degree program and its application to relevant professions. Focus will be on: campus resources and strategies for success, information literacy and scientific thinking, career paths in biology, and responsibilities of biologists. Presentations will be made by Department of Biology faculty, guest speakers from on and off campus, and advanced students in support of class discussion.

#### **Preparation for Course**

P: Restricted to Biology majors with freshman class standing.

Cr. 1.

### **BIOL 12600 - Human Biology**

# **BIOL 12600 - Human Biology**

Introduction to scientific inquiry with special emphasis on the structure and function of cells, tissues, organs, and systems of the human biology. Topics relate to fitness, nutrition, health, inheritance, evolution, and ecology.

Cr. 3.

#### **BIOL 12700 - Introduction To Human Diseases**

### **BIOL 12700 - Introduction To Human Diseases**

Provides a basic introduction to common human diseases/conditions affecting the musculoskeletal, nervous, immune and cardiovascular systems. Provides introductory understanding of mechanisms of common prescription and over-the-counter drugs, and drug addiction. Will also provide basic information on the causes, types and treatments of human cancers. Completion of this course will provide a good understanding of human disease processes and improve ability to interact with medical professional when necessary. Cannot be used as a Group A or B elective for biology majors.

# **BIOL 14000 - Marine Biology**

Introduction to the science of marine biology. Topics include a coverage of the following marine groups: plant, invertebrates and vertebrates. Additional lecture are provided in marine ecosystems, oceanography and marine resources. Includes a field trip to a marine biological station in Costa Rica. Field trip costs are the responsibility of the student. Available as a free elective. Cannot be used to satisfy Group A or B elective requirements for biology majors.

#### **Preparation for Course**

P: BIOL 10000 or equivalent.

Cr. 3.

Hours

Class 2, Lab 1.

**BIOL 18300 - Professional Practice I** 

### **BIOL 18300 - Professional Practice I**

This course serves to integrate a professional research experience at an approved academic institution or industrial research facility into the Biology academic curriculum. The student must be accepted into an internship or co-op program.

#### **Preparation for Course**

P: Permission of department required.

**BIOL 18400 - Professional Practice II** 

### **BIOL 18400 - Professional Practice II**

This course serves to integrate a professional research experience at an approved academic institution or industrial research facility into the Biology academic curriculum. The student must be accepted into an internship or co-op program.

### **Preparation for Course**

P: Permission of department required.

**BIOL 19500 - Special Assignments** 

# **BIOL 19500 - Special Assignments**

Reading, discussions, written reports, seminar presentations, and field or laboratory work provided for enrichment in special areas of the biological sciences.

Cr.0-4.

Variable Title

(V.T.)

**BIOL 20300 - Human Anatomy And Physiology** 

# **BIOL 20300 - Human Anatomy And Physiology**

A survey of normal structure and function of the human organism. The human is treated as an open system with the capacity to transport material, transform energy, and maintain a homeostatic state. The capacities and limitations of the human to cope with changes in the environment are emphasized. All major systems of the human body and their functions are examined in relation to the living organism. Integrated into the study of the human organism are laboratory exercises that emphasize the essentials of human anatomy and physiology.

### **Preparation for Course**

P: One Year High School Biology And/Or One Year High School Chemistry Or Equivalent.

Hours

Class 3, Lab. 2.

# **BIOL 20400 - Human Anatomy And Physiology**

Continuation Of BIOL 203.

#### **Preparation for Course**

P: BIOL 20300.

Cr. 4.

Hours

Class 3, Lab. 2.

### **BIOL 21500 - Basic Human Anatomy**

### **BIOL 21500 - Basic Human Anatomy**

Introduction to anatomy using cadavers and anatomical models for investigations. Emphasis is given to the interrelationships of bones, muscles, nerves, and blood vessels from a regional approach. Specifically designed for students for whom BIOL 20300-20400 is not accepted.

#### **Preparation for Course**

P: placement at or above MA 15300 (or equivalent) and BIOL 10900 or 11900 or instructor permission.

Cr. 4. Hours

Class 2, Lab. 4.

### **BIOL 21600 - Basic Mammalian Physiology**

# **BIOL 21600 - Basic Mammalian Physiology**

Introduction to physiology emphasizing homeostasis and interrelationships of body functions, cells to systems. Includes selected functional anatomy. Specifically designed for students in IU Allied Health programs, nursing, and physical education for whom BIOL 20300-20400 is not accepted.

### **Preparation for Course**

P: one semester of chemistry. R: BIOL 21500.

Cr. 4

Hours

Class 3, Lab. 3.

#### **BIOL 21700 - Intermediate Ecology**

# **BIOL 21700 - Intermediate Ecology**

Ecological principles of populations, communities, and ecosystems; interaction of biotic and abiotic factors regulating population and community structure; case studies, field studies, and simulation models of life history attributes, competition, predation, parasitism, and mutualism. This course is open only to science majors. Instructor's permission required for non-biology majors.

### **Preparation for Course**

P: BIOL 11700 and 11900 or equivalent with grades of C or higher.

Cr. 3.

Hours

Class 2, Lab. 3.

#### **BIOL 21800 - Genetics And Molecular Biology**

# **BIOL 21800 - Genetics And Molecular Biology**

The course will cover the principles of classical and molecular genetics. Mendelian inheritance, linkage, gene interaction and chromosomal aberrations, nucleic acids structure, gene function (replication, transcription, and translation), mutation and repair, regulation of gene expression, genetic engineering. The laboratory experiments include linkage mapping in Drosophila, allozyme variation in fish, DNA extraction, electrophoresis, restriction enzyme analysis, gene isolation by polymerase chain reaction (PCR). This course is open only to science majors. Instructor's permission required for non-biology majors.

#### **Preparation for Course**

P: BIOL 11700 And BIOL 11900 With Grades Of C or higher, And CHM 11600; or Instructor Permission Required

Cr. 4.

Hours

Class 3, Lab. 3.

### **BIOL 21900 - Principles Of Functional Biology**

# **BIOL 21900 - Principles Of Functional Biology**

This course will cover selected topics in both plant and animal physiology: photosynthesis, respiration, nutrition, solute and water transport, plant and animal hormones, neural control in animals, osmoregulation, and reproduction. Some laboratory time will be devoted to small-group discussions. This course is open only to science majors. Instructor's permission is required for non-biology majors.

#### **Preparation for Course**

P: BIOL 11700 And 11900 With Grades Of C Or Higher, And CHM 11600 Or Instructor Permission Required.

Cr. 4.

Hours

Class 3, Lab. 3.

#### **BIOL 22000 - Microbiology For Allied Health Professionals**

### **BIOL 22000 - Microbiology For Allied Health Professionals**

The biology of microorganisms (bacteria, viruses, fungi, protozoa, and algae) and their interactions with humans. Emphasis on microbes with medical and/or public health significance. Specific areas of study include characteristics, metabolism, and genetics of bacteria; host-parasite interactions; factors affecting human health and disease states; principles of disinfection and sterilization; epidemiology of infectious disease with emphasis on transmission, prevention, and treatment; and nosocomial infection risks and prevention. This course is designed for nursing and Allied Health students.

#### **Preparation for Course**

P: BIOL 20300, CHM 10400 Or CHM 11100.

Cr. 4.

Hours

Class 3, Lab. 2.

Notes

Indiana Core Transfer Library course.

### **BIOL 25000 - Women And Biology**

# **BIOL 25000 - Women And Biology**

An examination of modern concepts in biology. The scientific method will be examined and feminist criticisms of science will be discussed. The topics of reproduction and development, heredity, and ecology will be used as focal points for an in-depth discussion of the conceptual framework of biology and feminist criticism thereof. Cannot be used for Group A or B elective for biology majors. Credit given for only one of the following: BIOL 100, BIOL 250, or BIOL N200.

### **Preparation for Course**

P: Sophomore Standing Required. For Non-Majors.

Cr. 3.

#### **BIOL 28400 - Professional Practice III**

### **BIOL 28400 - Professional Practice III**

This course serves to integrate a professional research experience at an approved academic institution or industrial research facility into the Biology academic curriculum. The student must be accepted into an internship or co-op program.

#### **Preparation for Course**

P: Permission of department required.

Cr. 0

# **BIOL 29500 - Special Assignments**

Special work such as directed reading, library research, and laboratory or field research. The field in which studies are performed will be indicated on the student's record. The substance of the project must be agreed upon by the student and a faculty member and approved by the chair.

Cr. 1-3. **Hours** Class 0-3, Lab. 0-6. **Variable Title** (V.T.)

BIOL 30400 - Major Ideas In Biology

# **BIOL 30400 - Major Ideas In Biology**

Major ideas in biology such as immunization, spontaneous generation, inheritance, evolution, genetic engineering and ecology will be examined. Students will analyze the methodology and results that lead to understanding of these ideas. Small group discussion, oral presentations and written papers will all be used to study the impact of these ideas on other areas such as economics, politics, or religion. Cannot be used as a group A or B elective for a biology major.

#### **Preparation for Course**

P: an introductory course in biology.

Cr. 3.

**BIOL 31500 - Developmental Anatomy** 

## **BIOL 31500 - Developmental Anatomy**

Comparative study of the vertebrate embryology and adult anatomy of selected vertebrates, including humans.

### Preparation for Course

P: BIOL 11900 or 10900.

Cr. 4.
Hours

Class 2, Lab. 4.

BIOL 31700 - Addictions: Biology, Psychology, And Society

# BIOL 31700 - Addictions: Biology, Psychology, And Society

It is an interdisciplinary, introductory course taught by a team from the biology and psychology departments. The course will focus on using the processes of addiction to alcohol, marijuana, nicotine, and psychomotor stimulants to teach the basics of biological and psychological sciences. Example topic areas include neurological/brain function, impact on cognitive function, biochemistry, genetics, immunology, emotion and motivation, learning and memory, physiology and pharmacology, and the psychosocial aspects of addictions. Cannot be used as A or B elective for biology majors.

#### **Preparation for Course**

P: Placement At Or Above ENGL 13100.

Cr. 3

**BIOL 32700 - Biology Of Aging** 

# **BIOL 32700 - Biology Of Aging**

This course presents a basic understanding of how the human body ages from the biological standpoint. The student will gain an understanding of biological and physiological changes associated with aging in various organ systems. Discussions of potential intervention strategies and ways to extend the quality of life during aging will be presented. The course is primarily geared toward the student interested in obtaining a certificate in gerontology. Cannot be used as a group A or B elective for biology majors.

Cr. 3.

Notes

This course meets General Education Level B4 requirements

# **BIOL 33400 - Clinical Pathophysiology**

A functional study of pathophysiology of major physiological systems of a human with special emphasis on clinical applications for baccalaureate nursing and allied health professionals. Major topics to be covered include fluid and electrolyte balance, medical genetics, and the pathophysiology of the cardiovascular, respiratory, digestive, hepatic, endocrine, immune, renal, and neural systems. Cannot be used as a group A or B elective for biology majors.

#### **Preparation for Course**

P: BIOL 20300, 20400 or equivalent.

Cr. 4.

**BIOL 33500 - Animal Behavior** 

### **BIOL 33500 - Animal Behavior**

Instinct vs. learning; genetics and development of learning; neurobiology; behavioral ecology: habitat selection, mating systems, foraging behavior; sociobiology and human behavior.

### **Preparation for Course**

P: BIOL 11700, 11900, or equivalent.

Cr. 3.

**BIOL 34500 - Vertebrate Biology** 

# **BIOL 34500 - Vertebrate Biology**

Vertebrate diversity and the manner in which species are designed for their particular lifestyles, the relatedness and origins of the major vertebrate taxa, the basic vertebrate body plan, adaptations for feeding and locomotion, natural history of selected vertebrates, current conservation issues regarding vertebrates. Field experiences will include periodic visits to local nature preserves during the lab period. This course includes service learning.

#### **Preparation for Course**

P: BIOL 11700, 11900.

Cr. 4.

Hours

Class 3, Lab. 3.

**BIOL 34900 - Environmental Science** 

### **BIOL 34900 - Environmental Science**

Examines current major environmental issues through an investigation of the scientific and political aspects of human population growth, degradation of natural resources, and environmental regulations. Cannot be used as a Group A or B elective for biology majors.

#### **Preparation for Course**

P: junior or senior class standing.

Cr. 3.

**BIOL 35000 - Introduction To Plant Physiology** 

# **BIOL 35000 - Introduction To Plant Physiology**

Basic physiological processes and their relationship to plant structure and function. Laboratory experiments provide personal experience with a broad range of psychological phenomena.

#### Preparation for Course

P: BIOL 10800 and one semester of general chemistry.

Cr. 4.

#### Hours

Class 3, Lab. 3.

# **BIOL 38100 - Cell Biology**

Details of cell structure and function, biochemical aspects of energy and information flow in eukaryotic and prokaryotic cells, cellular differentiation and function of specialized eukaryotic cells. Course open only to science majors.

#### **Preparation for Course**

P: BIOL 11900. R: one semester of organic chemistry or permission of instructor.

Cr. 3.

#### **BIOL 38600 - Professional Practice IV**

### **BIOL 38600 - Professional Practice IV**

This course serves to integrate a professional research experience at an approved academic institution or industrial research facility into the Biology academic curriculum. The student must be accepted into an internship or co-op program.

#### **Preparation for Course**

P: Permission of department required.

Cr. 0.

### **BIOL 40600 - Human Anatomy**

## **BIOL 40600 - Human Anatomy**

This human anatomy course is designed for preprofessional healthcare students who are applying to predoctoral and graduate programs, such as medical school, dental school, pharmacy, physical therapy, physician assistant, and occupational therapy. Lecture includes comprehensive instruction of the human anatomical systems, including histology and embryology. Laboratory instruction includes histology, cadaver software, and anatomical models from a regional approach. Specifically designed where lower levels A& P courses e. g. BIOL 20300 and BIOL 20400 are not accepted.

#### **Preparation for Course**

P: BIOL 21900 and CHM 11500 with a C- or higher and jr or sr standing.

Cr 4

**BIOL 40900 - Human Physiology** 

# **BIOL 40900 - Human Physiology**

This human physiology course is designed for preprofessional healthcare students who are applying to predoctoral and graduate programs, such as medical school, dental school, pharmacy, physical therapy, physician assistant, and occupational therapy. Lecture includes problem-based learning (PBL) activities to provide the student with multiple experiences analyzing comprehensive patient clinical case studies. Laboratory instruction includes analyzing human anatomical and physiological systems by conducting experimental simulations. Specifically designed where lower levels A&P courses e.g. BIOL 20300 and BIOL 20400 are not accepted.

#### **Preparation for Course**

P: BIOL 40600 with a C- or higher and jr or sr standing.

Cr. 4.

# **BIOL 43400 - Marine Community Ecology**

Lecture involves a survey emphasizing tropical marine communities including coral reefs, mangrove estuaries, turtle grass, and hard and soft substrate intertidal communities. Community processes such as predation, competition, mutualism, zonation, and behavior are discussed as well as physical-chemical factors such as tides, currents, waves, and salinity. Course includes a required field trip to a marine biological station over spring break for the lab portion. Student required to pay for expenses associated with field trip. Prerequisite for field trip: swimming/snorkeling ability; use of scuba gear is optional.

#### **Preparation for Course**

P: one year of college biology; second semester may be taken concurrently.

Cr. 3. Hours

Class 2, Lab. 1.

#### **BIOL 43700 - General Microbiology**

# **BIOL 43700 - General Microbiology**

An examination of microbial diversity that emphasizes the interrelationship between bacteria and their environments. Special emphasis is given to metabolic diversity, control of microbial growth and interactions of pathogenic microorganisms with their hosts. The laboratory is designed to complement the lecture and emphasizes pure culture techniques, isolation and identification of unknown organisms, measurement and control of microbial growth and studies of human commensal organisms.

#### **Preparation for Course**

P: BIOL 11700 and 11900 or equivalent with grades of C or higher; P or C: CHM 25500.

Cr. 4. Hours Class 3, Lab. 3.

**BIOL 44500 - Aquatic Biology** 

# **BIOL 44500 - Aquatic Biology**

Introduction to the roles of physical and chemical factors, predation, and competition in determining the abundance of freshwater organisms and regulating the productivity of lake ecosystems. Laboratories emphasize field work and group or individual projects at the Crooked Lake Biological Station.

#### **Preparation for Course**

P: BIOL 11700 and one year of general chemistry.

Cr. 3.

Hours Class 2, Lab. 3.

BIOL 49100 - Senior Biology Seminar

# **BIOL 49100 - Senior Biology Seminar**

Students conduct an in depth research project on a biological topic of their choice, and present upon their findings in both written and oral formats. Students will learn about scientific inquiry and communication techniques, and also critique and discuss seminar presentation. Open only to senior biology majors. Number of credits depends on student's catalog year.

### **Preparation for Course**

P: BIOL 21700, BIOL 21800, and BIOL 21900.

Cr. 1-3.

BIOL 50100 - Field Botany

# **BIOL 50100 - Field Botany**

Field botany is the study of plants in a landscape context. Major course themes include plant identification; plant community analysis and classification, focusing on major plant community types in northeast Indiana; an introduction to basic concepts of geology, hydrology, and soil science as they relate to the distribution and maintenance of plant communities, and a module on habitat preservation and restoration. The course includes two required Saturday field trips.

#### **Preparation for Course**

P: BIOL 21700 or consent of instructor.

Cr. 4.
Hours
Class 3, Lab 3.
Dual Level Course
Undergraduate-Graduate

#### **BIOL 50200 - Conservation Biology**

# **BIOL 50200 - Conservation Biology**

An investigation of the foundations of conservation biology and emergent topics within the field: conservation ethics, the Endangered Species Act, island biogeography, effective population size, minimum viable populations, edge effects, managing for threatened species, and refuge design.

#### **Preparation for Course**

P: BIOL 21700 and 21800.

Cr. 3

**Dual Level Course** 

Undergraduate-Graduate

### **BIOL 50500 - Biology Of Invertebrate Animals**

# **BIOL 50500 - Biology Of Invertebrate Animals**

A survey of the invertebrate animals, their morphology, physiology, ecology, and phylogeny.

#### **Preparation for Course**

P: BIOL 10900 Or 11700 And 11900.

Cr. 3.
Hours
Class 2, Lab. 3.
Dual Level Course
Undergraduate-Graduate

#### **BIOL 50600 - Human Molecular Genetics**

### **BIOL 50600 - Human Molecular Genetics**

A molecular characterization of the human genome, cloning human disease genes, the molecular basis of human genetic disorders that are due to biochemical defects and chromosomal abnormalities, molecular approaches in diagnosis of human disorders, mapping of human genes, and gene therapy.

#### **Preparation for Course**

P: BIOL 21800; one semester of organic chemistry or biochemistry or signature of instructor.

Cr. 3.

**Dual Level Course** 

Undergraduate-Graduate

### **BIOL 50900 - Molecular Biology And Applications**

# **BIOL 50900 - Molecular Biology And Applications**

Up-to-date recombinant DNA methods will be covered; how molecular biology methods have enhanced our understanding of basic biological functions and structures; the applicability of molecular biology in pharmaceuticals, vaccine production, agriculture, bioremediation, and synthesis of commercial products.

#### **Preparation for Course**

P: BIOL 21800, And CHM 25400 Or CHM 53300, Or Instructor Permission Required.

Cr. 3.

Dual Level Course

Undergraduate-Graduate

# **BIOL 51600 - Molecular Biology Of Cancer**

A detailed course examining the molecular mechanisms controlling the growth of animal cells. Emphasis will be placed on current experimental approaches to defining the molecular basis of growth regulation in developing systems and the uncontrolled proliferation of cells in metabolic disorders, such as cancer.

#### **Preparation for Course**

P: BIOL 21800, 38100 Or Graduate Standing.

Cr. 3.

#### **Dual Level Course**

Undergraduate-Graduate

**BIOL 51810 - Biomedicine** 

### **BIOL 51810 - Biomedicine**

To develop an understanding of the applications of the principles of natural sciences, especially biology and physiology, to modern medicine through evaluation of pre-clinical research.

#### **Preparation for Course**

P: BIOL 21900, and CHM 25500 or 26100, or consent of instructor.

Cr 3

#### **Dual Level Course**

Undergraduate - Graduate

### **BIOL 52000 - Contemporary Parasitology**

# **BIOL 52000 - Contemporary Parasitology**

This course is designed to provide students, in the various disciplines, with information on parasites that will augment their training to pursue more advanced areas in medicine, allied health, animal, and environmental sciences.

### **Preparation for Course**

P: BIOL 21700 and 21900, or consent of instructor.

Cr. 3.

### **Dual Level Course**

Undergraduate-Graduate

### **BIOL 52410 - Bacterial Diversity And Systematics**

# **BIOL 52410 - Bacterial Diversity And Systematics**

This course will address modern techniques in prokaryotic identification and phylogenetic analysis. Molecular methods in culture-dependent and culture-independent prokaryotic identification will be discussed and students will learn how to integrate such results into a large phylogenetic context. Advanced characterization of several prokaryotic phyla will also be discussed.

#### **Preparation for Course**

P or C: BIOL 21800; C: BIOL 43700 Or Instructor Permission Required.

Cr. 3.

#### **Dual Level Course**

Undergraduate - Graduate

### **BIOL 53300 - Medical Microbiology**

# **BIOL 53300 - Medical Microbiology**

Host-parasite relationships, immunology, bacteria, and viruses associated with infectious diseases.

#### Preparation for Course

C: BIOL 43700.

### **BIOL 53700 - Immunobiology**

# **BIOL 53700 - Immunobiology**

Readings and discussion in the structural, cellular, and genetic basis of the immune response.

#### **Preparation for Course**

P: BIOL 43700.

Cr 3

#### **Dual Level Course**

Undergraduate-Graduate

#### **BIOL 54110 - Invasion Biology**

# **BIOL 54110 - Invasion Biology**

The study of species movements, dominance and functional roles within ecosystems, typically in relation to human interventions. Covers theoretical and applied aspects of species introductions and invasions, including mechanisms impacts and management. Taxa include animals and plants in terrestrial and aquatle ecosystems.

#### **Preparation for Course**

P: BIOL 21700 or consent of Instructor.

Cr. 3

#### **BIOL 54300 - Population Ecology**

# **BIOL 54300 - Population Ecology**

Interactions that determine the dynamics, abundance, and persistence of natural populations. Topics include competition, predation and disease, metapopulations, computer simulation and data analysis, discussions of classical and current literature.

#### **Preparation for Course**

P: BIOL 21700, 21800, and 21900; a statistics course is recommended.

Cr. 4.

Hours
Class 3, Lab. 2.

Dual Level Course

Undergraduate-Graduate

### **BIOL 54400 - Principles Of Virology**

# **BIOL 54400 - Principles Of Virology**

Introduction to the molecular biology of animal, plant, and bacterial viruses. Interaction of viruses and the host cell, viral replication, mechanisms of viral pathogenesis, immunology, chemotherapy, viral genetics, oncology, and vaccines.

#### **Preparation for Course**

P: BIOL 21800.

Cr. 3.

### **Dual Level Course**

Undergraduate-Graduate

**BIOL 55110 - Proteins: Structure And Functions** 

### **BIOL 55110 - Proteins: Structure And Functions**

This course will explore the fascinating world of proteins which are the nanomachines that are indispensable to life because of their catalytic and structural functions. Students will learn the principles governing protein function and get an integrated view of proteins at the molecular, cellular and systemic level. Students will gain understanding of how enzymes work, how proteins make molecules move inside cells and transmit signals. Bioinformatics and molecular biological techniques used for studying proteins will also be

taught.

#### **Preparation for Course**

P: BIOL 21800 Or Instructor Permission Required.

Cr 3

BIOL 55600 - Physiology I

# BIOL 55600 - Physiology I

General and comparative physiology. Principles of physiology. Nerve and muscle, temperature regulation, ion and water balance. The critical evaluation of original research papers.

Cr. 3.

#### **Dual Level Course**

Undergraduae-Graduate

**BIOL 55900 - Endocrinology** 

# **BIOL 55900 - Endocrinology**

The study of hormone function. Consideration will be given to the role of hormones in growth, development, metabolism, homeostasis, and reproduction.

Cr. 3

### **Dual Level Course**

Undergraduate-Graduate

BIOL 56500 - Immunobiology Lab

# BIOL 56500 - Immunobiology Lab

A survey course in laboratory experiments and demonstrations using classical immunological techniques and modern immunoassays with up-to-date technological equipment. The laboratory supplements the lecture portion of BIOL 537 but is not required. Typical assays include immuno-double diffusion Ouchterlony methodology, immunofluorescence identification of cell surface antigens, cytokine and mitogen stimulated proliferation of immune cells, ELISA assays, and PAGE with Western blotting.

### **Preparation for Course**

P or C: BIOL 53700.

Cr. 1.

Hours Lab. 3.

Dual Level Course

Undergraduate-Graduate

**BIOL 56600 - Developmental Biology** 

# **BIOL 56600 - Developmental Biology**

Principles of development with emphasis on concepts and experimental evidence for underlying mechanisms, including molecular, cellular, and supracellular approaches.

#### Preparation for Course

P: BIOL 21800.

Cr. 3

#### **Dual Level Course**

Undergraduate-Graduate

**BIOL 56700 - Laboratory In Developmental Biology** 

# **BIOL 56700 - Laboratory In Developmental Biology**

Descriptive and experimental study of the development of animals. Laboratories do not necessarily follow lecture material.

### **Preparation for Course**

P Or C: BIOL 56600 Or Instructor Permission Required.

Cr. 1.
Hours
Lab. 2.
Dual Level Course
Undergraduate-Graduate

### **BIOL 57710 - Emerging Infectious Diseases**

# **BIOL 57710 - Emerging Infectious Diseases**

This course will introduce the molecular biology and epidemiology of several emerging infectious diseases affecting humans caused by viruses, bacteria, fungi and protozoa using recent, peer-reviewed scientific reviews as course material. Students completing this course will obtain a deeper understanding of the microbial agents that are currently causing several important diseases worldwide. The topics covered will focus on how the pathogens enter and spread within the human body and between persons, the host response to infection, clinical symptoms, diagnosis, treatment and prevention. Permission of instructor required.

#### **Preparation for Course**

P: BIOL 21800 or consent of instructor.

Cr. 3.

**BIOL 57810 - Biology Of Disease Vectors** 

## **BIOL 57810 - Biology Of Disease Vectors**

In this course, students will learn about the biology of plant and animal disease vectors with respect to their interactions with the pathogens and hosts, epidemiology of diseases, disease control strategies.

#### **Preparation for Course**

P: BIOL 11900 and 21800 and Permission of Instructor required.

Cr. 3.

**BIOL 58000 - Evolution** 

### **BIOL 58000 - Evolution**

A study of evolution as a basic concept of the biological sciences; an examination of current methods of experimentation within areas, as well as evidences for the possible mechanisms of evolutionary change.

#### **Preparation for Course**

P: BIOL 21700 and 21800 or consent of instructor.

Cr. 3.

#### **Dual Level Course**

Undergraduate-Graduate

**BIOL 58200 - Ecotoxicology** 

# **BIOL 58200 - Ecotoxicology**

An investigation into the effects of environmental pollutants on ecosystem structure and function. The fate of pollutants in the environment is considered as it relates to the direct and indirect effects of chemicals on biota. Also considered are regulatory aspects of ecotoxicology.

#### Preparation for Course

P: BIOL 21700, 21800, and 21900.

Cr. 3

### **Dual Level Course**

Undergraduate-Graduate

**BIOL 58400 - Molecular Biology And Applications Laboratory** 

# **BIOL 58400 - Molecular Biology And Applications Laboratory**

The lab will consist of mini-projects that will emphasize the applications of several molecular biology techniques such as non-isotopic DNA detection by Southern Blot

hybridization, nucleic acid purification (plasmid and genomic DNA, RNA), DNA restriction digestion and analysis by agarose gel electrophoresis, library construction, polymerase chain reaction (PCR), quantitative real-time PCR, protein purification and antibody-antigen interactions

#### **Preparation for Course**

P Or C: BIOL 50900.

Hours Lab. 3

**Dual Level Course** 

Undergraduate-Graduate

### **BIOL 58600 - Topics In Behavior And Ecology**

# **BIOL 58600 - Topics In Behavior And Ecology**

In-depth examination of topics in ecology and behavior not treated extensively in other courses, e.g., behavioral ecology of reproduction, foraging ecology and behavior, and the behavioral ecology of defense against predators.

#### Preparation for Course

P: An Ecology Course Or Instructor Permission Required.

Cr. 3. Variable Title (V.T.) Notes May be repeated for credit with a different topic. **Dual Level Course** Undergraduate-Graduate

### **BIOL 59500 - Special Assignments**

# **BIOL 59500 - Special Assignments**

Independent study or research or presentation of material not available in the formal courses of the department. The field in which work is offered will be indicated on the student's record. Research projects must be agreed upon by the student and a faculty member and approved by the chair. May be repeated for credit.

#### Preparation for Course

P: consent of instructor; open only to science majors.

Cr 1-4 Hours Class 2-8, Lab. 0-12. Variable Title (V.T.) **Dual Level Course** Undergraduate-Graduate

### **BUS 10000 - Introduction To College And Business Careers**

# **BUS 10000 - Introduction To College And Business Careers**

An orientation to the college environment and to the different careers in the field of business. Students will develop the skills needed to be successful college students and will be introduced to various business career options.

Cr. 1

### **BUS 10001 - Principles Of Business Administration**

# **BUS 10001 - Principles Of Business Administration**

An introduction to functional areas of business, tracing the evolution of business, business forms, the role of government and society, relationships between administrators and employees, ethical issues, and the globalization of world markets. Ideal for prebusiness students or students of any major desiring a basic understanding of business.

Cr. 3

Indiana Core Transfer Library course.

### **BUS 10300 - Learning Communities**

This course is designed to assist students to be successful at the university and to develop skills and competencies that will enable a student to perform well in courses offered by the School of Business.

Cr. 1-3.

**BUS 20000 - Foundations Of Accounting** 

### **BUS 20000 - Foundations Of Accounting**

Survey of financial and managerial accounting topics that provide a foundation for students who are not pursuing a business concentration. (No credit given for a degree in business.)

Cr. 3.

**BUS 20001 - Business Degree Seminar** 

## **BUS 20001 - Business Degree Seminar**

One time seminar which pre-business students must attend before being admitted into the bachelor's degree program.

Cr. 0.

**BUS 20002 - Computer Literacy Concepts For Business** 

### **BUS 20002 - Computer Literacy Concepts For Business**

Orientation to microcomputer hardware, software markets, and operating systems. Emphasis on end-user computer responsibilities for managers.

Cr. 0-1.

**BUS 20100 - Principles Of Financial Accounting** 

# **BUS 20100 - Principles Of Financial Accounting**

Introduction to concepts and issues of financial reporting for business entities; analysis and recording for business entities. Required for business majors and others who expect to take more than one semester of accounting.

#### **Preparation for Course**

P: Sophomore Class Standing Or Instructor Permission Required.

Cr. 3.

Notes

Indiana Core Transfer Library course.

**BUS 20101 - The Computer In Business** 

# **BUS 20101 - The Computer In Business**

Introduction to the role of computers and other information technologies in business (with emphasis on microcomputer applications). Provides instruction in both functional and conceptual computer literacy. Experimental exercises include learning about Windows-based spreadsheets (Excel), relational databases (Access), electronic mail, and Internet navigation tools. These hands-on labs emphasize application of these learned skills to solve a variety of business problems. The lectures focus on the use and application of technology (hardware, software, storage/multimedia, Internet history, Internet in business, database management systems, and security/privacy of data in this information age).

### **Preparation for Course**

P: BUS 20002 or ETCS 10600 or placement exam; sophomore class standing

Cr. 3

#### **BUS 20102 - Marketing For The Small Business**

# **BUS 20102 - Marketing For The Small Business**

Overview of marketing management as it applies to the small business. Gain an understanding of traditional and non-traditional marketing techniques. Determine best marketing plan for different types of ventures.

Cr. 3.

Notes

This course is required for the Certificate in Small Business Management.

No credit toward a B.S. in business.

#### **BUS 20103 - Small Business Management Capstone**

# **BUS 20103 - Small Business Management Capstone**

Application of concepts studied in previous courses in the Certificate in Small Business Management. A business plan or project will be used in a simulated real world environment to clarify the concepts presented in previous required courses.

#### **Preparation for Course**

P: BUS 10001, ECON 20000, BUS 20102 and BUS 20000.

Cr. 3

Notes

This course is required for the Certificate in Small Business Management.

No credit toward B.S. in Business.

#### **BUS 20200 - Principles Of Managerial Accounting**

# **BUS 20200 - Principles Of Managerial Accounting**

Introduction to concepts and issues of management accounting; budgeting, variance analysis, cost determination, and standard costs. Required for all business majors.

#### **Preparation for Course**

P: BUS 20100.

Cr. 3.

BUS 20300 - Commercial Law I

### BUS 20300 - Commercial Law I

Survey of the fundamentals of business law; covers the judicial process, ways of organizing to conduct business, the nature of property, government regulation of business, and comprehensive study of the common law of contracts.

#### **Preparation for Course**

P: sophomore class standing.

Cr. 3.

### **BUS 20401 - Business Communication**

### **BUS 20401 - Business Communication**

Theory and practice of written communication in business; use of correct, forceful English in preparation of letters, memoranda, and reports.

#### **Preparation for Course**

P: ENGL 13100 and COM 11400

Cr. 3.

### **BUS 26000 - Personal Finance**

Financial problems encountered in managing individual affairs: family budgeting, installment buying, insurance, and home ownership. No credit toward B.S. in business if taken during junior or senior year.

Cr. 3.

#### **BUS 30000 - International Business Administration**

### **BUS 30000 - International Business Administration**

Economic and cultural environments for overseas operations. Governmental policies and programs that affect international business. International dimensions of marketing, finance, accounting, taxation, and human resources with emphasis on management decisions and implementation.

#### **Preparation for Course**

P: ECON 20101.

Cr. 3.

#### Notes

Enrollment in business (BUS) courses numbered 30100 and above is restricted to students who meet established criteria: business majors who have met the pre-business requirements and been admitted into one of the business majors; or students that have declared other pre-approved programs or minors which require particular business courses, and completed all course prerequisites; or students that have obtained written permission from the department through which the course is offered.

#### **BUS 30100 - Financial Management**

### **BUS 30100 - Financial Management**

An overview of the theory of the essentials of corporate finance needed to compete effectively in an increasingly global environment. Topics include time value of money, forecasting, stock and bond analysis, project analysis, cost of capital, short-term asset analysis, global financial markets, and ethical considerations.

#### Preparation for Course

P: MA 15300 (or higher) and BUS 20200 or MA 27300. C: ECON 27000 (or equivalent) or STAT 51100 or STAT 51600.

Cr. 3.

Notes

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#### **BUS 30101 - Introduction To Marketing**

# **BUS 30101 - Introduction To Marketing**

Overview of marketing management in a dynamic competitive environment. Examines marketing principles and tools for decision-making, from both the firm's and the consumer's viewpoint. Applications to global markets and other business disciplines. Provides a firm foundation in marketing theory and marketing lexicon.

#### **Preparation for Course**

P: Sophomore Class Standing

Cr. 3

Notes

Enrollment in business (BUS) courses numbered 30100 and above is restricted to students who meet established criteria: business majors who have met the pre-business requirements and been admitted into one of the business majors; or students that have declared other pre-approved programs or minors which require particular business courses, and completed all course prerequisites; or students that have obtained written permission from the department through which the course is offered.

### **BUS 30102 - Operations Management**

# **BUS 30102 - Operations Management**

An introduction to the principles of production and operations management that provides an integrated overview of the role of the operations function in gaining competitive advantage in a global environment. Topics include demand forecasting, product design, process materials management, planning and control, scheduling, and project management.

#### **Preparation for Course**

P: BUS 20101 and ECON 27000 or STAT 30100; sophomore class standing

Cr. 3.

Notes

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### **BUS 30200 - Management And Behavior In Organizations**

### **BUS 30200 - Management And Behavior In Organizations**

An introduction to organizational behavior and management systems, the history and functions of management, and an analysis of the dynamic environment under which organizations operate. Topics include managerial functions, measures of organizational effectiveness, individual and group behavior, leadership, motivation, and strategies for developing teamwork.

#### **Preparation for Course**

P: Sophomore Class Standing

Cr. 3

Note

Enrollment in business (BUS) courses numbered 30100 and above is restricted to students who meet established criteria: business majors who have met the pre-business requirements and been admitted into one of the business majors; or students that have declared other pre-approved programs or minors which require particular business courses, and completed all course prerequisites; or students that have obtained written permission from the department through which the course is offered.

#### **BUS 30300 - Intermediate Investments**

## **BUS 30300 - Intermediate Investments**

Provides a rigorous treatment of the core concepts of investments. Covers portfolio optimization, market efficiency, the pricing of equity, fixed income and derivative securities, and analyzes international investments. Makes extensive use of spreadsheet modeling to implement financial models. Serves as a foundation for all 40000-level finance electives.

#### Preparation for Course

P: BUS 30100.

Cr. 3.

Notes

Enrollment in business (BUS) courses numbered 30100 and above is restricted to students who meet established criteria: business majors who have met the pre-business requirements and been admitted into one of the business majors; or students that have declared other pre-approved programs or minors which require particular business courses, and completed all course prerequisites; or students that have obtained written permission from the department through which the course is offered.

### **BUS 30301 - Commercial Law II**

### **BUS 30301 - Commercial Law II**

Emphases on Uniform Commercial Code (sales, negotiable instruments, and secured transactions), business organizations and relationships, bankruptcy, and the law of ownership, custody, and possession.

#### **Preparation for Course**

P: BUS 20003.

Cr. 3.

#### Notes

Enrollment in business (BUS) courses numbered 30100 and above is restricted to students who meet established criteria: business majors who have met the pre-business requirements and been admitted into one of the business majors; or students that have declared other pre-approved programs or minors which require particular business courses, and completed all course prerequisites; or students that have obtained written permission from the department through which the course is offered.

### BUS 30302 - Marketing Research

# **BUS 30302 - Marketing Research**

Focuses on the role of research in marketing decision making. Topics include defining research objectives, syndicated and secondary data sources of marketing information, exploratory research methods, survey research design, observational research techniques, experimental design, sampling procedures, data collection and analysis, and communicating research findings.

#### **Preparation for Course**

P: BUS 30101 and ECON 27000.

Cr. 3

Notes

Enrollment in business (BUS) courses numbered 30100 and above is restricted to students who meet established criteria: business majors who have met the pre-business requirements and been admitted into one of the business majors; or students that have declared other pre-approved programs or minors which require particular business courses, and completed all course prerequisites; or students that have obtained written permission from the department through which the course is offered.

#### **BUS 30500 - Intermediate Corporate Finance**

### **BUS 30500 - Intermediate Corporate Finance**

Provides a rigorous treatment of the core concepts of corporate finance. Covers capital budgeting, the valuation of firms, capital structure choices and payout policies. Makes extensive use of spreadsheet modeling to implement financial valuation models. Serves as a foundation for all 40000-level finance electives.

#### **Preparation for Course**

P: BUS 30100.

#### Notes

Enrollment in business (BUS) courses numbered 30100 and above is restricted to students who meet established criteria: business majors who have met the pre-business requirements and been admitted into one of the business majors; or students that have declared other pre-approved programs or minors which require particular business courses, and completed all course prerequisites; or students that have obtained written permission from the department through which the course is offered.

#### **BUS 30800 - Risk Management And Insurance**

### **BUS 30800 - Risk Management And Insurance**

Students develop a broad understanding of the world of risk management and insurance world. Learn basic fundamental knowledge, concepts, and principles of this industry. Plus understand the activities they engage in and why they do so.

Cr. 3.

#### Note

Enrollment in business (BUS) courses numbered 30100 and above is restricted to students who meet established criteria: business majors who have met the pre-business requirements and been admitted into one of the business majors; or students that have declared other pre-approved programs or minors which require particular business courses, and completed all course prerequisites; or students that have obtained written permission from the department through which the course is offered.

#### **BUS 30900 - Retirement Plan Fundamentals**

### **BUS 30900 - Retirement Plan Fundamentals**

Understand basic concepts, terminology, and procedures involved in the retirement industry in the United States. Also understand the dynamic and highly regulated processes of pension plan administration. Course covers the material included on exam for the nationally recognized certificate in Retirement Plan Fundamentals.

Cr. 3.

#### Notes

Enrollment in business (BUS) courses numbered 30100 and above is restricted to students who meet established criteria: business majors who have met the pre-business requirements and been admitted into one of the business majors; or students that have declared other pre-approved programs or minors which require particular business courses, and completed all course prerequisites; or students that have obtained written permission from the department through which the course is offered.

### BUS 31000 - Financial Statement Analysis - Finance Perspective

# **BUS 31000 - Financial Statement Analysis - Finance Perspective**

Analysis of financial statements to provide basis from which informed decisions concerning investments, financing opportunities, and appropriate financing instruments can be made.

#### **Preparation for Course**

P or C: BUS 30100.

Cr. 3.

#### Notes

Enrollment in business (BUS) courses numbered 30100 and above is restricted to students who meet established criteria: business majors who have met the pre-business requirements and been admitted into one of the business majors; or students that have declared other pre-approved programs or minors which require particular business courses, and completed all course prerequisites; or students that have obtained written permission from the department through which the course is offered.

### **BUS 31100 - Intermediate Accounting I**

# **BUS 31100 - Intermediate Accounting I**

Theoretical framework and application of generally accepted accounting principles to the preparation of financial statements, with emphasis upon the assets and liabilities of an

enterprise.

#### **Preparation for Course**

P or C: BUS 31700.

Cr. 3.

#### Note

Enrollment in business (BUS) courses numbered 30100 and above is restricted to students who meet established criteria: business majors who have met the pre-business requirements and been admitted into one of the business majors; or students that have declared other pre-approved programs or minors which require particular business courses, and completed all course prerequisites; or students that have obtained written permission from the department through which the course is offered.

#### **BUS 31101 - New Venture Creation**

### **BUS 31101 - New Venture Creation**

Primarily for those interested in creating a new business venture or acquiring an existing business. Covers such areas as choice of a legal form, problems of the closely held firm, sources of funds, preparation of a business plan, and negotiation.

Cr. 3.

#### Notes

Enrollment in business (BUS) courses numbered 30100 and above is restricted to business majors who have met the pre-business requirements and been admitted into one of the business majors, or students in other pre-approved programs which require particular business courses.

### **BUS 31200 - Intermediate Accounting II**

# **BUS 31200 - Intermediate Accounting II**

A continuation of the work begun in A31100. Theoretical framework and application of generally accepted accounting principles to the preparation of financial statements, with emphasis upon owners' equity and special topics such as earnings per share, pensions, leases, income tax allocation, and cash flow statement.

#### Preparation for Course

P: BUS 31100.

Cr. 3.

Notes

Enrollment in business (BUS) courses numbered 30100 and above is restricted to students who meet established criteria: business majors who have met the pre-business requirements and been admitted into one of the business majors; or students that have declared other pre-approved programs or minors which require particular business courses, and completed all course prerequisites; or students that have obtained written permission from the department through which the course is offered.

### BUS 31201 - Entrepreneurship

# **BUS 31201 - Entrepreneurship**

New venture creation, business planning and its formalization, corporate and social entrepreneurship.

Cr. 3-6.

#### Notes

Enrollment in business (BUS) courses numbered 30100 and above is restricted to students who meet established criteria: business majors who have met the pre-business requirements and been admitted into one of the business majors; or students that have declared other pre-approved programs or minors which require particular business courses, and completed all course prerequisites; or students that have obtained written permission from the department through which the course is offered.

### BUS 31202 - Retail Marketing

# **BUS 31202 - Retail Marketing**

This course is designed to equip participants with a comprehensive understanding of retail business including key functions. Hence, this course provides a broader perspective than focusing exclusively on marketing elements of retail business. The course covers topics of interest to retail business, such as: basic financial management, inventory management, positioning, communication, assortment planning, pricing, promotions, consumer relationship management, technology, and operations.

#### Preparation for Course

P: BUS 30101 with a grade of C- or higher.

Cr. 3.

#### **BUS 31700 - Computer-Based Accounting Systems**

# **BUS 31700 - Computer-Based Accounting Systems**

This course presents a framework for students to help them think in innovative ways about providing accounting user support through the use of technology. The focus of the course is on understanding organizations (their activities, processes, and objectives) in order to understand how technology can be used as an enabler of organization activities and objectives. Topics covered include modeling business processes, revenue and expenditure cycles, information systems architecture, systems analysis and design, internal control systems, and EDP controls.

#### **Preparation for Course**

P: BUS 20100 and 20200.

Cr. 3.

Note

Enrollment in business (BUS) courses numbered 30100 and above is restricted to students who meet established criteria: business majors who have met the pre-business requirements and been admitted into one of the business majors; or students that have declared other pre-approved programs or minors which require particular business courses, and completed all course prerequisites; or students that have obtained written permission from the department through which the course is offered.

#### BUS 31800 - Fraud Examination I

## **BUS 31800 - Fraud Examination I**

Fundamentals of fraud examination including identifying the nature and types of fraud, creating systems to prevent fraud, and investigating and resolving fraudulent activities.

#### **Preparation for Course**

P: BUS 31100.

Cr. 3

Notes

Enrollment in business (BUS) courses numbered 30100 and above is restricted to students who meet established criteria: business majors who have met the pre-business requirements and been admitted into one of the business majors; or students that have declared other pre-approved programs or minors which require particular business courses, and completed all course prerequisites; or students that have obtained written permission from the department through which the course is offered.

#### **BUS 32100 - Management Of Information Systems**

# **BUS 32100 - Management Of Information Systems**

An introduction to information systems and technology and their role in the modern business enterprise. Topics include computer-based information systems; managers' role in use, acquisition, and control of information systems and technology for a competitive advantage; ethical use of information; global information systems; and emerging information technologies.

### **Preparation for Course**

P: BUS 20101 P Or C: BUS 30102.

Cr. 3.

Notes

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#### **BUS 32500 - Cost Accounting**

# **BUS 32500 - Cost Accounting**

Conceptual and procedural aspects of management and cost accounting. Product costing, cost control over projects and products; decision-making emphasis; profit planning; quantitative modeling; and computer applications.

#### **Preparation for Course**

P: BUS 20200.

Cr. 3.

Notes

# **BUS 32700 - Deterministic Models In Operations Research**

This course provides an intense immersion into the problem solving and troubleshooting processes, including critical thinking and the analytical decision-making tools used by companies to solve a variety of problems.

#### **Preparation for Course**

P: BUS 30102.

Cr. 3.

#### Notes

Enrollment in business (BUS) courses numbered 30100 and above is restricted to students who meet established criteria: business majors who have met the pre-business requirements and been admitted into one of the business majors; or students that have declared other pre-approved programs or minors which require particular business courses, and completed all course prerequisites; or students that have obtained written permission from the department through which the course is offered.

#### **BUS 32800 - Introduction To Taxation**

### **BUS 32800 - Introduction To Taxation**

A comprehensive study of the federal income tax structure. Individual taxation will be emphasized with an exposure to business taxation.

#### **Preparation for Course**

P: BUS 20100.

Cr. 3

#### Notes

Enrollment in business (BUS) courses numbered 30100 and above is restricted to students who meet established criteria: business majors who have met the pre-business requirements and been admitted into one of the business majors; or students that have declared other pre-approved programs or minors which require particular business courses, and completed all course prerequisites; or students that have obtained written permission from the department through which the course is offered.

#### **BUS 33100 - Taxation Of Business Entities**

### **BUS 33100 - Taxation Of Business Entities**

An introduction to the income taxation of business entities including C corporations, partnerships, S corporations, limited liability companies, and some overlapping material of individual taxation. This course will include the basic topics of tax research, gross income, business deductions, property transactions, and special entity formation rules.

#### **Preparation for Course**

P: BUS 32800.

Cr. 3

#### Notes

Enrollment in business (BUS) courses numbered 30100 and above is restricted to students who meet established criteria: business majors who have met the pre-business requirements and been admitted into one of the business majors; or students that have declared other pre-approved programs or minors which require particular business courses, and completed all course prerequisites; or students that have obtained written permission from the department through which the course is offered.

### BUS 34500 - Money/Banking/Capital Markets

# BUS 34500 - Money/Banking/Capital Markets

An analysis of the interrelated financial systems of central banks, private banks, and other sources and users of financial capital. Theoretical, empirical, policy, and institutional issues are analyzed using economics and finance. Topics include the theory of money demand and supply, monetary policy and central banks, interest rate determination, financial intermediaries, and international financial markets.

### **Preparation for Course**

P: BUS 30100.

Cr. 3.

#### Notes

### **BUS 38000 - Professional Practice In Business**

A supervised cooperative education experience integrating academic studies with relevant work experience. Alternates a semester of full-time study with a semester of full-time employment. Maximum of 3 credits may be applied toward graduation. Cannot be substituted for required course.

#### **Preparation for Course**

P: Admission To Co-Op Program.

Cr. 0-1. Variable Title (V.T.)

**BUS 38100 - Professional Practice In Business** 

### **BUS 38100 - Professional Practice In Business**

A supervised cooperative education experience integrating academic studies with relevant work experience. Part-time employment concurrent with study. Maximum of 3 credits may be applied toward graduation. Cannot be substituted for required course.

#### **Preparation for Course**

P: Admission To Co-Op Program.

Cr. 0-1. Variable Title (V.T.)

**BUS 39400 - Practicum In Business** 

### **BUS 39400 - Practicum In Business**

Laboratory experience of learning with practicing entrepreneurs. Shadowing and coinvesting experiences with the clientele of the Northeast Indiana Innovation Center and the Center for Entrepreneurial Excellence. Experience in taking vision to reality.

Cr. 6

Enrollment in business (BUS) courses numbered 30100 and above is restricted to students who meet established criteria: business majors who have met the pre-business requirements and been admitted into one of the business majors; or students that have declared other pre-approved programs or minors which require particular business courses, and completed all course prerequisites; or students that have obtained written permission from the department through which the course is offered.

#### **BUS 40000 - Business Senior Seminar**

### **BUS 40000 - Business Senior Seminar**

One time seminar which business students must complete before graduating from the bachelors degree program.

Cr. 0-3.

### **BUS 40100 - Administrative Policy**

# **BUS 40100 - Administrative Policy**

The capstone business course integrating, via case analysis, functional areas of study into a comprehensive real-world experience. Emphasis on critical thinking, analysis, strategic planning, and implementation of astute, ethical plans to gain a competitive advantage in the global marketplace.

#### **Preparation for Course**

P: BUS 30100, 30101, 30102, 30200 and 32100; senior class standing

Cr. 3.

#### Notes

### BUS 40400 - Social, Legal, And Ethical Implications Of Business Decisions

Covers topics in corporate social responsibility and the social control of business; the major ethical theories relevant to determining that responsibility; and applications of those theories in areas such as financial management, competition, marketing, advertising, the environment, employer-employee relations, and the international arena. The course addresses some of the major questions about the ethical responsibilities of businesses. Should a business just look out for its "bottom line," or should it look out for its employees, customers, community, and environment, too? When a business operates in a foreign country, is it morally obligated to pay wages that would be considered fair in America, or is it enough to abide by local laws and regulations? and how can the ethical point of view shed light on disasters such as the Challenger explosion?

P: BUS 30100, 30101, 30102, 30200 And 32100; Senior Class Standing Required

Enrollment in business (BUS) courses numbered 30100 and above is restricted to students who meet established criteria: business majors who have met the pre-business requirements and been admitted into one of the business majors; or students that have declared other pre-approved programs or minors which require particular business courses, and completed all course prerequisites; or students that have obtained written permission from the department through which the course is offered.

#### **BUS 40500 - Consumer Behavior**

### **BUS 40500 - Consumer Behavior**

This course provides a detailed understanding of how marketers create value for customers, what motivates shoppers to buy, how consumers process information and make decisions, persuasion techniques, cross-cultural influences on consumer behavior, and the impact of sustainable business practices on consumer choice.

#### **Preparation for Course**

P: BUS 30302.

Cr. 3

Enrollment in business (BUS) courses numbered 30100 and above is restricted to students who meet established criteria: business majors who have met the pre-business requirements and been admitted into one of the business majors; or students that have declared other pre-approved programs or minors which require particular business courses, and completed all course prerequisites; or students that have obtained written permission from the department through which the course is offered.

### **BUS 40800 - Quantitative Methods For Marketing Management**

# **BUS 40800 - Quantitative Methods For Marketing Management**

Application of key quantitative tools to marketing management problems. Emphasis given to application of quantitative methods to basic marketing problems and the role of quantitative methods in marketing management.

#### **Preparation for Course**

P: BUS 30302.

Enrollment in business (BUS) courses numbered 30100 and above is restricted to students who meet established criteria: business majors who have met the pre-business requirements and been admitted into one of the business majors; or students that have declared other pre-approved programs or minors which require particular business courses, and completed all course prerequisites; or students that have obtained written permission from the department through which the course is offered.

### **BUS 41300 - Personal Selling**

# **BUS 41300 - Personal Selling**

The course examines the role of personal selling as an integral part of the promotional mix. Personal selling is the most expensive component of the mix that impacts purchase decisions for the sake of market development. The course covers all steps in the selling process and stresses the importance of product knowledge, building and managing the customer relationship, and presentation skills. The course also examines legal and ethical concerns. It is appropriate for students who want to embark on a sales career and for working professionals who want to remain competitive in their trade.

#### Preparation for Course

P: BUS 30101 with a grade of C- or higher and admission to PFW business B.S. program, Junior class standing.

Cr. 3.

### **BUS 41500 - Advertising And Promotion Management**

Basic concepts applicable to the use of advertising and sales promotion. Addresses the overall planning, management, and integration of the firm's promotional strategy. Public policy aspects and the role of advertising in marketing communications as they may relate to different cultures.

#### **Preparation for Course**

P: BUS 30101

Cr. 3.

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#### **BUS 42000 - Equity And Fixed Income Investments**

# **BUS 42000 - Equity And Fixed Income Investments**

A detailed examination of the management and valuation of equity and fixed income securities. The analysis of individual securities, the grouping of these securities into portfolios, and the use of derivative securities to modify the return/risk profiles of more traditional stock and bond portfolios will be discussed.

#### **Preparation for Course**

P: BUS 30300.

Cr. 3.

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#### **BUS 42200 - Advanced Financial Accounting**

# **BUS 42200 - Advanced Financial Accounting**

Theory and problems of business combinations, foreign currency transactions, and partnerships.

#### **Preparation for Course**

P: BUS 31200.

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### **BUS 42400 - Auditing & Assurance Services**

# **BUS 42400 - Auditing & Assurance Services**

Public accounting organization and operation; review of internal control systems, verification of balance sheet and operating accounts; the auditor's opinion.

### **Preparation for Course**

C: BUS 31200; senior class standing

Cr. 3.

### **BUS 42600 - Sales Management**

Students will engage in an interactive exploration of the strategic and tactical issues important to managing a professional sales organization. Key topics will include organizing a sales force, recruiting, training, compensation, motivation, forecasting, territory design, evaluation, and control. Lectures and case studies.

#### **Preparation for Course**

P: BUS 30101

Cr. 3.

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#### **BUS 43000 - Organizations And Organizational Change**

# **BUS 43000 - Organizations And Organizational Change**

The objective of this class is to introduce the principles of organization design - the blueprint by which different parts of the organization (e.g., production, marketing, financial, accounting, and MIS systems) fit together to create an effective organization. Organization design provides the means by which strategy and goals are implemented so it is as important to a firm's overall performance as financial performance, operational efficiencies or market share

#### **Preparation for Course**

P: BUS 30100, 30101, 30102, 30200 and 32100; senior class standing

Enrollment in business (BUS) courses numbered 30100 and above is restricted to students who meet established criteria: business majors who have met the pre-business requirements and been admitted into one of the business majors; or students that have declared other pre-approved programs or minors which require particular business courses, and completed all course prerequisites; or students that have obtained written permission from the department through which the course is offered.

#### **BUS 43700 - Advanced Management Accounting**

# **BUS 43700 - Advanced Management Accounting**

Strategic cost management practices including activity-based management, activity-based budgeting and activity-based costing, target costing, theory of constraints, quality costs, the cost of capacity, the balanced scorecard, and performance measures for automated factories. Learn enhanced problem-solving skills and tools, increased critical-thinking skills, and improved presentation and speaking skills.

### **Preparation for Course**

P: BUS 32500.

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#### BUS 44000 - Personnel: Human Resources Management

# **BUS 44000 - Personnel: Human Resources Management**

Nature of human resource development and utilization in the American society and organization; government programs and policies; labor force statistics; personnel planning, needs forecasting; selection, training, and development of human resources; integration of governmental and organizational programs

#### Preparation for Course

P: BUS 30200.

Cr. 3.

#### Notes

#### **BUS 44100 - Special Topics In Assurance Services**

### **BUS 44100 - Special Topics In Assurance Services**

Develops professional skills of entry level accountants through case studies in assurance and other related services.

#### **Preparation for Course**

P: BUS 42400.

Cr. 3.

#### Notes

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#### BUS 44600 - Bank & Financial Intermediation

### **BUS 44600 - Bank & Financial Intermediation**

This course covers the broad area of financial intermediation. The main topics studied are (i) the economic role of financial intermediaries—with an emphasis on commercial banks; (ii) the management of financial intermediaries; (iii) the regulation of commercial banks and other financial institutions.

#### **Preparation for Course**

P: BUS 30100 and 34500; senior class standing.

Cr. 3

#### Notes

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#### **BUS 45000 - Marketing Strategy And Policy**

# **BUS 45000 - Marketing Strategy And Policy**

Provides a capstone to marketing course sequence by drawing on and integrating concepts previously studied. Focuses on management decision problems in marketing-strategy design and the application of analytical tools for optimizing marketing decisions.

#### **Preparation for Course**

P: BUS 30302; Senior Class Standing Required.

Cr. 3.

#### Notes

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### **BUS 45400 - Current Topics In Banking**

# **BUS 45400 - Current Topics In Banking**

Understand, examine, and analyze banks and other financial institutions in their current operating environment through the use of case studies and other materials. Focus on regulations, economic factors, and bank consumer issue and operations.

### **Preparation for Course**

P: BUS 30100.

Cr. 3.

#### Notes

# **BUS 49000 - Independent Study In Accounting**

Cannot be substituted for required course(s). Supervised individual study and research in student's special field of interest. Written report required.

#### **Preparation for Course**

P: Senior Class Standing and Instructor Permission Required.

Cr. 1-3.

Variable Title

(V.T.)

Notes

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#### BUS 49001 - Special Studies In International Business Administration

## **BUS 49001 - Special Studies In International Business Administration**

Supervised individual study and research in student's special field of interest. Written report required.

#### Preparation for Course

P: BUS 30000, Senior Class Standing And Instructor Permission Required.

Cr. 1-3.

Notes

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#### BUS 49002 - Independent Study In Finance

# **BUS 49002 - Independent Study In Finance**

Cannot be substituted for required course(s). Supervised individual study and research in student's special field of interest. Written report required.

#### **Preparation for Course**

P: Senior Class Standing And Instructor Permission Required.

Cr. 1-3.

Variable Title

(V.T.)

Notes

Enrollment in business (BUS) courses numbered 30100 and above is restricted to students who meet established criteria: business majors who have met the pre-business requirements and been admitted into one of the business majors; or students that have declared other pre-approved programs or minors which require particular business courses, and completed all course prerequisites; or students that have obtained written permission from the department through which the course is offered.

### **BUS 49003 - Independent Study In Decision Sciences**

# **BUS 49003 - Independent Study In Decision Sciences**

Supervised individual study and research in student's special field of interest. Written report required.

#### **Preparation for Course**

P: Senior Class Standing And Instructor Permission Required.

Cr. 1-6.

Variable Title

(V.T.)

Notes

# **BUS 49004 - Independent Study In Marketing**

Supervised individual study and research in student's special field of interest. Written report required.

#### **Preparation for Course**

P: BUS 30101 and Senior Class Standing; Instructor Permission Required.

Cr. 1-3.

Variable Title

(V.T.)

Notes

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### **BUS 49005 - Independent Study In Operations Management**

# **BUS 49005 - Independent Study In Operations Management**

Supervised individual study and research in student's special field of interest. Written report required.

#### **Preparation for Course**

P: Senior Class Standing And Instructor Permission Required.

Cr. 1-3.

Variable Title

(V.T.)

Notes

Enrollment in business (BUS) courses numbered 30100 and above is restricted to students who meet established criteria: business majors who have met the pre-business requirements and been admitted into one of the business majors; or students that have declared other pre-approved programs or minors which require particular business courses, and completed all course prerequisites; or students that have obtained written permission from the department through which the course is offered.

### BUS 49006 - Independent Study In Business Administration

# **BUS 49006 - Independent Study In Business Administration**

Supervised individual study and research in student's special field of interest. Written report required.

#### **Preparation for Course**

P: BUS 31201 With C- Or Higher.

Cr. 1-3.

Variable Title

(V.T.) Notes

Enrollment in business (BUS) courses numbered 30100 and above is restricted to students who meet established criteria: business majors who have met the pre-business requirements and been admitted into one of the business majors; or students that have declared other pre-approved programs or minors which require particular business courses, and completed all course prerequisites; or students that have obtained written permission from the department through which the course is offered.

### BUS 49007 - Ind Stdy-Pers Mgt Behv

# BUS 49007 - Ind Stdy-Pers Mgt Behv

Supervised individual study and research in student's special field of interest. Written report required.

#### **Preparation for Course**

P: Senior class standing, consent of faculty.

Cr. 1-3.

Variable Title

(V.T.)

### **BUS 49400 - International Finance**

Covers the international dimension of both investments and corporate finance. Develops strategies for investing internationally, estimating a corporation's exposure to real exchange rate risk, adjusting to client preferences and home currencies, evaluating performance, and hedging risk. Also covers international capital budgeting, multinational transfer pricing, and international cash management.

#### **Preparation for Course**

P: BUS 30500.

Cr. 3.

#### Notes

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#### **BUS 49700 - Bank Simulation Course**

### **BUS 49700 - Bank Simulation Course**

Student teams operate competing commercial banks over a two year period under simulated economic conditions.

#### **Preparation for Course**

P: BUS 34500 and 45400 P or C: BUS 44600.

Cr 3

#### **Session Indicators**

Once a year

Notes

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### CDFS 25500 - Introduction To Couple And Family Relationships

# CDFS 25500 - Introduction To Couple And Family Relationships

Provides further understanding of family relations for those unmarried, for those contemplating marriage, for those married, and for prospective marriage counselors. A functional approach to the interpersonal relationships of courtship, marriage, and family.

Cr. 3.

### CE 19100 - Civil Engineering Practice I

# **CE 19100 - Civil Engineering Practice I**

Practice in industry and written reports of this practice. For cooperative program students only. Authorized equivalent courses or consent of instructor may be used in satisfying course pre- and co-requisites.

#### **Preparation for Course**

P: Cooperative program students only.

Cr. 0.

#### CE 21000 - Introduction To Geomatics

### **CE 21000 - Introduction To Geomatics**

Basic surveying operations and computations; theories of errors and their analysis; fundamental concepts of horizontal, vertical, and angular measurement; horizontal and vertical control systems; traverse computations; location of man-made structures; use of topographic maps; computation of horizontal and vertical curves.

### **Preparation for Course**

P: ENGR 12000, MA 16500

Cr. 3.

# CE 23600 - Introduction To Transportation Policy, Planning, And Implementation

This class is an introduction to transportation policy and planning in urban areas. The course will cover the history of urban transportation planning, local and federal regulations and policies, funding issues, transportation planning and environmental issues, transportation data sources and surveys, fundamentals of travel demand and network modeling, and contemporary issues.

#### **Preparation for Course**

P: MA 15300 and ENGL 13100.

Cr. 3.

**CE 25000 - Statics** 

### **CE 25000 - Statics**

Forces and couples, free body diagrams, two- and three-dimensional equilibrium of particle and rigid bodies. Principles of friction, centroids, centers of gravity, and moments of inertia. Virtual work, potential energy, and static stability of equilibrium. Internal forces, shear and bending moment diagrams.

#### Preparation for Course

P: PHYS 15200; C: MA 26100.

Cr. 3.

CE 25100 - Dynamics

# CE 25100 - Dynamics

Kinematics of particles in rectilinear and curvelinear motion. Kinetics or particles, Newton's second law, energy and momentum methods. Systems of particles. Kinematics and plane motion of rigid bodies, forces and accelerations, energy and momentum methods. Introduction to mechanical vibrations.

### Preparation for Course

P: CE 25000, MA 26300.

Cr. 3

### CE 25200 - Strength Of Materials

# **CE 25200 - Strength Of Materials**

Plane stress, plane strain, and stress-strain laws. Applications of stress and deformation analysis to members subjected to centric, torsional, flexural, and combined loading. Introduction to theories of failure, buckling, and energy methods.

### Preparation for Course

P: CE 25000.

Cr. 3

### CE 29100 - Civil Engineering Practice II

# **CE 29100 - Civil Engineering Practice II**

Practice in industry and written reports of this practice. For cooperative program students only.

#### Preparation for Course

P: CE 19100; authorized equivalent courses or consent of instructor may be used in satisfying course pre- and co-requisites.

Cr. 0.

# **CE 31500 - Civil Engineering Materials**

Study the nature and performance of civil engineering materials and evaluation of their physical and mechanical properties. This course focuses on materials used in construction and maintenance of building and infrastructure such as ferrous and nonferrous metals, aggregates, Portland cement, concrete, masonry, asphalt and asphalt mixtures, wood and composites. Emphasis will be placed on selection criteria, design, applications and proper use of these materials.

#### **Preparation for Course**

P or C: CE 25200.

Cr. 3.

### CE 31600 - Civil Engineering Materials Laboratory

# CE 31600 - Civil Engineering Materials Laboratory

Introduction to civil engineering materials laboratory and design of experiments, with focus on mechanical and physical properties of construction materials; including measurement of strains using mechanical gauges and electrical resistance strain gauges; experiments on metals, aggregates, portland cement, concrete, asphalt and asphalt mixtures, and wood.

### **Preparation for Course**

P: CE 31500.

Cr. 1.

CE 31800 - Fluid Mechanics

### CE 31800 - Fluid Mechanics

Continuum hypothesis, velocity field, fluid statics, basic conservation laws for systems and control volumes, dimensional analysis and similitude, Euler and Bernoulli equations, Navier-Stokes equations, viscous flows, boundary-layer flow in channels and around submerged bodies, applications.

#### **Preparation for Course**

P: CE 25100 and MA 36300.

Cr. 3.

#### CE 31900 - Fluid Mechanics Laboratory

# **CE 31900 - Fluid Mechanics Laboratory**

Introduction to fluid mechanics laboratory and design of experiments, including experiments on flow patterns, velocity profile in an air pipe, wind tunnel calibration, draining of a tank, pipe friction, drag forces, boundary-layer studies, falling-ball experiments, and measurements of fluid properties.

#### **Preparation for Course**

P: CE 31800.

### CE 33000 - Construction Management

# **CE 33000 - Construction Management**

Type and functions of management, types of construction, project delivery methods, types of construction contracts, the competitive bidding process, data and project management tools, early and detailed cost estimates, project planning, project scheduling with AOA and AON using the critical path method (CPM), project scheduling with uncertainty using PERT method, resource leveling and allocation, project financing options, project cash flow analysis, computer applications.

### **Preparation for Course**

P: ENGR 12800 and Junior class standing; C: CE 21000.

Hours

Class 2, Lab. 3.

#### CE 34500 - Transportation Engineering

# **CE 34500 - Transportation Engineering**

Transportation functions; transportation systems, including land, air, and marine modes; transportation system elements, including traveled way, vehicle, controls, and terminals; techniques of transportation system planning, design, and operation.

#### **Preparation for Course**

C: ČE 21000.

Cr. 3.

### CE 36500 - Environmental Engineering

# **CE 36500 - Environmental Engineering**

Introduction to environmental engineering issues, fundamental concepts and applications to mass and energy balance, hydrology, water treatment, water quality management, wastewater treatment, air pollution, hazardous and solid wastes, and their control. Environmental impact statements and global pollution issues.

#### **Preparation for Course**

P: CHM 11500.

Cr. 3.

### CE 36600 - Environmental Engineering Laboratory

# CE 36600 - Environmental Engineering Laboratory

Application of basic chemistry and chemical calculations to measure physical, chemical, and bacteriological parameters of water and wastewater. Laboratory methods and interpretation of results with regard to environmental engineering applications such as design and operation of water and wastewater treatment processes, and to the control of the quality of natural water.

### Preparation for Course

P: CE 36500.

Cr. 1.

### CE 37500 - Structural Analysis

# **CE 37500 - Structural Analysis**

Stress resultants (reactions, axial forces, shear forces, and bending moments) for beams and framed structures. Deflections of beams and frames by geometric methods (momentarea theorems and applications; conjugate beam analogy). Analysis of statically indeterminate beams and frames by classical stiffness methods; slope deflection and moment distribution. Influence functions and their applications.

#### **Preparation for Course**

P: CE 25200.

Cr. 3.

#### CE 38000 - Soil Mechanics

### CE 38000 - Soil Mechanics

Introduction to the nature and origin of soil and rocks; engineering classification of soil; soil compaction; permeability and seepage, engineering behavior and properties of soils; compressibility; and introduction to shear strength of soil, lateral earth pressure, and soil-bearing capacity for foundations.

#### **Preparation for Course**

P: CE 25200; C: CE 31800, CE 38100.

Cr. 3.

# **CE 38100 - Soil Mechanics Laboratory**

Performing various laboratory tests to determine the characteristics and mechanical properties of soil according to the procedures and standards set by the American Society for Testing and Materials (ASTM).

#### **Preparation for Course**

C: CE 38000.

Cr. 1.

#### CE 39100 - Civil Engineering Practice III

## **CE 39100 - Civil Engineering Practice III**

Practice in industry and written reports of this practice. For co-operative program students only.

#### **Preparation for Course**

P: CE 29100; authorized equivalent courses or consent of instructor may be used in satisfying course pre- and co-requisites.

Cr. 0

#### CE 40100 - Civil Engineering Profession And Practice

# **CE 40100 - Civil Engineering Profession And Practice**

This course introduces students to civil engineering career options of practice and/or pursing graduate studies. It introduces fundamental concepts of management, business, public policy, and leadership, it also highlights the importance of professional registration and membership in professional societies; requirements for graduate studies and the need for life-long learning, and the role of civil engineers in addressing contemporary engineering related issues such as sustainability and global warming.

#### **Preparation for Course**

P: Junior standing or permission of the instructor.

Cr. 1.

### CE 41800 - Hydraulics Engineering

# CE 41800 - Hydraulics Engineering

Sources and distribution of water in urban environment, including surface reservoir requirements, utilization of groundwater, and distribution systems. Analysis of sewer systems and drainage courses for the disposal of both waste water and storm water. Pumps and lift stations. Urban planning and storm drainage practice.

### **Preparation for Course**

P: CE 31800.

Cr. 3.

### CE 44800 - Geotechnical Investigations And Site Characterization

# CE 44800 - Geotechnical Investigations And Site Characterization

Introduction to various methods of investigations and site characterization using the field geotechnical and geophysical investigation tools; planning subsurface exploration, and interpretations of the geoengineering properties and parameters for use in geotechnical infrastructure designs.

#### **Preparation for Course**

P: CE 38000 and CE 38100 (authorized equivalent course or consent of instructor may be used in satisifying course co-requesites).

Cr. 3.

### CE 45000 - Transportation Policy And Planning

# **CE 45000 - Transportation Policy And Planning**

This class is an introduction to transportation planning in urban areas. The course will cover the history of urban transportation planning, transportation data sources and surveys, fundamentals of travel demand and network modeling, financial issues, transportation planning and environmental issues, local and federal regulations and policies, and contemporary issues.

#### **Preparation for Course**

P: CE 34500.

Cr. 3.

### CE 45100 - Traffic Engineering

## CE 45100 - Traffic Engineering

Introduction to traffic engineering analysis, operation and control including traffic capacity analysis, introduction to traffic studies, basics of traffic signal design and phase timing, analysis and design of pre-timed and actuated signalized intersections, signal coordination for arterials, and traffic modeling, including computer applications.

#### Preparation for Course

P: CE34500 or consent of instructor.

Cr. 3.

### CE 46500 - Water And Wastewater Engineering

# CE 46500 - Water And Wastewater Engineering

The underlying principles and design techniques related to water and wastewater collection, transport, quality and treatment including physical, chemical, and biological unit processes.

## **Preparation for Course**

P: CHM 11500 and junior class standing.

Cr. 3

## CE 47500 - Design Of Steel Structures

# **CE 47500 - Design Of Steel Structures**

The concepts of structural steel design, tension and compression members, beams, beam-columns, simple and eccentric connections, composite construction, and plate girders, including computer applications.

## Preparation for Course

P: CE 37500.

Cr. 3.

### CE 47800 - Design Of Concrete Structures

# **CE 47800 - Design Of Concrete Structures**

Flexural analysis and design of reinforced concrete beams including singly and doubly reinforced rectanglar beams and T-beams, shear and diagonal tension, serviceability, bond, anchorage and development length, short and slender columns, slabs, footings and retaining walls, including computer applications.

### **Preparation for Course**

P: CE 31500 And 37500.

### CE 48000 - Finite Element Analysis

# **CE 48000 - Finite Element Analysis**

Introduction to the fundamentals and the basic concept of the finite-element methods through applications to problems in structures, solid mechanics, fluid mechanics and heat transfer. Emphasis on one and two dimensional problems. Computer implementation.

#### **Preparation for Course**

P: CE 31800, CE 37500.

Cr. 3.

### CE 48100 - Foundation Engineering

## **CE 48100 - Foundation Engineering**

The Foundation Engineering course focuses on geotechnical design of shallow and deep foundations and includes review of geotechnical properties of soil, subsurface exploration, seepage, bearing capacity of shallow foundations, lateral earth pressure theories, retaining walls, and deep foundations.

#### **Preparation for Course**

P: CE 38000, CE 38100.

Cr. 3,

## CE 48400 - Research In Civil Engineering

## CE 48400 - Research In Civil Engineering

Individual research projects for students with honors classification. Requires approval of, and arrangement with, a faculty research advisor.

### **Preparation for Course**

P: honors classification for junior or senior students (accumulated GPA equal or greater than 3.0). Instructor permission required.

Cr. 3,

## CE 48700 - Civil Engineering Design Project

# CE 48700 - Civil Engineering Design Project

Planning, analysis, and design of a civil engineering project; an integrated and realistic group project involves as much as possible all major aspects of the civil engineering profession. Emphasis on teamwork, project management, design and evaluation through calculations, simulations or modeling, oral and written communications.

### Preparation for Course

P: CE 34500 or 36500 or 38000 or 41800 or 47800.

Cr. 3.

Notes

Consent of instructor required.

### CE 48800 - Civil Engineering Design Project II

# CE 48800 - Civil Engineering Design Project II

Continuation of CE 487.

**Preparation for Course** 

P: CE 48700.

## CE 49000 - Selected Topics In Civil Engineering

Special topics that cover one or more topics in civil engineering related to structural engineering, environmental engineering, fluid mechanics, hydraulics, hydrology, geotechnical engineering, transportation engineering, pavement analysis and design, materials, and construction engineering and management. May include laboratory experiments if appropriate. Course may be repeated for credit.

#### **Preparation for Course**

P: Instructor Permission Required.

Cr. 1-6. Variable Title (V.T.)

## CE 49100 - Civil Engineering Practice IV

# **CE 49100 - Civil Engineering Practice IV**

Practice in industry and written reports of this practice. For cooperative program students only.

#### **Preparation for Course**

P: CE 39100; authorized equivalent courses or consent of instructor may be used in satisfying course pre- and co-requisites

Cr 0

### CE 49200 - Civil Engineering Practice V

## **CE 49200 - Civil Engineering Practice V**

Practice in industry and written reports of this practice. For cooperative program students only.

## Preparation for Course

P: CE 49100; authorized equivalent courses or consent of instructor may be used in satisfying course pre- and co-requisites.

Cr. 0

### CE 57000 - Advanced Structural Mechanics

## **CE 57000 - Advanced Structural Mechanics**

Studies of stress and strain, failure theories, and yield criteria; flexure and torsion theories for solid- and thin-walled members; and energy methods.

### **Preparation for Course**

P: CE 27000 or 27300.

Cr. 3

**Dual Level Course** 

Dual-Level, Undergraduate-Graduate

### **CET 10400 - Elementary Surveying**

# **CET 10400 - Elementary Surveying**

Fundamental concepts and practical applications related to the measurement of vertical and horizontal distances and angles utilizing steel tapes, automatic levels and theodolities. Computations of grades, traverses, and area. Basic concepts of topography and its uses.

### **Preparation for Course**

P: MA 15400 with a grade of C- or better

Cr. 3.

Hours

Class 2, Lab. 3.

### CET 10800 - Route Surveying And Design

# **CET 10800 - Route Surveying And Design**

Preliminary and construction surveys for route location. Calculation and field work for simple and easement curves, grade lines, and slope stakes. Preparation of plans, profiles, and cross-sections from field survey data earthwork estimates. Computer applications.

### **Preparation for Course**

P: CET 10400, ARET 12300, And C- Or Better In Either MA 15400 Or MA 15900.

Cr. 3.

Hours

Class 1, Lab. 4-6.

### **CET 20600 - Construction Surveying**

# **CET 20600 - Construction Surveying**

Application of surveying skills relevant to the construction field. Projects include layout of commercial and/or industrial buildings, transfer of horizontal and vertical control, establishment of lines and grades, triangulation, etc. Instruments used will include total stations, data collectors, etc.

### **Preparation for Course**

P: CET 10400 and ARET 12300 with a grade of C- or better

Cr. 3.

### CET 20900 - Land Surveying And Subdivision

# **CET 20900 - Land Surveying And Subdivision**

Subdivision planning, calculations and plotting, water-main layouts, storm and sanitary sewer calculations and layouts. Street plans and profiles. Computer applications.

## Preparation for Course

P: CET 20600.

Cr. 3.

Hour

Class 1, Lab. 6.

### CET 25300 - Hydraulics And Drainage

# **CET 25300 - Hydraulics And Drainage**

Basic hydrostatics, Bernoulli's equation, flow in water and sewer lines, overland and ditch drainage determination.

### **Preparation for Course**

P: ET 19000 With Grade Of C- Or Better

Cr 3

### **CET 26600 - Materials Testing**

# **CET 26600 - Materials Testing**

Testing of construction materials to determine physical and mechanical properties. Preparation of reports from data secured from such tests.

### Preparation for Course

C: ET 20000.

Cr. 3.

Hours

Class 1, Lab. 4-6.

# **CET 35300 - Hydraulics And Drainage II**

A continuation of 253 with additional applications of fundamental hydraulics to culvert size determinations, water line calculations, weir and orifice problems, inlet spacings, and rainfall and drainage problems of small watersheds. Computer applications.

#### **Preparation for Course**

P: CET 25300, 20900; Must Be In CNTB Program/CNET major.

Cr 3

### CET 38100 - Structural Analysis

## **CET 38100 - Structural Analysis**

Techniques in analyzing statistically determinant and indeterminant structures with emphasis on moment-distribution. Standard design procedures for wood and steel structures. Sizing of beams, columns, and connections. Computer applications. Graduation credit requires grade of C or better.

#### **Preparation for Course**

P: ET 20000 and MA 22700 with a grade of C or better.

Cr. 3

Hours

Class 3.

Notes

Must be in CNTB program/CNET major.

#### **CET 38500 - Fundamentals Of Reinforced Concrete**

## **CET 38500 - Fundamentals Of Reinforced Concrete**

A study of concrete as a construction material and as a structural material. Field methods and practices used in concrete construction. Applied fundamentals of reinforced concrete design as applied to beams, slabs, columns, and footings. Computer applications.

### Preparation for Course

P: CET 38100 With Grade Of C Or Better; Must Be In CNTB Program/CNET major.

Cr. 3

## **CET 40900 - Property Surveying**

# **CET 40900 - Property Surveying**

Office and field work associated with land surveying and public records of real property. Metes and bounds, federal subdivision, and state plane coordinate descriptions.

### **Preparation for Course**

P: CET 20900; must be in CNTB program/CNET major.

Cr. 3.

Hours

Class 2, Lab. 3.

### CET 43100 - Properties And Behavior of Soils

# **CET 43100 - Properties And Behavior of Soils**

Identification and properties of soils with emphasis on laboratory and field testing. Behavior of soils relating to design and construction of structures and highways. Computer applications.

### **Preparation for Course**

P: CET 26600 And ET 20000 With Grade of C- Or Better

Cr 3

#### Cr. 5. Hours

Class 2, Lab. 3.

### CET 45300 - Water And Waste-Water Technology

# **CET 45300 - Water And Waste-Water Technology**

A study of fundamental calculations required in the hydraulics of water supply systems and in the hydraulics of waste-water disposal. Computer applications.

#### **Preparation for Course**

P: Must Be In CNTB Program/CNET Major.

Cr. 3

### CET 48200 - Steel Structure Design

## **CET 48200 - Steel Structure Design**

Applied fundamentals of structural steel design as applied to beams, columns, connections, joists, and detailing.

#### **Preparation for Course**

P: CET 38100 with a grade of C or better; must be in CNTB program/CNET major.

Cr. 3

### CET 48400 - Wood Timber And Form Work

## CET 48400 - Wood Timber And Form Work

Fundamentals of wood, and timber design, including beams, columns, connections, and laminated structural members. The design of forms for concrete structures, including walls, beams, columns, slabs, and forms for special shapes.

#### Preparation for Course

P: CET 38100 With Grade Of C or better; Must Be In CNTB Program/CNET Major.

Cr. 3.

### **CET 49900 - Civil Engineering Technology**

# **CET 49900 - Civil Engineering Technology**

As determined by CAET faculty. Authorized equivalent courses or consent of instructor may be used in satisfying course pre- and corequisites.

### **Preparation for Course**

P: Must be in CNTB program/CNET major.

Cr. 1-4. Variable Title (V.T.)

### CFS 39900 - Special Topics In CFS

# CFS 39900 - Special Topics In CFS

Study and analysis of concepts and issues related to Hospitality Management and Nutrition. Hours and subject matter to be arranged by staff. Course may be repeated up to 18 credits.

Cr. 1-4. Variable Title (V.T.)

## CHM 10200 - Lectures In Chemical Science for Engineers

Continuation of CHM 115 for engineering students.

#### **Preparation for Course**

P: CHM 11500 With C- Or Higher.

P or C: MA 16300, 16500, 22700 Or 22900

Cr. 3.

CHM 10400 - Living Chemistry

## CHM 10400 - Living Chemistry

An introductory chemistry course that focuses upon the biomolecules of living systems. General chemistry topics include chemical bonds, solutions, acid/bases, and buffers. The study of organic chemistry is given as a preamble to the structure, function, and metabolism of biomolecules such as proteins, lipids, carbohydrates, and nucleic acids. No credit toward any chemistry degree or a chemistry minor. Not acceptable as a prerequisite for CHM 115.

#### **Preparation for Course**

P: MA 12401 with a grade of C- or better or placement by exam at the level of MA 11100 or higher.

Cr. 3

CHM 11100 - General Chemistry

# CHM 11100 - General Chemistry

A basic introduction to the principles of chemistry including matter and energy, nomenclature, measurement, atomic structure, nuclear chemistry, chemical bonding, stoichiometry, classification of chemical reactions, kinetics, equilibria, gas laws, liquids, and solids.

### **Preparation for Course**

P: MA 12401 with a grade of C- or better or placement by exam at the level of MA 11100 or higher.

Hours

Class 2, Lab. 3.

Notes

Indiana Core Transfer Library course

CHM 11200 - General Chemistry

# CHM 11200 - General Chemistry

A continuation of CHM 111: Solutions, acid/base chemistry, and a survey of organic chemistry and biochemistry including functional groups, nomenclature and reactions, amino acids, proteins, carbohydrates, lipids, and nucleic acids.

### **Preparation for Course**

P: CHM 11100.

Cr. 3.

Hours

Class 2, Lab. 3.

Indiana Core Transfer Library course

CHM 11500 - General Chemistry

# **CHM 11500 - General Chemistry**

Required of all students majoring in biology, chemistry, medical technology, physics, chemical and metallurgical engineering, predentistry, premedicine, and prepharmacy. Introduction to fundamental laws and principles of chemistry, including unit systems and unit conversions; precision evaluation; atomic theory; stoichiometry; symbols; formulas; equations; mass, mole, gas volume relationships; ideal gas law; thermochemistry; atomic structure; chemical periodicity; chemical bonds and their relation to physical properties; properties of the liquid and solid states. Numerical problems and relationships are introduced wherever quantitative treatment is possible.

#### **Preparation for Course**

P: one year of high school chemistry within the previous 5 years or CHM 11100 with a grade of C or better within the past 5 years; P or C: MA 15400 or MA 22700, or MA 22900

Cr. 4. Hours Class 3, Lab. 3.

Notes

Indiana Core Transfer course.

### CHM 11600 - General Chemistry

## CHM 11600 - General Chemistry

A development of the concepts introduced in CHM 11500. Introduction to phase changes, vapor pressure, solutions and solubility; colligative properties. Introductory thermodynamic treatments of equilibrium conditions of oxidation-reduction, electrochemistry, complexation, and acids and bases. Kinetics of chemical change, simple rate laws and reaction mechanisms. Descriptive chemistry of the "representative" elements ("s" and "p" block elements) with emphasis on periodic relationships. Numerical problems and relationships are introduced whenever quantitative treatment is possible.

#### Preparation for Course

P: CHM 11500 with a grade of C- or better; P or C: MA 16300, MA 16500, MA 22700 or MA 22900.

Cr. 4.

Hours

Class 3, Lab. 3.

Notes

Indiana Core Transfer Library course.

## CHM 12000 - Chemistry And Art

## CHM 12000 - Chemistry And Art

This course is designed to introduce students majoring in fields outside the physical and life sciences to the basic principles of chemistry. These principles will be presented in the context of the materials used by visual artists to produce and preserve paintings, ceramics, metalworks and photographs.

Cr. 3.

Hours

Class 2, Lab. 3.

CHM 18300 - Cooperative Work Experience I

# CHM 18300 - Cooperative Work Experience I

For Cooperative Education program students only.

### **Preparation for Course**

P: must be accepted for the program by the Cooperative Education program coordinator.

Cr. 0.

CHM 18400 - Cooperative Work Experience II

# CHM 18400 - Cooperative Work Experience II

Preparation for Course

P: CHM18300.

Cr. 0.

CHM 19400 - Freshman Chemistry Orientation

# CHM 19400 - Freshman Chemistry Orientation

Designed to provide incoming chemistry majors with the academic, survival, and computational skills to make a successful transition from high school to college. Discussion of opportunities within the chemistry department including degree options, co-op program, undergraduate research, careers in chemistry, use of spreadsheet software, graphing packages, and drawing programs for chemical structures. Attendance and performance on assigned projects are the basis of the assigned grades.

### CHM 24100 - Introductory Inorganic Chemistry

# CHM 24100 - Introductory Inorganic Chemistry

Descriptive inorganic chemistry dealing in a systematic way with the elements and the structures, properties, and reactions of their compounds. Required of students majoring in chemistry.

#### **Preparation for Course**

P: CHM 11600 and MA 16500 or 22900.

Cr. 4.

Hours

Class 3, Lab 3.

CHM 25400 - Organic Chemistry Laboratory

# CHM 25400 - Organic Chemistry Laboratory

Laboratory experiments to accompany CHM 255 illustrating methods of separation and the more common techniques and methods for preparing various types of organic compounds.

#### **Preparation for Course**

C: CHM 25500.

Cr. 1.

Hours Lab. 3.

CHM 25500 - Organic Chemistry

## CHM 25500 - Organic Chemistry

Recommended for biology majors and premedical students who do not take CHM 26100. A study of aliphatic and aromatic hydrocarbons and their simple derivatives in terms of (a) structure, bonding, etc., (b) general syntheses and reactions, and (c) a logical modern rationale for fundamental phenomena as supported by relative reaction rates, orientation effects, and stereochemistry.

### **Preparation for Course**

P: CHM 11600.

Cr. 3.

CHM 25600 - Organic Chemistry

# CHM 25600 - Organic Chemistry

An extension of CHM 255 to include various functional groups such as the carboxyl, carbonyl, amino, etc., and polyfunctional natural products including carbohydrates and peptides.

### **Preparation for Course**

P: CHM 25500.

Cr. 3.

CHM 25800 - Organic Chemistry Laboratory

# CHM 25800 - Organic Chemistry Laboratory

A continuation of CHM 254 but emphasizing methods for identifying organic compounds, including simple "unknowns."

### **Preparation for Course**

P: CHM 25400; C: CHM 25600.

Cr. 1.

Lab. 3.

### CHM 26100 - Organic Chemistry

# CHM 26100 - Organic Chemistry

Required for students majoring in chemistry or chemical engineering; recommended for other science majors and premedical and predental students. A comprehensive study of the chemical principles underlying aliphatic and aromatic compounds. Emphasis is placed on the commercial and laboratory syntheses of these materials as well as their uses. Mechanisms, stereochemistry, and spectroscopy are stressed to illustrate the logic inherent in the subject matter and to demonstrate the predictability of many of the chemical transformations discussed.

#### **Preparation for Course**

P: CHM 11600.

Cr 3

### CHM 26200 - Organic Chemistry

## CHM 26200 - Organic Chemistry

A continuation of CHM 261, but with a broader scope. The chemistry of a variety of functional groups is discussed. Included are discussions of some compounds and reactions of biological significance.

### **Preparation for Course**

P: CHM 26100.

Cr. 3.

### CHM 26500 - Organic Chemistry Laboratory

## CHM 26500 - Organic Chemistry Laboratory

Laboratory experiments include a large number of techniques for sophisticated organic syntheses. The preparations are designed not only to illustrate the classical reactions discussed in CHM 261, but also to allow for wider application of the principles involved.

### **Preparation for Course**

C: CHM 26100.

Cr. 2. Hours

Lab. 6

### CHM 26600 - Organic Chemistry Laboratory

# CHM 26600 - Organic Chemistry Laboratory

A continuation of CHM 265. A substantial portion of the course is devoted to the methods employed in organic qualitative analysis. The student is expected to identify "unknowns" and mixtures and is introduced to some modern instrumental techniques.

### **Preparation for Course**

P: CHM 26500; C: CHM 26200.

Cr. 2.

Hours

### CHM 28000 - Chemical Literature

## CHM 28000 - Chemical Literature

A survey of the tools employed for the effective and efficient search for and the retrieval and analysis of chemical information including online databases, chemical abstracts, patents, handbooks, encyclopedias, and comprehensive works.

### **Preparation for Course**

P: CHM 25100 or CHM 25500 or CHM 26100.

### CHM 28400 - Cooperative Work Experience III

# CHM 28400 - Cooperative Work Experience III

Preparation for Course

P: CHM18400.

Cr. 0

CHM 29000 - Selected Topics In Chemistry For Lower Division Students

## CHM 29000 - Selected Topics In Chemistry For Lower Division Students

May be repeated for credit.

**Preparation for Course** 

P: Instructor Permission Required.

Cr. 1-4. Variable Title (V.T.)

CHM 29001 - Selected Topics In CHM Labs

# CHM 29001 - Selected Topics In CHM Labs

Selected topics. Chemistry laboratory only.

**Preparation for Course** 

P: Permission of instructor required.

Cr. 1-4.

CHM 32100 - Analytical Chemistry I

# CHM 32100 - Analytical Chemistry I

Required of students majoring in chemistry. Quantitative measurements on complex chemical systems that show matrix effects or require isolation of a compound prior to its determination; general approaches to quantitative problems at the trace level; critical comparisons of competitive procedures with emphasis upon principles of separation process, including chromatography; recognition and evaluation of possible sources of error; approaches for optimizing conditions so as to minimize time and/or effort required to attain prescribed levels of accuracy and precision.

### **Preparation for Course**

P: one year of organic chemistry.

Cr. 4.

Hours

Class 2, Lab. 6.

CHM 33300 - Principles Of Biochemistry

# CHM 33300 - Principles Of Biochemistry

The course is intended to provide an overview of the structure and the function of biomolecules and the energy of metabolism of carbohydrates and lipids. The course will serve as a bridge between organic chemistry and more advance courses in biochemistry.

## **Preparation for Course**

P: CHM 25500 or 26100. C: CHM 25600 or 26200.

# CHM 33500 - Biochemistry Lab

The course will introduce students to basic biochemical techniques and methods, with an emphasis on those useful in characterizing proteins and enzymes.

### **Preparation for Course**

P: CHM 33300.

Cr. 1.

CHM 34200 - Inorganic Chemistry

## CHM 34200 - Inorganic Chemistry

Interpretation and correlation of the physical and chemical properties of inorganic compounds in terms of their electronic configurations and molecular structures. A development of the earlier treatment of the representative elements and the transition elements including magnetic and spectral properties of coordination compounds.

### **Preparation for Course**

P: CHM 24100; C: CHM 38400.

Cr. 3.

CHM 34300 - Inorganic Chemistry Laboratory

# CHM 34300 - Inorganic Chemistry Laboratory

### **Preparation for Course**

C: CHM 34200.

Cr. 1. Hours

Lab. 3.

CHM 37100 - Physical Chemistry

# CHM 37100 - Physical Chemistry

An introductory course in physical chemistry. Not open to chemistry majors, but suitable for other science majors. Topics to be covered include states of matter, thermodynamics, physical equilibrium, solutions, chemical equilibria, quantum mechanics, spectroscopy, and kinetics.

### **Preparation for Course**

P: CHM 11600 and MA 22900.

Cr. 3

CHM 37200 - Physical Chemistry

# CHM 37200 - Physical Chemistry

Principles of physical chemistry with emphasis on chemical thermodynamics and kinetics, illustrated examples from the biological sciences. Other topics include physical and chemical equilibria, quantum mechanics, and spectroscopy.

### **Preparation for Course**

P: CHM 11600 and MA 22900.

Cr. 4.

### CHM 37600 - Physical Chemistry Laboratory

## CHM 37600 - Physical Chemistry Laboratory

**Preparation for Course** 

C: CHM 38400.

Cr. 2. **Hours** Lab. 6.

CHM 38300 - Physical Chemistry

## CHM 38300 - Physical Chemistry

Kinetic theory of gases, gas equations of state, Maxwell-Boltzmann distribution. Classical thermodynamics including the first, second, and third laws, spontaneity, chemical potential, phase equilibria. Introduction to quantum mechanics: postulates of quantum theory, linear operators, Heisenberg indeterminary principle, Pauli principle, orbital and spin angular momentum. Simple quantum systems such as particle-in-a-box, harmonic oscillator, hydrogen atom. Symmetry. Atomic and molecular spectroscopy.

#### **Preparation for Course**

P: CHM 11600, MA 26100, and PHYS 25100.

Cr. 4

CHM 38400 - Physical Chemistry

## CHM 38400 - Physical Chemistry

Basic kinetics and chemical reactions: first, second, third order reactions, elementary steps, macroscopic view in terms of concentrations and activities, calculation of equilibrium constants, thermodynamic interpretation of transition state theory. Solution thermodynamics: pure solutions, mixtures, ideal solutions (Raoult's law), ideally dilute solutions (Henry's law), Debye-Hückel theory, colligative properties. Electrochemistry: relationship to thermodynamics and chemical equilibrium. Photochemistry, nuclear magnetic resonance spectroscopy, electrical and magnetic properties of matter.

**Preparation for Course** 

P: CHM 38300.

Cr 2

CHM 38600 - Cooperative Work Experience IV

# CHM 38600 - Cooperative Work Experience IV

Preparation for Course P:CHM28400.

Cr. 0.

CHM 42400 - Analytical Chemistry II

# CHM 42400 - Analytical Chemistry II

Principles and application of optical and electrical methods of chemical analysis, including topics in instrumentation.

**Preparation for Course** 

P: CHM 32100; P or C: CHM 38300.

Cr. 4. **Hours** Class 2, Lab. 6.

# CHM 48700 - Cooperative Work Experience V

Preparation for Course P: CHM38600.

Cr. 0.

CHM 49600 - Senior Seminar I

## CHM 49600 - Senior Seminar I

Seminars on recent developments or topics not normally covered in regular courses. Attendance at all departmental seminars is required and students must submit a brief synopsis of each seminar attended.

### **Preparation for Course**

P: two years of college chemistry.

Cr. 0.

CHM 49700 - Senior Seminar II

## CHM 49700 - Senior Seminar II

Continuation of CHM 49600. No credit for CHM 49700 unless CHM 49600 has been completed. Attendance at all departmental seminars is required and students must submit a brief synopsis of one seminar attended. In addition, students are required to submit a written report on a topic chosen from the primary literature and approved by the coordinator of the seminar series. Students must also give an oral presentation.

**Preparation for Course** 

P: CHM 49600.

Cr. 1.

CHM 49900 - Special Assignments

# CHM 49900 - Special Assignments

Undergraduate research. Students will participate in an original research project with a faculty member. Students are required to submit a written report and make a short oral presentation of their research project. May be repeated for credit.

Cr. 1-5 Hours Lab. 3-15. Variable Title (V.T.)

CHM 53300 - Introductory Biochemistry

# CHM 53300 - Introductory Biochemistry

A rigorous one-semester introduction to biochemistry.

**Preparation for Course** 

P: CHM 25600, 26200.

Cr. 3.

**Dual Level Course** 

Undergraduate-Graduate

## CHM 53400 - Introductory Biochemistry

# CHM 53400 - Introductory Biochemistry

Continuation of CHM 53300 with emphasis on enzymatic catalysis and metabolic transformations.

### **Preparation for Course**

P: CHM 53300

Cr. 3.

### CHM 53500 - Biochemistry Laboratory

# CHM 53500 - Biochemistry Laboratory

Laboratory work to accompany CHM 53400.

### **Preparation for Course**

P or C: CHM 53400.

Cr. 1. Hours Lab. 3.

**Dual Level Course** 

Undergraduate-Graduate

### CHM 53800 - Molecular Biotechnology

# CHM 53800 - Molecular Biotechnology

An examination of modern tools for the characterization, manipulation, and design of nucleic acids and proteins.

### **Preparation for Course**

P: CHM 53300.

Cr. 3.

## CHM 59900 - Special Assignments

# CHM 59900 - Special Assignments

Directed reading or special work not included in other courses. May be repeated for credit.

### **Preparation for Course**

P: consent of instructor.

Cr. 1-4. Variable Title (V.T.) Dual Level Course Undergraduate-Graduate

## CLCS 10000 - Elementary Latin

# **CLCS 10000 - Elementary Latin**

Fundamentals of the language; develops direct reading comprehension of Latin.

Cr. 4.

### CLCS 15000 - Elementary Latin II

# **CLCS 15000 - Elementary Latin II**

Fundamentals of the language; develops direct reading comprehension of Latin.

#### **Preparation for Course**

P: CLCS 10000.

Cr. 4

CLCS 20000 - Second Year Latin I

## CLCS 20000 - Second Year Latin I

Reading from select authors, emphasizing the variety of Latin prose. Examination of the concept of genre. Grammar review and/or prose composition.

#### **Preparation for Course**

P: CLCS 15000 or placement.

Cr. 3.

**CLCS 20500 - Classical Mythology** 

## **CLCS 20500 - Classical Mythology**

An introduction to Greek and Roman myths, legends, and tales, especially those that have an important place in the Western cultural tradition.

### **Preparation for Course**

P: ENGL 13100 or equivalent.

Cr. 3.

Notes

Approved by Arts and Sciences for the Cultural Studies (Western Tradition) requirement. If you are required by placement examination to take ENG R150, it is recommended that you complete that requirement before enrolling in any folklore or classics course.

CLCS 25000 - Second Year Latin II

## **CLCS 25000 - Second Year Latin II**

Reading from Virgil's Aeneid with examination of the epic as a whole. Prosody of dactylic hexameter and study of poetic devices. Grammar review.

### Preparation for Course

P: CLCS 20000 or placement.

Cr. 3.

### **CLCS 40500 - Comparative Mythology**

# **CLCS 40500 - Comparative Mythology**

The advanced study of Classical Greek and Roman myths, including the reading and evaluation of comparative myths, both inside and outside the Mediterranean cultural area.

### **Preparation for Course**

P: ENGL 20201 or 23301 or equivalent.

Cr. 3-4.

Notes

Approved by Arts and Sciences for the Cultural Studies (Western Tradition) requirement.

## CM 12300 - Digital Graphics For The Built Environment I

An introduction to graphic communication in the architectural, engineering, and construction (AEC) industry. Technical sketching, and CAD software are utilized in the production of working drawings. Project emphasis is distributed among architectural & civil engineering, and interior design topics.

Cr. 3.

### CM 12400 - Residential And Light Frame Construction

## CM 12400 - Residential And Light Frame Construction

A study of residential building and the graphic and written documents required for its construction. CAD familiarity is required.

#### **Preparation for Course**

P: CM 12300 C- or better and CM 167 C- or better, A study of residential building and the graphic and written documents required for its construction. CAD familiarity is required.

Cr. 3.

### CM 16700 - Construction Systems And Materials

## **CM 16700 - Construction Systems And Materials**

Properties of construction materials and components and an introduction to their use in various construction systems.

Cr. 3.

### CM 17600 - Construction Specifications and Contracts

## CM 17600 - Construction Specifications and Contracts

Study of constructions specifications, contracts, biddings, agreements, liens, and bonds.

Cr. 3.

### CM 20400 - Elementary Surveying

# CM 20400 - Elementary Surveying

This course introduces basic surveying operations and computations, theory of errors in observations, fundamental concepts of horizontal, vertical, and angular measurement, traverse computations, horizontal and vertical curves computations, utilizing tapes, automatic levels and total stations.

### Preparation for Course

Prerequisite: MA 15400 or MA 15900 (with a grade of C- or better)

Cr 3

## **CM 22000 - Commercial Construction And Codes**

## CM 22000 - Commercial Construction And Codes

A study of Commercial building codes and the building types used in commercial construction focusing on conventionally framed steel, load bearing masonry, pre-cast concrete and pre-engineered steel building systems.

### Preparation for Course

P: CM 12300 C- or better, CM 16700 C- or better.

### CM 25300 - Hydraulics And Drainage

## CM 25300 - Hydraulics And Drainage

Basic hydraulics, Bernoulli's equation, flow in water and sewer lines, overland and ditch drainage determination. Corequisite: ET 19000.

Preparation for Course Corequisite: ET 19000

Cr. 3.

### CM 28100 - Environmental Equipment for Buildings

## CM 28100 - Environmental Equipment for Buildings

A survey of basic environmental control parameters of heating, ventilating, air conditioning, plumbing, lighting, electricity, and their equipment (size and shapes) and the physiological effects on mankind. Emphasis placed on definitions, types of systems, and physical characteristics of equipment.

Cr. 3

### CM 30100 - Construction Experience I

## **CM 30100 - Construction Experience I**

A survey of basic environmental control parameters of heating, ventilating, air conditioning, plumbing, lighting, electricity, and their equipment (size and shapes) and the physiological effects on mankind. Emphasis placed on definitions, types of systems, and physical characteristics of equipment.

Cr. 1.

### CM 30600 - Construction Surveying

## CM 30600 - Construction Surveying

This course introduces application of surveying skills relevant to the construction field. Projects include layout of commercial and/or industrial buildings, transfer of horizontal and vertical control, establishment of lines and grades, triangulation, etc. Instruments used will include total stations, data collectors, etc.

### Preparation for Course

P: CET 20400 and CM 12300 with a grade of C- or better

Cr. 3.

## CM 32300 - Digital Graphics For The Built Environment II

# CM 32300 - Digital Graphics For The Built Environment II

Testing of construction materials to determine physical and mechanical properties. Preparation of reports from data secured from such tests. Typically offered Fall Spring Summer.

## Preparation for Course

P: CM 12300 C- or Better

Cr. 3.

## CM 32400 - Sustainable Construction

## CM 32400 - Sustainable Construction

This course provides students with an understanding of sustainability concepts and design principles as applied in building construction. The goal of this course is to help students develop the vocabulary and skills to become productive contributors to sustainable building project teams.

### **Preparation for Course**

P: CM 28100 (with a grade of C- or better)

### CM 34400 - Construction Project Quality

## CM 34400 - Construction Project Quality

Construction and design quality assurance. The role quality control plays in the execution of the construction contract. Includes Inspection trips to construction sites.

#### **Preparation for Course**

P: CM 22200 Grade: C- or better

Cr 3

### CM 36600 - Materials Testing

## CM 36600 - Materials Testing

Testing of construction materials to determine physical and mechanical properties. Preparation of reports from data secured from such tests.

### **Preparation for Course**

P: ET 20000

Cr. 3.

### CM 38100 - Structural Analysis

## CM 38100 - Structural Analysis

Analysis of statically determinate and indeterminate structures, including trusses, beams, and frames; analysis of cables and arches; design load calculations; influence lines and their applications; and moving loads on beams.

#### Preparation for Course

P: ET 20000 (with a grade of C- or better) and MA 22700 (with a grade of C- or better)

Cr. 3.

## CM 40100 - Construction Experience II

# CM 40100 - Construction Experience II

Analysis of statically determinate and indeterminate structures, including trusses, beams, and frames; analysis of cables and arches; design load calculations; influence lines and their applications; and moving loads on beams.

Must complete approximately 800 hours of approved work experience.

### Preparation for Course

P: CM 30100, C- or better, completion of approximately 800 hrs of approved work experience and departmental approval.

Cr. 1

## CM 43000 - Properties And Behavior of Soils

# CM 43000 - Properties And Behavior of Soils

Identification and properties of soils with emphasis on laboratory and field-testing. Behavior of soils related to design and construction of structures and highways. Computer Applications.

### **Preparation for Course**

P: CM 16700

Cr. 3.

## CM 44200 - Cost Estimating

# CM 44200 - Cost Estimating

This course introduces the principles and applications of construction cost estimating from the conceptual design through the design phase of a construction project.

### **Preparation for Course**

Cr. 3.

## CM 44300 - Construction Means And Methods

## CM 44300 - Construction Means And Methods

This course explores the materials, methods, and procedures for constructing commercial buildings and will focus on the civil, structural, building envelope, and interior elements of buildings. Key construction management issues such as site logistics, means and methods, safety, quality control, task sequencing, and construction productivity of these systems will be addressed.

#### **Preparation for Course**

P: CM 38100 (with a grade of C- or better)

Cr. 3.

### CM 44500 - Construction Project Management

## CM 44500 - Construction Project Management

This course provides students an understanding of the basic concepts of construction project management such as types and functions of management, project participants, lifecycle stages of projects, project delivery methods, types of contracts and bidding. The students will learn how to breakdown the project into work activities and durations and develop schedule.

### **Preparation for Course**

Co-requisite: CM 44200.

Cr. 3.

### CM 45400 - Capstone I

## CM 45400 - Capstone I

The first term of a two-term, comprehensive, capstone project. Establishment and development of the design process with special emphasis placed on teamwork towards the initial Design Proposal.

### Preparation for Course

Perquisite: CM major, senior standing and Department Approval.

Cr. 2.

## CM 45500 - Capstone II

# CM 45500 - Capstone II

The second term of a two-term comprehensive, capstone design project. Multi-disciplinary, project-oriented, real-world experience at the cutting edge. Generation and conclusive development of the final design with consideration for design reviews, prototype requirements, scheduling, ergonomics, safety and economic constraints. A written report and oral defense of the project is required.

### Preparation for Course

Perquisite: CM 45400 C- or Better.

Cr. 2.

## CM 45700 - Construction Safety

# CM 45700 - Construction Safety

This course introduces the impact of safety on the construction industry, including in-depth discussions on the application of the Occupational Safety & Health Administration (OSHA) Safety and Health Standards for the construction industry. The emphasis of this course is to provide training for job sited supervisory personnel. In addition, this course fulfills the requirements for the OSHA 30-hour Card.

### **Preparation for Course**

P: CM 22200 (with a grade of C- or better)

Cr. 3

### CMPL 21700 - Detective And Mystery Literature

## CMPL 21700 - Detective And Mystery Literature

Origins, evolution, conventions, criticism, and theory of the detective and mystery story; history of the Gothic novel; later development of the tale of terror; major works of this type in Western fiction, drama, and film.

#### **Preparation for Course**

P: ENGL 13100 Or Equivalent.

Cr. 3.

### **CNET 10200 - Introduction To Sustainable Development**

## **CNET 10200 - Introduction To Sustainable Development**

This course provides an introduction to the interdisciplinary field of sustainable development, focusing on the three pillars of sustainability: environmental, economic, and social justice. The course offers a broad overview of the key challenges facing construction industry professionals including those involved in design construction, material supply and fabrication, finance, policy development. Potential solutions to achieve sustainable development in the 21st century will be considered.

Cr 3

### CNET 19000 - Experience In Construction I

## **CNET 19000 - Experience In Construction I**

Minimum of 10 weeks' work experience in the construction industry, plus recorded (written or otherwise as approved in advance) report of directed academic project.

Cr. 1.

CNET 27600 - Specs, Contracts, And Codes

## **CNET 27600 - Specs, Contracts, And Codes**

Study of general conditions and major phases of construction codes, specifications, agreements, contracts, liens, and bonds.

Cr. 3

### **CNET 28000 - Quantity Estimating**

# **CNET 28000 - Quantity Estimating**

A study of estimating practices. Development of skill in preparing manual estimates of material quantities required in construction. Introduction to labor and material costs, electronic media, and computer applications.

### **Preparation for Course**

P: CNET 27600 and MA 15300 with a grade of C- or better

Cr. 3.

Hours

Class 2, Lab. 3.

### **CNET 29000 - Experience In Construction II**

# **CNET 29000 - Experience In Construction II**

Minimum of 10 weeks' work experience in the construction industry, plus recorded (written or otherwise as approved in advance) report of directed academic project.

### Preparation for Course

P: CNET 19000 And Sophomore Standing Required.

Cr. 1.

### CNET 34400 - Constructed Project Quality I

# **CNET 34400 - Constructed Project Quality I**

Construction and design quality assurance. The role quality control plays in the execution of the construction contract. Inspection trips to construction sites.

#### **Preparation for Course**

P: CNET 27600 with a grade of C- or better

Cr. 3.

Hours

Class 2, Lab. 3.

### CNET 34800 - Senior Capstone Design Project I

## **CNET 34800 - Senior Capstone Design Project I**

The first term of a two-term comprehensive, capstone design project. Establishment and development of the design process with special emphasis placed on teamwork towards the initial Design Proposal -- written and oral.

### **Preparation for Course**

P: Must be in CNTB program/CNET major, senior standing.

Cr. 3.

### **CNET 39000 - Experience In Construction III**

## **CNET 39000 - Experience In Construction III**

Authorized equivalent courses or consent of instructor may be used in satisfying course pre- and corequisites. Minimum of 10 weeks' work experience in the construction industry, plus recorded (written or otherwise as approved in advance) report of directed academic project.

## Preparation for Course

P: CNET 29000 A Junior Standing Required.

Cr. 1.

### **CNET 44200 - Costs Estimating**

# **CNET 44200 - Costs Estimating**

Authorized equivalent courses or consent of instructor may be used in satisfying course pre- and corequisites. A study of design and construction cost estimation and cost control practices. Development of unit costs for material and labor. Topics include equipment, subcontracts, risk management, overhead, profit, bid strategy, bid price, total development cost, and value engineering. Use of electronic media and computer applications.

### **Preparation for Course**

P: IET 35000 and CNET 28000 with a grade of C- or better

Cr. 3.

Hours

Class 2, Lab. 3.

## **CNET 44300 - Engineered Construction**

# **CNET 44300 - Engineered Construction**

Computations for a broad range of design and construction problems such as construction equipment and false-work; winter protection, temporary heat and electrical requirements; humidity, condensation, and equilibrium moisture contents of materials; expansion of materials, structures, curtain walls, and piping; sound absorption and transmission.

### **Preparation for Course**

P: CET 38100 with a grade of C- or better

## **CNET 44500 - Construction Project Management I**

Planning the organization of people, resources, and activities required for a construction project from inception through design, construction, and operation. Emphasis on time control through critical path scheduling and management-by-exception, and related strategies. Computer applications.

#### **Preparation for Course**

C: CNET 44200

Cr. 3.

### **CNET 44800 - Senior Capstone Design Project II**

## **CNET 44800 - Senior Capstone Design Project II**

The second term of a two-term, comprehensive, capstone design project. Multi-interdisciplinary, project-oriented, real-world experience at the cutting edge. Generation and conclusive development of the final design with consideration for design reviews, prototype requirements, scheduling, ergonomics, safety and economic constraints. A written report and oral defense of the project is required.

#### **Preparation for Course**

P: CNET 34800 with a grade of C- or better and senior class standing. Must be in CNTB program/CNET major.

Cr. 3.

## **CNET 44900 - Senior Capstone**

## **CNET 44900 - Senior Capstone**

Comprehensive, capstone design project. Multi-interdisciplinary, project-oriented, real-world experience at the cutting edge. Generation and conclusive development of the final design with consideration for design reviews, prototype requirements, scheduling, ergonomics, safety and economic constraints. A written report and oral defense of the project is required.

### **Preparation for Course**

P: Senior class standing; must be in CNTB program/CNET major.

Cr. 4.

### CNET 45000 - Issues In Sustainability

# **CNET 45000 - Issues In Sustainability**

This course introduces students to the broad concepts and issues involved in sustainability that they may take them into the world and become leaders in their communities. In the project associated with this course, students will read, conduct research, synthesize material and produce and present their findings. Student will also implement one campus sustainability initiative.

Cr. 3.

## Notes

Junior class standing and instructor permission required.

### **CNET 45700 - Construction Safety**

# **CNET 45700 - Construction Safety**

The study of strategies and technologies in design, construction, and operation for reducing hazards, accidents, injuries, and damage.

### **Preparation for Course**

P: CNET 27600 with a grade of C- or better

### **CNET 49900 - Construction Engineering Technology**

# **CNET 49900 - Construction Engineering Technology**

Additional prerequisites as determined by CNET faculty.

#### **Preparation for Course**

P: Must be in CNTB program/CNET major.

Cr. 1-4. Variable Title (V.T.)

**COM 10100 - Introduction To Communication** 

## **COM 10100 - Introduction To Communication**

This course is designed to introduce students to the study of human communication in a variety of contexts including interpersonal, group and organizational, rhetoric and persuasion, mass communication, and cultural studies. Students will learn a range of basic concepts and theories in communication, how to read communication research, and how to write using appropriate citation styles for the field of communication.

#### **Preparation for Course**

P: ENGL 19000 Or COAS 11100 Or Placement At A Higher Reading Level; And Writing Placement In ENGL 13100 Or Higher.

Cr 3

COM 11400 - Fundamentals Of Speech Communication

## **COM 11400 - Fundamentals Of Speech Communication**

A study of communication theories as applied to speech; practical communicative experiences ranging from interpersonal communication and small-group process through problem identification and solution in discussion to informative and persuasive speaking in standard speaker-audience situations.

Cr. 3

Notes

Indiana Core Transfer Library course.

COM 12000 - Introduction To Communication Technology And Communication Fields

# **COM 12000 - Introduction To Communication Technology And Communication Fields**

This is the first of a series of three courses that all Communication majors at PFW are required to take. The applied portion of this course will introduce students to technology and software that is desirable for communication professionals. This course will also provide students with an overview of the general fields to which their degree will most likely lead them.

Cr. 1.

**COM 13500 - Introduction To News Writing** 

# **COM 13500 - Introduction To News Writing**

An introduction to writing news articles, with an emphasis on the fundamentals of news writing, evaluation of the newsworthiness of information, content (accuracy, clarity, conciseness, organization and readability), and mechanics (word choice, sentence structure, grammar, spelling and journalistic style).

### **Preparation for Course**

P: ENGL 13100 or above.

Cr. 3

## **COM 14000 - Introduction To Media Production**

Introduction to basic audio/visual production techniques and equipment including (but not limited to) basic camera functions, audio recording, lighting, digital editing, web design, and basic production positions and organization.

Cr. 3. Hours

Class 2, Lab 3

### COM 20000 - Reporting, Writing And Editing I

## **COM 20000 - Reporting, Writing And Editing I**

Working seminar stressing the creation of journalistic stories for diverse audiences. Students will learn to develop story ideas, gather information, combine visual and verbal messages and to write and edit news.

### **Preparation for Course**

P: COM 13500.

Cr. 3.

Class 3, Lab. 0-1.

COM 20101 - Reporting, Writing, And Editing II

# COM 20101 - Reporting, Writing, And Editing II

Working seminar focused on the strengthening of basic journalism skills, including in-depth reporting, editing, and multimedia presentations. Creativity, cooperation, and critical thinking are used to shape effective messages for diverse audiences.

## Preparation for Course

P: COM 20000.

Cr. 3.

## **COM 20300 - Communication Theory**

# **COM 20300 - Communication Theory**

This is a foundational course that introduces students to a wide range of communication theories in the areas of interpersonal and organizational communication, persuasion, rhetoric, mass media and cultural studies. Students will read, evaluate, and synthesize communication research from the social scientific, interpretive, and critical paradigms. They will also learn how to write literature reviews using APA format.

### **Preparation for Course**

P: COM 10100.

Cr. 3.

### **COM 21000 - Debating Public Issues**

# **COM 21000 - Debating Public Issues**

Study of argumentation as applied to public discourse. Lectures on logic and reasoning, library research methods and bibliography, identification and analysis of issues, construction and organization of cases, refutation and rebuttal, and the phrasing and delivery of the argumentative speech. Preparation of debate cases.

### **Preparation for Course**

P: COM 11400.

## **COM 21001 - Visual Communication**

Basic principles, theories, and history of channels of human communication other than written and spoken language; development of elementary skills and experimentation in producing nonverbal messages and combining nonverbal with verbal messages. Some darkroom lab activities. Adjustable camera required. Required course for journalism majors and PFW journalism minor.

Cr. 3.

Hours

Class 2-3, Lab. 0-2.

COM 21200 - Approaches To The Study Of Interpersonal Communication

## **COM 21200 - Approaches To The Study Of Interpersonal Communication**

A study of basic characteristics of human communication and the theoretical and practical implications of these characteristics for various forms of oral communication.

Cr. 3.

Notes

Indiana Core Transfer Library course.

COM 23800 - Media, Culture, Society

## COM 23800 - Media, Culture, Society

This course surveys mediated communication platforms through which we receive, learn, express, and exchange culture. By considering the multitude of communication channels and processes, the course explores tropes of agency, production, and reception. It considers how perceptions of cultures are constructed, how meaning is produced, as well as the social, economic, and political forces that shape contemporary cultural practices.

Cr. 3.

COM 24800 - Introduction To Media Criticism and Analysis

# COM 24800 - Introduction To Media Criticism and Analysis

Introduction to major critical approaches of media studies. Includes standard terminology of media analysis used to discuss form and technique of film, video, and audio productions. Instructor may require additional screening times outside scheduled class meeting times. No credit for both COM 24800 and COM 25100.

Cr. 3.

COM 25000 - Mass Communication And Society

# **COM 25000 - Mass Communication And Society**

A survey of print, broadcast, and film media in their relationship and influence on society. Study topics include mass communication theories, documentaries, commercialism, news media, media effects, and control, feedback, educational broadcasting, and audience analysis.

Cr. 3

COM 25300 - Introduction To Public Relations

## **COM 25300 - Introduction To Public Relations**

An analysis of public relations theory and practice from their origins to the present. From a communication perspective, the course examines public relations environments, audiences, and message strategies.

# **COM 26000 - Introductory Special Topics In Communication**

Intensive study of selected topics, varying from semester to semester, from the literature or practice of communication, designed for a lower division audience. May be repeated with different topic for up to six credit hours.

Cr. 1-3.

COM 28000 - Seminar In Journalism Ethics

## **COM 28000 - Seminar In Journalism Ethics**

Selected topics in journalism, e.g., professional ethics, government and the press, contemporary problems of the press.

#### **Preparation for Course**

P: 6 hours of journalism.

Cr. 3. Variable Title (V.T.)

COM 29001 - Internship In Journalism

## **COM 29001 - Internship In Journalism**

Work as staff member on campus publications. Work will include reporting and writing, layout and paste-up work, photo work, and advertising sales work.

### **Preparation for Course**

C: COM 20000.

Cr. 1-3.

COM 30000 - Introduction To Communication Research Methods

## COM 30000 - Introduction To Communication Research Methods

Introduction to the development and application of historical, critical, and empirical research methods pertinent to communication problems. Fundamental concepts of problem identification, sampling, surveys, historical sources, critical models, reliability, and validity of both measurement and research design in communication research.

### **Preparation for Course**

P: COM 20300.

Cr. 3.

COM 30001 - Citizen And The News

## **COM 30001 - Citizen And The News**

A study of the institutions that produce news and information about public affairs for the citizen of American mass society. The problems about the selection of what is communicated. Case studies. International comparisons.

Cr. 3.

**COM 30002 - Communications Law** 

## **COM 30002 - Communications Law**

History and philosophy of laws pertaining to free press and free speech. Censorship, libel, contempt, obscenity, right of privacy, copyright, government regulations, and business law affecting media operations. Stresses responsibilities and freedoms in a democratic communications system. Required course for journalism majors and PFW journalism minor. Also required course for radio and television students.

### **COM 30300 - Intercultural Communication**

## **COM 30300 - Intercultural Communication**

An exploration of the impact of culture on perception and communication, the obstacles affecting intercultural communication, the impact of ethnocentrism and the challenges facing cultures with broad cultural and subcultural diversities. Open to majors and nonmajors.

#### **Preparation for Course**

P: COM 11400.

Cr. 3.

### **COM 30800 - Applied Communication**

## **COM 30800 - Applied Communication**

This course explores the varied fields of communication. Students will be exposed to varied fields where they may utilize their degree. Students will also learn and practice job-seeking skills including job search, resume and cover letter preparation, and interviewing protocol and skill.

#### **Preparation for Course**

P: COM12000.

Cr. 1.

### **COM 31000 - Family Communication**

# **COM 31000 - Family Communication**

Application of theories of interpersonal communication to family life. Emphasis on feedback, empathy, and trust as contributing factors to effective communication with families. A case study approach is used.

### Preparation for Course

P: COM 11400.

Cr. 3.

## **COM 31001 - Editorial Practices**

## **COM 31001 - Editorial Practices**

Workshop in fundamentals of editing and reporting with special emphasis on news judgment, fairness, accuracy, and editorial balance. Practical experience in gathering, writing, and editing news and public affairs materials. Stress on principles applying to all mass media.

### **Preparation for Course**

P: COM 20000.

Cr. 3

### COM 31200 - Rhetoric In The Western World

## COM 31200 - Rhetoric In The Western World

An explanation of major theoretical and philosophical concepts concerning rhetoric; the relationships between rhetoric and political, social, and personal decisions are explored. Ancient and modern authors are read.

### **Preparation for Course**

P: COM 11400.

Cr. 3

### Note

Approved by Arts and Sciences for the Cultural Studies (Western Tradition) requirement.

## **COM 31300 - Introduction To Health Communication**

This course addresses health communication theory and practice. Topics may include health campaigns, provider-patient interactions, communication within health care organizations, ways in which personal relationships impact and are impacted by health issues, support groups, illness narratives, and mass communication influences on health.

Cr. 3.

### COM 31400 - Advanced Presentational Speaking

## **COM 31400 - Advanced Presentational Speaking**

Development of a marked degree of skill in the composition and delivery of various types of speeches including presentations in corporate board rooms, orientation meetings, banquet halls, public forms. Special emphasis on speeches related to the student's major vocational area.

#### Preparation for Course

P: COM 11400.

Cr. 3.

### COM 31501 - Feature Writing

## **COM 31501 - Feature Writing**

The course aims to develop skill in gathering and presenting feature story material, exploring the realm between straight news and editorials. It follows feature-story practice in combining information with entertainment stressing the imperative of research, accuracy, and mechanical correctness.

#### **Preparation for Course**

P: COM 20000.

Cr. 3.

## COM 31600 - Controversy In American Society

# **COM 31600 - Controversy In American Society**

Analysis of selected debates in major American controversies of social significance. Critical examination of the argument, personalities, and oral and written strategies employed in public debates on political, moral, and social issues.

### Preparation for Course

P: COM 11400 Or Instructor Approval Required.

Cr. 3.

## COM 31700 - Digital Storytelling

# **COM 31700 - Digital Storytelling**

This course examines the theory and practice of digital storytelling and teaches students how to use digital tools to gather audio and visual material to tell a journalistic story across multiple media platforms.

### Preparation for Course

P: COM 14000, and COM 2000.

Cr. 3

## **COM 31800 - Principles Of Persuasion**

# **COM 31800 - Principles Of Persuasion**

Persuasion and its effects, ranging from individual influences to societal impacts. Various perspectives and models of persuasion are examined, including classical and modern

approaches. Both theoretical and pragmatic considerations are introduced.

#### **Preparation for Course**

P: COM 11400 Or Instructor Permission Required.

Cr. 3

## **COM 32000 - Small Group Communication**

## **COM 32000 - Small Group Communication**

A study of group thinking and problem-solving methods; participation in and evaluation of committee and informal discussion groups. Focus on the roles, networks, and messages employed by small group communicators.

#### **Preparation for Course**

P: COM 11400.

Cr. 3.

### COM 32101 - Specialized Broadcasting

## **COM 32101 - Specialized Broadcasting**

Analysis and production techniques typical of television and web based content across genres such as sports, fashion, and entertainment. Offers opportunities for the creation of production content in specific genres.

#### **Preparation for Course**

P: COM 14000.

Cr. 3.

### COM 32102 - Principles Of Public Relations

## **COM 32102 - Principles Of Public Relations**

Survey course about the theory and practice of public relations. Examines public relations function within organizations, its impact on publics, and its function in society. Topics include the evolution of the field: the range of roles and responsibilities that public relations practitioners assume in a variety of settings; ethics; and significant issues and trends that have shaped the practice. Course provides a foundation for more advanced study in the field. Also useful for those planning another professional or managerial career that requires an understanding of public relations concepts and management practices.

Cr. 3.

## COM 32300 - Business And Professional Speaking

# **COM 32300 - Business And Professional Speaking**

The study of oral communication problems and responsibilities in the business-organizational environment. Participation in problem-solving from investigation and informative speaking to advocacy and parliamentary debate. This course is not available for credit toward any communication major or minor.

### Preparation for Course

P: COM 11400.

Cr. 3.

## **COM 32400 - Introduction To Organizational Communication**

# **COM 32400 - Introduction To Organizational Communication**

An introduction to fundamental concepts and basic research related to communication behavior in organizational settings. Units cover message processing, leadership communication, communication networks, communication training, and communication audits.

### **Preparation for Course**

P: COM 11400.

## **COM 32500 - Interviewing: Principles And Practice**

Theory and practice of methods in selected interview settings: informal, employment, and persuasive. Emphasis on communication between two persons, questioning techniques, and the logical and psychological bases of interpersonal persuasion.

**Preparation for Course** 

P: COM 11400

Cr. 3.

**COM 32700 - International Communications** 

## **COM 32700 - International Communications**

Introduction to the historical development of international communication for trade and diplomacy to the globalization of media markets and media models in news and entertainment. Modernization, developmental, dependency, hegemony, free flow of information, political economy, and other historical, administrative, and critical perspectives will also be discussed, contemporary international media practices, including foreign direct investment, cultural hybridity, ad contra blow.

COM 32900 - History Of The Mass Media

## **COM 32900 - History Of The Mass Media**

Study of Anglo-American press traditions, including the development of American mass media within socio-cultural environments.

Cr. 3.

**COM 33000 - Theories Of Mass Communication** 

## **COM 33000 - Theories Of Mass Communication**

Surveys a variety of classic and contemporary theories, approaches, and concerns relevant to the study of media and/or mass communication.

**Preparation for Course** 

P: COM 24800 And COM 25000.

Cr. 3.

COM 33100 - Audio Production

## **COM 33100 - Audio Production**

Basic principles of audio production as applied to radio and television. Treats program types, production methods, techniques of the sound studio, and laboratory practice in production and direction.

**Preparation for Course** 

P: COM 24800 or 25100.

Hours

Class 1-2, Lab. 4.

**COM 33200 - Television Studio Production** 

## **COM 33200 - Television Studio Production**

Basic principles of producing, writing, and directing for television. Treats program types and television criticism, and explores creative treatment of visual, artistic, and nonverbal elements of communication in television.

Preparation for Course P: COM24800 or 25100.

Cr. 3. Hours Class 1, Lab. 4.

COM 33300 - Film Production

## **COM 33300 - Film Production**

Basic theory and techniques of motion-picture production. Viewing and evaluation of films illustrating a variety of film techniques. Production experiences in filming, scripting, editing, sound recording, and production planning.

#### **Preparation for Course**

P: COM 14000.

Cr. 3. Hours

Class 2, Lab. 2.

COM 33400 - Journalism For The Electronic Mass Media

## **COM 33400 - Journalism For The Electronic Mass Media**

The development and practice of electronic journalism, with projects relating to straight news, feature reports, commentary, editorial, interview, and documentary.

#### **Preparation for Course**

P: COM 14000 And COM 20000.

Cr. 3. Hours Class 2, Lab. 2.

COM 33501 - Interviewing For Media Production

# **COM 33501 - Interviewing For Media Production**

Advanced theory and technique in interviewing in television and film production contexts. This course requires students to focus on research, development, news gathering, and production technique in the conducting of interviews over the phone, in the field, on-camera, and on-set.

### **Preparation for Course**

P: COM 14000.

Cr. 3.

COM 33700 - Advanced Digital Video Production

# **COM 33700 - Advanced Digital Video Production**

Provides experience in writing program proposals and scripts, taping with small-format television equipment, and audio and video editing for various program formats. Special attention to editing, theory and technique, aesthetic considerations, and institutional and community cable outlets.

### **Preparation for Course**

P: COM 14000.

Cr. 3.

Class 1, Lab. 4.

COM 33800 - Documentary Or Experimental Film And Video

# COM 33800 - Documentary Or Experimental Film And Video

An examination of experimental and actuality ("documentary") film and video, with emphasis on structural and technical innovation, production considerations, and historical developments. May be repeated with a different title for a maximum of 6 credits. Additional screening times will be required.

## Preparation for Course

P: COM 24800 Or COM 25100.

Cr. 3. Variable Title

COM 34900 - Media And Culture

## COM 34900 - Media And Culture

This course surveys film, music, art, popular magazines, television, and other media in terms of their symbolic relationship to diverse and cultural practices including among others, religion, romance, dance, sport, recreation, hobbies, and cusine, and their connection to broader ethic, gender, and class cultural expressions. To understand how media represent, express, and contribute to contemporary culture practices, students will consider mass market novels, professional sports, museums, music videos, talk radio, Hollywood and independent film, narrow cast cable television, websites, and other mass media genre.

#### Preparation for Course

P: COM 22800 Or COM 25000

Cr. 3.

COM 35200 - Mass Communication Law

## **COM 35200 - Mass Communication Law**

Study of Anglo-American traditions and trends, as well as current American conditions of the laws of libel, privacy, fair comment and criticism, privilege, property rights, and copyright as such factors affect the print journalist and the broadcaster. Emphasis is on existing state and federal regulations and precedents. Credit is not given for both COM 35200 and COM 30002.

Cr. 3.

COM 35300 - Problems In Public Relations

## **COM 35300 - Problems In Public Relations**

Approaches to problems in public relations as they occur in industry, government, education, social agencies, and other institutions.

### **Preparation for Course**

P: COM 25300

Cr. 3.

**COM 37200 - Communication In Relationships** 

# **COM 37200 - Communication In Relationships**

An examination of communication in personal relationships (including dating and marital relationships, friendships, and families), and professional relationships (including coworker and supervisor-supervisee relationships and relationships in specific professions, such as doctor-patient and attorney-client).

Cr. 3.

COM 37500 - Conflict And Negotiation

# **COM 37500 - Conflict And Negotiation**

This course surveys theory and research focused on the role of communication in conflict and negotiation, and helps students develop skills needed to manage conflict effectively in their personal and professional relationships.

## **COM 39001 - Corporate Publications**

This course focuses on the practical and specialized concerns of editing and designing newsletters, tabloids, magazines, and newspapers for business, industry, institutions, or other organizations. Attention is given to audience surveys, readability, copy editing, headlines, photographs, cutlines, copyfitting, and printing instruction, with special emphasis on design techniques for the four major types of organizational publications. Includes practice in all facets of publication design. Recommended for persons interested in print communications programs or in developing limited circulation publications. Limited enrollment; consent of instructor required.

Cr. 1-3. Variable Title (V.T.)

COM 40100 - Rhetorical Criticism

## COM 40100 - Rhetorical Criticism

This course traces the major developments in rhetorical criticism and introduces students to the major critical methods used to analyze rhetorical texts.

#### **Preparation for Course**

P:COM11400.

Cr. 3.

**COM 40101 - Nonverbal Communication** 

## **COM 40101 - Nonverbal Communication**

This course examines theories, concepts, and principles related to nonverbal communication. Topics will include nonverbal codes, such as space and territory, body movements, vocal cues, and physical appearance, as well as the functions of nonverbal communication, including emotional expression deception, power and persuasion, expressing intimacy, and impression formation. The course emphasizes both theory and practical applications.

## Preparation for Course

P: Junior or senior status required.

Cr. 3.

COM 40400 - Media And Globalization

## COM 40400 - Media And Globalization

This course studies the major debates over world communities with cultural products such as media and pop culture. Applying theoretical approaches to transnational media, students will explore the historical and social contexts of media globalization.

## Preparation for Course

P: COM 33000 Or Instructor Permission Required.

Cr. 3

**COM 41000 - Gender Roles and Communication** 

## **COM 41000 - Gender Roles and Communication**

This course is designed to investigate the relationship between gender roles and communication; i.e., how gender roles are socially constructed, maintained, and enacted. The course also explores gender differences, similarities, and gender issues in personal and organizational contexts.

**Preparation for Course** 

P: COM 11400.

### COM 41301 - Magazine Article Writing

## **COM 41301 - Magazine Article Writing**

In-depth explanation of the nonfiction magazine article field. Examination of trends and problems in nonfiction writing for both general and specialized magazines. Criticism of student articles written for publication. Seminar sessions with editors and freelance writers. Transfer students advised to complete this course at IUPUI or Bloomington.

### **Preparation for Course**

P: COM 20000.

Cr. 3.

**Dual Level Course** 

Eligible for graduate credit.

### COM 41401 - Multimedia Design & Production

## COM 41401 - Multimedia Design & Production

Multimedia Design & Production is an advanced course that requires students to integrate multimedia storytelling techniques into interactive projects, including audio, photo and video presentations, as well as other forms of technology used in the field of journalism. During the capstone project, students will develop an increased understanding of how digital storytelling both impacts the narrative and expands it into a more interactive, user-driven approach.

### **Preparation for Course**

P: COM 31700.

Cr. 3.

COM 42100 - Media Genres

## COM 42100 - Media Genres

Topic varies. Analysis of typical genres in film and television, such as horror, melodrama, westerns, science fiction, situation comedies, etc. Problems of general description or definition; themes and conventions; iconography peculiar to given genres. May be repeated with a different topic for a maximum of 6 credits. Additional screening times will be required.

### **Preparation for Course**

P: COM 24800 or 25100.

Cr. 3. Variable Title (V.T.)

COM 42200 - Women, Men, and Media

## COM 42200 - Women, Men, and Media

An examination of the processes by which gender is constructed in the mass communication media. Students will be asked to consider how the technical, economic, and political constraints and capabilities of the media construct images of gender for audiences.

## Preparation for Course

P: COM 25000 or WOST 22500 or permission of instructor.

Cr. 3.

COM 42300 - Leadership, Communication, and Organizations

# COM 42300 - Leadership, Communication, and Organizations

This course explores leadership from a communication perspective. It examines topics such as leadership styles, leading change, influencing others, emotional intelligence, burnout, and engagement.

## **COM 42401 - Advanced Organizational Communication**

Credit Hours: 3. 00. This course provides an in-depth analysis of concepts and theories relevant to organizational settings. Topics such as leadership styles, organizational change, conflict and negotiation, influencing others, and interviewing are examined during this course.

3.00

COM 42701 - Public Relations in a Democratic Society

## **COM 42701 - Public Relations in a Democratic Society**

Lectures and discussion on dissemination of public information by industry and institutions. Examination of procedures and policies and evaluation of public relations efforts. Contrast public relations practices in America with those in other nations and cultures.

### **Preparation for Course**

P: COM 25300 or COM 32102.

Cr. 3.

**COM 42801 - Communication Consulting** 

## **COM 42801 - Communication Consulting**

Introduction to the consulting methods of communication problems in organizational settings. Development of analysis, intervention, and training skills used in applying communication theory to organizational practice.

#### **Preparation for Course**

P: COM 32400 or permission of instructor.

Cr. 3.

COM 43001 - Documentary Production

# **COM 43001 - Documentary Production**

Advanced theory and techniques specific to documentary production. Course offers opportunities for both the study and the production of documentary content.

## Preparation for Course

P: COM 14000.

Cr. 3.

COM 43100 - Practicum In Radio

## COM 43100 - Practicum In Radio

Assigned television production for the advanced student only; usually, but not necessarily, involving assigned work at a professional radio media installation.

### Preparation for Course

P: COM11400, 25000 or COM 33000, 24800 or COM 25100, 33100, and Instructor Permission Required.

Cr. 2

Notes

May be repeated once for credit.

COM 43200 - Practicum In Television

## **COM 43200 - Practicum In Television**

Assigned television production for the advanced student only; usually, but not necessarily, involving assigned work at a professional television media installation.

### **Preparation for Course**

P: COM 14000.

Cr. 2.

Notes

May be repeated once for credit.

#### COM 43300 - Practicum In Film

## COM 43300 - Practicum In Film

Assigned film production for the advanced student only; usually, but not necessarily, involving assigned work at a professional film media installation.

#### **Preparation for Course**

P: COM11400, 25000 or COM 33000, 24800 or COM 25100, 33300, And Instructor Permission Required.

Cr. 2

Notes

May be repeated once for credit.

### COM 43600 - Script Writing

## **COM 43600 - Script Writing**

Study of forms and materials suitable for the electronic mass media; practice in selection, adaptation, and organization of program materials.

#### **Preparation for Course**

P: COM24800 or 25100.

Cr. 3.

#### COM 44001 - Rhetoric Of Popular Culture

# **COM 44001 - Rhetoric Of Popular Culture**

This course explores the idea of popular culture as a predominately rhetorical/persuasive force in our everyday lives. This course will cover a diversity of culture forms including: literature, film, music, art, theatre, social movements, politics, economics, sports, celebrity, and more. Students will learn rhetorical and cultural theories that will equip them to be more conscious of, understand more completely, and accept or resist the forces of popular culture in culture, economic, political and social contexts.

#### **Preparation for Course**

P: COM 20300.

Cr. 3.

## COM 44401 - Nonlinear Editing

# **COM 44401 - Nonlinear Editing**

Advanced theory and technique in editing for media production across fiction and nonfiction content. viewing and criticism of production techniques in a variety of contexts as well as experiences developing projects in post-production.

### **Preparation for Course**

P: COM 14000.

#### Hours

Class 2, Lab 3

## COM 44800 - Applied Mass Media Research

# COM 44800 - Applied Mass Media Research

Through an examination of current research in mass media, Applied Mass Media Reserach will provide students with the necessary tools to conduct and critique research that pertains specifically to the mass media. Students will learn how to research a mass media related issue.

## COM 46300 - Mass Media Criticism

Utilizing the current media criticism theories and models, students will learn how to critique a variety of media genres. Students will examine the social and political messages inherent in media messages.

Cr. 3.

### COM 47100 - Communicating Peace

# **COM 47100 - Communicating Peace**

Examines the processes by which peace and/or violence are constructed at all communicative levels (intrapersonally, ideologically, and internationally) through face-to-face and mediated communication channels. Students gain an understanding of how we use and misuse communication processes to create peace and/or violence and learn skills for communicating peace.

### **Preparation for Course**

P: COM 11400.

Cr. 3.

### COM 48000 - Senior Seminar In Communication

## **COM 48000 - Senior Seminar In Communication**

This course is designed as a capstone for the communication major. It will require students to demonstrate proficiency in oral, written, and mediated communication. Students will synthesize their knowledge of communication theory and content.

#### **Preparation for Course**

P: COM 12000 and 30800.

Cr. 1.

## COM 49000 - Internship In Communication

# **COM 49000 - Internship In Communication**

Experiential, supervised training in public relations, journalism, telecommunication, oral interpretation, speech education, organizational communication, or public communication. Usually taken in junior or senior year.

### **Preparation for Course**

P: COM 11400, And Instructor Permission Required.

Cr. 1-3.

Notes

May be repeated for credit.

## **COM 49100 - Special Topics In Communication**

# **COM 49100 - Special Topics In Communication**

Intensive study of selected topics, varying from semester to semester, from the literature or practice of communication. Course content will be drawn from areas not dealt with in the regular curriculum and may include such topics as photojournalism, economic reporting, and campaign communication.

#### **Preparation for Course**

P: Instructor Permission Required.

Cr. 1-3. Variable Title (V.T.)

Notes

May be repeated for up to 6 hours of credit.

## **COM 49900 - Capstone Seminar In Communication**

Communication 49900 is the capstone course for communication majors. This course will provide students with the opportunity to complete and present their academic portfolios; demonstrate proficiency in oral, written, and mediated communication skills; synthesize what they have learned in the degree program; and determine how they might apply their knowledge and skills to both professional and personal lifelong learning situations.

#### **Preparation for Course**

P: COM 30800 or Instructor Permission Required.

Cr. 3.

**COM 50700 - Introduction To Semiotics** 

## **COM 50700 - Introduction To Semiotics**

The study of languages, literatures, and other systems of human communication. Includes a wide range of phenomena that can be brought together by means of a general theory of signs. The course deals with three fundamental areas: 1) verbal communication, 2) nonverbal communication (iconic systems, gestures, body language, etc.), and 3) communication through art forms.

## **Preparation for Course**

P: COM 33000.

Cr. 2

#### **Dual Level Course**

Undergraduate-Graduate

**COM 50800 - Nonverbal Communication In Human Interaction** 

## **COM 50800 - Nonverbal Communication In Human Interaction**

An examination of theoretical writings and critical studies in selected areas of nonverbal communication, e.g., environmental influences, space and territory relationships, physical appearance and dress, physical behavior, and vocal cues. One unit will specifically concern itself with measurement, recording, or transcription methods used in nonverbal study.

### **Preparation for Course**

P: COM 21200 and COM 30000.

Cr. 3

**Dual Level Course** 

Undergraduate-Graduate

**COM 51200 - Theories of Interpersonal Communication** 

# **COM 51200 - Theories of Interpersonal Communication**

Review of contemporary theories, analysis of concepts, models, and pertinent research across the broad spectrum of interpersonal communication.

### **Preparation for Course**

P: COM 21200 and COM 30000.

Cr. 3.

### **Dual Level Course**

Undergraduate-Graduate

COM 51500 - Persuasion In Social Movements

## **COM 51500 - Persuasion In Social Movements**

A study of the concept of persuasion in social movement theory and the role rhetoric has played historically in selected social movements such as suffrage, women's liberation, civil rights, evangelism, and trade unionism.

### **Preparation for Course**

P: COM 31800 or Instructor Permission Required.

### **COM 51700 - Communication In Politics**

## **COM 51700 - Communication In Politics**

Development and application of critical standards to the rhetoric employed by candidates for public office; study of the campaign strategies employed by parties and their candidates at various levels of government.

#### **Preparation for Course**

P: COM 31800 or Instructor Permission Required.

Cr 3

### **Dual Level Course**

Undergraduate-Graduate

#### COM 51800 - Theories Of Persuasion

## **COM 51800 - Theories Of Persuasion**

Review of contemporary theories, including analysis of concepts, models, and pertinent research across the broad spectrum of persuasive communication.

#### **Preparation for Course**

P: COM 31800 or Instructor Permission Required.

Cr. 3

#### **Dual Level Course**

Undergraduate-Graduate

## **COM 52000 - Small Group Communication**

## **COM 52000 - Small Group Communication**

Survey and critical evaluation of theoretical and empirical literature dealing with human communication within small group settings.

#### Preparation for Course

P: COM 32000 or consent of instructor.

Cr. 3.

## **Dual Level Course**

Undergraduate-Graduate

## COM 52100 - Theories Of Rhetoric

## **COM 52100 - Theories Of Rhetoric**

A comprehensive survey of the principal figures, theories, and movements in rhetoric from the classical era to the present.

#### **Preparation for Course**

P: COM 31800 or Instructor Permission Required.

Cr. 3

### **Dual Level Course**

Undergraduate-Graduate

## COM 52200 - History And Criticism Of Public Communication

# **COM 52200 - History And Criticism Of Public Communication**

A survey of speech-making and speech criticism as forces in shaping America from colonial times to World War II. The course examines great American speakers in shaping history through the use of rhetoric and oratory.

## **Preparation for Course**

P: COM 31800.

Cr. 3. **Dual Level Course**Undergraduate-Graduate

## COM 52300 - Communication In Personal Relationships

## **COM 52300 - Communication In Personal Relationships**

Explores the initiation, development, maintenance, and deterioration of family, friend, and romantic relationships. Explores relational phenomena, such as communication and gender differences, computer-mediated relationships, attraction, relational culture, and stages of dissolution.

#### **Preparation for Course**

P: COM 21200 and COM 30000.

Cr. 3

**Dual Level Course** 

Undergraduate-Graduate

**COM 52700 - Introduction To Cultural Studies** 

## **COM 52700 - Introduction To Cultural Studies**

An examination of selected cultural studies perspectives on mass communication. The course will cover cultural studies philosophies, theories, and/or approaches to the study of cultural artifacts and practices that may include some of the following: postmodernism, deconstruction, feminism, and postcolonialism, privileging context as a means of understanding culture.

**Preparation for Course** 

P: COM 33000.

Cr. 3.

**Dual Level Course** 

Undergraduate-Graduate

COM 53100 - Special Topics In Mass Communication

# **COM 53100 - Special Topics In Mass Communication**

Critical analysis and evaluation of current and continuing problems in both commercial and public mass communication. May be repeated for credit.

**Preparation for Course** 

P: COM 33000.

Cr. 3.

**Dual Level Course** 

Undergraduate-Graduate

**COM 55700 - Legal Dimensions Of Communication** 

# **COM 55700 - Legal Dimensions Of Communication**

Analysis of contemporary issues in communication law. Research into selected problems concerning the law and its impact on face-to- face and mass communication.

**Preparation for Course** 

P: COM 35200.

Cr. 3.

**Dual Level Course** 

Undergraduate-Graduate

COM 55900 - Current Trends In Mass Communication Research

## COM 55900 - Current Trends In Mass Communication Research

An examination of current research as it contributes to understanding the process and effects of mass communication. Topics covered include gatekeepers and information control, audience selection processes and uses of the media, media content and social learning, the effects of adult programming on children, and the effects of the media on the

governmental process.

#### **Preparation for Course**

P: COM 33000 or Instructor Permission Required.

Cr 3

### **Dual Level Course**

Undergraduate-Graduate

### COM 56000 - Rhetorical Dimensions Of Mass Media

## COM 56000 - Rhetorical Dimensions Of Mass Media

A study of the ways in which rhetorical elements and processes are embodied in and modified by the media of mass communication. The rhetorical functions of print and electronic media are examined individually as well as within the context of specific campaigns and movements.

#### **Preparation for Course**

P: COM 52100 or Instructor Permission Required.

Cr. 3

#### **Dual Level Course**

Undergraduate-Graduate

## **COM 57400 - Organizational Communication**

## **COM 57400 - Organizational Communication**

Survey of the theoretical and empirical literature dealing with human communication behavior as it occurs within the context of complex organizations. Among topics covered are superior-subordinate communication, communication networks, message distortion, feedback processes, internal corporate mass media, managerial-communication climate, semantic and stylistic dimensions of messages, and communication in decision making.

#### **Preparation for Course**

P: COM 32400 or consent of instructor.

Cr. 3.

#### **Dual Level Course**

Undergraduate-Graduate

### **COM 57600 - Health Communication**

## **COM 57600 - Health Communication**

Survey of health communication theory and research. Examines issues such as patient-provider and everyday communication, broader community-societal discourse, and organizational and mass health communication. Prepares participants for subsequently more specialized seminars and enriched study in allied specialties.

Cr. 3.

### **Dual Level Course**

Undergraduate-Graduate

### COM 58500 - Qualitative Methods In Communication Research

# **COM 58500 - Qualitative Methods In Communication Research**

An introduction to qualitative research methods in communication studies. Provides students with an overview of several techniques for, and issues in, gathering, analyzing, writing-up, and using qualitative data.

Cr. 3.

#### Notes

Permission of department required.

### **COM 59700 - Special Topics In Communication**

# **COM 59700 - Special Topics In Communication**

Seminar of current topics of interest within the discipline of communication.

Cr. 3.
Variable Title
(V.T.)
Dual Level Course
Undergraduate-Graduate

### **CPET 10100 - Electrical Circuits**

## **CPET 10100 - Electrical Circuits**

A study of DC electrical circuits, Ohm's Law, Kirchhoff's Laws, series and parallel circuits, power, magnetism, ammeters, voltmeters, inductance, capacitance, and an introduction to alternating voltages, currents and reactances.

#### **Preparation for Course**

C: MA 15300.

Cr. 4. **Hours** Class 3, Lab. 2 or 3.

**CPET 18100 - Computer Operating Systems Basics** 

## **CPET 18100 - Computer Operating Systems Basics**

Introduction to computer operating systems, organization and functions of hardware components, and system software. Topics include system commands, operating system interface, system utilities, shells programming, file systems and management, introduction to concepts, graphical user interface, device drivers, memory management, processes, concurrency, scheduling, multitasking and multiprocessing. Laboratory experiences include Microsoft Windows and UNIX.

Cr. 3. Hours Class 2-3, Lab. 0-2,

**CPET 19000 - Problem Solving with MATLAB** 

# **CPET 19000 - Problem Solving with MATLAB**

A study of the principles and practice of problem solving using MATLAB. Topics include MATLAB basics, functions and variables, file input and output, user-defined functions and program design, complex data manipulation, graphical user interface, and technical problem-solving applications, etc. The students shall gain hands-on experience through several programming assignments and practice strategies for collaborative problem solving such as creating specifications, brainstorming, sketching an idea, solution evaluation, and solutions testing.

## **Preparation for Course**

P: MA 15300 and ECET 11400 or CS 11400.

Cr. 1-4.

**CPET 28100 - Networks Management** 

# **CPET 28100 - Networks Management**

A study of networks and issues in network planning, design, installation, and management. Topics include network components, standards and protocols, topologies, architectures, system hardware, design and network layout, wiring and installation, network operating systems, servers, connection and services for clients, security and system administration and management. Other topics may include network applications, performance tuning, disaster recovery, hybrid systems, virtual networks, VoIP, and network monitoring and management tools. Work will include experience in Windows and Linux. No Lab fees.

#### **Preparation for Course**

P: CPET 18100 or ITC 23000.

Cr. 3. Hours

Class 2, Lab 2.

## **CPET 29900 - Selected Computer Engineering Technology Subjects**

Repeatable up to six hours. Hours and subject matter to be arranged by staff. An individual design, special-topics course, sophomore-level research, and/or analytical project in any one of the following areas: computer-based technical problem solving, digital electronics, analog electronics systems, networking systems, computer programming, computer-based problem solving, embedded systems, and system integration.

#### **Preparation for Course**

P: Restricted to students enrolled in B.S. CPET degree program.

Cr. 1-4. **Hours** Class 1-4, Lab. 3-9. **Variable Title** (V.T.)

## **CPET 35500 - Data Communications and Networking**

## **CPET 35500 - Data Communications and Networking**

A survey of communication and networking techniques, protocols and standards. Topics include OSI model, TCP/IP protocols and applications, signals, encoding and modulation, transmission of data and interfaces, transmission media, multiplexing, error detection and correction, data link controls and protocols, switching techniques, and other popular network services.

#### **Preparation for Course**

P: ECET 20500 or ITC 22000.

Cr. 4.

Hours

Class 3, Lab. 2 or 3,

#### **CPET 36400 - Networking Security**

# **CPET 36400 - Networking Security**

This course examines the analysis, design, implementation, and management issues surrounding effective network security. The business, conceptual, and technological aspects of network security for computer networks. Topics include virus protection, firewalls, authentication, encryption, wireless security, security protocols, and network security policy development and fraud protection.

#### **Preparation for Course**

P: CPET 28100 or CPET 35500 or ECET 35500 or ITC 33000 or CPET 38400 or CS 37400 or equivalent.

Cr. 3.

## CPET 38400 - Wide Area Network Design

# **CPET 38400 - Wide Area Network Design**

Credit by examination: none. This course explores wide area network (WAN) planning and design issues. Emphasis on WAN switching methods and technologies, protocols, and services, traffic engineering, and capacity planning design and tradeoffs. Representative case studies will be used. Other topics may include remote access technologies, access networks, backbone networks, enterprise WAN networks, remote monitoring tools and protocol analyzer, trends in WAN design and WAN integration.

### **Preparation for Course**

P: CPET 28100 or CPET/ECET 35500 or CS 27400 or equivalent.

Cr. 3

#### **CPET 47000 - Technology Project Management**

# **CPET 47000 - Technology Project Management**

Topics include project management concepts, project life cycle; project initiation, team building, planning, review, execution, and tracking and control; project-related issues, resource, cost, subcontractor control, and risk management; Web-based project management and collaboration, project management and integration tools. A portion of the course is devoted to case studies. Written reports and oral presentations required.

#### **Preparation for Course**

P: B.S. CPET senior class standing.

Cr. 3

## CPET 49000 - Senior Design Project I

## **CPET 49000 - Senior Design Project I**

An extensive individual design and/or analytical project performed in consultation with one or more faculty advisors. Collaboration with representatives of industry, government agencies, or community institutions is encouraged. Evidence of extensive and thorough laboratory performance is required. Phase I includes, but is not limited to (1) faculty acceptance of project proposal, (2) defining and limiting project objectives, (3) initial research and source contacts, (4) project proposal management, (5) procurement of materials, and (6) periodic progress reports.

#### **Preparation for Course**

P: Senior class standing.

Cr. 1

Notes

Department permission required.

CPET 49100 - Senior Design Project II

## **CPET 49100 - Senior Design Project II**

Phase II includes, but is not limited to (1) continued research and finalized design, (2) project management process, (3) project analysis, design, modeling and prototyping, and testing, (4) oral presentation to faculty and other interested parties, (5) standard-format written technical report.

#### **Preparation for Course**

P: CPET 49000.

Cr. 2.

**CPET 49300 - Wireless Networking** 

## **CPET 49300 - Wireless Networking**

This course covers both theoretical issues related to wireless networking and practical systems for both wireless data networks and cellular wireless telecommunication systems. Students will also work on a project that addresses some recent issues in wireless and mobile networking.

#### **Preparation for Course**

P: CPET 35500.

Cr. 3. Hours

Class 2, Lab. 2.

**CPET 49900 - Computer Engineering Technology** 

# **CPET 49900 - Computer Engineering Technology**

Hours and subject matter to be arranged by staff. Repeatable up to 12 credits. An extensive individual design, special topics course, research, and/or analytical project in any one of the following areas: networking operating systems, computer networking, distributed computing, client/server applications, wireless communications, wide area network design, network system management, computer and network security. Internet system programming and industrial applications of networking, control, and monitoring. Collaboration with representatives of industry, government agencies, or community institutions is encouraged.

#### Preparation for Course

P: approved by instructor.

Cr. 1-4.

**CPET 56500 - Mobile Computing Systems** 

# **CPET 56500 - Mobile Computing Systems**

An introduction of the system architecture, technologies, and applications of mobile computing. Topics covered include: mobile and wireless environment; mobile device

technology; mobile computing architecture and protocols; mobile computing security; and applications in wireless and mobile computing, including distribution applications, mobile middle-ware, mobile information and database access, mobile multimedia, and remote execution. A combination of lectures, reading, presentation and reports, case studies, and group discussions is used.

#### **Preparation for Course**

P: B.S. degree in CS, EET, CPT, or EE, or senior/graduate standing and consent of instructor. Must be familiar with basic concepts in operating systems and networks.

Cr. 3.

**Dual Level Course** 

Dual Level, Undergraduate-Graduate

### **CPET 57500 - Management of Technology**

## **CPET 57500 - Management of Technology**

An introduction of the conceptual foundation of and the method for managing technology and innovation. Topics includes technology and society; technology development infrastructure; technology and strategy; technology competitive analysis, forecasting and assessment; techniques for dealing with risk, uncertainty and change; tools and best practices for technology lifecycle management; government, societal, and international issues. A combination of lectures, reading, presentation and reports, a variety of case studies, and group discussions is used.

#### **Preparation for Course**

P: B.S. degree in EET, CPT, or EE or senior/graduate standing and consent of instuctor.

Cr 3

**Dual Level Course** 

Dual Level, Undergraduate-Graduate

### **CPET 58100 - Workshop In Computer Engineering Technology**

## **CPET 58100 - Workshop In Computer Engineering Technology**

Advanced study of technical and professional topics. Emphasis is on new developments relating to technical, operational, and training aspects of industry and technology education.

## **Preparation for Course**

P: Admission by consent of instructor.

Cr. 3

**Dual Level Course** 

Dual Level, Undergraduate-Graduate

## CPET 59000 - Special Problems in IT and Advanced Computer Applications

# **CPET 59000 - Special Problems in IT and Advanced Computer Applications**

Independent study of a special problem under the guidance of a member of the staff (or, the student's academic advisor). Does not substitute for either M.S. thesis or M.S. project credit.

Cr. 1-6. Variable Title (V.T.) Dual Level Course

Dual Level, Undergraduate-Graduate

## **CPET 59800 - Directed MS Project**

# **CPET 59800 - Directed MS Project**

A formal investigation of a particular problem under the guidance of the advisory committee. Not applicable to a thesis option plan of study. Enrollment during at least two consecutive terms for a total of three credits is required.

Cr. 1-3

**Dual Level Course** 

Dual Level, Undergraduate-Graduate

## **CS 11200 - Computer Science For Everyone**

This course is designed to provide a broad and realistic idea of what computer professionals do and how they do it. Desgined to be accessible to all students, it will prepare them for later computing courses, including software development courses. The course may introduce programming concepts and programming languages. Students will be introduced to various professional opportunities and work environments. Current topics in computer science as they relate to society and automation will be covered. Students will leave the course with a basic

understanding and appreciation of automation and computer science.

Cr. 3.

## **CS 11400 - Introduction To Visual Programming**

## CS 11400 - Introduction To Visual Programming

This course introduces programming using a visual approach. Students will learn the syntax and structure of an object-oriented programming language. They will develop standalone, event-driven, graphical user interface (GUI) applications for personal computer use.

Cr. 3.

## CS 16000 - Introduction To Computer Science I

## CS 16000 - Introduction To Computer Science I

An introduction to the fundamental concepts and techniques of Computer Science. Students will learn to program using an object-oriented language. They will learn how to translate a real problem into a program description, and how to write and test a program to implement their description. The emphasis will be on developing a professional style at an elementary level. CS 16000 will carry syntax as far as interacting classes, arrays of one dimension, and simple file i/o. Students with no programming background should instead consider CS 11200.

**Preparation for Course** 

P: MA 15300.

Cr. 4.

**CS 16100 - Introduction To Computer Science II** 

# CS 16100 - Introduction To Computer Science II

This course continues CS 16000. Students will design larger programs to solve more complicated problems. The emphasis is on deepening students' abilities to deal with abstraction, problem decomposition, and the interaction between program components. Students will develop their professional practice through analysis of more general problems, debugging and testing of their programs, and written presentation of their solutions. Topics include multidimensional arrays, event-driven programs, GUI's, class inheritance and interfaces, and libraries.

**Preparation for Course** 

P: CS 16000.

Cr. 4

### CS 20300 - Advanced Visual Programming

# CS 20300 - Advanced Visual Programming

This course continues the study of Visual Basic begun in CS 11400/ ECET 11400. Topics to be covered include reading and writing of sequential and direct files; custom controls; advanced SQL; the creation of online help; object linking and embedding (OLE): calling DLL procedures (Windows API); class modules; and an introduction to ActiveX components. Student will learn the skills needed to create stand-alone and www-based Visual Basic applications for personal computer use. This course will provide guidance in preparing for the Microsoft Certified Systems Designer examination.

### **Preparation for Course**

P: CS11400 Or IST 14000 Or ECET 11400.

### CS 22700 - Introduction To C Programming

# CS 22700 - Introduction To C Programming

Introduction to programming in C to solve engineering problems. Topics include primitive data types, control structures, standard input/output, file input/output, mathematic library, procedural programming, problem-solving, user-defined functions, arrays, and pointers.

## **Preparation for Course**

P: ENGR 12800 Or Instructor Permission Required.

Cr. 2.

## CS 22800 - Object Oriented Programming In C++

## CS 22800 - Object Oriented Programming In C++

This course will introduce the fundamentals of objected oriented programming in C++. Students should gain understanding of the implementation of inheritance, composition, method overloading and overriding, polymorphism, templates, and standard template library.

#### **Preparation for Course**

P: CS 22700 Or ENGR 22100 Or Instructor Permission Required.

Cr. 1

### CS 23200 - Introduction To C And Unix

## CS 23200 - Introduction To C And Unix

This course is an introduction to the C language and the Unix operating system. It presumes fluency in a high-level language. The course will focus on standard C and Unix tools, rather than a proprietary version of either. C topics include data types, the syntax for arithmetic, logical and relational functions, control functions, scope, communications with the shell, file i/o, pointers, arrays, structs, typedefs, macro and preprocessor functions, and the use of libraries and multiple source files. Unix topics include the file and directory structures, permissions, shells, standard tools such as history, sort, vi, grep, sed, tar, and make, and simple shell scripting.

#### **Preparation for Course**

P: CS 16100.

Cr. 3.

#### CS 26000 - Data Structures

## CS 26000 - Data Structures

This course is an introduction to the common data structures (ADT's) of computer science and the algorithms which maintain and operate on them. These include arrays, stacks, queues, linked lists, trees, graphs, and more general structures like maps and dictionaries. The relevant algorithms include additions, deletions, sorts, searches, traversals, and others appropriate to the structure. The course includes an introduction to the prediction and testing of algorithm performance.

### **Preparation for Course**

P: CS 16100 And MA 17500.

Cr. 3

### **CS 27100 - Computer Architecture**

# **CS 27100 - Computer Architecture**

Introduction to computer organization and architecture. Fundamentals of digital logic and representation of numeric and nonnumeric data. Assembly-level organization and programming, including instruction formats, addressing modes, and subprogram call/return. Design of main memory, cache memory, and virtual memory. Interrupt basics, interrupt-driven I/O, DMA, and bus protocols. Processor organization, data paths, the control unit, micriprogramming, pipelining, and performance enhancements. Multiprocessor and alternative architectures.

### **Preparation for Course**

P: CS 16100 And MA 17500

## **CS 27400 - Data Communications**

A survey of data communication techniques. Topics include communications media, synchronous and asynchronous transmission, coding, error detection and correction, communications protocols and formats, modulation and demodulation, multiplexing and networking, and the OSI model with emphasis on the physical and data link layers.

## **Preparation for Course**

P: CS 16100.

Cr. 3.

### CS 29200 - Intermediate Topics In Computer Science

## **CS 29200 - Intermediate Topics In Computer Science**

Intermediate seminar addressing current topics or issues in computer science or information systems.

#### **Preparation for Course**

P: Instructor Permission Required.

Cr. 2-3. Variable Title (V.T.)

CS 29500 - Industrial Practicum

## CS 29500 - Industrial Practicum

Practical problems in local industry limited to about 10 to 20 hours per week for which the student may receive some remuneration. May be repeated but the total combined credit that may be applied to a degree is limited to 3. Open only to full-time students.

#### Preparation for Course

C: Sophomore Class Standing Required.

Cr. 1

## CS 30600 - Computers In Society

# CS 30600 - Computers In Society

Case study analysis of the social impacts of computerization and networking. Topics include computer ethics, crime, privacy, security, reliability, and vulnerability. Other topics include cyberphilia, cyberphobia, censorship, depersonalization, disenfranchisement, automated decision making, artificial intelligence, cognitive science, and ergonomics. Students present projects applying these issues to today's environment.

#### **Preparation for Course**

C: Junior Class Standing Required.

Cr 3

## **CS 32100 - Introduction To Computer Graphics**

# **CS 32100 - Introduction To Computer Graphics**

This is an introductory course in computer graphics. This course introduces fundamental concepts of computer graphics technology and principles to create three-dimensional graphics. Fundamental graphics algorithms are discussed, as well as graphics programming, using a modern graphics standard. Students are expected to complete several programming assignments that implement fundamental computer graphics techniques in the Unix operating system environment.

### **Preparation for Course**

P: CS 26000.

# CS 33100 - Introduction To C++ And Object-Oriented Programming

An introduction to the C++ language with emphasis on features supporting object-oriented programming. Fundamental data type and operations. Expression evaluation. Selection and iteration constraints. Functions, procedures, and macro. Standard libraries. Classes: declaration and definition; instances; member functions; constructors and destructors; function overloading; inheritance and polymorphism. Stream input and output. Using classes to encapsulate date structure and implementation details.

#### **Preparation for Course**

P: CS 26000.

Cr. 3.

CS 35000 - Programming Language Design

## CS 35000 - Programming Language Design

A survey of language design issues and their implications for translation and run-time support. Examination of modern programming languages and features: Abstract data and control structures, procedures, parameter passing mechanisms, block structuring and scope rules, input/output, concurrent execution, and storage management. Models of run time behavior. Comparison of imperative and declarative programming languages.

#### **Preparation for Course**

P: CS 26000 And CS 27100.

Cr. 3.

CS 36000 - Software Engineering

## CS 36000 - Software Engineering

An introduction to software engineering using an object-oriented approach. The software development process. Iterative and incremental development. Team organization and project management. Object-oriented analysis and design. Representation of software models using UML: use cases, class and interaction diagram. Metrics for design evaluation. Software quality assurance. Testing planning and specification; unit and integration test methods. Software tools for analysis and design. Ethics and professionalism.

### **Preparation for Course**

P: CS 26000

Cr. 4.

CS 36400 - Introduction To Database Systems

# CS 36400 - Introduction To Database Systems

Theory and application of database systems for information organization and retrieval based on the relational model. Includes database models, query languages, data dependencies, normal forms, and database design. Projects include use of commercial mainframe and microcomputer database software.

### **Preparation for Course**

P: CS 26000.

Cr. 3.

CS 36500 - Advanced Database Systems

# CS 36500 - Advanced Database Systems

The first part of the course includes theory of SQL, implementation of some components of DBMS, and a comprehensive project. The second part of the course includes more advanced topics such as recovery; concurrency; and distributed, deductive, and knowledge databases.

### **Preparation for Course**

P: CS 36400 Or IST 27000

# CS 36600 - Structured Analysis Techniques

Methods used in analyzing information systems. Topics include user interviewing and observation, event analysis, data flow diagrams, data dictionaries, minispecifications, decision trees, decision tables, and both logical and physical models. Students practice these techniques in a major structured analysis project resulting in a requirements specification document.

#### **Preparation for Course**

P: ENGL 23401 And CS 26000.

Cr. 3.

CS 36800 - Human-Computer Interaction

## CS 36800 - Human-Computer Interaction

Introduction to general issues surrounding human-computer interaction (HCI). The course presents principles, design methodologies, tools, and evaluation techniques with an emphasis on human-centered interface design and implementation. Other issues covered include HCI aspects of multimedia systems, World Wide Web, computer-supported cooperative work, and recent paradigms of HCI.

#### **Preparation for Course**

P: CS 26000.

Cr. 3.

CS 37200 - Web Application Development

# CS 37200 - Web Application Development

Introduction to Web application development. Characteristics of Web and application servers; Web engineering principles and application architectures; Web page construction; client and server-side scripting; database interaction; Web application deployment and management; security and performance issues; overview of application-layer protocols.

#### **Preparation for Course**

P: CS 27400 Or 37400.

Cr. 3.

CS 37400 - Computer Networks

# CS 37400 - Computer Networks

The design and implementation of data communications networks. Topics include network topologies; message, circuit and packet switching; broadcast, satellite and local area networks; routing; the OSI model with emphasis on the network, transport, and session layers.

#### **Preparation for Course**

P: CS 16100 Or Equivalent.

Cr. 3.

## CS 37500 - Multimedia Networking

# CS 37500 - Multimedia Networking

This course is a survey of multimedia networks. Topics include multimedia information representation, text and image compression, audio and video compression, multimedia networking.

#### **Preparation for Course**

P: CS 27400 Or 37400.

# CS 38000 - Artificial Intelligence

Fundamental concepts and techniques of artificial intelligence. Search techniques, including local search and constraint satisfaction. Knowledge representation concepts and methods of reasoning. Software agents, machine learning and neural networks, and AI planning systems.

#### **Preparation for Course**

P: CS 26000.

Cr. 3.

### CS 38400 - Numerical Analysis

## CS 38400 - Numerical Analysis

Iterative methods for solving nonlinear equations; direct and iterative methods for solving linear systems; interpolation and extrapolation; approximation of derivatives, integrals, and functions; numerical techniques for ordinary differential equations; error analysis. Use of mathematical subroutine libraries.

#### **Preparation for Course**

P: CS16000 And MA 16600

Cr. 3

## **CS 42100 - Advanced Computer Graphics**

## **CS 42100 - Advanced Computer Graphics**

Advanced topics in computer graphics such as three-dimensional rendering, curve and surface design, antialiasing, animation, and visualization. Other topics will be selected depending on current research trends. Through development of projects, students will gain practical experience about modern computer graphics.

#### **Preparation for Course**

P: CS 32100.

Cr. 3.

## CS 44500 - Computer Security

# **CS 44500 - Computer Security**

A survey of the fundamentals of computer security. Topics include risks and vulnerabilities, policy formation, controls and protection methods, survey of malicious logic, database security, encryption, authentication, intrusion detection, network and system security issues, personnel and physical security issues, security design principles, issues of law and privacy.

## Preparation for Course

P: CS 27400 Or Equivalent And STAT 51100 Or Equivalent

Cr. 3.

### CS 45700 - Introduction To Data Mining

# CS 45700 - Introduction To Data Mining

Data mining refers to the process of automatic discovery of patterns and knowledge from large data sets. As an introductory course on data mining, this course presents the knowledge discovery process, and introduces data preprocessing and exploration, major data mining tasks, the relevant methodologies and techniques, and data mining applications from different disciplines.

#### **Preparation for Course**

P: CS 36400 Or IST 27000 And STAT 51100 Or STAT 30100 Or Instructor Permission Required.

## CS 46000 - Senior Capstone Project I

The first course of a two-semester sequence. Student teams will participate in the development of a substantial application-oriented or research-oriented software project utilizing a formal software process model. Emphasis on teamwork, project management, and oral and written communication. Student teams will conduct review activities and develop artifacts appropriate for the software project and process model chosen.

#### **Preparation for Course**

P: CS 36000 And ENGL 23401, Or ENGL W234 Or Equivalent

Senior Class Standing Required

Cr. 3.

## CS 46500 - Senior Capstone Project II

## CS 46500 - Senior Capstone Project II

The second course of a two-semester sequence. Student teams will complete the development of a substantial application-oriented or research-oriented software project begun in CS 46000. Emphasis on teamwork, project management, and oral and written communication. Student teams will conduct review activities and develop artifacts appropriate for the software project and process model chosen. Students will be required to conduct a final formal review and demonstration to project stakeholders and other interested persons.

#### Preparation for Course

P: CS 46000.

Cr. 3

### CS 46600 - Strategic Issues For Information Systems

## **CS 46600 - Strategic Issues For Information Systems**

Topics in information systems management including strategic planning for competitive advantage, charge-back, systems portfolio risk analysis, security, and assimilating technology advances. Students develop an information systems strategic plan.

#### **Preparation for Course**

P: Senior Standing Required; IS Or CS And ENGL 23401.

Cr. 3.

### CS 46700 - Project Management

# CS 46700 - Project Management

Covers the techniques required to manage systems development. Topics include project proposal, planning, estimating, organizing, controlling, and completion. Students practice these techniques on a major project using project management software.

#### **Preparation for Course**

P: CS majors with Senior Class Stading.

Cr. 3.

### CS 47200 - Operating Systems Design

# CS 47200 - Operating Systems Design

The design and implementation of modern multiprocessing operating systems. Topics include concurrent programming, real and virtual storage allocation, resource allocation and deadlock prevention and avoidance, job scheduling, and analytic modeling. Students will complete projects involving concurrency and implement a portion of a multiprocessing operating system.

## **Preparation for Course**

P: CS 23200 And 27100 (Or CS 232 And CS 271)

## **CS 47400 - Compiler Construction**

Techniques for the syntax-directed translation of modern high-level languages. Topics include grammars and language specification, language design issues, lexical analysis, LL and LR parsing techniques, semantics, symbol table design, code generation, and local optimization. Students are required to implement a compiler for a subset of a structured high-level language such as Pascal or Ada.

#### **Preparation for Course**

P: CS 35000.

Cr. 3.

## CS 48600 - Analysis Of Algorithms

## CS 48600 - Analysis Of Algorithms

Techniques for analyzing the time and space requirements of algorithms and problems. Application of these techniques to sorting, searching, pattern-matching, graph problems, and other selected problems. Brief introduction to the intractable (NP-hard) problems.

### **Preparation for Course**

P: CS 26000 And MA 16600.

Cr. 3.

## CS 48800 - Theory Of Computation

# **CS 48800 - Theory Of Computation**

Mathematical models of computation including finite and pushdown automata and Turing machines and equivalence of different general-purpose models. Grammars and their relation to automata, Church's Thesis, and limits of computation.

## Preparation for Course

P: CS 35000.

Cr. 3.

## CS 49200 - Topics In Computer Science

# CS 49200 - Topics In Computer Science

Seminar addressing current topics or issues in computer science or information systems.

#### **Preparation for Course**

P: Instructor Permission Required.

Cr. 3.

## CS 49400 - Directed Study

# CS 49400 - Directed Study

Independent study for students who desire to execute a complete computer-oriented project. Course may be repeated for credit up to 6 hours toward graduation.

### **Preparation for Course**

C: Junior or Senior Class Standing Required.

Cr. 1-3.

## **CS 49500 - Cooperative Experience**

For Cooperative Education students only.

#### **Preparation for Course**

Department Permission Required.

Cr. 0-3.

CS 50300 - Operating Systems

## CS 50300 - Operating Systems

Basic principles of operating systems: addressing modes, indexing, relative addressing, indirect addressing, stack maintenance; implementation of multitask systems; control and coordination of tasks, deadlocks, synchronization, mutual exclusion; storage management, segmentation, paging virtual memory; protection, sharing, access control; file systems; resource management; evaluation and prediction of performance. Students are expedited to spend at least three hours per week gaining hands-on experience in using and modifying a small operating system.

#### **Preparation for Course**

Restricted to CS Majors (COMPSCI - MS Major or COMPSCI-NDG Major)

Cr. 3

#### **Dual Level Course**

Undergraduate-Graduate

CS 54300 - Introduction To Simulation And Modeling Of Computer Systems

## CS 54300 - Introduction To Simulation And Modeling Of Computer Systems

Simulation: discrete event simulation, process-oriented simulation, generating random numbers, simulation languages, simulation examples of complex systems. Nondeterministic models: random variables, Poisson process, moment generating functions, statistical inference and data analysis. Modeling: elementary queuing models, network of queues, applications to performance evaluation of computer systems.

#### Preparation for Course

P: CS 26000 And STAT 51100 Or Instructor Permission Required.

Cr. 3

## **Dual Level Course**

Dual Level, Undergraduate-Graduate

CS 57200 - Heuristic Problem Solving

# CS 57200 - Heuristic Problem Solving

Design and development of heuristic problem-solving systems. The emphasis is on the development of general data representations, heuristics, and problem-solving strategies that can be applied to wide classes of problems. The task areas explored include game playing, theorem proving, pattern recognition, semantic information processing, cognitive psychology, design synthesis, robotology, and integrated artificial intelligence systems.

### **Preparation for Course**

P: CS 26000 Or Instructor Permission Required.

Cr. 3.

#### **Dual Level Course**

Dual Level, Undergraduate-Graduate

CS 58000 - Algorithm Design, Analysis, And Implementation

# CS 58000 - Algorithm Design, Analysis, And Implementation

Basic techniques for designing and analyzing algorithms: dynamic programming, divide and conquer, balancing. Upper and lower bounds on time and space costs, worst case and expected cost measures. A selection of applications such as disjoint set union/find, graph algorithms, search trees, pattern matching. The polynomial complexity classes P, NP, and co-NP; intractable problems.

**Preparation for Course** 

P: CS 48600 Or Instructor Permission Required.

Cr 3

**Dual Level Course** 

Dual Level, Undergraduate-Graduate

### CS 59000 - Topics In Computer Science

## CS 59000 - Topics In Computer Science

Selected topics in computer science.

Cr. 3

**Dual Level Course** 

Dual Level, Undergraduate-Graduate

CSD 11500 - Introduction to Communicative Disorders

## CSD 11500 - Introduction to Communicative Disorders

Nature, symptoms, and causes of communicative disorders and the principal methods used for remediation.

Cr. 3.

CSD 12600 - Communication Sciences And Disorders Resource Seminar

## CSD 12600 - Communication Sciences And Disorders Resource Seminar

Provides new CSD majors with an overview of the degree and related professions. Topics will include clinic confidentiality policies, campus resources, study strategies, writing standards in CSD, and career paths.

Cr: 1.

CSD 18100 - First Course in American Sign Language

## CSD 18100 - First Course in American Sign Language

Basic manual communication skill including the American manual alphabet, approximately 550 basic signs, and the history and place of manual communication in society. Designed to give the students minimum vocabulary and skills in communicating with individuals who are dependent on this form of communication.

Cr. 3.

CSD 18200 - Second Course in American Sign Language

# CSD 18200 - Second Course in American Sign Language

Development of conversational skills, vocabulary, and basic grammar of sign language.

**Preparation for Course** 

P: CSD 18100 or equivalent.

Cr. 3.

CSD 28300 - Intermediate American Sign Language III

# CSD 28300 - Intermediate American Sign Language III

This course is the third semester of intermediate level American Sign Language. This course builds on skills in the first year of ASL courses to develop more complex ASL grammatical features, vocabulary, short stories, narratives and dialogues. Included is an awareness for and information related to Deaf culture and local Deaf community.

#### **Preparation for Course**

P: CSD 18200or by placement exam.

### CSD 28400 - Intermediate American Sign Language IV

# CSD 28400 - Intermediate American Sign Language IV

This course is a fourth semester of American Sign Language designed to continue the development of expressive and receptive skills in ASL. Specifically, more advanced syntax, grammar and vocabulary will be used to develop and comprehend lengthier narratives. A variety of ASL literature will be studied to enhance awareness and knowledge of the Deaf culture and local Deaf community.

#### **Preparation for Course**

P: CSD 28300 with a grade of C or higher or by placement exam.

Cr 3

CSD 30200 - Acoustic Bases of Speech and Hearing

## CSD 30200 - Acoustic Bases of Speech and Hearing

The physical characteristics of speech sounds and the psychophysical processes involved in hearing.

Cr. 3.

CSD 30400 - Anatomy and Physiology of the Speech and Hearing Mechanism

## CSD 30400 - Anatomy and Physiology of the Speech and Hearing Mechanism

The physical characteristics of speech sounds and the psychophysical processes involved in hearing.

### **Preparation for Course**

P: BIOL 12600, 20300, 21500 or 327 or jr. standing.

Cr. 4.

Hours

Class 3, Lab. 2.

CSD 30600 - Introduction to Phonetics

## **CSD 30600 - Introduction to Phonetics**

An introduction to articulatory phonetics, speech sounds in languages of the world, and principles and symbols of the International Phonetic Alphabet. Extensive practice in phonetic transcription.

Cr. 3.

Hours Class 3.

CSD 30900 - Language Development

# CSD 30900 - Language Development

Specific nature, sequence, and pattern of oral language development from birth through adolescence. Nature of language acquisition and approaches to the study of children's language are presented. Linguistic and psychological explanations of the sequence of development are discussed.

Cr. 3.

CSD 32100 - Introduction to Phonological Disorders in Children

# CSD 32100 - Introduction to Phonological Disorders in Children

An introduction to phonological and phonemic development and disorders of speech sounds in children. Basic methods of assessment and intervention for phonological errors are

discussed

### **Preparation for Course**

P: CSD 11500 and 30600.

Cr 3

CSD 39900 - Directed Study in Audiology and Speech Sciences

## CSD 39900 - Directed Study in Audiology and Speech Sciences

Special projects such as directed readings, independent and/or cooperative research on professionally relevant topics under the guidance of an CSD faculty member.

Cr. 1-3.

CSD 40500 - Augmentative and Computer Applications in Speech and Language

## CSD 40500 - Augmentative and Computer Applications in Speech and Language

An introductory overview with emphasis on potential application in assessment, treatment, research, and administrative functions related to communication disorders.

#### **Preparation for Course**

P: one disorders course (CSD 42000, 43000, 32100).

Cr.

CSD 40600 - Field Experience In Augmentative/Alternative Communication

# CSD 40600 - Field Experience In Augmentative/Alternative Communication

A senior level capstone experience designed to give the student an opportunity to participate in a class/event that incorporates knowledge and skills developed in the Communication Sciences and Disorders curriculum. By identifying prejudices concerning individuals who have severe communication disabilities, the student will develop skills to improve social exchanges. Students will develop and participate in a hands-on experience for people who use augmentative/alternative communication devices. Students will critique the experience and discuss what they learned. Department permission required. Restricted to CSD majors only.

#### **Preparation for Course**

C: CSD 40500.

Cr. 1.

CSD 41600 - Introduction to Assessment of Communication Disorders

## CSD 41600 - Introduction to Assessment of Communication Disorders

An introduction to the basic principles of assessment as it applies across the age and disorder spectrum. Specific assessment tools and tests are discussed and practiced.

#### Preparation for Course

P: CSD 11500, 30400, 30600 and 30900.

Cr. 3.

CSD 41900 - Special Topics In Audiology and Speech Pathology

# CSD 41900 - Special Topics In Audiology and Speech Pathology

Study of special topics, drawn from areas not covered in permanent courses. Topics may vary from semester to semester.

Cr. 1-3.

Variable Title

V.T

### CSD 42000 - Introduction to Developmental Speech and Language Disorders

## CSD 42000 - Introduction to Developmental Speech and Language Disorders

Introduction to disorders of speech and language in children. Characteristics of these disorders, methods of evaluation, and intervention procedures are discussed.

#### **Preparation for Course**

P: CSD 11500, 30600, 30900.

Cr. 3

CSD 43000 - Speech-Language Disorders in Healthcare Settings

## CSD 43000 - Speech-Language Disorders in Healthcare Settings

Presents speech-language disorders across the lifespan encountered in a variety of healthcare settings. Discusses the etiology, evaluation, and management of these disorders. Addresses administrative structures, team approaches, and reimbursement issues in healthcare settings.

#### **Preparation for Course**

P: CSD 41600.

Cr. 3.

CSD 44900 - Introduction to Clinical Practice in Speech-Language Pathology

## CSD 44900 - Introduction to Clinical Practice in Speech-Language Pathology

The first in a series of practicum courses designed to provide instruction and practical experience in basic diagnostic procedures and therapeutic approaches to speech and language disorders.

#### **Preparation for Course**

P: CSD 11500, 30400, 30600, 30900 and jr standing.

Cr. 3.

Hours

Class 2-4.

CSD 46000 - Introduction to Assessment Audiology

# CSD 46000 - Introduction to Assessment Audiology

Authorized equivalent courses or consent of instructor may be used in satisfying course prerequisites. History of audiology, normal and abnormal processes of hearing, basic methods of audiological assessment, and introduction to the development and management of hearing-conservation programs.

## **Preparation for Course**

P: CSD 30200 and 30400 or equivalent.

Cr. 3

CSD 54900 - Clinical Practice in Speech/Language Pathology I

# CSD 54900 - Clinical Practice in Speech/Language Pathology I

The second in a series of practicum courses designed to provide instruction and practical experience in fundamental diagnostic and therapeutic approaches to speech and language disorders.

### **Preparation for Course**

P: CSD 44900 or equivalent, overall GPA of 3.5 or better and consent of instructor. R: CSD 43000 or equivalent.

Cr. 1-8.

Hours

Class 1, Lab. 1-8.

Notes

May be repeated for credit.

**Dual Level Course** 

Undergraduate-Graduate

## CSD 55000 - Aural Rehabilitation for Adults

Theoretical and clinical implications associated with the rehabilitation of hearing loss in adults and geriatric adults. Discussion centers on a family-centered team approach, built upon the effective use of amplification and other assistive devices.

#### **Preparation for Course**

P: CSD 46000 or consent of instructor.

Cr. 3.
Hours
Class 3, Lab. 2.
Dual Level Course
Graduate-Undergraduate

#### CSD 55100 - Aural Rehabilitation for Children

## CSD 55100 - Aural Rehabilitation for Children

An overview of the effects of hearing impairment on language, speech, academic, and psychosocial development. Topics also include communication modalities, and principles and current practices for assessment and intervention.

### **Preparation for Course**

P: CSD 46000 or consent of instructor.

Cr. 3. Hours

**Dual Level Course** 

Undergraduate-Graduate

CSD 59000 - Directed Study of Special Problems

# CSD 59000 - Directed Study of Special Problems

### **Preparation for Course**

P: consent of instructor.

Cr. 1-6.
Variable Title
(V.T.)
Notes
May be repeated for credit.
Dual Level Course
Undergraduate-Graduate

**DANC 10100 - Modern Dance Technique I** 

# **DANC 10100 - Modern Dance Technique I**

An introduction to the techniques and principles of modern dance.

Cr. 2.

Hours

Class 1, Studio 2.

Subject Area

Dance

DANC 10200 - Ballet I

## DANC 10200 - Ballet I

This course provides a study of classical ballet for the beginner dancer. Classes are participatory, focusing on the development of proficiency in the execution of the classic ballet movement and vocabulary. The anatomical and scientific principles of dance technique along with musicality, phrasing, and movement dynamics will also be emphasized throughout the course. Students will be involved in barre, center, and across the floor work along with in class discussions, readings, and dance compositions to form a deeper

understanding and appreciation of the art of dance. May be repeated for up to six credits.

Cr. 2. Hours Class 1, Studio 2. Subject Area Theatre

DANC 10300 - Jazz Dance I

## DANC 10300 - Jazz Dance I

A study of jazz dance, including early jazz and musical comedy as well as contemporary styles. Emphasis on current locomotor jazz techniques. May be repeated for up to six credits. Credit may be granted by audition.

Cr. 2.

Hours
Class 1, Studio 2.

Subject Area
Theatre

DANC 12100 - Tap Dance I

# DANC 12100 - Tap Dance I

The emphasis in this course will be on learning basic steps and tap progressions. Class will include barre work, across the floor and center floor combinations. Graded technique will be incorporated to monitor progress. This class may be repeated for up to four credits. Credit may be granted by audition.

Cr. 2.
Hours
Class 1, Studio 2.
Subject Area
Theatre

DANC 13400 - The Study of Movement in Human Society

# DANC 13400 - The Study of Movement in Human Society

Through the cross-cultural lens of dance anthropology, ethnology, aesthetics, and performance, we will study the mean dance holds for its community of participants as well as how it functions in a particular society.

Cr. 3.
Subject Area
Theatre

**DANC 13600 - Teaching Dance: Theories and Methods** 

# **DANC 13600 - Teaching Dance: Theories and Methods**

Introduce students to theories and practices of teaching dance and creative movement to a variety of populations in diverse settings.

Cr. 3.
Subject Area
Theatre

DANC 20200 - Ballet II

## DANC 20200 - Ballet II

A continuation of the principles and techniques of classical ballet addressed in DANC 10200  $\,$ 

Cr. 2. Hours Class 1, Studio 2. Subject Area Theatre

## DANC 20300 - Jazz Dance II

A continuation and refinement of the jazz dance concepts and movement vocabulary addressed in DANC 10300.

Cr. 3.
Hours
Class 1, Studio 2.
Subject Area
Theatre

### DANC 22100 - Tap Dance II

## DANC 22100 - Tap Dance II

The emphasis in this course will be on building upon the basic steps and progressions achieved in beginning tap. Class will include barre work, across the floor and center combinations.

As in Tap I, graded technique will be incorporated to monitor progress. Credit may be granted by audition.

Cr. 2.

Hours
Class 1, Studio 2.

Subject Area
Theatre

## **DANC 24000 - Dance Composition**

## **DANC 24000 - Dance Composition**

An introduction to the theory and practice of the principles and utilization of choreographic tools; movement exploration, manipulation of basic dance elements, development of movement themes, and application of compositional dance forms.

Cr. 3.

Subject Area

Dance

### **DANC 25100 - Dance History**

# **DANC 25100 - Dance History**

This course is designed to expose students to dance as a fundamental form of human expression. Varied forms of dance will be analyzed and discussed within a sociological, cultural, and historical framework. The focus of this course is the development of Western theatrical dance from the birth of ballet in the Renaissance courts through the eclectic marriage of dance forms found in 20th century America. Throughout this course, students should develop an understanding of dance as an art form.

Cr. 3.

Subject Area

Theatre

## **DANC 39000 - Introduction To Dance**

## **DANC 39000 - Introduction To Dance**

This course explores the fundamentals of various dance forms to improve body awareness/performance.

Cr. 3. Subject Area Theatre

## EALC 10100 - Elementary Chinese I

# **EALC 10100 - Elementary Chinese I**

Introduction to Chinese language, grammar, and sentence patterns. Emphasis on comprehension and oral expression. Stress will shift steadily from spoken to written language.

Cr. 4. Hours

Class 4, Lab. 0,

## EALC 10101 - Elementary Japanese I

## EALC 10101 - Elementary Japanese I

An introductory, skills-oriented course emphasizing learning language in context. Development of listening and speaking in simple interactional situations, and controlled reading and writing skills.

**Dual Level Course** 

Undergraduate-Graduate

## EALC 10200 - Elementary Chinese II

# **EALC 10200 - Elementary Chinese II**

Introduction to Chinese language, grammar, and sentence patterns. Emphasis on comprehension and oral expression. Stress will shift steadily from spoken to written language.

### **Preparation for Course**

P: EALC 10100.

Cr. 4.

Class 4, Lab. 1,

EALC 10201 - Elementary Japanese II

# EALC 10201 - Elementary Japanese II

This course is a continuation of EALC J101. The goal of the course is for students to practice basic communcative skills in Japanese and to improve their overall skills (speaking, listening, reading, writing).

### **Preparation for Course**

P: EALC 10101.

Cr. 4.

## EALC 20101 - Second-Year Chinese I

## EALC 20101 - Second-Year Chinese I

Both spoken and written aspects stressed.

### **Preparation for Course**

P: EALC 10100 and 10200 or equivalent proficiency.

Hours

Class 3-4, Lab. 0.

## EALC 20102 - Second Year Japanese I

Continuation of emphasis on communicative skills. Increased attention to reading and writing skills.

#### **Preparation for Course**

P: EALC 10201.

Cr. 2-4.

EALC 20201 - Second-Year Chinese II

## EALC 20201 - Second-Year Chinese II

Both spoken and written aspects stressed.

#### **Preparation for Course**

P: EALC 10100 and 10200 or equivalent proficiency.

Cr. 3-4

Hours

Class 3-4, Lab. 1,

EALC 20202 - Issues In East Asian Traditions And Ideas

## EALC 20202 - Issues In East Asian Traditions And Ideas

Survey and analysis of selected issues pertinent to changes in thought and religion of general import. Topics vary, but are generally on broad subjects that cut across fields, regions, and periods. May be repeated with a different topic for a maximum of 6 credit hours.

Cr. 3.

Variable Title (V.T.)

EALC 20203 - Second Year Japanese II

# EALC 20203 - Second Year Japanese II

Continuation of EALC J201.

**Preparation for Course** 

P: EALC 20102.

Cr. 2-4.

EALC 23100 - Japan: The Living Tradition

# EALC 23100 - Japan: The Living Tradition

An introduction to the patterns of Japanese culture: society, history, visual arts, literary masterpieces, performing arts and living religious traditons.

Cr. 3.00

EALC 27100 - Modern And Contemporary Japanese Culture

# EALC 27100 - Modern And Contemporary Japanese Culture

Examination of a range of Japanese culture expressions of the twentieth and twenty-first centuries, such as literature, theater, film, popluar culture and their historical contexts.

### EALC 30100 - Third Year Japanese I

## EALC 30100 - Third Year Japanese I

Review of grammatical points acquired in the first and second year Japanese. More advanced level of speaking, reading, writing, and listening proficiency.

#### **Preparation for Course**

P: EALC 20203.

Cr. 3-4.

EALC 30200 - Third Year Japanese II

## EALC 30200 - Third Year Japanese II

Review of grammatical points acquired in the first and second year of Japanese. More advanced levels of speaking, reading, writing and listening proficiency.

#### **Preparation for Course**

P: EALC 20102.

Cr. 3.00 - 4.00

EALC 33300 - Foreign Study In Japanese, 3rd Year

## EALC 33300 - Foreign Study In Japanese, 3rd Year

Credit for foreign study in Japanese language when no specific equivalent is available among departmental offerings.

Cr. 2.00-10.00.

EALC 40100 - Fourth-Year Japanese I

# EALC 40100 - Fourth-Year Japanese I

Emphasis on advanced reading skills.

Cr. 3

EALC 40200 - Fourth-Year Japanese II

# EALC 40200 - Fourth-Year Japanese II

Continuation of J401. To develop advanced skills in Japanese for speaking, reading and writing.

Cr 3

EAPS 10001 - General Geology

# **EAPS 10001 - General Geology**

Survey of physical geology and introduction to historical geology. Elements of crystallography, mineralogy, petrology, geomorphology, seismology, structural geology, paleontology, historical geology, and plate tectonics. Optional Saturday field trip. Honors version is 10003. Credit given for only one of the following: 10001, 10003, 10300.

Cr. 3-5

Hours

Class 3,

## **EAPS 10002 - General Geology Laboratory**

Laboratory studies to accompany 10001, 21000, GEOG 10700, or ASTR 10000. Study of crystals, minerals, rocks, fossils, and earth structures from hand specimens and models. Interpretation of landforms and earth history from topographic and geologic maps.

Cr. 1-2.

Hours

Lab. 2-3,

### EAPS 10003 - General Geology Honors

## **EAPS 10003 - General Geology Honors**

Survey of physical geology and introduction to historical geology. Similar to 10001 except students also participate in a 10-14 day field exploration of some region in North America. (Field trip in May after classes end.) Credit given for only one of the following: 10001, 10003, 10300.

Cr. 5.

Notes

Honors equivalent of EAPS 10001

To register in an honors course, students must have Honors Program eligibility or instructor's permission.

EAPS 10300 - Earth Science: Materials And Processes

## **EAPS 10300 - Earth Science: Materials And Processes**

Introduction to origin and classification of minerals and rocks. Relationships among rock types, rock structures, surficial geological processes of running water, sub-surface water, glaciation, wind, waves, tides, and landform evolution. Geologic time. Internal processes, vulcanism, plutonism. Plate tectonics. Two lectures and a laboratory each week. Credit given for only one of the following: 10001, 10003, 10300.

Cr. 3.

Hours

Class 2, Lab. 2.

Notes

Indiana Core Transfer Library course.

EAPS 10401 - Earth Science: Evolution Of The Earth

## EAPS 10401 - Earth Science: Evolution Of The Earth

History of geology. Principles of interpretation of earth history. Geologic age dating, correlation, facies analysis, study of geosynclines, and plate tectonics as applied to reconstructing geological events. History of plant and animal life.

## Preparation for Course

R: EAPS 10001.

Cr. 3. Hours

Class 2, Lab. 2-3,

### EAPS 11301 - Directed Study in Earth Science

# **EAPS 11301 - Directed Study in Earth Science**

#### **Preparation for Course**

C: one course in geology, geography, or astronomy, and written consent of instructor. Field, laboratory, or library research in any area of the earth sciences. May be repeated for a maximum of 3 credits. Credit not granted toward B.A. or B.S. in geology.

Cr. 1-2.

### EAPS 12100 - Journey To Mars

## **EAPS 12100 - Journey To Mars**

Our current understanding of Mars is derived from the study of meteorites, lunar samples, geology, space probes, and landed rovers. Geological processes that are operative on Earth are also operative on Mars and similar planetary bodies, but differing boundary conditions have generated distinct outcomes. These differences have implications for the likelihood of finding life on Mars.

Cr. 3

## EAPS 21000 - Oceanography

## EAPS 21000 - Oceanography

Introduction to the study of the oceans and marine processes. Topics include morphology of the ocean floor, life in the ocean, oceanic circulation, and submarine geology. Three lectures or two lectures with occasional laboratory-demonstration per week.

#### **Preparation for Course**

P: one college-level science course or written consent of the instructor.

Cr. 3.

## EAPS 21100 - Introduction To Paleobiology

## **EAPS 21100 - Introduction To Paleobiology**

Processes of fossilization; techniques of fossil preparation and methods of taxonomic description; principles of evolution and distribution of life forms; principles of paleoecology and biostratigraphy. One two-hour laboratory per week; one weekend field trip required for geology majors.

#### **Preparation for Course**

P: EAPS 10001 or EAPS 10401 (or equivalent), or Instructor Permission Required.

Cr. 3.

Hours

Class 2, Lab. 2,

### **EAPS 22101 - Introductory Mineralogy**

# **EAPS 22101 - Introductory Mineralogy**

Crystallography, symmetry, and the crystal classes of minerals. Structure and physical and chemical characteristics of selected mineral groups. Phase diagrams and interpretation of mineral assemblages. Identification of common and important minerals using physical properties and simple chemical tests.

#### **Preparation for Course**

P: EAPS 10001; C: CHM 11500, (or equivalent), or written consent of instructor.

Cr. 3-4. Hours

Class 2, Lab. 2,

## EAPS 22201 - Introduction To Petrology

# **EAPS 22201 - Introduction To Petrology**

Classification and identification of igneous, metamorphic, and sedimentary rocks. Genesis and tectonic significance of important igneous and metamorphic suites. Introduction to the use of the petrographic microscope. Four-day field trip.

#### **Preparation for Course**

P: EAPS 22101.

Cr. 3-4.

Hours

Class 2, Lab. 2,

## EAPS 30000 - Environmental And Urban Geology

Significance of regional and local geologic features and processes in land use. Use of geologic factors to reduce conflict in utilization of mineral and water resources and damage from geologic hazards. Field trips.

Cr. 3.

Hours

Class 2-3, Lab. 0-2,

### EAPS 30500 - Geologic Fundamentals In Earth Science

## **EAPS 30500 - Geologic Fundamentals In Earth Science**

Introductory course for advanced students. Earth materials, earth processes, geological principles. Emphasis on relationships between geology and other physical sciences.

Cr. 3-5. Hours Class 2-3, Lab. 0-3, Variable Title (V.T.)

### EAPS 31901 - Elementary Field Geology

## **EAPS 31901 - Elementary Field Geology**

Geologic field methods. Section measurement, geologic mapping, construction of geologic cross-sections, and use of geologic surveying instruments. Class spends 10-14 days in upper peninsula of Michigan, near Marquette.

### **Preparation for Course**

P: EAPS 22201; C: EAPS 33400 or consent of instructor.

Class 1, Field 10-14 days,

## EAPS 32300 - Structural Geology

# EAPS 32300 - Structural Geology

Nature and origin of structural features of the earth's crust, with emphasis on mechanics of deformation, and graphic and mathematical solution of structural problems. Two lectures and one laboratory per week plus a four-day field trip. Eligible for graduate credit.

## **Preparation for Course**

C: EAPS 22201 or written consent of instructor; physics, engineering, or mathematics majors admitted with EAPS 10001 or 10300 and PHYS 201 (or equivalent).

Hours

Class 2, Lab. 2,

### EAPS 33100 - Principles Of Sedimentation

# **EAPS 33100 - Principles Of Sedimentation**

Sediment-forming environments and the chemical and biological processes of sedimentation. Diagenetic processes of lithification. Emphasis on genetic interpretation of sediments and processes of carbonate sedimentation.

### **Preparation for Course**

C: EAPS 22201; P: EAPS 10001 or EAPS 10401 and EAPS 21100.

Cr. 3-4.

### EAPS 33400 - Principles Of Sedimentology And Stratigraphy

## EAPS 33400 - Principles Of Sedimentology And Stratigraphy

Processes and factors influencing genesis of sedimentary strata: provenance, depositional environment, sedimentary facies, and paleoecology. Analytical techniques and application of principles of interpretation of stratigraphic record. Laboratory study of sediments, sedimentary rocks, and subsurface samples, logs, and seismic records.

#### **Preparation for Course**

P: EAPS 22201.

Cr. 3-4. Hours

Class 2, Lab. 2,

### EAPS 40600 - Introduction To Geochemistry

# **EAPS 40600 - Introduction To Geochemistry**

Applications of solution chemistry, phase diagrams, trace elements, radioactive isotopes, and stable isotopes to the study of the earth. The chemical evolution of earth and the origin of important igneous rocks, chemical sediments, and ore deposits.

#### **Preparation for Course**

P: EAPS 22201, CHM 11600, and MA 16300, or Instructor Permission Required.

Cr. 3.

## EAPS 41000 - Undergraduate Research In Geology

## EAPS 41000 - Undergraduate Research In Geology

Field, laboratory, or theoretical research in selected problems in geology. May be repeated for a maximum of 6 credits toward degree. This course (1 cr.) may be taken in conjunction with a 300- or 400- level geology course, for honors.

#### **Preparation for Course**

Instructor Permission Required.

Cr. 1-2; 1-6 in summer. **Variable Title** (V.T.)

## EAPS 41200 - Introduction To Vertebrate Paleontology

# **EAPS 41200 - Introduction To Vertebrate Paleontology**

Fossil record, comparative morphology, phylogeny, biogeography, and paleoecology of the major vertebrate groups. Functional modifications of the vertebrate skeleton for existence in various aquatic and terrestrial environments. Laboratory study of recent and fossil osteological specimens. Field trip to a museum with a major vertebrate paleontology collection.

### **Preparation for Course**

P: EAPS 21100 or Instructor Permission Required.

Cr. 3.

Hours

Class 2-3, Lab. 0-2,

### EAPS 41500 - Geomorphology

# EAPS 41500 - Geomorphology

Geomorphic processes, evolution and classification of landforms. Laboratory: interpretation of topographic and geologic maps and aerial photographs.

#### Preparation for Course

P: EAPS 21100 or consent of instructor.

Cr. 3-4.

Hours

## EAPS 42001 - Regional Geology Field Trip

## **EAPS 42001 - Regional Geology Field Trip**

Field investigation of selected regions of North America for study of mineralogic, lithologic, stratigraphic, structural, paleontologic, geomorphological, or other geological relationships. Six to fifteen days in the field.

#### **Preparation for Course**

C: EAPS 10001 and written consent of instructor.

Cr. 1-2. Variable Title (V.T.) Dual Level Course Eligible for graduate credit.

#### EAPS 42500 - Scanning Electron Microscopy

## **EAPS 42500 - Scanning Electron Microscopy**

Theory and practice of scanning electron microscopy (SEM) and energy dispersive X-ray spectroscopy (EDX). Some discussion of wavelength dispersive methods.

#### **Preparation for Course**

P: EAPS 22101 or consent of instructor.

Cr. 2-3

## EAPS 45100 - Principles Of Hydrogeology

## **EAPS 45100 - Principles Of Hydrogeology**

Water resources: occurrence, regulation, and management of water; hydrologic cycle, water movement, well hydraulics; water quality and pollution; surface and subsurface investigations; basin-wide development of water resources; legal aspects; relationship of hydrogeology to engineering geology.

### **Preparation for Course**

P: EAPS 33400 or Instructor Permission Required.

Cr. 3. **Hours**Class 2-3, Lab. 0-2, **Dual Level Course**Eligible for graduate credit.

## EAPS 49001 - Undergraduate Seminar

# **EAPS 49001 - Undergraduate Seminar**

Reading and discussion of selected topics. May be repeated for up to six credit hours.

### **Preparation for Course**

P: five additional courses in geology or written consent of instructor.

Cr. 1-2. Variable Title (V.T.)

### EAPS 49900 - Honors Research In Geology

# EAPS 49900 - Honors Research In Geology

Topics vary. May be repeated for up to 6 credit hours.

#### **Preparation for Course**

P: Approval of departmental honors advisor.

Cr. 1-12

## ECE 20100 - Linear Circuit Analysis I

## **ECE 20100 - Linear Circuit Analysis I**

Volt-ampere characteristics for circuit elements; independent and dependent sources; Kirchhoff's laws and circuit equations. Source transformations; Thevenin's and Norton's theorems; superposition. Transient response of RC, RL, and RLC circuits. Sinusoidal steadystate and impedance, instantaneous and average power.

#### **Preparation for Course**

C: MA 26100.

Cr. 3.

ECE 20200 - Linear Circuit Analysis II

## ECE 20200 - Linear Circuit Analysis II

Continuation of ECE 20100. Use of Laplace Transform techniques to analyze linear circuits with and without initial conditions. Characterization of circuits based upon, impedence, admittance, and transfer function parameters. Determination of frequency response via analysis of poles and zeros in the complex plane. Relationship between the transfer function and the impulse response of a circuit. Use of continuous time convolution to determine time domain responses. Proprieties and practical uses of resonant circuits and transformers. Input - output characterization of a circuit as a two-port. Low and high-pass filter design.

#### **Preparation for Course**

P: ECE 20100. C: MA 36300.

Cr. 3.

## **ECE 20700 - Electronic Measurement Techniques**

## **ECE 20700 - Electronic Measurement Techniques**

Experimental exercises in the use of laboratory instruments, measurements, device characteristics, waveform analysis, frequency and transient response, and transistor circuits.

#### **Preparation for Course**

P: ECE 20100.

Cr. 1.

Hours

Lab. 3

ECE 20800 - Electronic Devices And Design Laboratory

# ECE 20800 - Electronic Devices And Design Laboratory

Laboratory experiments in the measurement of electronic device characteristics. Design of biasing networks, small signal amplifiers, and switching circuits.

#### **Preparation for Course**

P: ECE 20700 and ECE 25500.

Cr. 1. Hours

Lab. 3.

ECE 22900 - C/C++ Programming For Electrical And Computer Engineering

# ECE 22900 - C/C++ Programming For Electrical And Computer Engineering

An introductory course on the programming in C and fundamentals of object-oriented programming in C++, with emphasis on applications in electrical and computer

engineering. Topics include files, structures, arrays, pointers, and the proper use of dynamic data structures. Introduction on object-oriented programming using C++ language is also included. Students are expected to design and test software programs to solve engineering problems.

#### **Preparation for Course**

P: ENGR 12800.

Cr. 4

### ECE 25500 - Introduction To Electronic Analysis And Design

# ECE 25500 - Introduction To Electronic Analysis And Design

Diode, bipolar transistor, and FET circuit models for the design and analysis of electronic circuits. Single and multistage analysis and design; introduction to digital circuits. Computer-aided design calculations, amplifier operating point design, and frequency response of single and multistage amplifiers. High-frequency and low-frequency designs are emphasized

#### **Preparation for Course**

P: ECE 20100.

Cr. 3.

Hours
Class 3

ECE 27000 - Introduction To Digital System Design

# ECE 27000 - Introduction To Digital System Design

An introduction to digital system design and hardware engineering, with an emphasis on practical design techniques and circuit implementation.

#### **Preparation for Course**

Co-requisite: ENGR 12800.

Cr. 4. Hours

Class 3, Lab. 3,

ECE 29100 - Industrial Practice I

## **ECE 29100 - Industrial Practice I**

For Cooperative Education students only.

Cr. 0.

ECE 29200 - Industrial Practice II

## **ECE 29200 - Industrial Practice II**

For Cooperative Education students only.

**Preparation for Course** 

P: ECE 29100.

Cr. 0

ECE 29595 - Selected Topics In Electrical And Computer Engineering

# **ECE 29595 - Selected Topics In Electrical And Computer Engineering**

Topics vary. Permission of department required.

Cr. 1-5.

#### ECE 30100 - Signals And Systems

### ECE 30100 - Signals And Systems

Description of deterministic signals through the use of Fourier series. Fourier and Z-transforms. Systems description treated by differential and difference equations including transform methods. Computation of system response to both continuous and discrete inputs.

#### **Preparation for Course**

P: ECE 20200.

Cr. 3.

#### ECE 30200 - Probabilistic Methods il Electrical Engineering

### ECE 30200 - Probabilistic Methods iI Electrical Engineering

An introductory treatment of probability theory including distribution and density functions, moments, and random variables. Applications of normal and exponential distributions. Estimation of means, variances, correlation, and spectral density functions. Random processes and response of linear systems to random inputs.

#### **Preparation for Course**

P: MA 36300; C: ECE 30100.

Cr. 3.

#### ECE 30300 - Engineering Software Design

### **ECE 30300 - Engineering Software Design**

The purpose of this course is to introduce a variety of advanced programming and software design tools to Electrical and Computer engineering students, with an emphasis on problem solving. Topics include object-oriented programming, Unix shell script programming, advanced programming techniques in both compiled and interpreted languages, as well as programmable logic controller (PLC) programming.

#### Preparation for Course

P: ECE 22900.

Cr. 3.

#### ECE 31100 - Electric And Magnetic Fields

### **ECE 31100 - Electric And Magnetic Fields**

Continued study of vector calculus, electrostatics, and magnetostatics. Maxwell's equations. Introduction to electromagnetic waves, transmission lines, and radiation from antennas.

#### Preparation for Course

P: MA 36300 and PHYS 25100.

Cr. 3.

#### ECE 31300 - Energy Conversion Laboratory

### **ECE 31300 - Energy Conversion Laboratory**

Laboratory experiments in energy conversion including operation, testing, and applications of energy conversion machines including AC and DC motors and generators; experiments on magnetic circuits and transformers.

#### **Preparation for Course**

C: ECE 32400.

Cr. 1. **Hours** Lab 3.

### **ECE 32400 - Introduction To Energy Systems**

In this course, fundamentals of electrical machines, power circuit analysis techniques, concepts including torque, speed, DC machine equivalent circuit, synchronous and asynchronous AC machines, rotating fields, application of electronics on electrical machines, smart grids and their applications in power engineering, use of composite materials in energy applications, and alternative energy methods including solar energy.

#### **Preparation for Course**

P: ECE 25500 and PHYS 25100; P or C: ECE 20800.

Cr. 3.

#### ECE 33300 - Automatic Control Systems

### **ECE 33300 - Automatic Control Systems**

Analysis and design of control systems, from modeling and computer solutions to stability and performance issues with an orientation toward electrical and mechanical systems. Classical control system concepts are emphasized but an introduction to modern techniques is also provided.

#### **Preparation for Course**

P: ECE 30100, ME 25300.

Cr. 3.

#### **ECE 35800 - Introduction To VHDL**

#### ECE 35800 - Introduction To VHDL

Introduction to the design of digital systems using VHDL hardware description language. Emphasis on how to write VHDL that will map readily to hardware. Projects assigned using commercial-grade computer-aided design (CAD) tools for VHDL-based design, VHDL simulation, and synthesis.

#### Preparation for Course

P: ECE 27000 and ECE/CS 22900.

Cr. 3

#### ECE 36200 - Microprocessor Systems And Interfacing

## ECE 36200 - Microprocessor Systems And Interfacing

An introduction to basic computer organization, microprocessor instruction sets, assembly language programming, and microcontroller peripherals.

#### **Preparation for Course**

P: ECE 20700, 27000 and ECE 22900/CS 22900.

Cr. 4.

Hours

Class 3, Lab. 3.

#### ECE 36800 - Data Structures

#### ECE 36800 - Data Structures

Provides insight into the use of data structures. Topics include stacks, queues and lists, trees, graphs, sorting, searching, and hashing.

#### Preparation for Course

P: ECE 22900/CS 22900.

#### ECE 39300 - Industrial Practice III

#### **ECE 39300 - Industrial Practice III**

For Cooperative Education students only.

**Preparation for Course** 

P: ECE 29200.

Cr. 0

ECE 39400 - Industrial Practice IV

### ECE 39400 - Industrial Practice IV

For Cooperative Education students only.

**Preparation for Course** 

P: ECE 39300.

Cr. 0.

ECE 39500 - Industrial Practice V

#### ECE 39500 - Industrial Practice V

For Cooperative Education students only.

**Preparation for Course** 

P: ECE 39400.

Cr. 0.

ECE 39595 - Selected Topics In Electrical And Computer Engineering

### ECE 39595 - Selected Topics In Electrical And Computer Engineering

Topics vary. Permission of department required.

Cr. 1-5.

ECE 40500 - Senior Engineering Design I

### ECE 40500 - Senior Engineering Design I

The first course of a two-semester sequence of senior capstone design. Provides students with experience in the process and practice of electrical/ computer component/system design from concept through final design. Emphasis on teamwork, project management, oral and written communication. General lectures on issues important to the engineering profession, such as professional and ethical responsibility, the impact of engineering solutions in a global and societal context, and other contemporary issues.

#### **Preparation for Course**

P: Senior standing in the program and permission of the senior design project advisor.

Cr. 3.

ECE 40600 - Senior Engineering Design II

### ECE 40600 - Senior Engineering Design II

Design II is an extension of Design I and includes but is not limited to (1) continued research, design, and implementation; (2) oral presentation and/or demonstration of the project to faculty and other interested parties; (3) answering appropriate questions related to the project; (4) generation of a final technical report documenting design, development, and performance of project.

#### **Preparation for Course**

P: ECE 40500.

Cr 3

#### ECE 42800 - Modern Communication Systems

### **ECE 42800 - Modern Communication Systems**

Development of the basic principles of communication systems with emphasis on digital modulated systems. The fundamental characteristics of sources of the information, and wired and wireless channels are studied. Upconversion and downconversion techniques are investigated. The performance of modulation is studied and optimum receivers are designed. Multicarrier modulation techniques for cellular, Wi-Fi, and ADSL communications are introduced. The principles of forward error correction are studied. Appropriate software is introduced as a companion technique for communication systems analysis.

#### **Preparation for Course**

P: ECE 30100 and 30200.

Cr. 3.

#### ECE 43600 - Digital Signal Processing

### **ECE 43600 - Digital Signal Processing**

Introduction to discrete systems and digital signal processing. Topics include sampling and reconstruction of continuous signals, digital filter design, and frequency analysis including the Fourier transform, the Z transform, the discrete Fourier transform, and the fast Fourier transform.

#### **Preparation for Course**

P: ECE 30100.

Cr. 3.

#### ECE 43700 - Computer Design and Prototyping

### ECE 43700 - Computer Design and Prototyping

An introduction to computer organization and design, including instruction set selection, arithmetic logic unit design, datapath design, control strategies, pipelining, memory hierarchy, and I/O interface design.

#### **Preparation for Course**

P: ECE35800, 36200.

Cr. 4.

Class 3, Lab. 3.

#### ECE 44901 - Machine Learning

### ECE 44901 - Machine Learning

The purpose of this course is to provide a broad introduction to theoretical foundations, fundamental methods, techniques and algorithms as well as the latest progresses in machine learning with an emphasis on real-world problem solving. It covers learning theory, supervised learning, unsupervised learning, reinforcement learning and best practices in machine learning. Students will learn how to apply machine learning techniques to research or industry applications through interdisciplinary case studies and applications in machine learning.

Cr. 3

#### ECE 46000 - Power Electronics

#### **ECE 46000 - Power Electronics**

Introduction to power semiconductor devices, their characteristics and ratings. Analysis and design of power electronics circuits are emphasized and basic operation of power electronics circuits are discussed and illustrated. Topics include diode rectifiers, controlled rectifiers, a.c. voltage controllers, thyristor commutation techniques, choppers, pulsewidth modulated (PWM) and resonant pulse inverters, static switches, and power supplies.

#### **Preparation for Course**

Cr. 4.

#### ECE 46500 - Embedded Microprocessors

### **ECE 46500 - Embedded Microprocessors**

Hardware and software design of small microprocessor-based systems, data acquisition, control, communication, I/O interface, small real-time operating systems, etc.

#### **Preparation for Course**

P: ECE 36200.

Cr. 3.

#### ECE 47400 - Introduction To Radio Frequency Circuit Design

### ECE 47400 - Introduction To Radio Frequency Circuit Design

An introductory course for the analysis, design and simulation of radio frequency (RF) circuits and components for communication systems and industrial applications. It concentrates on such topics as fundamental concepts of transmission line theory, high frequency circuit behavior, designing tuning and matching networks, filter networks, power amplifiers, smith chart, two port networks and S-parameters.

#### **Preparation for Course**

P: ECE 25500 and PHYS 25100.

Cr. 3.

#### ECE 47800 - Robotics And Automation

#### **ECE 47800 - Robotics And Automation**

Introduction to robotics; motion actuators, sensors, Homogenous transformations, Forward and inverse kinematics for rigid-link robots, electric ladder diagrams, and Programmable Logic Controllers (PLCs).

#### **Preparation for Course**

P: ECE 36200, ME 25300 and MA 36300.

Cr. 3

#### ECE 48300 - Digital Control Systems Analysis And Design

### ECE 48300 - Digital Control Systems Analysis And Design

The course introduces feedback computer controlled systems, the components of digital control systems, and system models on the z-domain (z-transfer functions) and on the time domain (state variable representations). The objectives for system design and evaluation of system performance are considered. Various discrete-time controllers are designed including PID-controllers, state and output feedback controllers, and reconstruction of states using observers. The systems with the designated controllers are tested by simulations.

#### Preparation for Course

P: ECE 30100 or ME 33100.

Cr. 3.

### ECE 48500 - Embedded Real-Time Operating Systems

### **ECE 48500 - Embedded Real-Time Operating Systems**

An introduction to embedded real-time operating systems, with an emphasis on embedded system software development, tasks, inter-task communications and synchronization as well as network software.

#### Preparation for Course

P: ECE 36200 and MA 17500 or 27500. C: ECE 36800.

Cr. 4.

#### ECE 49500 - Selected Topics in Electrical Engineering

### **ECE 49500 - Selected Topics in Electrical Engineering**

Available upon arrangement with the chair of the department and the instructor.

Cr. 1-4.
Variable Title
(V.T.)
Notes
May be repeated for credit.

#### ECE 49600 - Electrical And Computer Engineering Projects

### **ECE 49600 - Electrical And Computer Engineering Projects**

Hours and credits to be arranged. Topics vary.

#### **Preparation for Course**

P: Department permission required.

Cr. 1-15. Variable Title (V.T.)

ECE 49700 - Research In Electrical Engineering I

### ECE 49700 - Research In Electrical Engineering I

Individual research projects for students with honors classification. Requires prior approval of, and arrangement with, a faculty research advisor.

#### **Preparation for Course**

P: Honors Classification Required

Cr. 3.

ECE 49800 - Research In Electrical Engineering II

### ECE 49800 - Research In Electrical Engineering II

Continuation of EE 49700. Requires submission of a written thesis, public presentation, and oral defense of the research project.

#### **Preparation for Course**

P: EE 49700 and Honors Classification Required.

Cr. 3.

ECE 50600 - Biomedical Instrument Design

### ECE 50600 - Biomedical Instrument Design

This course covers engineering aspects of detection, acquisition and processing of signals from human body. Microcontrollers are used for common biomedical instrumentation design and implementation. The analog and digital electronics, analog to digital and digital to analog conversion, and interfacing with computers via microcontrollers are emphasized. The course is aimed primarily to graduate students specializing in interdisciplinary engineering.

#### **Preparation for Course**

Recommended prerequisites: Circuits and Electronics; Analog and Digital Signal Processing; and Programming in C.

#### ECE 50700 - Introduction To Biomedical Imaging

### **ECE 50700 - Introduction To Biomedical Imaging**

This course covers the major aspects of modern medical imaging systems including x-ray imaging computed tomography, magnetic resonance imaging, ultrasound imaging, single-photon emission tomography and positron emission tomography. The main emphasis is to explain and exam the fundamental physics and engineering underlying each imaging modality, and the image acquisition, reconstruction and artifact correction. Students will gain technical knowledge and an overview of current status of medical imaging technologies. The course is aimed primarily to graduate students specializing in interdisciplinary engineering.

#### **Preparation for Course**

Prerequisite: college level physics, signals and systems, and programming experience in MatLab or C.

Cr. 3

#### ECE 53800 - Digital Signal Processing I

### **ECE 53800 - Digital Signal Processing I**

Theory and algorithms for processing of deterministic and stochastic signals. Topics include discrete signals, systems, and transforms, linear filtering, fast Fourier transform, nonlinear filtering, spectrum estimation, linear prediction, adaptive filtering, and array signal processing.

#### **Preparation for Course**

P: ECE 30100 and 30200.

Cr. 3.

#### ECE 54000 - Antenna Design, Analysis And Simulation Methods

### ECE 54000 - Antenna Design, Analysis And Simulation Methods

In this course, theory of electromagnetic radiation, fundamentals of antennas, wire antennas and microstrip antennas, implementation EBG structures for microstrip antennas, antenna matching techniques, antenna arrays, analysis of antenna parameters, simulation of wire and microstrip antennas using 3D and planar electromagnetic simulators will be discussed.

#### **Preparation for Course**

P: ECE 31100.

Cr. 3.

**Dual Level Course** 

Undergraduate-Graduate

### **ECE 54300 - Wireless Communication Networks**

#### **ECE 54300 - Wireless Communication Networks**

Provides an overview on the protocols and architectures of existing and emerging wireless networks. Specifically, this course involves the study of wireless networks working with existing protocols and new proposed protocols that are more suitable to the particular characteristics of the wireless technology. Protocols for medium access control, routing, and reliable transport, as well as middleware and applications for wireless networks, are covered.

#### Preparation for Course

P: ECE 42800 and senior or graduate standing in either an engineering or science degree program.

Cr. 3

**Dual Level Course** 

Dual Level, Undergraduate-Graduate

#### **ECE 54700 - Introduction To Computer Communication Networks**

### **ECE 54700 - Introduction To Computer Communication Networks**

A qualitative and quantitative study of the issues in design, analysis, and operation of computer communication and telecommunication networks as they evolve toward the integrated networks of the future employing both packet and circuit switching technology. The course covers packet and circuit switching, the OSI standards architecture and protocols, elementary queuing theory for performance evaluation, random access techniques, local area networks, reliability and error recovery, and integrated networks.

#### **Preparation for Course**

P: ECE 30200 or equivalent.

Cr. 3. **Dual Level Course**Dual Level, Undergraduate-Graduate

#### ECE 54900 - Software-Defined Radio

### ECE 54900 - Software-Defined Radio

This course covers all aspects of SDR technology. Specifically it includes an overview of modern wireless systems, transceiver architectures, baseband signal processing algorithms, analog-to-digital converters, radio front-end components, digital hardware architectures, software architectures, middleware and the Software Communications Architecture (SCA), cognitive devices and networks, standardization bodies, software-defined radio products and services.

#### **Preparation for Course**

P: ECE 42800 and 43600.

Cr. 3.

Notes

Senior or graduate class standing required in either an engineering or science degree program.

**Dual Level Course** 

Dual Level, Undergraduate-Graduate

#### ECE 56000 - Body Sensors and And Body Communications Networks

### ECE 56000 - Body Sensors and And Body Communications Networks

Principles of the acquisition, communication, and processing of in-body and on body signals. Course includes Design and implementation of Body sensors, Path-Loss modeling for on-body and in-body communications, Body sensor networks and topologies, related communication protocols and standards, Low Power sensors and signal processing, and Multi-Sensor Fusion.

#### **Preparation for Course**

P: ECE 30200 and ECE 36200, or equivalent courses or instructor permission.

Cr. 3.

**Dual Level Course** 

Undergraduate-Graduate

#### ECE 56700 - FPGA Design For Signal Processing Applications

### **ECE 56700 - FPGA Design For Signal Processing Applications**

This course introduces methodologies of FPGA designs for signal processing applications. It provides system design experience using hardware description language (HDL) and commercial EDA tools. Topics covered include computer arithmetic, fixed-point vs. floating point, FIR/IIR implementations, multirate signal processing, implementation of FFT, modulation/demodulation using FPGA. Literature readings from IEEE Xplore will be assigned to students. Students are required to complete a course project that implements and simulates a signal processing algorithm using FPGAs.

#### **Preparation for Course**

P: ECE 30100 and 35800.

Cr. 3

#### ECE 56900 - Introduction To Robotic Systems

### **ECE 56900 - Introduction To Robotic Systems**

The topics to be covered include: basic components of robotic systems; selection of coordinate frames; homogeneous transformations; solutions to kinematic equations; velocity and force/torque relations; manipulator dynamics in Lagrange's formulation; digital simulation of manipulator motion; motion planning; obstacle avoidance; controller design using the computed torque method; and classical controllers for manipulators. Basic knowledge of vector-matrix manipulations required.

#### **Preparation for Course**

P: ECE/ME 33300, MA 35100 and MA 36300.

Cr. 3.

**Dual Level Course** 

Undergraduate - Graduate

### ECE 57500 - Bioelectromagnetism, Modeling And Simulation Methods

Fundamental physical knowledge and electrostatic and magnetic field equations. Fundamentals of bioelectromagnetism. Bioelectric sources and conductive environment. Electrodynamics of bioelectrical fields. Concepts of bioelectrical and biomagnetic measurement. Measurement methods, modeling and simulation techniques.

#### **Preparation for Course**

P: ECE 31100 or equivalent courses.

Cr. 3.

#### **Dual Level Course**

Undergraduate-Graduate

#### ECE 58400 - Linear Control Systems

### **ECE 58400 - Linear Control Systems**

Linear spaces and linear operators, mathematical representations of linear systems, canonical forms, state space description, controllability, observability, realization, canonical decomposition, stability, introduction to Lyapunov methods, eigenstructure assignment, partial and full order observers, disturbance decoupling.

#### **Preparation for Course**

P: ECE/ME 33300 or graduate standing.

Cr. 3.

#### ECE 59500 - Selected Topics In Electrical Engineering

### **ECE 59500 - Selected Topics In Electrical Engineering**

Formal classroom or individualized instruction on topics of current interest. May be repeated for credit.

#### Preparation for Course

P: Instructor Permission Required.

Cr. 1-3. Variable Title (V.T.)

**Dual Level Course**Dual Level, Undergraduate-Graduate

#### ECE 60000 - Random Variables And Signals

### **ECE 60000 - Random Variables And Signals**

Engineering applications of probability theory. Problems on events, independence, random variables, distribution and density functions, expectations, and characteristic functions. Dependence, correlation, and regression; multi-variate Gaussian distribution. Stochastic processes, stationarity, ergodicity, correlation functions, spectral densities, random inputs to linear systems; Gaussian processes.

#### **Preparation for Course**

P: ECE 30200 or equivalent.

Cr. 3.

#### ECE 66100 - Computer Vision

### ECE 66100 - Computer Vision

P: Graduate standing. This course deals with how an autonomous or a semi-autonomous system can be endowed with visual perception. The issues discussed include: sampling from a topological standpoint; grouping processes; data structures, especially hierarchical types such as pyramids, quadtrees, octrees, etc.; graphic theoretic methods for structural description and consistent labeling; issues in 3-D vision such as object representation by Gaussian spheres, generalized cylinders, etc.

#### **Preparation for Course**

P: Graduate standing.

#### **ECET 10200 - Electrical Circuits I**

A study of DC electrical circuits, Ohm's Law, Kirchoff's Laws, series and parallel circuits, power magnetism, ammeters, voltmeters, ohmmeters, inductance, capacitance, and an introduction to alternating voltages, currents and reactances.

#### **Preparation for Course**

C: MA15300.

Cr. 4.

#### **ECET 11100 - Digital Circuits**

### **ECET 11100 - Digital Circuits**

A study of switching circuits, waveshaping, logic gates, arithmetic codes, Boolean algebra, mapping and other simplification techniques. Discrete devices and small-scale (SSI) and medium-scale (MSI) integrated circuits are used in combinational and introductory sequential logic circuits.

Cr. 4.

Hours

Class 3, Lab. 2-3.

#### **ECET 11400 - Introduction to Visual Basic**

#### **ECET 11400 - Introduction to Visual Basic**

This course provides an introduction to programming using the Visual Basic language and the NET integrated development environment. Example applications are typical of what may be found in business or technical environment with an emphasis on object orientated programming concepts. Topics to b covered include the syntax and structure of the VB language; controls, dialog boxes, and other interface tools; menu design; multiple forms; error-trapping; and arrays. Other topics that may be covered include object linking and embedding (OLE); VB for applications; database development using record sets and data bound controls; data handling; grids; validation and election; drag and drop; and graphics.

Cr. 3.

Hours

Class 2-3, Lab. 0-2.

#### **ECET 14600 - Digital Circuits II**

### **ECET 14600 - Digital Circuits II**

Basic digital system techniques with emphasis on programmable logic and ASIC theory. Computer-aided design is strongly emphasized along with system considerations such as criteria for device selection, testability, and vendor selection.

#### Preparation for Course

P: ECET 11100 or ITC 14500; C: ECET11400 or CS 11400.

Cr. 4.

Hours

Class 3, Lab. 2.

#### **ECET 15200 - Electrical Circuits II**

### **ECET 15200 - Electrical Circuits II**

AC circuits, including the j operator, phasors, reactance, impedance, and power, are studied. Circuit laws, network theorems, and the fundamental concepts of Fourier analysis are applied in the study of passive filters, resonant circuits, single-phase and three-phase circuits, and elementary magnetic circuits.

#### **Preparation for Course**

P: CPET 10100 or ECET 10200 or ECET 10700; C: MA 15400.

Cr. 4.

#### **ECET 15700 - Electronics Circuit Analysis**

### **ECET 15700 - Electronics Circuit Analysis**

Capacitors, inductors, switching circuits, transformers, rectifiers, linear regulators, dependent sources, operational amplifiers, BJT & MOSFET based small signal amplifiers, waveform generation, and programmable analog devices are studied. Circuit fundamentals such as Kirchhoff's laws are utilized in analysis and design of circuits. Computer simulation is used.

#### **Preparation for Course**

P: ECET 10700, MA 15300

Cr. 4.

Hours

Class 3, Lab. 2-3.

#### **ECET 16100 - Analog Electronics**

### **ECET 16100 - Analog Electronics**

A study of solid state devices and circuits. Topics include diodes, LED, photosensitive devices, zener diodes, bipolar transistors, MOS devices, linear integrated circuits, and related application circuits such as rectifiers, sensing circuits, various transistor amplifiers, transistor switches, linear OPAMP circuits, and non-linear OP-AMP circuits. Not open to EET majors.

#### **Preparation for Course**

P: ECET 10100.

Cr. 4.

Hours

Class 3, Lab. 2-3.

#### ECET 20400 - Analog Electronics II

### **ECET 20400 - Analog Electronics II**

A study of the applications of transistors, integrated circuits, and other solid-state devices. Feedback principles as applied to amplifiers, oscillators, and regulated power supplies. Includes large-signal power amplifiers, special-purpose amplifiers, and AM and FM modulation and detection techniques. Introduction to filters as applied to tuned amplifiers and rectifier circuits

#### **Preparation for Course**

P: ECET 15200 or 15700, and MA 15400.

Cr. 4.

#### **ECET 20500 - Introduction to Microprocessors**

### **ECET 20500 - Introduction to Microprocessors**

An introduction to microprocessor and microcontroller hardware and software. Assembly language instructions and programming, troubleshooting, and input/output techniques are studied. Computer-based program editing and assembly techniques are used.

#### **Preparation for Course**

P: ECET 11100; C: ECET 26400 and MA 15400.

Cr. 4.

Hours

Class 3, Lab. 2-3.

#### **ECET 21100 - Electrical Machines and Controls**

#### **ECET 21100 - Electrical Machines and Controls**

Lecture, demonstration, and laboratory experiments are combined to acquaint the student with the elements of electrical power circuits and machines.

#### **Preparation for Course**

P: MA 15400

Cr. 3.
Hours
Class 2-3, Lab. 0-2.
Notes
Course not open to EET students.

#### **ECET 23100 - Electrical Power and Controls**

#### **ECET 23100 - Electrical Power and Controls**

This course introduces magnetic materials and properties followed by analysis of transformers and power conditioning equipment, induction motors, and single-phase and three-phase power systems. Motor control devices, programmable logic controllers, PLC input and output devices, and power systems communications and monitoring are introduced.

#### **Preparation for Course**

P: ECET 20400 or 20700, and MA 22700.

Cr. 4. **Hours** Class 3, Lab. 2-3.

ECET 23400 - PC Systems I

### ECET 23400 - PC Systems I

A study of PC hardware and software. Components of the computer including CPU, memory, ports, drives and cards are covered as well as their setup, operation and troubleshooting. Labs include topics within A+ certification and hardware/software interfacing using Visual Basic.

#### **Preparation for Course**

P: ECET 10900; P or C: CPT 14000.

Cr. 3. **Hours** Class 2, Lab. 2.

#### **ECET 26400 - C Programming Language Applications**

### **ECET 26400 - C Programming Language Applications**

Examination of fundamental principles and issues in embedded applications: instrumentation, data acquisition, robots, and real-time systems. Overview of the C programming environment. Introduction to C language syntax, basic data types, complex data types (pointer, array, structure, bit fields, union, enum) storage classes, operators, preprocessor directives, macros, functions, flow control, and file I/O. Programming using a structured approach. Emphasis on use of mathematical functions (routines) libraries and numerical algorithms needed in embedded applications.

#### **Preparation for Course**

P: CPET 19000 and MA 15400.

Cr. 3.

#### **ECET 29100 - Industrial Practice I**

#### **ECET 29100 - Industrial Practice I**

Practice in industry and written reports of this practice for co-op students.

#### Preparation for Course

P: admission to the Cooperative Education program.

Cr. 1-5.

#### **ECET 29200 - Industrial Practice II**

#### **ECET 29200 - Industrial Practice II**

Practice in industry, with written reports of this practice by the co-op student.

**Preparation for Course** 

Cr. 1-5.

#### **ECET 29500 - Industrial Practicum**

#### **ECET 29500 - Industrial Practicum**

Enrollment restricted to full-time students who have completed one year's study. Students will work 10-15 hours per week solving technical problems under the supervision of professional employees of local industries. Students will receive some remuneration. Course may be repeated for up to 4 credits.

Cr. 1-5.

#### ECET 29600 - Electronic System Fabrication

### **ECET 29600 - Electronic System Fabrication**

This course introduces project planning and basic concepts in electronic design automation (EDA). The student develops the project from an engineering rough sketch to a finished and test printed circuit board by utilization of EDA. New construction and testing techniques are introduced. The final product is presented in an oral and written report.

#### **Preparation for Course**

P: ECET 20400 or 20700.

Cr. 2-3.

Hours

Class 1, Lab. 2-3.

#### ECET 29900 - Selected Electrical Engineering Technology Subject

### ECET 29900 - Selected Electrical Engineering Technology Subject

Hours and subject matter to be arranged by staff. An individual design, special topics course, sophomore-level research and/or analytical project in any one of the following areas: computer-based technical problem solving, digital electronics, analog electronics systems, networking systems, computer programming, computer-based problem solving, embedded systems, and system integration.

#### **Preparation for Course**

P: Restricted to students enrolled in ECET program.

Cr. 1-6.

Hours

Class 1-4, Lab. 3-9,

Variable Title (V.T.)

Notes

Repeatable up to 6 hours.

#### **ECET 30200 - Introduction to Control Systems**

### **ECET 30200 - Introduction to Control Systems**

This first course in industrial controls is applications oriented and includes on-off type open- and closed-loop control systems, and analog based systems. Major topics include relay and programmable controller based systems.

#### **Preparation for Course**

P: ECET 20500, and ECET 20400 or 20700; C: MA 22700.

Cr. 4.

Hours

Class 3, Lab. 2.

#### **ECET 30300 - Communications I**

### **ECET 30300 - Communications I**

Signal representation in time and frequency domains, concepts of noise, impedance matching, mixing, heterodyning, filters, tuned amplifiers, oscillators and voltage controlled oscillators, phase-lock-loop, analog and digital modulation in amplitude, frequency and phase and multiple user communication systems. Other topics include transmission lines, electromagnetic wave propagation in space, and antenna systems.

#### **Preparation for Course**

P: ECET 20400 or 20700, and MA 22700 or consent of instructor.

Hours Class 3, Lab. 2-3,

#### **ECET 30500 - Advanced Microprocessors**

### **ECET 30500 - Advanced Microprocessors**

A course emphasizing applications of microcomputers to dedicated hardware functions. A high-level language is used with emphasis on programming handheld computers. Some coverage of microprocessor architecture and troubleshooting is included.

#### **Preparation for Course**

P: ECET 20500 or equivalent, and ECET 26400 or equivalent.

Hours Class 3, Lab. 2-3,

**ECET 30700 - Analog Network Signal Processing** 

### **ECET 30700 - Analog Network Signal Processing**

This is an advanced course in network analysis that stresses network theorems and solutions of time- and frequency-domain problems. Transform circuit and signal analysis using Laplace and Fourier techniques are developed, culminating in active filter design applications. Software techniques, such as MATLAB(r) and LabView (tm), to solve mathematical problems are employed.

#### Preparation for Course

P: ECET 20400 or ECET 20700; C: MA 22800.

Cr. 4. Hours

Class 3, Lab. 2-3.

**ECET 34600 - Advanced Digital Circuits** 

### **ECET 34600 - Advanced Digital Circuits**

Basic system techniques with emphasis on digital ASIC theory. Computer-aided engineering is strongly emphasized along with system considerations such as criteria for device selection, testability, and vendor selection.

#### **Preparation for Course**

P: ECET 14600; C: ECET 20500 and ECET 26400.

Cr. 3-4.

Hours

Class 3, Lab. 0-2,

#### **ECET 35500 - Data Communications and Networking**

### **ECET 35500 - Data Communications and Networking**

A survey of communication and networking techniques, protocols and standards. Topics include OSI model, TCP/IP protocols and applications, signals, encoding and modulation, transmission of data and interfaces, transmission media, multiplexing, error detection and correction, data link controls and protocols, switching techniques, and other popular network services.

#### Preparation for Course

P: ECET 20500 or ITC 22000.

Cr. 4.

Hours

Class 3, Lab. 2-3,

ECET 35700 - Real-Time Digital Signal Processing

### **ECET 35700 - Real-Time Digital Signal Processing**

Architecture, instruction set, and hardware and software development tools associated with a fixed-point general purpose DSP VLSI processor are studied. Fundamental

principles associated with the processing of discrete time signals are introduced. Common applications such as waveform generation, FIR and IIR digital filtering, and DFT and FFT based spectral analysis and filtering are implemented.

#### **Preparation for Course**

P: ECET 26400 and ECET 30700.

Hours

Class 3, Lab. 2-3.

#### ECET 36100 - Introduction to PLC and Pneumatic Systems

### **ECET 36100 - Introduction to PLC and Pneumatic Systems**

A study of the fundamentals of developing and implementing ladder logic diagrams for machine controls using industrial programmable logic controllers. The applications of hydraulic and pneumatic systems are also studied.

#### **Preparation for Course**

P: ECET 20400 or 20700.

Cr. 4.

Hours

Class 3, Lab. 2-3.

#### **ECET 36500 - Electrical Measurements**

#### **ECET 36500 - Electrical Measurements**

A study of instrumentation and automatic measurement. Individual instruments include DMM, counters, oscilloscopes, spectrum analyzers, and signal generators. The signals and operation of the general purpose interface bus are examined and applied to a measurements system.

#### Preparation for Course

P: ECET 20400 or ECET 20700, and ECET 20500.

Cr. 4.

Hours

Class 3, Lab. 2.

#### **ECET 37700 - Introduction to Fiber Optics**

### **ECET 37700 - Introduction to Fiber Optics**

An introductory course in fiber optics for junior- or senior-level students. Topics include optical characteristics, optical fibers, cables, modulation techniques, optical receivers and transmitters, and measurements on optical systems. A lab is also included in the course resulting in a complete optical transmitter/receiver system modulated with various methods.

#### Preparation for Course

P: ECET 30300, ECET 40300; MA 22800.

#### ECET 38200 - C++ Object Oriented Programming for Industrial Applications

### ECET 38200 - C++ Object Oriented Programming for Industrial Applications

This course provides a comprehensive introduction to C++ for students to apply object-oriented programming in industrial applications. A background in C or another high-level language is a must, because all applications in this course involve C and C++. The course introduces the methodology of object identification and behavior, the syntax of C++, and industrial applications.

#### **Preparation for Course**

P: ECET 26400.

Cr. 4.

Hours

Class 3, Lab. 2.

#### **ECET 39300 - Industrial Practice III**

#### **ECET 39300 - Industrial Practice III**

Practice in industry, with written reports of this practice by the co-op student.

#### **Preparation for Course**

P: ECET 29200.

Cr. 1-5.

#### **ECET 39400 - Industrial Practice IV**

#### ECET 39400 - Industrial Practice IV

Practice in industry, with written reports of this practice by the co-op student.

#### **Preparation for Course**

P: ECET 39300.

Cr. 1-5.

#### **ECET 39500 - Industrial Practice V**

#### **ECET 39500 - Industrial Practice V**

Practice in industry, with written reports of this practice by the co-op student.

#### **Preparation for Course**

P: ECET 39400.

Cr. 1-5.

#### **ECET 40300 - Communications II**

#### **ECET 40300 - Communications II**

A study of digital communications that includes sideband systems, phase-locked loops, digital communications concepts, pulse and digital modulation, data communications, digital radio, space communications, and fiber optics. PSPICE, Acolade, and electronic workbench are incorporated in the course.

#### **Preparation for Course**

P: ECET 30300.

Hours

Class 3, Lab. 2.

#### **ECET 41400 - Wireless Communications**

### **ECET 41400 - Wireless Communications**

Practical and theoretical aspects of wireless communication system design are studied; particular emphasis is on mobile communications. Frequency reuse, handoff, cell splitting, indoor/outdoor propagation, cochannel interference, m frequency management, channel assignment techniques, cell-site antennas, handset antennas/human body interaction, switching and traffic, AMPS, GSM, TDMA, and CDMA are studied.

#### **Preparation for Course**

P: ECET 30300.

Hours

Class 3, Lab. 2.

#### **ECET 47000 - Technology Project Management**

### ECET 47000 - Technology Project Management

Topics include project management concepts, project life cycle; project initiation, team building, planning, review, execution, and tracking and control; project-related issues, resource, cost, subcontractor control, and risk management; Web-based project management and collaboration; project management and integration tools. A portion of the course is devoted to case studies. Written reports and oral presentations required.

#### **Preparation for Course**

P: B.S. ECET Senior class standing.

Cr. 3.

ECET 47300 - Microwaves

#### ECET 47300 - Microwaves

A study of microwave techniques that includes definitions, microwave materials, microwave components, transmission lines, the Smith chart, S-parameters, microwave diodes and transistors, and microwave measurements. Microwave Office is incorporated in the course.

#### **Preparation for Course**

P: ECET 30300.

Class 3, Lab. 2-3

ECET 49000 - Senior Design Project, Phase I

### ECET 49000 - Senior Design Project, Phase I

An extensive individual design and/or analytical project performed in consultation with one or more faculty advisors. Collaboration with representatives of industry, government agencies, or community institutions is encouraged. Evidence of extensive and thorough laboratory performance is required. Phase I includes but is not limited to (1) faculty acceptance of project proposal, (2) defining and limiting project objectives, (3) initial research and source contacts, (4) procurement of materials, and (5) periodic progress

P: Sixteen credits of ECET/CPET courses at 300-level or above and Junior or Senior class standing

ECET 49100 - Senior Design Project, Phase II

### ECET 49100 - Senior Design Project, Phase II

Phase II includes but is not limited to (1) continued research and finalized design, (2) oral presentation to faculty and other interested parties, (3) standard-format written technical report.

#### **Preparation for Course**

P: ECET 49000.

Cr. 2-5.

**ECET 49900 - Electrical Engineering Technology** 

### **ECET 49900 - Electrical Engineering Technology**

Hours and subject matter to be arranged by staff.

Cr. 1-9.

Hours

Class 0-4, Lab. 3-9.

Variable Title

(V.T.)

Notes

Repeatable up to 9 credits

#### ECET 59000 - Special Problems in Electrical and Computer Engineering Technology

# **ECET 59000 - Special Problems in Electrical and Computer Engineering Technology**

Independent study of a special problem under the guidance of a member of the staff (or, student's academic advisor). Does not substitute for either M.S. thesis or M.S. project credit.

#### **Preparation for Course**

P: instructor permission required.

Cr 1-6

**Dual Level Course** 

Dual Level, Undergraduate-Graduate

#### **ECON 10101 - Survey of Current Economic Issues and Problems**

### **ECON 10101 - Survey of Current Economic Issues and Problems**

For nonmajors only. Basic economic principles applied to current social issues and problems. Topics covered will typically include inflations, unemployment, wage, and price controls, welfare, social security, national debt, health programs, food prices, pollution, crime, mass transit, revenue sharing, multinationals, population, and energy. Not open to those with previous college-level economic courses.

Cr. 3.

#### **ECON 20000 - Fundamentals of Economics**

### **ECON 20000 - Fundamentals of Economics**

Study of the basic institutions of market economy and the role they play in defining and pursuing economic goals in the U.S. economy. Emphasis is placed upon the effects of existing economic institutions, current economic policy alternatives as they affect both the individual and the society.

Cr. 3

Notes

Indiana Core Transfer Library course.

#### **ECON 20101 - Introduction to Microeconomics**

#### **ECON 20101 - Introduction to Microeconomics**

An analysis of evolution of market structure using the analytical concepts of supply and demand, opportunity cost, and marginal analysis. Applications include a variety of concurrent microeconomic issues.

#### **Preparation for Course**

P: MA 12401 or MA 11100 or MA 14000 or MA 15300 or higher or placement at or above MA 15300.

Cr. 3

Notes

Indiana Core Transfer Library course.

#### **ECON 20201 - Introduction to Macroeconomics**

#### **ECON 20201 - Introduction to Macroeconomics**

Measurement and explanation of total economic performance; money and monetary and fiscal policy as an analytical core. Individual sections apply this core to a variety of current economic problems such as inflation, recession, and unemployment.

#### **Preparation for Course**

P: ECON 20101.

Cr. 3.

Indiana Core Transfer Library course.

#### ECON 27000 - Introduction to Statistical Theory in Economics and Business I

### ECON 27000 - Introduction to Statistical Theory in Economics and Business I

Describing populations and samples; introduction to inference, including confidence intervals and hypothesis testing; correlation and simple and multiple regression; Chi-square, nonparametric, test of independence. Uses a popular statistical package for demonstrating and solving statistical problems.

#### **Preparation for Course**

P: MA 12401 or MA 11100 or MA 15300 or higher or placement at or above MA 15300

Cr. 3.

#### **ECON 30600 - Undergraduate Seminar in Economics**

### **ECON 30600 - Undergraduate Seminar in Economics**

Discussion and analysis of contemporary economic problems and policies. Different topics may be offered each semester. May be repeated twice for credit if topics differ. Papers and other written and oral assignments required.

#### **Preparation for Course**

P: ECON 20101 or ECON 20201.

Cr 3

#### **ECON 32100 - Intermediate Microeconomic Theory**

### **ECON 32100 - Intermediate Microeconomic Theory**

Intermediate-level microeconomics; theoretical basis of demand; production; pricing under conditions of competition and monopoly; allocation and pricing of resources; partial and general equilibrium analysis; welfare economics.

#### Preparation for Course

P: ECON 20101.

Cr. 3.

#### **ECON 32201 - Intermediate Macroeconomic Theory**

### **ECON 32201 - Intermediate Macroeconomic Theory**

Intermediate-level macroeconomics. National income accounting; theories of income, employment, and price level. Counter-cyclical and other public-policy measures.

#### **Preparation for Course**

P: ECON 20201.

Cr. 3.

#### ECON 32800 - Game Theory Goes to the Movies

### **ECON 32800 - Game Theory Goes to the Movies**

Game theory is the science of strategic thinking. The objective of this course is to introduce students to the basic tools of game theoretic analysis by synthesizing illustrations from popular films.

#### **Preparation for Course**

P: sophomore class standing

Cr. 3.

#### **ECON 34001 - Introduction to Labor Economics**

#### **ECON 34001 - Introduction to Labor Economics**

Examines theories of wage and employment determination. Analysis of the impact of unions and other institutional factors on these theories; labor market imperfections; labor mobility; impact of government policies on labor behavior.

#### **Preparation for Course**

P: ECON 20101.

Cr. 3

#### ECON 35000 - Money and Banking

### **ECON 35000 - Money and Banking**

Monetary and banking system of the United States. The supply and control of money and its impact on the U.S. economy. Topics in the application of Federal Reserve System monetary policy. Analytical treatment of the Federal Reserve System and the commercial banking industry.

#### **Preparation for Course**

P: ECON 20201.

Cr. 3.

ECON 36001 - Public Finance: Survey

### **ECON 36001 - Public Finance: Survey**

Study of the role and scope of government expenditures and taxation. Topics include public goods, externalities, income redistribution programs, and major elements of taxation.

#### **Preparation for Course**

P: ECON 20101 and 20201.

Cr. 3.

ECON 40601 - Senior Seminar

#### ECON 40601 - Senior Seminar

Assessment of the current state of economic knowledge and discussion of how economics is applied to study the problems facing modern society.

#### **Preparation for Course**

P: ECON 32100 and 32201; senior class standing

Cr. 3.

#### **ECON 40800 - Undergraduate Readings In Economics**

### **ECON 40800 - Undergraduate Readings In Economics**

Individual readings and research.

#### Preparation for Course

P: ECON 20101 and 20201.

Cr. 1-6.

#### **ECON 43000 - Introduction to International Economics**

### **ECON 43000 - Introduction to International Economics**

Gains from trade; relation between factor rentals and goods prices, distributional effects of trade, tariff policy and quantitative inferences; trade problems of developing countries, discrimination, and customs unions; balance of payments adjustments via prices and incomes, exchange rate policy; role of international reserves.

#### **Preparation for Course**

P: ECON 20101 and 20201.

#### ECON 44500 - Collective Bargaining: Practice and Problems

### ECON 44500 - Collective Bargaining: Practice and Problems

Collective bargaining in contemporary economy: economic, social, and legal problems involved in negotiating; administration of collective bargaining agreement through grievance procedure and arbitration.

#### **Preparation for Course**

P: ECON 20101 and 20201.

Cr. 3.

#### **ECON 47101 - Econometric Theory And Practice I**

### **ECON 47101 - Econometric Theory And Practice I**

Emphasis is on the classical linear regression model and its applications. Special topics include finite and asymptotic properties of least squares, hypothesis testing, model specification, dummy variables, proxies, multicollinearity and heteroscedasticity. Several software packages are used in computer lab applications.

#### **Preparation for Course**

P: ECON 20101, 20201 and 27000.

Cr. 3.

#### ECON 47201 - Econometric Theory & Practice II

### **ECON 47201 - Econometric Theory & Practice II**

Emphasizes extensions of the classical linear-regression model such as: limited dependent variables, instrumental variables, stationary and nonstationary data, fixed-effect and random-effect models, multiple-equation models, censored regression, and sample selection.

#### **Preparation for Course**

P: ECON 27000 and 32100.

Cr. 3.

#### ECON 47700 - Korean Economy And Culture

### **ECON 47700 - Korean Economy And Culture**

This course introduces business students to the Korean economy, language, and culture. The purpose is to increase student's knowledge of Korean economy and culture so that they can engage in more effective economic activities with Korea and Asian countries.

Cr. 3.

#### Dual Level Course

Undergraduate - Graduate.

#### EDU 10100 - Laboratory/Field Experience

### **EDU 10100 - Laboratory/Field Experience**

Laboratory or field experience for freshmen.

Cr. 0.
Hours
Lab. 0-3,
Variable Title
(V.T.)
Notes

May be repeated.

#### EDU 20000 - Examining Self As A Teacher

### EDU 20000 - Examining Self As A Teacher

Designed to help a student make a career decision, better conceptualize the kind of teacher the student wishes to become, and reconcile any preliminary concerns that may be hampering a personal examination of self as teacher. Students design a major portion of their work.

Cr. 3

#### **EDU 20001 - Introduction To Scientific Inquiry**

### **EDU 20001 - Introduction To Scientific Inquiry**

Course provides the elementary education major with background in the process skills of science, with emphasis on the integration of these skills and science concepts.

Cr. 1-3.

#### **EDU 20002 - Using Computers For Education**

### **EDU 20002 - Using Computers For Education**

Introduction to instructional computing, educational computing literature, and BASIC programming. Review and hands-on experience with educational software packages and commonly used microcomputer hardware.

Cr. 1-3.

#### EDU 20100 - Laboratory/Field Experience

### **EDU 20100 - Laboratory/Field Experience**

Laboratory or field experience for sophomores.

Cr. 0-3. Variable Title (V.T.) Notes May be repeated.

#### EDU 21000 - Career Planning

### EDU 21000 - Career Planning

Designed to teach the career-planning process, which includes an assessment of the student's individual interests, values, and abilities; an exploration into several career possibilities; choosing a major; development of decision-making skills; and job searches, including resume writing and interviewing techniques.

Cr. 2

#### EDU 22200 - Early Childhood Multilingual Learners

### **EDU 22200 - Early Childhood Multilingual Learners**

Issues related to educating linguistically diverse children in early childhood classrooms. Exploring the role of culture and language in home-school connections, linguistically diverse children and identity, language development in the early years, multicultural literacy, and culturally appropriate classroom practices. Inquiry and discussion based.

### EDU 24900 - Growth And Development In Early Childhood

Focuses on the cognitive, social, affective, and physical development of the child during the early years of life. The goal of understanding the growing child from multiple perspectives guides the study of theory and research on child development. Theoretical study is integrated with observations of, and experiences with, children in a way that increases the insights and competence of the teacher of young children. The unique developmental problems of special groups of children - handicapped, economically deprived, and minority groups - are addressed.

Cr. 3.

#### EDU 25000 - General Educational Psychology

### **EDU 25000 - General Educational Psychology**

The study and application of psychological concepts and principles as related to the teaching-learning process, introduction to classroom management, measurement/evaluation, and disability awareness. Public school participation required.

Cr. 1-4.

#### EDU 25100 - Educational Psychology For Elementary Teachers

### EDU 25100 - Educational Psychology For Elementary Teachers

The application of psychological concepts to school learning and teaching in the perspective of development from childhood through pre-adolescence. Special attention is devoted to the needs of the handicapped. Public school participation required.

#### **Preparation for Course**

P: EDU 20002

Cr. 1-4.

#### EDU 25300 - Educational Psychology For Secondary Teachers

### **EDU 25300 - Educational Psychology For Secondary Teachers**

The application of psychological concepts to school learning and teaching in the perspective of development from preadolescence through adolescence. Special attention is devoted to the needs of the handicapped. Public school participation required.

#### **Preparation for Course**

P: EDU 25000

Cr. 1-4.

#### EDU 25400 - Educational Psychology For Teachers Of All Grades

### **EDU 25400 - Educational Psychology For Teachers Of All Grades**

The application of psychological concepts to school learning and teaching in the perspective of development from childhood through adolescence. Special attention is devoted to the needs of the handicapped. Public school participation required.

#### **Preparation for Course**

P: EDU 20002.

Cr. 1-4.

#### **EDU 30000 - Topical Exploration In Education**

### **EDU 30000 - Topical Exploration In Education**

A one-semester course on a particular topic, established at the request of a faculty member and with the approval of the Academic Affairs Committee.

#### EDU 30100 - Laboratory/Field Experience

### EDU 30100 - Laboratory/Field Experience

Laboratory or field experience for juniors.

Variable Title (V.T.) Notes May be repeated.

EDU 30500 - Teaching The Exceptional Learner In The Elementary School

### EDU 30500 - Teaching The Exceptional Learner In The Elementary School

Knowledge, attitudes, and skills basic to the education of exceptional learners (students who are handicapped as well as gifted and talented in the regular elementary classroom. Topics include historical and international perspectives, the law and public policy, profiling the exceptional learner, a responsive curriculum, teaching and management strategies, teachers as persons and professionals.

Cr. 3

EDU 30600 - Teaching Students With Special Needs In Secondary Classrooms

### EDU 30600 - Teaching Students With Special Needs In Secondary Classrooms

This course includes an overview of the skills and knowledge necessary for effective instruction of students with disabilities in inclusive secondary programs.

Cr. 3.

**EDU 30700 - Methods For Teaching Students With Special Needs** 

### **EDU 30700 - Methods For Teaching Students With Special Needs**

This course prepares future teachers to work with students with diverse abilities in inclusive settings. Participants learn to use learning modalities, varied rates, and complexity of instruction, and to make use of individual interests and preferences. Additionally, differentiating, and/or individualizing instruction for all learners and developing classroom management skills are emphasized.

Cr. 3.

**EDU 31000 - Professional And Career Preparation** 

### **EDU 31000 - Professional And Career Preparation**

This course is designed to instruct students on transitioning to the world of work. Specific topics include, resume writing, gaining experience, professional networking, etiquette, interviewing skills and job search strategies. Throughout the course, students will complete various experiential activities, such as, completing a mock interview, attending a career fair and interviewing an employer in their prospective career field.

Cr. 2.

**EDU 31500 - Child Development** 

### **EDU 31500 - Child Development**

This course focuses on the physical, cognitive, social, affective, and moral development of children from birth through adolescence, as well as contexts that impact development. Understanding the growing child from multiple perspectives based on research and theory while integrating observations of and experiences with children is a key component.

Hours

Class 3.

### **EDU 31700 - Early Childhood Education Practicum I**

Practical experience of observation and teaching in early childhood settings with children ages 3-6. Developing and implementing learning experiences in a supervised field placement. Typically offered Fall Spring Summer occurs at the end of the second year of a 4-year program.

Cr. 4

#### EDU 32300 - The Teaching Of Music In The Elementary Schools

### **EDU 32300 - The Teaching Of Music In The Elementary Schools**

Designed for elementary education majors, this course will introduce the student to the basic elements of music, the importance of music in the curriculum, methods, and materials appropriate for music teaching in the elementary education classroom. Emphasis will be placed on acquiring musical skills through active music-making experiences and group reflections.

#### **Preparation for Course**

C: If taking for 2 credits there will be a co-requisite of MUSC 24100.

Cr. 2-3.

Notes

Not open to music majors.

#### EDU 32500 - Social Studies In The Elementary Schools

### **EDU 32500 - Social Studies In The Elementary Schools**

Explores the sociological backgrounds of education and surveys subject matter, materials, and methods in the content areas. Public school participation required.

Cr. 3.

#### EDU 32700 - Social Studies Methods And The Family: Focus On Young Children

### EDU 32700 - Social Studies Methods And The Family: Focus On Young Children

The course has a dual focus: One goal of the course is to explore issues related to children, families, and communities including legal and ethical issues, and public policies affecting young children from a deeper understanding of families and communities; the course will then focus on goals of a social studies curriculum for young children, including appropriate methods and strategies of instruction.

Cr. 3.

#### EDU 32800 - Science In The Elementary Schools

### **EDU 32800 - Science In The Elementary Schools**

Objectives, philosophy, selection, and organization of science materials and methods. Concept development and use of multidimensional materials in science experiments. Analysis of assessment techniques and bibliographical materials. Public school participation required.

Cr 3

#### **EDU 33000 - Infant Learning Environments**

### **EDU 33000 - Infant Learning Environments**

Students will broaden their knowledge base of appropriate instructional strategies to enhance infant-toddler development, caregiving skills, and knowledge of appropriate learning environments, and will apply strategies and knowledge in providing care and educational experiences.

Cr. 3

#### EDU 33001 - Foundations Of Art Education And Methods I

#### **EDU 33001 - Foundations Of Art Education And Methods I**

An introduction to art education theory and related social issues. Supervised art teaching in public schools is an important part of this course.

Cr. 3

#### EDU 33300 - Inquiry In Mathematics And Science

### **EDU 33300 - Inquiry In Mathematics And Science**

Focuses on planning and managing appropriate science and math experiences with children who are 3 to 8 years of age. Opportunity for exploring, developing, experimenting, and evaluating instructional materials and their inherent possibilities for children's learning. Planning appropriate inquiry-oriented experiences will be stressed.

Cr. 3

#### EDU 33301 - Art Experiences For The Elementary Teacher

### **EDU 33301 - Art Experiences For The Elementary Teacher**

The selection, organization, guidance, and evaluation of art activities, individual and group. Laboratory experiences with materials and methods of presenting projects. Public school participation required.

**Preparation for Course** 

P: AD 25501

Cr. 2.

#### EDU 33500 - Introduction To Early Childhood Education

### **EDU 33500 - Introduction To Early Childhood Education**

This course has a dual focus. First, it is an overview of the field including an historic perspective, program models, goal of early childhood education, and professional organizations. The second focus emphasizes learning observation skills, understanding the characteristics of young children, teacher-child interaction, and classroom management skills.

Cr. 3.

#### EDU 33600 - Play As Development

### EDU 33600 - Play As Development

Includes theories and development of play and how it can be guided. Shows how children use play to develop individually; understand the physical, social, and cognitive environment; and develop physical and motor skill and creative ability. Includes a section on the selection and construction of play materials.

Cr. 3

#### EDU 33700 - Classroom Learning Environments

### **EDU 33700 - Classroom Learning Environments**

This course focuses on the curriculum aspects of early childhood programs designed to meet ethnic and cultural differences and planning, utilizing, and evaluating learning environments. Selection of materials and activities and the acquisition of skills for using these to stimulate children's development are major focuses.

### **EDU 33800 - Administration Of Early Childhood Programs**

Leadership and administration of early childhood centers. Emphasis on developing programs, fiscal management, staff development, and practices, and supporting diverse families. Exploring agencies involved in early childhood programs and child-care trends in the community.

Cr. 3.

**EDU 33900 - Methods Of Teaching Language Arts** 

### **EDU 33900 - Methods Of Teaching Language Arts**

This course describes and appraises the materials, methods, and techniques employed in an elementary school developmental language arts program. Public school participation required.

Cr. 2-3.

EDU 34000 - Methods Of Teaching Reading I

### **EDU 34000 - Methods Of Teaching Reading I**

This course describes and appraises the methods, materials, and techniques employed in a reading program. Public school participation required.

Cr. 2-3.

**EDU 34001 - Education And American Culture** 

#### **EDU 34001 - Education And American Culture**

The present educational system, its social impact and future implications viewed in historical, philosophical, and sociological perspective.

Cr. 3.

EDU 34100 - Methods Of Teaching Reading II

### EDU 34100 - Methods Of Teaching Reading II

This course describes and appraises the materials, methods, and techniques employed in diagnostic and corrective instruction in reading programs. Public school participation required.

**Preparation for Course** 

P: EDU 34000.

Cr. 2-3.

EDU 34300 - Mathematics In The Elementary School

### EDU 34300 - Mathematics In The Elementary School

Emphasizes the developmental nature of mathematical ideas and processes and the role of mathematics in the elementary school curriculum. Public school participation required.

Cr. 3.

EDU 34600 - Discipline/Parenting For Young Children

### **EDU 34600 - Discipline/Parenting For Young Children**

A study of discipline of children in early childhood settings for interaction in teaching and learning environments with an emphasis on working with parents and teachers.

#### EDU 34700 - Language Arts For Early Childhood

### **EDU 34700 - Language Arts For Early Childhood**

This course describes the development of language and literacy in the early years. Curriculum and instructional strategies in varied early childhood settings are included.

Cr. 3

EDU 34900 - Teaching And Learning For All Young Children I: Focus on Birth To Age 3

# EDU 34900 - Teaching And Learning For All Young Children I: Focus on Birth To Age 3

Students will connect theory with typically and atypically pedagogical skills in real-life settings with typically and atypically developing young children, birth to age three. They will learn how to become keen observers of children, and will acquire proficiency in designing, implementing, and assessing environments that are developmentally appropriate and literacy-rich.

Cr. 3.

EDU 35200 - Teaching And Learning In Preschool/Kindergarten

### EDU 35200 - Teaching And Learning In Preschool/Kindergarten

This course engages students in the development, implementation, and assessment of curricula for all children ages 3-5 years. Content area of mathematics, social studies, science, literacy, and art will be emphasized.

Cr. 3.

EDU 35201 - Education Of Children With Learning Problems (LD and EMR)

### EDU 35201 - Education Of Children With Learning Problems (LD and EMR)

Educational programs for optimum growth and development of educable mentally retarded and learning-disabled children. Study and observation of curriculum content, organization of special schools and classes, and teaching methods and materials.

Cr. 3.

EDU 35500 - Issues In Infancy And Early Childhood Mental Health

### **EDU 35500 - Issues In Infancy And Early Childhood Mental Health**

Infancy and early childhood mental health is defined as the healthy social and emotional development of a child from birth to age 8. Young children thrive when they are cared for by adults who are consistent, responsive and focus on teaching. This course will investigate multiple sources (e.g., neurological, contextual) and strategies that impact healthy social, emotional and behavioral development in young children.

#### **Preparation for Course**

P: Admission to Professional Education program.

Cr. 3.

EDU 36900 - Culturally Relevant, Multilingual Literacy Education For Elementary Educators

## **EDU 36900 - Culturally Relevant, Multilingual Literacy Education For Elementary Educators**

Using inquiry and discussions, students explore current issues in the field of literacy education for elementary educators, including but not limited to, critical literacy, writing instruction, multilingual and culturally relevant literacy education.

#### **Preparation for Course**

P: Admission to Professional Education program.

Cr. 3

EDU 37000 - Language Arts & Reading I

### EDU 37000 - Language Arts & Reading I

The student will broaden their knowledge of the theoretical base as well as instructional strategies to enhance literacy practices throughout the preprimary and primary childhood years. This course will cover emergent literacy by emphasizing Literacy practices which engage children in integrated, meaningful, and functional activities.

Cr 3

**EDU 37001 - Introduction To Learning Disabilities** 

### **EDU 37001 - Introduction To Learning Disabilities**

Survey of historical development and current status of definitions, classifications, assessment, and treatment procedures for learning-disabled students.

Cr. 3.

EDU 37100 - Language Arts And Reading II

### EDU 37100 - Language Arts And Reading II

This course focuses on the theory, instructional methods, materials, technology, and assessment strategies related to listening, speaking, reading, and writing for students in grades 3-6. Comprehension, critical analysis, writing, and integration of ideas presented in various print forms across subject matter are emphasized.

Cr. 3.

EDU 37101 - Assessment And Individualized Instruction In Reading and Mathematics

## **EDU 37101 - Assessment And Individualized Instruction In Reading and Mathematics**

Emphasizes assessment and remediation procedures addressing reading and math problems of mildly handicapped students.

Cr. 3.

EDU 37500 - Classroom And Community Leadership

### EDU 37500 - Classroom And Community Leadership

This course will analyze theoretical and practical applications of various models of classroom leadership and management. Students will understand how to involve families as partners in supporting the school both inside and outside the classroom. The role of teachers in building relationships with community members and agencies to enhance the development and learning of children through grade 6 will be explored.

Cr. 3. Hours Class 3.

**EDU 40000 - Topical Exploration In Education** 

### **EDU 40000 - Topical Exploration In Education**

One-semester course on a particular topic, established at the request of a faculty member and with the approval of the Academic Affairs Committee. Applies only as elective credit.

Cr. 1-15.

#### EDU 40001 - Man And Environment: Instructional Methods

For preservice and experienced teachers. Ideas on curriculum trends and instructional techniques coupled with current national and international topics in environmental education; new resource materials and related bibliographies. An examination of a holistic scheme for teaching/learning about the environment.

Cr. 3.

#### EDU 40100 - Laboratory/Field Experience

### EDU 40100 - Laboratory/Field Experience

Laboratory or field experience for seniors.

Cr. 0-3. Variable Title (V.T.) Notes May be repeated.

EDU 40101 - Critical Reading In The Content Area

### **EDU 40101 - Critical Reading In The Content Area**

Aids elementary and secondary teachers in the development of instructional strategies that assist students in the comprehension, critical analysis, and integration of ideas presented in literature of various subject-matter areas. Public school participation required.

Cr. 1-3.

EDU 40500 - The Middle And Junior High School

### **EDU 40500 - The Middle And Junior High School**

The course provides future middle school and junior high teachers with an understanding of how early adolescent students and school structures impact curriculum, instruction, and classroom management decisions. The course meets the middle/junior high school endorsement requirement for elementary school majors.

Cr. 3.

#### EDU 41000 - Trends And Issues In Special Education

### **EDU 41000 - Trends And Issues In Special Education**

Provides students with an overview of current movement in the field of special education. Major emphasis is on application and implication of principles mandated by P.L. 94-142 and Section 504 of the Rehabilitation Act of 1973.

#### Preparation for Course

P: permission of instructor.

Cr. 3.

#### EDU 42500 - Student Teaching: Elementary

### **EDU 42500 - Student Teaching: Elementary**

Classroom teaching and other activities associated with the work of the full-time elementary classroom teacher. Additional fee.

Cr. 1-16.

### **EDU 42600 - Student Teaching: Early Childhood**

Classroom teaching and other activities associated with the work of the full-time early childhood classroom teacher. Students may be placed in preschool, kindergarten, or primary classroom within public school systems.

Cr. 1-16.

Hours

Student Teaching 1-16.

EDU 43000 - Foundations Of Art Education And Methods II

### EDU 43000 - Foundations Of Art Education And Methods II

Advanced study of curriculum developments in art education and methods of teaching visual art in secondary settings.

Cr. 3

EDU 44100 - Transition Across The Lifespan

### **EDU 44100 - Transition Across The Lifespan**

This course is designed to give prospective teachers information and skills necessary to effectively teach students with disabilities at the high school level. An overview of characteristics of secondary students with mild disabilities, school programs, transition from school life to adult life, curriculum issues, and strategies of effective instruction for students with disabilities will be covered.

Cr. 3.

EDU 44300 - Methods Of Teaching High School Social Studies

### EDU 44300 - Methods Of Teaching High School Social Studies

Public school participation required.

Cr. 3.

EDU 44301 - Teaching Elementary Mathematics Problem Solving

### **EDU 44301 - Teaching Elementary Mathematics Problem Solving**

The teaching and learning of problem solving. Topics include types of problems, appropriate instructional sequences, strategies for solving problems, factors related to problem difficulty, evaluating problem-solving learning. Work with elementary school children is included.

Cr. 3.

EDU 44500 - Methods Of Teaching Foreign Languages

### **EDU 44500 - Methods Of Teaching Foreign Languages**

Cr. 3.

EDU 44700 - Methods Of Teaching Secondary English

### **EDU 44700 - Methods Of Teaching Secondary English**

Public school participation required.

### **EDU 44800 - Methods Of Teaching High School Mathematics**

Cr. 2-4.

EDU 44900 - Methods Of Teaching Science In The Secondary Schools

### EDU 44900 - Methods Of Teaching Science In The Secondary Schools

Designed for students who plan to teach biology, chemistry, earth science, general science, or physics in junior high, middle, or secondary schools.

**Preparation for Course** 

P: 35 credits of science.

Cr. 3.

**EDU 45000 - Child Development Seminar** 

### **EDU 45000 - Child Development Seminar**

Students will revisit child development theories, issues, and trends. Will discuss the direct application of this information in preschool, kindergarten, or primary grade classrooms, which they are student teaching.

Cr 3

EDU 45300 - Management Of Academic And Social Behavior

### **EDU 45300 - Management Of Academic And Social Behavior**

Surveys principles of behavior management as they pertain to educational environments. Students will learn how to define, observe, measure, record, and change academic and social behavior.

Cr. 3.

EDU 46500 - Service Delivery Systems And Consultation Strategies

### **EDU 46500 - Service Delivery Systems And Consultation Strategies**

Reviews methods of implementing service delivery systems; consulting with professionals and parents; designing in-service training programs; and developing referral systems, curricular and personnel resources, and evaluation techniques used in special education programs.

Cr. 3.

EDU 47000 - Practicum

### EDU 47000 - Practicum

Teaching or experience under the direction of an identified supervising teacher with university-provided supervision in the endorsement or minor area, and at the level appropriate to the area, and in an accredited school within the State of Indiana unless the integral program includes experience in an approved and accredited out-of-state site. The practicum may be full or part time. The amount of credit granted will be commensurate with the amount of time spent in the instructional meeting.

Cr. 3-8. Variable Title (V.T.) Notes Grade: S or F.

### **EDU 47400 - Undergraduate Seminar In Music Education**

Cr. 1-2.

EDU 47500 - Adolescent Development And Classroom Management

### EDU 47500 - Adolescent Development And Classroom Management

Focuses on discipline approaches appropriate for middle and high school through an understanding of adolescents. Analysis of cognitive and moral development, puberty, environmental and cultural issues, family and peer relationships, identity formation and social and personal problems. Provides tools to diagnose students' behaviors and to establish learning climate.

Cr. 3.

EDU 47900 - Methods In Dental Health Education

#### EDU 47900 - Methods In Dental Health Education

Indludes methods pertaining to dental health education.

Cr. 3.

EDU 48000 - Student Teaching In The Secondary School

### **EDU 48000 - Student Teaching In The Secondary School**

Students assume, under the direction of the supervising teacher, responsibility for teaching in their subject-matter area in a public school in the state.

Cr. 1-16. **Notes** 

Additional fee.

EDU 48200 - Student Teaching: All Grades

### **EDU 48200 - Student Teaching: All Grades**

Full-time supervised student teaching in music at the elementary, junior high/middle school, and/or high school level in an accredited school within Indiana.

Cr. 1-16.

Notes

Additional fee.

EDU 49000 - Research In Elementary Education

### **EDU 49000 - Research In Elementary Education**

Individual research in a given subject area.

Cr. 1-3.

EDU 49001 - Research In Secondary Education

### **EDU 49001 - Research In Secondary Education**

Individual research in a given subject area.

Cr. 1-3.

#### EDU 50100 - Lab/Field Experience

### EDU 50100 - Lab/Field Experience

Cr. 0-3.

**Dual Level Course** 

Eligible for graduate credit.

#### **ENGL 10101 - Ancient And Medieval World Literature**

#### **ENGL 10101 - Ancient And Medieval World Literature**

Literary masterpieces from Homer to Dante.

#### **Preparation for Course**

P: placement at or above ENGL 13100 (or equivalent) and exemption from or completion of ENGL 15000.

Cr. 3

Notes

Approved by Arts and Sciences for the Cultural Studies (Western Tradition) requirement.

Indiana Core Transfer Library course.

#### **ENGL 10201 - Modern World Literature**

#### **ENGL 10201 - Modern World Literature**

Plays, poems, and fiction from the 16th century to the present, including works by Shakespeare, Ibsen, Shaw, Wordsworth, Whitman, Yeats, Dostoevsky, Faulkner, Hemingway.

#### Preparation for Course

P: placement at or above ENGL 13100 (or equivalent) and exemption from or completion of ENGL 15000.

Cr. 3

Notes

Approved by Arts and Sciences for the Cultural Studies (Western Tradition) requirement.

Indiana Core Transfer Library course.

#### **ENGL 10301 - Introduction to Drama**

#### **ENGL 10301 - Introduction to Drama**

Significant plays from various times and countries to acquaint students with the conventions and types of drama; works by such playwrights as Sophocles, Shakespeare, Moliere, Ibsen, Strindberg, Shaw, Miller, and Albee.

#### **Preparation for Course**

P: placement at or above ENGL 13100 (or equivalent) and exemption from or completion of ENGL 15000.

Cr. 3.

#### **ENGL 10302 - Introductory Creative Writing**

## **ENGL 10302 - Introductory Creative Writing**

Introduction to the art of creative writing. Short assignments, independent work, and classroom discussion of the fundamentals of writing in several genres, including poetry and fiction.

#### **Preparation for Course**

P: placement at or above ENGL 13100 or equivalent.

Cr. 3.

Notes

Indiana Core Transfer Library course.

#### ENGL 10700 - Masterpieces of Asia

### **ENGL 10700 - Masterpieces of Asia**

An introduction to the literature of Asia focusing on literary masterpieces of India, China, Japan, and other countries.

#### **Preparation for Course**

P: placement at or above ENGL 13100 (or equivalent) and exemption from or completion of ENGL 15000.

Cr. 3.

Note

Approved by Arts and Sciences for the Cultural Studies (Non-Western Culture) requirement. If you are required by placement examination to take ENG R150, it is recommended that you complete that requirement before enrolling in any other English course.

#### **ENGL 10801 - Introduction to Contemporary Literature**

### **ENGL 10801 - Introduction to Contemporary Literature**

Significant fiction and drama of the past 20 years. The course may emphasize traditional writers such as Updike and Solzhenitsyn, or experimentalists such as Robbe-Grillet and Brecht.

#### **Preparation for Course**

P: placement at or above ENGL 13100 (or equivalent) and exemption from or completion of ENGL 15000.

Cr. 3.

Note

If you are required by placement examination to take ENGL 15000, it is recommended that you complete that requirement before enrolling in any other English course.

#### **ENGL 11500 - Basic English Composition I**

### **ENGL 11500 - Basic English Composition I**

For beginning-level, non-native students of English. Classroom work on vocabulary, word order, sentence structure, and idiom; practice in writing short papers for a variety of purposes and audiences. No credit toward any PFW degree.

#### Preparation for Course

P: permission of the Center for Academic Support and Advancement.

Cr. 3.

#### **ENGL 11600 - Basic English Composition II**

### **ENGL 11600 - Basic English Composition II**

#### Preparation for Course

P: permission of instructor.

Cr. 3

#### **ENGL 12000 - Introduction To The English Major**

### **ENGL 12000 - Introduction To The English Major**

Students will take this course the first semester after declaring a major in the Department of English& Linguistics. Students will learn about the different concentrations in the major and possible career paths for English majors. Students will begin documenting their learning in the major by creating a portfolio of their work. Restricted to PFW majors seeking the English B.A.

Cr. 1.

#### **ENGL 12900 - Introductory Elementary Composition**

### **ENGL 12900 - Introductory Elementary Composition**

For students who need to complete the two semester sequence of writing instruction, culminating in ENGL 13100. Practice in writing coherent, developed and researched papers for a variety of purposes and audiences. Study of sentence and paragraph structure is integrated into study of the writing process.

Cr. 3

#### ENGL 13100 - Reading, Writing, and Inquiry I

### **ENGL 13100 - Reading, Writing, and Inquiry I**

This course teaches skills of critical reading, thinking, and writing to help students meaningfully engage artifacts, events, and issues in our world. The course builds students' abilities to read written and cultural texts critically; to analyze those texts in ways that engage both students'own experiences and the perspectives of others; and to write about those texts for a range of audiences and purposes as a means of participating in broader conversations. Assignments emphasize the analysis and synthesis of sources in making and developing claims.

#### **Preparation for Course**

P: self-placement in ENGL 13100, or completion of ENGL 12900 with a grade of C or better, or completion of the ESL composition sequence and recommendation of the ESL instructor

Cr. 3

Indiana Core Transfer Library course.

#### ENGL 14000 - Reading, Writing, and Inquiry I-Honors

### **ENGL 14000 - Reading, Writing, and Inquiry I-Honors**

Offers an introductory writing course for advanced first-year writers. Like 13100, 14000 teaches skills of critical reading, thinking, and writing to help students meaningfully engage artifacts, events, and issues in our world. The course builds students' abilities to read written and cultural texts critically; to analyze those texts in ways that engage both students' own experiences and the perspectives of others; and to write about those texts for a range of audiences and purposes as a means of participating in broader conversations. Assignments emphasize the analysis and synthesis of sources in making and developing claims.

P: placement in ENGL 13100 and honors eligibility.

Cr. 3

To register in an honors course, students must have Honors Program eligibility or instructor's permission.

#### ENGL 15000 - Reading/Learning Techniques I

### **ENGL 15000 - Reading/Learning Techniques I**

Emphasis on mechanics of reading, flexibility in reading, styles of learning, listening comprehension, vocabulary development, word attack, reading comprehension, and other study skills. No credit toward any degree at PFW.

Variable Title

(V.T.)

#### **ENGL 19000 - Rhetorical Reading**

### **ENGL 19000 - Rhetorical Reading**

A college-level course that challenges students to expand their repertoire of reading performances and become better readers of public and academic texts.

### **ENGL 20201 - Literary Interpretation**

## **ENGL 20201 - Literary Interpretation**

Close analysis of representative texts (poetry, drama, fiction) designed to develop art of lively, responsible reading through class discussion and writing of papers, including a documented research paper. Attention to literary design of critical method. May be repeated once for credit by special arrangement with Department of English and Linguistics.

#### **Preparation for Course**

P: ENGL 13100, or 14000 with a grade of C or better.

Cr. 3.

#### Notes

Approved by Arts and Sciences for use in fulfilling the writing requirement. Recommended prior to taking upper-level courses. If you are required by placement examination to take ENGL 15000, it is recommended that you complete that requirement before enrolling in any other English course.

### **ENGL 20301 - Creative Writing - Poetry**

## **ENGL 20301 - Creative Writing - Poetry**

Focus in poetry. Exploration in imaginative writing with focus on one specific genre.

#### **Preparation for Course**

P: ENGL 13100 or equivalent.

Cr. 3.

### **ENGL 20302 - Creative Writing - Fiction**

## **ENGL 20302 - Creative Writing - Fiction**

This class will emphasize the practice and development of fiction writing. This class introduces you to forms and techniques that will help you begin to process fiction writing, which will enable you to understand the origin of your own fiction writing processes. We will read fiction and write fiction, all the while reading, commenting, and discussing the writing of peers, as well as the writing from our readings and handouts. You will develop skills to deepen your understanding on reading and discussing contemporary fiction: the characters, setting, plot, and the technique. You will also deepen your understanding of how to write contemporary fiction by demonstrating your abilities through your own writing.

### **Preparation for Course**

P: ENGL 13100 or equivalent.

Cr. 3

### ENGL 20501 - Introduction to the English Language

# **ENGL 20501 - Introduction to the English Language**

Introduction to reasoning about English syntax and semantics.

#### **Preparation for Course**

P: ENGL 13100 or equivalent.

Cr. 3.

### ENGL 20600 - Introduction to the Study of Grammar

# **ENGL 20600 - Introduction to the Study of Grammar**

Presents the basic principles of structural and transformational grammar: phonology, morphology, syntax, and semantics with comparative reference to traditional grammar. Required for advanced elementary education majors.

#### Preparation for Course

P: ENGL 13100 or equivalent.

### **ENGL 22001 - Introduction to Shakespeare**

## **ENGL 22001 - Introduction to Shakespeare**

Shakespeare's best-known plays and poems. Credit not given for both 22001 and 31501.

#### **Preparation for Course**

P: ENGL 13100 or equivalent.

Cr. 3.

Notes

If you are required by placement examination to take ENGL 15000, it is recommended that you complete that requirement before enrolling in any other English course.

### **ENGL 23001 - Introduction to Science Fiction**

### **ENGL 23001 - Introduction to Science Fiction**

The major themes and types of modern science fiction: space opera, utopia, apocalypse, cautionary tale. Writers considered range from Mary Shelley, Verne, and Wells in the 19th century to contemporary figures such as LeGuin, Herbert, Clarke, Clement, Lem, and Vonnegut. The reading list varies.

#### Preparation for Course

P: ENGL 13100 or equivalent.

Cr. 3.

### **ENGL 23101 - Professional Writing**

## **ENGL 23101 - Professional Writing**

Focuses on expository writing for the student whose career requires preparation of reports, proposals, and analytical papers. Emphasis on clear and direct objective writing and on investigation of an original topic written in report form, including a primary research project. Evaluation is based on a portfolio of student's work.

Cr. 3.

### **ENGL 23201 - Topics in Literature and Culture**

# **ENGL 23201 - Topics in Literature and Culture**

Examination of a particular theme, such as the hero, death, or the city, and the techniques by which it is treated in various literary works, usually in more than one genre. May be repeated with different topics for a maximum of 6 credits.

### **Preparation for Course**

P: ENGL 13100 or equivalent.

Cr. 3.

Variable Title (V.T.)

**ENGL 23202 - Introduction to Business Writing** 

## **ENGL 23202 - Introduction to Business Writing**

Designed for students pursuing business careers. Practice in clarity, correctness, organization, and audience adaptation in business letters, interoffice memos, and informal and formal reports. Some emphasis on business research methods, research design, collaborative writing, and oral communication.

#### **Preparation for Course**

P: ENGL 13100, or 14000 with a grade of C or better.

### **ENGL 23301 - Intermediate Expository Writing**

# **ENGL 23301 - Intermediate Expository Writing**

Instruction and practice in producing researched and documented texts appropriate for public audiences. Emphasis on appropriate primary and secondary research methods, organization, writing style, and documentation.

#### **Preparation for Course**

P: ENGL 13100 with a grade of C or better.

Cr. 3.

### **ENGL 23401 - Technical Report Writing**

## **ENGL 23401 - Technical Report Writing**

Instruction in preparing engineering and other technical proposals and reports, with an introduction to the use of graphics.

#### **Preparation for Course**

P: ENGL 13100 or 14000 with a grade of C or better; R: Sophomore class standing.

Cr. 3.

### **ENGL 23501 - Introduction To Web Authoring**

## **ENGL 23501 - Introduction To Web Authoring**

Designed to help students read, analyze, evaluate, and author websites from a variety of perspectives (e.g. historically, usability, rhetorically, and technically). Students will design their own websites by working in raw code and composing with HTML editors, and by capturing, creating, and manipulating graphics.

### **Preparation for Course**

P: ENGL 13100 or equivalent.

Cr. 3.

### **ENGL 24001 - Literature And Public Life**

### **ENGL 24001 - Literature And Public Life**

A study of literary works which feature situations, issues and problems of values or ethics in public life as seen from a variety of viewpoints. Discussion and writing will be directed to the works themselves and to the quesitons they raise for contemporary life.

Cr. 3.00

### ENGL 25001 - American Literature Before 1865

### ENGL 25001 - American Literature Before 1865

An introductory survey of representative works with an emphasis on major writers.

#### **Preparation for Course**

P: ENGL 13100 or equivalent.

Cr. 3.

Note

Indiana Core Transfer Library course.

### **ENGL 25100 - American Literature Since 1865**

### **ENGL 25100 - American Literature Since 1865**

An introductory survey of representative works with an emphasis on major writers.

### **Preparation for Course**

P: ENGL 13100 or equivalent.

Cr. 3.

Notes

Indiana Core Transfer Library course.

### ENGL 30102 - Critical and Historical Survey of English Literature I

## ENGL 30102 - Critical and Historical Survey of English Literature I

Representative selections with emphasis on major writers from the beginnings to Swift and Pope.

#### **Preparation for Course**

P: ENGL 20201 or 23301 or equivalent.

Cr. 3

### **ENGL 30103 - Writing Fiction**

## **ENGL 30103 - Writing Fiction**

Further exploration in the art of fiction writing. With permission of instructor, may be repeated with different topics for a maximum of 9 credits.

#### **Preparation for Course**

P: ENGL 20301 (in fiction) or submission of acceptable manuscripts to instructor in advance of registration.

Cr. 3.

#### ENGL 30202 - Critical and Historical Survey of English Literature II

## **ENGL 30202 - Critical and Historical Survey of English Literature II**

Representative selections with emphasis on major writers from the rise of romanticism to the present.

#### **Preparation for Course**

P: ENGL 20201 or 23301 or equivalent.

Cr. 3.

### **ENGL 30301 - Writing Poetry**

# **ENGL 30301 - Writing Poetry**

Further exploration in the art of poetry writing. May be repeated with different topics for a maximum of 9 credits.

#### **Preparation for Course**

P: ENGL 20301 (in poetry) or submission of acceptable manuscripts to instructor in advance of registration.

Cr. 3

## **ENGL 30401 - Contemporary African American Poetry Forms**

# **ENGL 30401 - Contemporary African American Poetry Forms**

In this class we will study mostly original poetic forms created by contemporary African American authors to learn basic principles poets use to create poetry. We will practice those techniques in a series of exercises that will allow us to explore different forms of contemporary poetry. This class will give you a basic understanding of poetic form, which you can draw upon as you continue to write poetry.

#### **Preparation for Course**

P: ENGL 20301 or 20302.

## **ENGL 32301 - Digital Writing**

Designed to help students read, analyze, evaluate, and author websites from a variety of perspectives (e.g. historically, usability, rhetorically, and technically). Students will design their own websites by working in raw code and composing with HTML editors, and by capturing, creating, and manipulating graphics.

#### **Preparation for Course**

P: ENGL 13100 or equivalent.

Cr. 3.

### **ENGL 33101 - Business and Administrative Writing**

# **ENGL 33101 - Business and Administrative Writing**

Emphasis on proposals, presentations, collaborative and individual reports needed within a business, administrative, or organizational setting. Students discover how the process and products of writing shape organizational culture by studying documents organizations use, from hiring to setting ethical standards, as they communicate both internally and globally.

### **Preparation for Course**

P: ENGL 23301 or equivalent.

Cr. 3.

### **ENGL 36301 - Nonprofit And Grant Writing**

## **ENGL 36301 - Nonprofit And Grant Writing**

Nonprofit and Grant Writing is a professional writing course that teaches students the essential rhetorical moves for nonprofit and grant proposal writing. Students will identify sources of funding, research for supporting data, and write for specific audiences.

### Preparation for Course

P: ENGL 20201, 23301 or 23401 with a C or higher.

Cr. 3.

### **ENGL 36402 - Editing for Publication**

# **ENGL 36402 - Editing for Publication**

Examines the writing process from the perspective of the manager who supervises the writing of texts that become products: books, newsletters, websites, etc. It explores the document production process, focusing on design, desktop publishing, web publishing, and the stages of writing project management.

### Preparation for Course

P: ENGL 20201, 23301 or equivalent.

Cr. 3.

### **ENGL 37101 - Critical Practices**

### **ENGL 37101 - Critical Practices**

Study of and practice in critical methodologies; can be focused on specific topics.

#### **Preparation for Course**

P: ENGL 20201 or 23301 or equivalent.

### **ENGL 39500 - Individual Study of Writing**

## **ENGL 39500 - Individual Study of Writing**

Practice in and study of informative, persuasive, or literary writing. May be repeated with different topics for a maximum of 9 credits.

#### **Preparation for Course**

P: permission of instructor.

Cr. 1-3. Variable Title (V.T.)

ENGL 39800 - Internship in Writing

## **ENGL 39800 - Internship in Writing**

Combines study of writing with practical experience of working with professionals in journalism, business communication, or technical writing. Researched reports are required. Evaluations made by both supervisor and instructor. May be repeated, with permission of instructor, with different topics for a maximum of 9 credits.

#### Preparation for Course

P: ENGL 13100 or honors eligibility.

Cr. 1-3.

**ENGL 40001 - Issues in Teaching Writing** 

## **ENGL 40001 - Issues in Teaching Writing**

Focuses on the content of rhetoric and composition and considers fundamental theoretical and practical issues in the teaching of writing. Reviews rhetorical and compositional principles that influence writing instruction, textbook selection, and curriculum development.

### Preparation for Course

P: ENGL 23301 or equivalent.

Cr. 3

**ENGL 40010 - Writing Fiction** 

# **ENGL 40010 - Writing Fiction**

This course introduces the impact of safety on the construction industry, including in-depth discussions on the application of the Occupational Safety & Health Administration (OSHA) Safety and Health Standards for the construction industry. The emphasis of this course is to provide training for job sited supervisory personnel. In addition, this course fulfills the requirements for the OSHA 30-hour Card.

Cr. 3.

### **ENGL 40101 - Advanced Fiction Writing**

# **ENGL 40101 - Advanced Fiction Writing**

Focused work in the art and profession of fiction writing. With permission of instructor, may be repeated with different topics for a maximum of 9 credits.

#### Preparation for Course

P: ENGL 20301 or 20302 with a C- or higher; or submission of acceptable manuscripts to instructor in advance of registration.

Cr. 3.

### ENGL 40102 - History of the English Language

# ENGL 40102 - History of the English Language

Historical and structural analysis of English language in stages of its development. Political and social events affecting development of language; interrelationship of language

and literature, evolution of modern English phonology, syntax, orthography, and lexicon.

Cr. 3.

### ENGL 40203 - Structure of Modern English (TESOL)

# **ENGL 40203 - Structure of Modern English (TESOL)**

Linguistic analysis of present-day spoken and written English, with attention to its phonemic, morphemic, and syntactical systems and its system of expressive features.

#### **Preparation for Course**

P: LING 10300.

Cr. 3.

### **ENGL 40301 - Advanced Poetry Writing**

## **ENGL 40301 - Advanced Poetry Writing**

Focused work in the art and profession of poetry writing. With permission of instructor, may be repeated with different topics for a maximum of 9 credits.

#### Preparation for Course

P: submission of acceptable manuscripts to instructor in advance of registration.

Cr. 3

### ENGL 40401 - Old English Language and Literature

## ENGL 40401 - Old English Language and Literature

Language and literature of England before the Norman Conquest, with intensive study of original texts.

### **Preparation for Course**

P: ENGL 20201 or 23301 or equivalent.

Cr. 3.

### **ENGL 40501 - Writing Prose - Creative Nonfiction**

# **ENGL 40501 - Writing Prose - Creative Nonfiction**

Variable topics relating to the production of non-fiction prose. Includes an intensive written project that may involve research as well as production of essays.

### **Preparation for Course**

P: ENGL 23301 or equivalent.

Cr. 2-3.

### ENGL 40502 - Chaucer

### ENGL 40502 - Chaucer

Examination of The Book of the Duchess, The Parliament of Fowls, Troilus and Criseyde, and selected Canterbury Tales to acquaint students with the language, conventions, and background of Chaucer's poetry.

#### **Preparation for Course**

P: ENGL 20201 or 23301 or equivalent.

### **ENGL 40601 - Middle English Literature**

## **ENGL 40601 - Middle English Literature**

A survey of Middle English lyrics, drama, and romance, with special attention to Langland, The Pearl-poet, and Gower, designed to acquaint the student with the language and literary development of England from 1066 to 1500.

#### **Preparation for Course**

P: ENGL 20201 or 23301 or equivalent.

Cr 3

### ENGL 40801 - Elizabethan Drama and Its Background

# ENGL 40801 - Elizabethan Drama and Its Background

English drama from Middle Ages to 1642, including principal Elizabethan and Caroline dramatists and their best plays.

#### **Preparation for Course**

P: ENGL 20201 or 23301 or equivalent.

Cr. 3.

### ENGL 40901 - Elizabethan Poetry

## **ENGL 40901 - Elizabethan Poetry**

Major Elizabethan poets, with special attention to Spenser.

#### **Preparation for Course**

P: ENGL 20201 or 23301 or equivalent.

Cr. 3.

### ENGL 41402 - Using Poems To Beath Death (Finding Poetry To Live)

# **ENGL 41402 - Using Poems To Beath Death (Finding Poetry To Live)**

This course will provide an exploration and examination into poetics and its relationship with performance. Students will view, read, analyze, and discuss, as well as explore the structural, figurative, and literary devices of poetic language, while practicing performance poetry.

Cr.3.

## ENGL 41501 - Major Plays of Shakespeare

# **ENGL 41501 - Major Plays of Shakespeare**

 $A\ close\ reading\ of\ a\ representative\ selection\ of\ Shakespeare's\ major\ plays.\ Credit\ not\ given\ for\ both\ 22001\ and\ L315/41501.$ 

### **Preparation for Course**

P: ENGL 20201 or 23301 or equivalent.

Cr. 3.

### ENGL 41701 - English Poetry of the Early 17th Century

# ENGL 41701 - English Poetry of the Early 17th Century

Chief poets and their intellectual milieu (1600-1660).

#### **Preparation for Course**

P: ENGL 20201 or 23301 or equivalent.

### ENGL 41801 - Milton

### ENGL 41801 - Milton

Poetry and prose of John Milton, with special attention to Paradise Lost, Paradise Regained, and Samson Agonistes.

#### Preparation for Course

P: ENGL 20201 or 23301 or equivalent.

Cr. 3

### **ENGL 42002 - Argumentative Writing**

## **ENGL 42002 - Argumentative Writing**

Examines techniques for analyzing and constructing arguments, especially the use of proofs, evidence, and logic. Considers such issues of argument as the ethics of persuasion and the use of style. Students write researched arguments on political, legal, scientific, and academic issues.

#### **Preparation for Course**

P: ENGL 23301 or equivalent.

Cr. 3

### **ENGL 42101 - Technical Writing Projects**

## **ENGL 42101 - Technical Writing Projects**

Application of the principles of technical reporting to a major piece of primary research and development, usually a senior project in the major. May be repeated for credit.

#### Preparation for Course

P: junior or senior class standing and ENGL 23401 or 33101.

Cr. 1-3.

### **ENGL 42202 - Creativity and Community**

# **ENGL 42202 - Creativity and Community**

This course addresses questions of what it means to create and be creative - as writers, scholars, teachers, professionals and citizens-within the contexts of various communities. The course's main purpose is to develop each participant's creativity in ways that will enhance their participation inthe discourse communities of their choosing.

Cr. 3.

### ENGL 42204 - English Literature, 1660-1789

# ENGL 42204 - English Literature, 1660-1789

Survey of nondramatic literature of the Restoration and 18th century. Emphasis on Dryden, Pope, Swift, and Johnson and his circle.

#### **Preparation for Course**

P: ENGL 20201 or 23301 or equivalent.

Cr. 3.

### **ENGL 42502 - Research Methods for Professional Writers**

### **ENGL 42502 - Research Methods for Professional Writers**

**Preparation for Course** 

Examines quantitative, qualitative, and action research techniques as practiced by professionals working in various fields of writing: technical and business writing, freelance and creative writing, academic writing, community and grant writing, journalism, and the teaching of writing. It includes coverage of both primary (i.e., field) and secondary (i.e., library) research.

Cr. 3.

### **ENGL 43200 - Second Language Acquisition**

# **ENGL 43200 - Second Language Acquisition**

An introduction to a broad range of issues in the field of second language acquisition. Providies students with an overview of important approaches to the fundamental questions of how people learn a second language, basic knowledge of theories, and an understanding of how theoretical perspectives inform practical application.

#### **Preparation for Course**

P: LING 10300.

Cr. 3.

### **ENGL 43202 - Romantic Literature**

## **ENGL 43202 - Romantic Literature**

Surveys the principal writers of the Romantic Movement (Blake, Wordsworth, Coleridge, Byron, Shelley, and Keats).

### **Preparation for Course**

P: ENGL 20201 or 23301 or equivalent.

Cr. 3.

### **ENGL 43501 - Victorian Literature**

### **ENGL 43501 - Victorian Literature**

A survey of English poetry and prose from about 1832 to 1900. Attention to figures like Tennyson, Browning, and Carlyle.

#### **Preparation for Course**

P: ENGL 20201 or 23301 (or equivalent).

Cr. 3.

### ENGL 44501 - 20th Century British Poetry

# ENGL 44501 - 20th Century British Poetry

Modern poets, particularly Yeats, Eliot, Auden; some later poets may be included.

### **Preparation for Course**

P: ENGL 20201 or 23301 or equivalent.

Cr. 3

### ENGL 44601 - 20th Century British Fiction

## **ENGL 44601 - 20th Century British Fiction**

20th century novel and its techniques and experiments, chiefly Lawrence, Joyce, Woolf, and recent novelists.

### Preparation for Course

P: ENGL 20201 or 23301 or equivalent.

### ENGL 44700 - British Fiction to 1800

Forms, techniques, and theories of fiction as exemplified by such writers as Defoe, Richardson, Fielding, Smollett, and Sterne.

#### **Preparation for Course**

P: ENGL 20201 or 23301 or equivalent.

Cr. 3.

ENGL 44800 - 19th Century British Fiction

## **ENGL 44800 - 19th Century British Fiction**

Forms, techniques, and theories of fiction as exemplified by such writers as Scott, Dickens, Eliot, and Hardy.

#### **Preparation for Course**

P: ENGL 20201 or 23301 or equivalent.

Cr. 3.

ENGL 45101 - American Literature 1800-1865

### ENGL 45101 - American Literature 1800-1865

Emphasis on Emerson, Hawthorne, Melville, Thoreau, and Whitman.

#### **Preparation for Course**

P: ENGL 20201 or 23301 or equivalent.

Cr. 3.

ENGL 45200 - American Literature 1865-1914

### ENGL 45200 - American Literature 1865-1914

Emphasis on Mark Twain, Dickinson, James, and two or three additional major writers.

### **Preparation for Course**

P: ENGL 20201 or 23301 or equivalent.

Cr. 3.

ENGL 45400 - American Literature Since 1914

### **ENGL 45400 - American Literature Since 1914**

Provides an understanding of the pivotal literary innovations and cultural changes during this period. Literary movements such as naturalism, realism, and modernism may be the subject of focus, as might changes in race and gender relations, labor politics, immigration policies, regionalism, and the increasing shift from agricultural to urban economics.

### **Preparation for Course**

P: ENGL 20201 or 23301 or equivalent.

Cr. 3.

ENGL 45501 - American Fiction to 1900

### ENGL 45501 - American Fiction to 1900

Survey of representative 19th century American fiction, with emphasis on works of Cooper, Hawthorne, Melville, Mark Twain, James, and Dreiser.

#### **Preparation for Course**

P: ENGL 20201 or 23301 or equivalent.

### ENGL 45700 - 20th Century American Poetry

## **ENGL 45700 - 20th Century American Poetry**

American poetry since 1900, including such poets as Pound, Eliot, Frost, Stevens, Williams, and Lowell.

#### **Preparation for Course**

P: ENGL 20201 or 23301 or equivalent.

### ENGL 45800 - 20th Century American Fiction

## **ENGL 45800 - 20th Century American Fiction**

American fiction since 1900, including such writers as Dreiser, Lewis, Fitzgerald, Hemingway, Faulkner, and Bellow.

#### Preparation for Course

P: ENGL 20201 or 23301 or equivalent.

Cr. 3.

### **ENGL 46001 - Introduction to Literacy Studies**

# **ENGL 46001 - Introduction to Literacy Studies**

This course provides an overview of literacy studies while also focusing on the literacy practices and beliefs of particular groups. The course moves beyond reductive discussions of literacy by introducing students to a range of literacy studies scholarship that challenges popular conceptualizations of literacy.

### Preparation for Course

P: ENGL 23301 or equivalent.

Cr. 3

### ENGL 46201 - Studies in Rhetoric and Composition

# **ENGL 46201 - Studies in Rhetoric and Composition**

An examination of major rhetorical theories and their applications for writers and for teachers of composition. Focuses on theories of discourse, invention, form, style, and audience. Aims at developing greater understanding of the writing process. May be repeated with different topics for a maximum of 9 credits.

### Preparation for Course

P: ENGL 23301 or equivalent and junior or senior standing.

Cr. 3. Variable Title (V.T.)

### **ENGL 46401 - Native American Literature**

## **ENGL 46401 - Native American Literature**

A survey of traditional and modern literature by American Indians, especially of the high plains and southwest culture areas, with particular attention to the image of the Indian in both native and white literature.

#### **Preparation for Course**

P: ENGL 20201 or 23301 or equivalent.

Cr. 3

#### Notes

Approved by Arts and Sciences for the Cultural Studies (Non-Western Culture) requirement.

#### ENGL 46500 - Theories and Practices of Editing

## **ENGL 46500 - Theories and Practices of Editing**

Students will examine textual and literary approaches to editing given particular rhetorical contexts. Emphasis will be placed on how to make editorial judgments that promote editorial standards without violating authorial intent.

#### **Preparation for Course**

P: ENGL 23301 or equivalent.

Cr. 3.

### **ENGL 46700 - Writing for Multiple Media**

## **ENGL 46700 - Writing for Multiple Media**

Introduces principles and practices of multimedia design and implementation, with emphasis on writing in multimedia contexts. Students will consider ways that new media affect the production and reception of writing and its relationship to other forms of communication (e.g., oral and visual).

#### **Preparation for Course**

P: ENGL 23301 or equivalent.

Cr. 3.

### **ENGL 46901 - Studies in British and American Authors**

### **ENGL 46901 - Studies in British and American Authors**

Studies in single authors (such as Wordsworth or Melville), groups of authors (such as minority writers), periods (such as American writers of the 1920s), and genres (such as tragedy). Topics will vary from semester to semester.

### **Preparation for Course**

P: ENGL 20201 or 23301 or equivalent.

Cr. 3

Variable Title

(V.T.)

Notes

May be repeated with different topics for a maximum of 9 credits.

### **ENGL 47200 - Contemporary American Fiction**

# **ENGL 47200 - Contemporary American Fiction**

American fiction of the last 20 years, including such writers as Bellow, Barth, Didion, Malamud, Pynchon, and Updike.

### **Preparation for Course**

P: ENGL 20201 or 23301 or equivalent.

Cr. 3.

### **ENGL 47201 - Composing the Self**

# **ENGL 47201 - Composing the Self**

Study of the ways in which our identities are formed, sustained, and reformed, particularly with respect to gender, race, class, and sexuality. Focus on both exploratory and polished writing as well as works by various authors.

### **Preparation for Course**

P: ENGL 23301 or equivalent.

### ENGL 47600 - Writers Reading

# **ENGL 47600 - Writers Reading**

Investigation of how writers, readers, and texts are shaped within the contexts of literature, composition, and professional writing. Focus on using current conventions more consciously and flexibly to generate new ways of reading and writing that better serve our specific needs, desires, and goals.

#### **Preparation for Course**

P: ENGL 23301 or equivalent.

Cr. 3.

#### ENGL 47800 - Studies in Women and Literature

### ENGL 47800 - Studies in Women and Literature

British and American authors, such as George Eliot, Gertrude Stein; groups of authors, such as the Brontë sisters, recent women poets; or genres and modes, such as autobiography, film, criticism. Topics will vary from semester to semester.

#### **Preparation for Course**

P: ENGL 20201 or 23301 or equivalent.

Cr. 3

Variable Title

(V.T.

Notes

May be repeated with different topics for a maximum of 9 credits.

### **ENGL 47901 - American Ethnic and Minority Literature**

# **ENGL 47901 - American Ethnic and Minority Literature**

A survey of representative authors and works of American ethnic and minority literature with primary focus on black, Hispanic, and Native Americans.

### Preparation for Course

P: ENGL 20201 or 23301 or equivalent.

Cr. 3

### **ENGL 48100 - Recent Writing**

# **ENGL 48100 - Recent Writing**

Selected writers of contemporary significance. May include groups and movements (such as black writers, poets of projective verse, new regionalists, parajournalists and other experiments in pop literature, folk writers, and distinctly ethnic writers); several recent novelists, poets or critics; or any combination of groups.

### **Preparation for Course**

P: ENGL 20201 or 23301 or equivalent.

Cr. 3.

Variable Title

(V.T.) Notes

May be repeated with different topics for a maximum of 9 credits.

### **ENGL 48801 - Studies in Irish Literature and Culture**

### **ENGL 48801 - Studies in Irish Literature and Culture**

Studies in single authors, such as Yeats or Joyce; groups of authors, such as contemporary Irish poets; periods, such as the Irish literary renaissance; and genres, such as modern Irish drama. Topics will vary from semester to semester.

### **Preparation for Course**

P: ENGL 20201 or 23301 or equivalent.

#### Variable Title

(V.T.)

Notes

May be repeated with different topics for a maximum of 9 credits.

### ENGL 49001 - Writing Seminar

# **ENGL 49001 - Writing Seminar**

This course emphasizes a single aspect or a selected topic of composition and the writing of nonfictional prose.

#### **Preparation for Course**

P: ENGL 20201, or 23301 or equivalent and submission of acceptable manuscripts to instructor.

Cr 3

#### ENGL 49002 - Children's Literature

### **ENGL 49002 - Children's Literature**

Survey of a wide range (folk tales, fantasy, realistic fiction, poetry, and picture books) of literature for children from the early years to junior high school. Readings from the classics of previous centuries and from the best modern works will be treated from the literary-critical perspective, from which pedagogical conclusions follow. Intended for English majors, for the general student, for teachers past and future, and for parents and librarians.

### **Preparation for Course**

P: ENGL 20201 or 23301 or equivalent.

Cr. 3.

### **ENGL 49102 - Literature for Young Adults**

# **ENGL 49102 - Literature for Young Adults**

Survey of representative literary works suitable for middle-school and high-school students. A variety of genres (poetry, mythology, science fiction and fantasy, historical fiction, realistic fiction, and contemporary problem books) will be treated from the literary-critical perspective, from which pedagogical conclusions follow. Intended for English majors, for the general student, for teachers past and present, and for parents and librarians.

#### Preparation for Course

P: ENGL 20201 or 23301 or equivalent.

Cr. 3.

### ENGL 49201 - Topics in Children's Literature

# **ENGL 49201 - Topics in Children's Literature**

Studies in periods, such as contemporary American children's literature or Victorian fantasies for children; or genres such as picture books or children's poetry. Topics will vary from semester to semester.

### **Preparation for Course**

P: ENGL 20201 or 23301 or equivalent.

Cr. 3. Variable Title (V.T.) Notes

May be repeated with different topics for a maximum of 9 credits.

### ENGL 49501 - Individual Reading in English

# **ENGL 49501 - Individual Reading in English**

#### **Preparation for Course**

P: consent of instructor.

Cr. 1-3.

Variable Title

(V.T.)

Notes

May be repeated with different topics for a maximum of 9 credits.

### **ENGL 49700 - Writing Center Theory and Practice**

## **ENGL 49700 - Writing Center Theory and Practice**

Focuses on writing center theory and practice, including the writing process, theories of composing and the dynamics of peer response. Students will conduct original research and observe writing Center consultations; they may apply in the Writing center upon completion of the course.

#### **Preparation for Course**

P: ENGL 13100 or honors eligibility.

Cr. 3

### **ENGL 51700 - Professional Scholarship In Writing Studies**

## **ENGL 51700 - Professional Scholarship In Writing Studies**

Students will explore the development of the writing studies discipline through the past five decades, paying particular attention to the growth of creative writing, rhetoric and composition, professional writing, and literacy studies as academic fields of inquiry.

Cr. 3. **Dual Level Course**Graduate Level

### **ENGR 12700 - Engineering Fundamentals I**

# **ENGR 12700 - Engineering Fundamentals I**

This course introduces students to engineering applications, analysis, experimentation, and design. The key focus is on the application of mathematical analysis in solving engineering problems. The course includes a project-oriented studio that emphasizes team work, communication, project management, and professional/ethical responsibilities. Significant writing is included. A laboratory component introduces engineering computer tools for visualization and spreadsheet calculation. The course provides an overview of the engineering profession and preparation for success in engineering study.

### **Preparation for Course**

C: MA 154

Cr. 4.

### **ENGR 12800 - Engineering Fundamentals II**

# **ENGR 12800 - Engineering Fundamentals II**

This second course in engineering fundamentals continues the introduction to engineering applications, analysis, experimentation, and design with a focus on the application of mathematical analysis. The course's project studio emphasizes team work, project management, and communication with significant writing and speaking. A laboratory component introduces engineering computer tools for manipulation of data sets and structured programing. The course continues the overview of engineering majors and the engineering profession.

#### **Preparation for Course**

P: ENGR 12700; C: MA 16500 and either COM 11400 or ENGL 13100.

Cr. 4.

### **ENGR 19800 - Industrial Practicum**

### **ENGR 19800 - Industrial Practicum**

Engineering practice in local industry.

#### **Preparation for Course**

P: sophomore engineering status.

### ENGR 41000 - Interdisciplinary Senior Engineering Design I

# ENGR 41000 - Interdisciplinary Senior Engineering Design I

The first course of a two-semester sequence of senior capstone design. Provides students with experience in the process and practice of mechanical/ electrical component/system design from concept through final design. Emphasis on teamwork, project management, oral and written communication, general lectures on issues important to the engineering profession, such as professional and ethical responsibility, the impact of engineering solutions in a global and societal context, and other contemporary issues.

#### **Preparation for Course**

P: consent of course coordinator.

Cr 3

### **ENGR 41100 - Interdisciplinary Senior Engineering Design II**

## **ENGR 41100 - Interdisciplinary Senior Engineering Design II**

Continuation of ENGR 41000. Teams complete their projects by implementing what they have designed in ENGR 41000. this includes building, testing, evaluating, and demonstrating their end products.

**Preparation for Course** 

P: ENGR 41000.

Cr. 3.

### **ENGR 58000 - Engineering Optimization**

## **ENGR 58000 - Engineering Optimization**

Concentrates on recognizing and salving convex optimization problems that arise in engineering. Convex sets, functions, and optimizations problems. Basics of convex analysis. Least-squares, linear and quadratic programs, semidefinite programming, minmax, external volume, and other problems. optimality conditions, duality theory, theorems of alternative, and applications. Inter-point methods. Applications to signal processing, control, digital and analog circuit design, computational geometry, statistics, finance, and engineering.

Cr. 3.

**Dual Level Course** 

Dual Level, Undergraduate-Graduate

### **ENTM 20600 - General Applied Entomology**

# **ENTM 20600 - General Applied Entomology**

A general course on insect structure, function, biology, ecology, and population management. Designed with the ENTM 20700 laboratory series for all agricultural students who want a basic course in entomology.

Cr. 2.

### **ENTM 20700 - General Applied Entomology Laboratory**

# **ENTM 20700 - General Applied Entomology Laboratory**

This laboratory series complements ENTM 20600. Insect structures and function are studied as a basis for learning to identify insects and other arthropods.

Cr. 1.

Hours

Lab. 2.

### ET 10600 - Introduction to Engineering Technology

## ET 10600 - Introduction to Engineering Technology

Introduction to careers in engineering technology, with a focus on academic, career, and personal development success strategies including lifelong learning skills and professional ethics. Introduction to analytical and computational problem-solving techniques using the electronic calculator, the factor-label method of unit conversion, engineering graphs, and spreadsheets. Introduction to laboratory testing and technical reports through the integrated use of software packages.

Cr. 3

### **ET 19000 - Statics**

### **ET 19000 - Statics**

Introduction to fundamentals of applied mechanics, including equilibrium of structures under the influence of forces; trusses; frames; beams; friction; properties of areas; stress and strain in axial systems.

#### **Preparation for Course**

P: ET 10600, MA15400 or 15900 or 22700 or 16500 with a grade of C- or better.

Cr. 3.

### ET 20000 - Strength of Materials

## **ET 20000 - Strength of Materials**

Principles of applied strength of materials, including shear and bending moment; shear and bending stresses; bearing, connections; column analysis; and deflection of beams.

#### **Preparation for Course**

P: ET 19000 with a grade of C- or better.

Cr. 3.

### ET 22000 - Materials Characterization

### ET 22000 - Materials Characterization

Materials characterization of engineering materials, including metallography, microscopy, and introduction to failure analysis. Includes a laboratory component.

### **Preparation for Course**

P: MET 18000 and either CHM 11000 or CHM 11500, or ME 30400.

Cr. 3

### ET 23000 - Introduction To Polymers

# **ET 23000 - Introduction To Polymers**

Introduction to the structure, properties, physical states, processing, and recycling of engineering polymers.

#### **Preparation for Course**

P: MET 18000 and either CHM 11000 or CHM 11500, or ME 30400.

Cr. 3.

### ET 24000 - Steelmaking, Forming And Heat Treating

# ET 24000 - Steelmaking, Forming And Heat Treating

The making, forming, and heat-treating of steel mill products such as sheet, bar, rod, rail, and W-beams. Forming processes for subsequent products will also be discussed.

**Preparation for Course** 

P: MET 18000 and either CHM 11000 or CHM 11500; or ME 30400.

Cr. 3.

### ET 31000 - Failure Analysis

## ET 31000 - Failure Analysis

Failure analysis and prevention techniques in products made from metals, composites, wood, polymers, and ceramics. Laboratory experience included.

#### **Preparation for Course**

P: ET 22000.

Cr. 3.

### ET 32000 - Biomedical Materials

## ET 32000 - Biomedical Materials

Introduction to materials used in the biomedical industry for implants or surgical tools, including materials selection, mechanical properties, biocompatibility, toxicity, cleanliness, manufacturing methods, standards, and regulations.

#### **Preparation for Course**

P: MET 18000 and either CHM 11000 or CHM 11500, or ME 30400.

Cr. 3.

#### ET 34000 - Corrosion Control

### ET 34000 - Corrosion Control

Introduction to types of corrosion or degradation in a variety of engineering materials, and methods of controlling corrosion.

#### **Preparation for Course**

P: MET 18000 and either CHM 11000 or CHM 11500, or ME 30400.

Cr. 3

### **ETCS 10600 - Introduction to Computers**

## **ETCS 10600 - Introduction to Computers**

A general introduction to computers and their applications with emphasis on breadth of coverage. Computer system components, terminology, programming concepts, and representative applications. History of computing. Contemporary issues. Productivity tools such as spreadsheets, database, computer graphics and their applications. Course will not count toward a bachelor's degree in the computer science department.

Cr. 3.

### FNR 10300 - Introduction to Environmental Conservation

## FNR 10300 - Introduction to Environmental Conservation

Introduction to ecological principles, history of conservation, natural resource management, human impacts on the environment, and environmental ethics. For all students interested in an introductory natural resource/environmental science elective.

Cr. 3

### FNR 22500 - Dendrology

# FNR 22500 - Dendrology

Field identification, taxonomy, and ecological characteristics of trees, shrubs, and herbs found in forests, prairies, old fields, and wetlands

### **Preparation for Course**

P: BIOL 10800 or BIOL 11700 or BIOL 11900, or equivalent

Cr. 3.

#### Hours

Class 2, Lab. 3.

### FNR 50500 - Molecular Ecology and Evolution

# FNR 50500 - Molecular Ecology and Evolution

Lectures cover the genetic attributes of both conventional and contemporary molecular markers. Discussions focus primarily on the use of DNA-based markers to address conceptual issues in ecology and evolutionary biology (e. g., mating systems, systematics, phylogeography). Offered in odd-numbered years.

#### Preparation for Course

P: BIOL 21800; one course in biochemistry is recommended. Authorized equivalent courses or consent of instructor may be used in satisfying course pre- and co-requisites.

Cr. 3.

#### **Dual Level Course**

Dual Level, Undergraduate-Graduate

#### FNR 52300 - Aquaculture

# FNR 52300 - Aquaculture

Historical perspectives and current practices in aquaculture, including production systems, feeds, water quality requirements, and diseases of commercially important species.

#### **Preparation for Course**

P: BIOL 21700 and BIOL 21900 or permission of instructor.

Cr 3

#### **Dual Level Course**

Undergraduate-Graduate

### **FOLK 10100 - Introduction to Folklore**

### FOLK 10100 - Introduction to Folklore

A view of the main forms and varieties of folklore and folk expression in tales, ballads, myths, legends, beliefs, games, proverbs, riddles, and traditional arts. The role of folklore in the life of mankind.

#### **Preparation for Course**

P: placement at or above ENGL 13100 (or equivalent) and exemption from or completion of ENGL 15000.

Cr. 3.

Notes

If you are required by placement examination to take ENGL 15000, it is recommended that you complete that requirement before enrolling in any folklore or classics course.

### FOLK 11100 - World Music And Culture

### FOLK 11100 - World Music And Culture

Study of the interrelationship of music sound and behavior. Focus on music events in life and year cycles of selected cultures.

#### **Preparation for Course**

P: placement at or above ENGL 13100 (or equivalent) and exemption from or completion of ENGL 15000. Introduction to world traditional music.

Cr. 3

If you are required by placement examination to take ENGL 15000, it is recommended that you complete that requirement before enrolling in any folklore or classics course.

### **FOLK 23000 - Music in Social Movements**

Examines music in socio-political movements, ranging from political and cultural revolutions to government-sponsored campaigns, environmental, and social activism. Explores concepts about the transformative power of music and or organized groups of people, analyzing the practices of movements aimed at changing perception and behavior.

Cr. 3.

#### FOLK 25100 - Folklore Methods and Theories

### FOLK 25100 - Folklore Methods and Theories

Basic theoretical approaches to the study of folklore. Relation of folklore to other academic disciplines. History of folklore scholarship. Classification of folklore genres and their function in society. Methods of collecting, analyzing, and indexing traditional materials

#### **Preparation for Course**

P: FOLK 10100.

Cr. 3.

If you are required by placement examination to take ENGL 15000, it is recommended that you complete that requirement before enrolling in any folklore or classics course.

#### FOLK 25400 - Rock and Roll

### FOLK 25400 - Rock and Roll

A survey of rock and roll music as a uniquely American art form, traced from its roots in Anglo- American folk and country music and African American gospel and blues through its sundry subsequent phases, each viewed within its defining aesthetic, sociocultural, historical, political, and technoeconomic contexts.

P: placement at or above ENGL 13100 (or equivalent) and exemption from or completion of ENGL 15000.

If you are required by placement examination to take ENGL 15000, it is recommended that you complete that requirement before enrolling in any folklore or classics course.

### FOLK 30500 - Asian Folklore

### FOLK 30500 - Asian Folklore

Forms and functions of folklore, folklife, or folk music in the traditional and developing societies of Asia. Folklore as a reflection of culture. Relationship between folklore forms and belief systems in Asia. May be repeated once when topics vary.

### **Preparation for Course**

P: placement at or above ENGL 13100 (or equivalent) and exemption from or completion of ENGL 15000.

Variable Title

(V.T.)

Notes

Approved by Arts and Sciences for the Cultural Studies (Non-Western Culture) requirement. If you are required by placement examination to take ENGL 15000, it is recommended that you complete that requirement before enrolling in any folklore or classics course.

### FOLK 35200 - Native American Folklore

### **FOLK 35200 - Native American Folklore**

Comparative examination of various verbal, musical, and dance forms of Native American societies. Consideration of cultural systems of Native Americans within the context of general American culture. May be repeated once when topics vary.

#### **Preparation for Course**

P: placement at or above ENGL 13100 (or equivalent) and exemption from or completion of ENGL 15000.

Cr. 3.

Variable Title

(V.T.)

Approved by Arts and Sciences for the Cultural Studies (Non-Western Culture) requirement. If you are required by placement examination to take ENG R150, it is recommended that you complete that requirement before enrolling in any folklore or classics course.

### FOLK 40400 - Topics in Folklore

## **FOLK 40400 - Topics in Folklore**

Topics not covered in depth in existing courses, such as proverbs and riddles, folk drama, folk medicine, folk dance, folk cookery. May be repeated with different topics for a maximum of 9 credits.

### **Preparation for Course**

P: placement at or above ENGL 13100 (or equivalent) and exemption from or completion of ENGL 15000.

Variable Title

(V.T.)

Notes

If you are required by placement examination to take ENGL 15000 it is recommended that you complete that requirement before enrolling in any folklore or classics course.

### FOLK 43000 - Advanced Study of Folklore and Related Disciplines

## FOLK 43000 - Advanced Study of Folklore and Related Disciplines

Advanced studies of folklore and/or ethnomusicology in relationship to other disciplines. Focuses on such interdisciplinary topics as folklore and literature; folklore and psychology; folklore and history; folklore and religion; or folklore, culture, and society. May be repeated with different topics for a maximum of 9 credits.

#### **Preparation for Course**

P: placement at or above ENGL 13100 (or equivalent) and exemption from or completion of ENGL 15000.

Variable Title

(V.T.)

Notes

If you are required by placement examination to take ENGL 15000, it is recommended that you complete that requirement before enrolling in any folklore or classics course.

### FOLK 46500 - Ballads and Folksongs

# **FOLK 46500 - Ballads and Folksongs**

Ballads and folk songs of the Western world; their origins, diffusion, relationship to literature, and function. Special attention to the British-American tradition.

#### Preparation for Course

P: placement at or above ENGL 13100 (or equivalent) and exemption from or completion of ENGL 15000.

If you are required by placement examination to take ENGL 15000, it is recommended that you complete that requirement before enrolling in any folklore or classics course.

### FR 11100 - Elementary French I

# FR 11100 - Elementary French I

Introduction to French language as well as to French and francophone cultures. Emphasis on development of communicative competence in speaking, listening, reading, and writing. Weekly attendance at lab required. FR 11100 is a course for beginners. Students with two years of high school French must take Accelerated First Year French.

Cr. 3.

Hours

Class 3-3, Lab. 0-0.

Notes

Indiana Core Transfer Library course.

# FR 11201 - Elementary French II

Introduction to French language as well as to French and francophone cultures. Emphasis on development of communicative competence in speaking, listening, reading, and writing. Weekly attendance at lab required. FR 11100 is a course for beginners. Students with two years of high school French must take Accelerated First Year French.

#### **Preparation for Course**

P: FR 11100.

Cr. 3.

Notes

Indiana Core Transfer Library course.

#### FR 20301 - Second-Year French I

### FR 20301 - Second-Year French I

Intensive review of grammar and development of vocabulary, reading, conversation, and writing skills. Reading and discussion of modern French fiction and nonfiction, some composition.

#### **Preparation for Course**

P: FR 11201.

Cr. 3.

Hours

Class 3-3, Lab. 0-0.

Note

Weekly attendance in audio laboratory required.

Indiana Core Transfer Library course.

#### FR 20401 - Second-Year French II

### FR 20401 - Second-Year French II

Intensive review of grammar, and development of vocabulary, reading, conversation, and writing skills. Reading and discussion of modern French fiction and nonfiction, some composition. Weekly attendance in audio laboratory required.

### **Preparation for Course**

P: FR 20301.

Cr. 3.

Notes

Weekly attendance in audio laboratory required.

Indiana Core Transfer Library course.

#### FR 21301 - Second-Year French Composition

# FR 21301 - Second-Year French Composition

This course integrates the four language skills into a structured approach to composition. Review of selected points of French grammar will be included. Weekly compositions will treat topics both creative and expository and increase in length as the semester progresses. Emphasis will be on correct usage, vocabulary building, stylistic control.

### **Preparation for Course**

P: FR 20301.

Cr. 3.

Notes

Students are encouraged to enroll in ILCS 30000 (required for French majors) concurrently with enrollment in their first 300-level French literature course.

### FR 30500 - Chefs-D'Oeuvre de la Litterature Française I

French literature, origins to 1789.

**Preparation for Course** 

P: FR 20401; R: FR 21301.

Cr. 3.

FR 30600 - Chefs-D'Oeuvre de la Litterature Française II

### FR 30600 - Chefs-D'Oeuvre de la Litterature Française II

French literature, 1789 to present.

Preparation for Course

P: FR 20401; R: FR 21301.

Cr. 3.

FR 31700 - French Language Skills I

## FR 31700 - French Language Skills I

Advanced grammar, structures, composition, and conversation. Conducted in French.

**Preparation for Course** 

P: FR 20401; R: FR 21301.

Cr. 3.

Notes

Required for teaching certification.

FR 31800 - French Language Skills II

# FR 31800 - French Language Skills II

Advanced grammar, structures, composition, and conversation. Conducted in French.

Preparation for Course

P: FR 20401; R: FR 21301.

Cr. 3

Note

Required for teaching certification.

FR 32600 - French in the Business World

## FR 32600 - French in the Business World

Study of the language of business activities in France, with an introduction to the structure and functioning of various aspects of French economic life. Useful for students preparing for the proficiency examinations of the Chambre de Commerce de Paris.

**Preparation for Course** 

P: FR 20401 (or equivalent).

### FR 32900 - Phonetics and Pronunciation

Combined lectures on problems of pronunciation and phonetic transcription, and oral practice sessions.

Cr. 3.

### FR 33001 - Introduction to Translating French and English

## FR 33001 - Introduction to Translating French and English

A comparative study of the style and grammar of both languages with focus on the difficulties involved in translating. Introduction to the various tools of the art of translation.

#### **Preparation for Course**

P: FR 31700.

Cr. 3.

#### FR 33200 - Conversational Practice

### FR 33200 - Conversational Practice

Three meetings per week plus optional listening comprehension and oral practice in the language laboratory. Development of communicative and speaking skills.

### **Preparation for Course**

P: FR 20401.

Cr. 3.

### FR 34000 - Introduction to Contemporary French Society

# FR 34000 - Introduction to Contemporary French Society

This course will introduce students to various aspects of French culture and society. Through selected readings and films students will develop an understanding of the contemporary history, politics, and geography of France.

Cr. 3.

### FR 35600 - Introduction to French Cinema

## FR 35600 - Introduction to French Cinema

This course presents a chronological survey of French films, genres, and directors, from the Lumiere brothers to the New Wave. It will introduce students to basic techniques of film analysis. The course is conducted in French.

### **Preparation for Course**

P: FR 31700 and 31800.

Cr. 3.

## FR 43900 - La Grammaire Française

## FR 43900 - La Grammaire Française

Advanced study of French grammar to follow the intermediate courses FR 31700 and FR 31800. Particular attention will be paid to verbal tenses and modes, the passive voice, indefinite adjectives and pronouns, prepositions and prepositional phrases.

### **Preparation for Course**

P: FR 31700 or 31800, or consent of instructor.

### FR 44000 - Medieval and Renaissance French Literature

In this course students will read and analyze French literary texts from the Middle Ages through the sixteenth century within a socio-historical context. Among others, texts by Marie de France, Chretien de Troyes, Beroul, Rabelais, Montaigne, Marguerite de Navarre, Ronsard, and Du Bellay will be studied.

#### **Preparation for Course**

P: FR 30500 or 30600, or consent of instructor.

Cr. 3.

### FR 44201 - La Poesie Francaise et Francophone

## FR 44201 - La Poesie Francaise et Francophone

Survey of French and francophone poetry from the Middle Ages to the 20th century. Madame de Stael, Balzac, Stendhal, and others.

#### **Preparation for Course**

P: FR 30500 or 30600, or consent of instructor.

Cr. 3.

Note

PFW students with an appropriate command of French may apply for a year's study, with full credit, in the IU program at the University of Provence; participation is not limited to French majors. For one semester or one summer of study abroad, there are French programs in Paris, Rennes, Rouen, and Quebec. For further information, consult the coordinator of overseas study programs, Office of International Programs.

### FR 44301 - 19th Century Novel I

# FR 44301 - 19th Century Novel I

Mme. de Stael, Balzac, Stendhal, and others.

#### **Preparation for Course**

P: FR 30500 or 30600, or consent of instructor.

Cr. 3.

### FR 45001 - Colloquium in French Studies

# FR 45001 - Colloquium in French Studies

Emphasis on one topic, author, or genre. May be repeated with different topic for up to 9 credit hours.

### Preparation for Course

P: FR 30500 or FR 30600 or consent of instructor.

Cr. 2-3. Variable Title (V.T.)

### FR 45300 - Litterature Contemporaine I

# FR 45300 - Litterature Contemporaine I

20th century French literature.

#### **Preparation for Course**

P: FR 30500 or FR 30600 or consent of instructor.

### FR 46000 - French Fiction in Film

Involves reading the works of French fiction and studying them as works of literature, followed by the viewing of a film version of each work and the preparation of a comparative analysis of the two versions.

#### **Preparation for Course**

P: FR 30500 and FR 30600

Cr. 3

### FR 46300 - Civilisation Française I

### FR 46300 - Civilisation Française I

French civilization from medieval period through 17th century.

#### **Preparation for Course**

P: 6 credits in French at the 300 level or consent of instructor.

Cr. 3.

### FR 47400 - Theme ET Version

### FR 47400 - Theme ET Version

Translation of selected passages, alternating between English and French, to teach students to write with precision and clarity in both languages. Discussion of theoretical works related to the art of translation.

### **Preparation for Course**

P: FR 31700 or 31800 or 33001.

Cr. 3.

### FR 49501 - Individual Reading in French Literature

# FR 49501 - Individual Reading in French Literature

May be repeated for credit with a different topic.

### **Preparation for Course**

P: 6 credits of 400-level French and consent of department chair.

Cr. 1-3.

Variable Title

(V.T.)

### FVS 10100 - Introduction to Film

### **FVS 10100 - Introduction to Film**

Nature of film technique and film language, analysis of specific films, major historical, theoretical, and critical developments in film and film study from the beginnings of cinema to the present.

#### **Preparation for Course**

P: placement at or above ENGL 13100 (or equivalent) and exemption from or completion of ENGL 15000.

Cr. 3.

#### Hours

Class 2-4, Lab. 0-3.

#### Notes

If you are required by placement examination to take ENGL 15000, it is recommended that you complete that requirement before enrolling in any film studies course.

## **FVS 20100 - Survey of Film History**

An overview of film history from its beginnings to the present, emphasizing major developments in narrative cinema.

#### **Preparation for Course**

P: ENGL 13100 or equivalent.

Cr. 3.

Hours

Class 2-3, Lab. 0-1.

Notes

If you are required by placement examination to take ENGL 15000, it is recommended that you complete that requirement before enrolling in any film studies course.

### FVS 39000 - The Film and Society

## FVS 39000 - The Film and Society

Film and politics; censorship; social influences of the cinema; rise of the film industry. May be repeated with different topics for a maximum of 9 credits.

#### **Preparation for Course**

R: ENGL 20201 or 23301 or equivalent.

Cr. 3. **Hours** Class 2-4, Lab. 0-4. **Variable Title** (V.T.)

### FVS 40202 - Genre Study in Film

# FVS 40202 - Genre Study in Film

Topic varies: the evaluation of typical genres; problems of generic description or definition; themes, conventions, and iconography peculiar to given genres, etc. May be repeated with different topics for a maximum of 9 credits.

### **Preparation for Course**

P: ENGL 20201 or 23301 or equivalent.

Cr. 3. **Hours** Class 2-4, Lab. 0-3. **Variable Title** (V.T.)

### GEOG 10700 - Physical Systems of the Environment

# **GEOG 10700 - Physical Systems of the Environment**

Explores the physical processes of the Earth-its weather, climate, landforms, oceans and ecosystems-and analyzes a range of environmental issues.

Cr. 3. Hours Class 2-3, Lab. 0-2,

### **GEOG 10900 - Weather and Climate**

### **GEOG 10900 - Weather and Climate**

What causes tornadoes, hurricanes, and other extreme weather? What is climate change and why is it occurring? Learn about weather, climate, and how they interact.

## **GEOG 23700 - Mapping Our World**

Mapping lets us visualize our world and see how patterns change across places. For example, we can analyze how a bike-share program changes commuting patterns, or how urban farming emerges in a transforming city. Students learn how to develop digital maps and interpret spatial processes while gaining valuable experience with GIS software.

Cr. 3.

#### **GEOG 31500 - Environmental Conservation**

### **GEOG 31500 - Environmental Conservation**

This course deals with the environmental impact of global population growth, natural resources utilization, and pollution. Current problems relating to energy consumption, farming practices, water use, resource development and deforestation will be examined from geologic and ecological perspectives. Strategies designed to avert predicted global catastrophe will be examined to determine success potential. Class participation through debate is strongly encouraged. Students should be able to use the internet as a resource. Typically offered spring.

Cr. 3-5.

#### **Dual Level Course**

Eligible for graduate credit.

### GER 11100 - Elementary German I

## **GER 11100 - Elementary German I**

Introduction to German language as well as to cultures of German-speaking countries. Emphasis on development of communicative competence in speaking, listening, reading, and writing.

Cr. 3.

Hours

Class 3, Lab. 0.

Notes

Weekly attendance at lab required. G111 is a course for beginners. Students with two years of high school German must take G113.

### GER 11201 - Elementary German II

# **GER 11201 - Elementary German II**

Introduction to German language as well as to cultures of German-speaking countries. Emphasis on development of communicative competence in speaking, listening, reading, and writing.

### Preparation for Course

P: GER 11100.

Cr. 3.

Hours

Class 3, Lab. 0.

Notes

Weekly attendance in lab required.

### GER 20301 - Second-Year German I

## GER 20301 - Second-Year German I

Intensive review of important structural problems and vocabulary primarily through the reading and discussion of modern German fiction and nonfiction.

#### **Preparation for Course**

P: GER 11201.

### GER 20401 - Second-Year German II

Intensive review of important structural problems and vocabulary primarily through the reading and discussion of modern German fiction and nonfiction.

#### **Preparation for Course**

P: GER 20301.

Cr. 3.

GER 30500 - Introduction to German Literature: Types

## **GER 30500 - Introduction to German Literature: Types**

Study of literary types (narrative, dramatic, lyric), with examples of each selected from two or more periods.

**Preparation for Course** 

P: GER 20401.

Cr. 3. Variable Title (V.T.)

GER 30600 - Introduction to German Literature: Themes

### **GER 30600 - Introduction to German Literature: Themes**

Study of major themes in German literature as represented in two or more periods.

**Preparation for Course** 

P: GER 20401.

Cr. 3. Variable Title (V.T.)

**GER 30701 - Selected Works of Contemporary German Literature** 

# **GER 30701 - Selected Works of Contemporary German Literature**

Works of such authors as Grass, Boll, Weiss, Frisch, and Bobrowski plus selected poems are read and discussed in German. Does not duplicate 30500 or 30600.

**Preparation for Course** 

P: GER 20401.

Cr 3

GER 31100 - Traditions and Innovations in German Literature

## **GER 31100 - Traditions and Innovations in German Literature**

Major themes and ideas in prominent works of German literature (lyric, fiction, drama) in translation, selected from various historical periods. Conducted in English.

Cr. 3. Variable Title

V.T.

### **GER 31500 - Business German**

Improvement of speaking, writing, listening, and reading skills. Concentration on the language of the German business world. Discussion, grammar, exercises, and letter writing. Conducted in German.

#### **Preparation for Course**

P: GER 20401 (or equivalent).

Cr. 3.

GER 31800 - German Language Skills I

## GER 31800 - German Language Skills I

Composition, conversation, and diction; advanced grammar. Conducted in German.

#### **Preparation for Course**

P: GER 20401.

Cr. 3.

GER 31900 - German Language Skills II

# GER 31900 - German Language Skills II

Intensive work in conversation and composition based on readings in areas of current or topical interest with emphasis on contemporary Germany.

### **Preparation for Course**

P: GER 20401.

Cr. 3.

GER 32000 - Special Topics In German

# **GER 32000 - Special Topics In German**

Cr. 1.00-3.00. Variable Title

**GER 32500 - German for Teachers** 

### **GER 32500 - German for Teachers**

Intensive practice in conversation and diction, with individual corrective work. Use of the audio laboratory. Intended primarily for teachers but open to students who have completed 31800 and preferably also 31900. May be taken twice for maximum of 6 credits. Does not count toward master's degree. Required for teaching certification.

### **Preparation for Course**

P: GER 20401.

Cr. 3.

**GER 36201 - Introduction to Contemporary Germany** 

# **GER 36201 - Introduction to Contemporary Germany**

An overview of contemporary German civilization with attention to the other German-speaking countries. Political, economic, and social organization. Conducted in German.

**Preparation for Course** 

P: Third year German language proficiency or consent of instructor.

Cr. 3.

#### **GER 36300 - Introduction To German Cultural History**

## **GER 36300 - Introduction To German Cultural History**

A survey of the cultural history of German-speaking countries, as well as contemporary civilization, with an emphasis on individual aspects of culture traced through several epochs.

#### **Preparation for Course**

P: third-year German language proficiency or consent of instructor.

Cr. 3

Notes

In general, grades of Incomplete are not given in 100- and 200-level language courses. Study Abroad Indiana University or Purdue University students with an appropriate command of German may apply for a year's study, with full credit, in the IU program at the University of Freiburg; participation is not limited to German majors. The fourth or fifth semester of German may be taken during six weeks of full-time study abroad in the summer in Graz, Austria. Semester programs are available in Munich and Freiburg. For further information, consult the coordinator of overseas study programs, Office of International Programs.

### **GER 37100 - Special Topics In Germanic Studies**

## **GER 37100 - Special Topics In Germanic Studies**

Topics dealing with Germanic languages, literatures, and cultures. Conducted in English.

Cr. 1-3.

Variable Title

(V.T.)

Notes

May be repeated with different topics for up to 6 credit hours

GER 40400 - Deutsche Literatur: Seit Der Romantik

### **GER 40400 - Deutsche Literatur: Seit Der Romantik**

Historical survey of major literary developments from young Germany to recent writing in German-speaking Europe.

### **Preparation for Course**

P: 6 credits of GER 30500, 30600, or GER 30701.

Cr. 3.

**Dual Level Course** 

Eligible for graduate credit.

GER 40501 - Goethe: Life and Works

### **GER 40501 - Goethe: Life and Works**

Extensive readings in Goethe's poetry, drama and narrative fiction, including analysis of Faust. Special emphasis is placed on the relationship between the author's life and his works.

### **Preparation for Course**

P: 6 credits of GER 30500, 30600 or 30701.

Cr. 3.

GER 41100 - Advanced German: Grammar

### GER 41100 - Advanced German: Grammar

Survey and practice of complex grammatical structures; systematic expansion of vocabulary. Discussion and writing based on current materials, such as newspapers, films, and radio programs.

**Preparation for Course** 

P: 6 credits of 300-level work in German or departmental permission.

Cr 3

#### **Dual Level Course**

Eligible for graduate credit, but not toward M.A.

### **GER 41500 - Perspectives on German Literature**

## **GER 41500 - Perspectives on German Literature**

Study of one aspect of German literature: formal, historical, political, psychological, etc. Relation to wider concerns in and outside of literature. Topic announced in the online Schedule of Classes. May be repeated with a different topic for a maximum of 6 credit hours. Conducted in German.

#### **Preparation for Course**

P: Third year German proficiency or consent of instructor.

Cr. 3. Variable Title (V.T.)

GER 41800 - German Film and Popular Culture

## GER 41800 - German Film and Popular Culture

Study of German film and/or other manifestations of German popular culture (television, music, cabaret, Trivialliteratur of the twentieth century).

#### **Preparation for Course**

P: GER 30500 or 30600.

Cr. 3

GER 42200 - 19th Century German Literature

# GER 42200 - 19th Century German Literature

#### **Preparation for Course**

P: 6 credits of GER 30500, 30600 or 30701.

Cr. 3.

GER 42500 - 20th Century German Literature

# GER 42500 - 20th Century German Literature

Survey of major developments in the literature of the German-speaking countries since 1890. Moments of historical and cultural interest will be discussed as they are reflected in the literature. Writing of Hofmannsthal, Rilke, Thomas Mann, Kafka, Hesse, Brecht, and others.

#### **Preparation for Course**

P: 6 credits of GER 30500, 30600 or 30701.

Cr. 3.

**GER 45100 - Introduction To German Syntax** 

# **GER 45100 - Introduction To German Syntax**

The syntax of modern German, with a practical introduction to the methods of grammatical analysis. Conducted in German.

### **GER 45200 - Senior Seminar**

Selected topics in German literature, language, and culture. May be repeated once.

#### **Preparation for Course**

P: GER 31800, GER 30500, 30600 or consent of instructor.

Cr. 3.

### **GER 46400 - German Culture And Society**

## **GER 46400 - German Culture And Society**

The interaction of social, intellectual, and artistic forces in German life in the last one to two centuries, stressing interdisciplinary aspects.

#### **Preparation for Course**

P: German Culture course.

Cr. 3.

GER 47000 - German Folklore

### **GER 47000 - German Folklore**

Development of folklore studies in German. Methods of "Volkskunde." Marchen, Sage, Volkslied, Schwanke.

#### **Preparation for Course**

P: ability to read German.

Cr. 3.

### GER 49500 - Individual Readings in Germanic Literatures

# GER 49500 - Individual Readings in Germanic Literatures

May be repeated for credit with a different topic.

### **Preparation for Course**

P: 6 credits of 400-level German and consent of department chair.

Cr. 1-3. Variable Title (V.T.)

### **GERN 23100 - Introduction to Gerontology**

# **GERN 23100 - Introduction to Gerontology**

This course is a survey of the field of gerontology, including basic theoretical, methodological, and factual content drawn from a variety of disciplinary perspectives. Background material on the demographic, health, physiological, psychological, and social aspects of aging is provided. Structured opportunities for practical field observation and experience with the aged are included.

Cr. 3.

### **GERN 49400 - Gerontology Practicum**

# **GERN 49400 - Gerontology Practicum**

Field experience in a setting involving adults 60 years or older, according to the interests and objectives of each student. Work will be supervised by the instructor and setting personnel. Provides an opportunity to apply gerontological theory and findings in a practical context.

### **Preparation for Course**

P: GERN 23100 and consent of instructor.

Cr 3

### **GERN 49900 - Topics in Gerontology**

# **GERN 49900 - Topics in Gerontology**

Specific topics announced each semester the course is offered. Examples of course content include legal and economic aspects of aging; health issues in aging; and business and marketing issues and older adults. May be repeated once for credit.

#### **Preparation for Course**

P: GERN 23100.

Cr. 1-6. Variable Title (V.T.)

HIST 10001 - Issues In African History

## **HIST 10001 - Issues In African History**

Study and analysis of selected historical issues and problems of general import. Topics will vary from semester to semester but will usually be broad subjects that cut across fields, regions, and periods. May be repeated with different topics for a maximum of 9 credit hours.

Cr. 3. Variable Title (V.T.)

HIST 10501 - American History I

## HIST 10501 - American History I

Colonial period, revolution, Confederation and Constitution, National period to 1877.

Cr. 3. Variable Title (V.T.) Notes

Indiana Core Transfer Library course.

HIST 10601 - American History II

# HIST 10601 - American History II

1877 to present. Political history forms framework with economic, social, cultural, and intellectual history interwoven. Introductions to historical literature, source material, and criticism. 10501 is not a prerequisite for 10601.

Cr. 3. Variable Title (V.T.) Notes

Indiana Core Transfer Library course.

HIST 11300 - History of Western Civilization I

# **HIST 11300 - History of Western Civilization I**

Ancient civilization, Germanic Europe, feudalism, medieval church, national monarchies, Renaissance.

Cr. 3. Variable Title (V.T.)

#### Notes

Approved by Arts and Sciences for the Cultural Studies (Western Tradition) requirement.

### HIST 11400 - History of Western Civilization II

# HIST 11400 - History of Western Civilization II

Reformation, Age of Louis XIV, French Revolution, Napoleonic Era, Revolutions of 1848, liberalism, socialism, nationalism, international rivalries, World War I, Russian revolutions, Nazi Germany, World War II, Cold War. HIST 11300 is not a prerequisite for 11400.

Cr. 3.

Variable Title

(V.T.)

Notes

Approved by Arts and Sciences for the Cultural Studies (Western Tradition) requirement.

HIST 12500 - Great Debates: Introduction to Historical Communication

### HIST 12500 - Great Debates: Introduction to Historical Communication

Understanding effective oral communication is a vital part of the historian's job. This course uses great debates from history as a starting point for teaching students about best oral communication practices. Students will deliver informational and argumentative speeches and will consider the best means of receiving and interpreting oral messages.

Cr. 3.

HIST 20101 - Russian Civilization I

### **HIST 20101 - Russian Civilization I**

From earliest times to the present era. Political, economic, social, and cultural topics, as well as Russia's relations with other countries. Mongol conquest, Westernization, industrialization, Russian revolutions, and Stalin's purges: literature and art in historical context. Approved by Arts and Sciences for the nonwestern culture studies requirement.

Cr. 3.

Notes

Approved by Arts and Sciences for the Cultural Studies (Non-Western Culture) requirement.

Subject Area

[OW] - [US] United States [WE] Western Europe [OW] Other World

HIST 20200 - History Of Russia II

# HIST 20200 - History Of Russia II

From earliest times to the present era. Political, economic, social, and cultural topics, as well as Russia's relations with other countries. Mongol conquest, Westernization, industrialization, Russian revolutions, and Stalin's purges; literature and art in historical context. Both approved by Arts and Sciences for the nonwestern culture studies requirement.

Cr. 3.

**HIST 20500 - Ancient Civilization** 

### **HIST 20500 - Ancient Civilization**

From birth of civilization in Mesopotamia and Egypt until Constantine's conversion to Christianity (337 A.D.). Role of the city in ancient world; nature of imperialism; and impact of Alexander the Great, Julius Caesar, and other charismatic leaders. Archaeology as a source for political and social history.

Cr. 3.

Subject Area

[WE] - [US] United States [WE] Western Europe [OW] Other World

### HIST 21700 - The Nature of History

# **HIST 21700 - The Nature of History**

An introductory examination of (1) what history is, (2) types of historical interpretation, (3) common problems of historians, and (4) the uses of history.

#### **Preparation for Course**

P: ENGL 13100 or equivalent.

Cr. 3.

Notes

Approved by Arts and Sciences for use in fulfilling the second writing requirement.

Restricted to history majors; instructor signature required for non-history majors.

### HIST 22000 - American Military History

### **HIST 22000 - American Military History**

From settlement of colonies to present. European background, colonial militia, Indian fighting. Principal foreign wars and their strategic objectives. Technological changes and effect of military on American society. Army is emphasized, with some attention to navy, marines, and air force.

Cr 3

Subject Area

[US] - [US] United States [WE] Western Europe [OW] Other World

### HIST 22200 - Renaissance and Reformation Europe

### **HIST 22200 - Renaissance and Reformation Europe**

Society and civilization in the 15th and 16th centuries. Transition from medieval to modern life in political and economic behavior, culture, theology, and religion, discoveries and expansion.

Cr. 3.

Subject Area

[OW] - [US] United States [WE] Western Europe [OW] Other World

### HIST 22500 - Special Topics in History

# **HIST 22500 - Special Topics in History**

Study and analysis of selected historical issues and problems of general importance. Topics will vary from semester to semester but will usually be broad subjects which cut across fields, regions, and periods. May be repeated for credit with a different topic.

Cr. 1-3. Variable Title

HIST 22801 - The Vietnam War

### HIST 22801 - The Vietnam War

Indochina; French colonialism; French-Indochina War; Cold War dynamics; U.S. entry; military-political actions 1961-1975; domestic U.S. politics; U.S. disengagement; Indochinese and American legacies.

Cr. 3.

Subject Are

[OW] - [US] United States [WE] Western Europe [OW] Other World

### HIST 23200 - The World in the 20th Century

### **HIST 23200 - The World in the 20th Century**

Shaping of the contemporary world with an emphasis on the reaction of non-Western peoples to Western imperialism.

#### **Preparation for Course**

P: ENGL 13100 or equivalent.

Cr. 3.

Notes

Approved by Arts and Sciences for the Cultural Studies (Non-Western Culture) requirement.

HIST 23400 - Witchcraft and Witch Hunts, c. 1400-1750

### HIST 23400 - Witchcraft and Witch Hunts, c. 1400-1750

In early modern Europe, roughly 100,000 people (predominantly women) were put on trial for witchcraft. About half this number were executed. This course seeks to understand how and why these horrific events occurred at this particular time and why more trials occurred in particular areas of Europe. Using thematic and geographical approaches, we will investigate the ancient and medieval roots of these witch hunts, and look in detail at the trials and executions of the accused, using trial records, anti-witch tracts from Church officials and other primary sources, as well as secondary sources from a wide range of modern authors. We will also pay special attention to the role that gender played in the witch hunts, looking at the various ways in which women were targeted during this period, and the roles gender may have played in witchcraft accusations. In addition to examining canonical works on witchcraft and witch trials, we will read some feminist interpretations of the witch hunts by historians and scholars from other disciplines. The course will also look into how ideas about witches crossed the Atlantic, using Salem as way to examine similarities and differences with the European "witch craze." Students will also have an opportunity to examine how witches and witch hunts have been portrayed in popular culture, from 17th century English plays to modern films and television. Overall, students in this course will seek to understand why the "witch craze" occurred, and what short- and long-term impact this phenomenon had on European and early American culture and society.

Cr. 3.

HIST 24101 - Nationalism in the Modern World

### HIST 24101 - Nationalism in the Modern World

Nationalism in Europe, the Middle East, Africa, and Asia in the 19th and 20th centuries. Emphasis on features in history, religion, politics, imperialism, economics, language, and myths that have promoted nationalism. Comparison of individual national movements and their unique characteristics.

Cr. 3

HIST 26000 - History Of Women In The United States

# **HIST 26000 - History Of Women In The United States**

How have women's lives changed from the colonial period to the 20th century? This introductory survey focuses on women's historical roles in the workplace, the family and politics. Material will be drawn from legal, constitutional, political, social, demographic, economic, and religious history.

Cr. 3.

HIST 30101 - Colonial America

### **HIST 30101 - Colonial America**

Social, cultural, economic, political, and religious developments in colonial America from first contacts between Native Americans and Europeans through the early eighteenth century. Special topics include colonization, migration, slavery, Atlantic trade, and representative government.

Cr. 3.

Variable Title
(V.T.)

Subject Area
[US] - [US] United States [WE] Western Europe [OW] Other World

Dual Level Course

Eligible for graduate credit.

### **HIST 30201 - Revolutionary America**

Political, economic, religious, social, and cultural history of the American Revolution and the birth of the nation. Special topics cover the nature of the revolution, the experience and effects of the crisis on different members of society, including women, native peoples, and African-Americans, and the meanings of the American Revolution for contemporaries and their descendants.

Variable Title (V.T.) Subject Area [US] - [US] United States [WE] Western Europe [OW] Other World **Dual Level Course** Eligible for graduate credit.

HIST 30302 - The United States from 1789 to 1865 I

### HIST 30302 - The United States from 1789 to 1865 I

1789-1840. Growth of national political institutions from Washington to Jackson; international conflicts, War of 1812, territorial expansion; political, economic, intellectual, social foundations of age of common man; antebellum reform.

Eligible for graduate credit.

Subject Area

[US] - [US] United States [WE] Western Europe [OW] Other World

HIST 30502 - The Cold War

### HIST 30502 - The Cold War

The Cold War is an upper division course that will examine one of the most critical eras in modern history. A time period that spanned roughly from 1945 to 1989, the Cold War was hailed as an epic battle between communism and capitalism. In reality, the Cold War was a more complex struggle over a broad range of issues - ideological, cultural, economic, and strategic. As each side tried to protect its own national interests and way of life, a cycle of distrust and animosity quickly formed that would shape U.S-Soviet relations for the next four decades. Some of the questions we will be examining: Why was there a Cold War? To what extent was it inevitable? How did the Cold War become "hot" (Korea, Vietnam, Afghanistan, for example)? Who "won" the Cold War? What were the consequences of the Cold War?

Subject Area

[US] - [US] United States [WE] Western Europe [OW] Other World

HIST 31001 - Survey of American Indians I

# **HIST 31001 - Survey of American Indians I**

The Native American experience from pre-Columbian period through American Civil War. Lectures and readings will focus upon Native American cultural patterns and the Native American response to French, British, and American Indian policies.

Cr. 3.

Notes

Approved by Arts and Sciences for the Cultural Studies (Non-Western) requirement.

Subject Area

[US] - [US] United States [WE] Western Europe [OW] Other World

HIST 31002 - Russian Revolutions and Soviet Regime

# HIST 31002 - Russian Revolutions and Soviet Regime

Causes and development of Russian revolutions and civil war; Lenin, Trotsky, and Stalin; purges, terror, economic development, society, and arts under Stalin; struggle against Hitler; scope and limits of de-Stalinization under Khrushchev; minorities, dissent, and life in the Soviet Union.

Notes

Approved by Arts and Sciences for the Cultural Studies (Non-Western Culture) requirement.

Credit given for only one of HIST 31002 or Russian Revolution And The Soviet Regime.

[OW] - [US] United States [WE] Western Europe [OW] Other World

#### HIST 31101 - Survey of American Indians II

### **HIST 31101 - Survey of American Indians II**

Native American-White relations from Civil War through 1980s. Focus on Native American attempts to defend their homelands in American West, establishment of Indian reservations in late 19th century. Impact of the Sawes and Wheeler-Howard Acts, emergence of Native American church, urbanization of Native Americans in 20th century.

Approved by Arts and Sciences for the Cultural Studies (Non-Western Culture) requirement.

Subject Area

[US] - [US] United States [WE] Western Europe [OW] Other World

HIST 31102 - Holocaust and Modern Genocides

### **HIST 31102 - Holocaust and Modern Genocides**

This course examines genocide in the 20th century: first state-sponsored mass murder, systematic murder of Jews in Europe during World War II, regional differences in implementation of genocidal policies, memory and commemoration, the political uses and abuses of the Holocaust, Genocide Convention and the international community.

Subject Area

[WE] - [US] United States [WE] Western Europe [OW] Other World

HIST 31301 - Origins of Modern America, 1865 - 1917

### **HIST 31301 - Origins of Modern America**, **1865 - 1917**

Reconstruction, industrialism, immigration, urbanism, culture, foreign policy, progressivism, World War I.

Cr. 3. Variable Title (V.T.) Subject Area

[US] - [US] United States [WE] Western Europe [OW] Other World

**Dual Level Course** 

Eligible for graduate credit.

HIST 31401 - Recent U.S. History I, 1917-1945

# HIST 31401 - Recent U.S. History I, 1917-1945

The 1920s, the Depression, New Deal, with interpretive readings in politics, diplomacy, economics, society, thought and literature of the period, World War II.

Cr. 3. Variable Title (VT) Subject Area

[US] - [US] United States [WE] Western Europe [OW] Other World

**Dual Level Course** 

Eligible for graduate credit.

HIST 31402 - Europe From The New World To Napoleon

# HIST 31402 - Europe From The New World To Napoleon

This course provides an overview of European history from approximately 1600 through 1820, a time of considerable economic, social, and intellectual change. During this period, Europe moved from what historians now consider the "early modern era," or the "Old Regime," to the modern era. This process came about thanks to the economic boon Europe gained from its colonies in the New World, paired with the emergence of new theories of science and politics. The course looks at the period through the various lenses of society, economics, and culture, moving through the colonization of new lands, the intellectual movement known as the Enlightenment, the French Revolution and Napoleon, and the "Restoration" of Europe in the decade following.

### HIST 31501 - Recent U.S. History II, 1945-Present

### HIST 31501 - Recent U.S. History II, 1945-Present

World War II, Cold War, problems of contemporary America; economic, social, political, and diplomatic.

Cr. 3.

Variable Title
(V.T.)

Subject Area
[US] - [US] United States [WE] Western Europe [OW] Other World

Dual Level Course

Eligible for graduate credit.

HIST 31801 - The American West

### HIST 31801 - The American West

Western expansion and development 1763-1900: economic, political, and social. Special attention to natural resources, Native American-Anglo American relations, and the role of the West in American myth and symbol.

Cr. 3.

Subject Area

[US] - [US] United States [WE] Western Europe [OW] Other World

Dual Level Course

Eligible for graduate credit.

**HIST 32503 - Topics in History** 

### **HIST 32503 - Topics in History**

Study and analysis of selected historical issues and problems of limited scope from the perspective of the arts and humanities. Topics will vary but will usually cut across fields, regions, and periods. May be repeated for credit with a different topic for a maximum of 15 credits.

Cr. 3. Variable Title (V.T.)

HIST 32701 - Modern France And The French Empire

# **HIST 32701 - Modern France And The French Empire**

This course provides an introduction to the history of France and its empire over the course of the last 150 years. It covers the most important political events that impacted France and her colonies since the end of the nineteenth century, as well as considering social, cultural, and intellectual movements that influenced the course of French and imperial history. The course considers questions of identity, defining 'Frenchness,' over a contested period, and questioning what it meant to be a member of the greater French empire. It examines what France meant to various groups and considers ideas of belonging and the nation, studying inclusion and exclusion, and the ramifications of maintaining and living in a global empire. The course studies the complex relationship between colonized and colonizer from the viewpoints of both sides, considering both the political and emotional legacies of colonialism.

Cr. 3.

HIST 33101 - African History from Ancient Times to Empires and City States

# HIST 33101 - African History from Ancient Times to Empires and City States

Origins and groupings of peoples of Africa; political, social, and economic evolution to 1750; Africa's contacts with ancient world, trans-Sahara and Indian Ocean trades, growth of states and empires, spread of Islam. Credit not given for both 33101 and History of Africa I course.

Cr. 3.

Notes

Approved by Arts and Sciences for the Cultural Studies (Non-Western Culture) requirement.

Subject Area

[OW] - [US] United States [WE] Western Europe [OW] Other World

### HIST 33201 - African History from Colonial Rule to Independence

1750 to present. Slave trade, European imperialism; impact of Islam and Christianity, new state formations, reassertion of African culture and identity. Credit not given for both 33201.

Cr. 3.

Notes

Approved by Arts and Sciences for the Cultural Studies (Non-Western Culture) requirement.

Subject Area

[OW] - [US] United States [WE] Western Europe [OW] Other World

HIST 33502 - American History Through Music

### **HIST 33502 - American History Through Music**

This course uses developments within the American music industry to trace the larger development in United States history during the twentieth century. Turn-of-the-century ragtime becomes a lens through which to understand the cultural impact of the modern industrial economy. Surf music is a microcosm of post-war suburbanization. Motown reveals tensions between the business and civil rights communities. Led Zeppelin is treated as part of the fantastic escapism of the malaise of the 1970s. This is not a music history class per se, but rather a class that uses music to study history.

Cr. 3.

HIST 33503 - Topics in Non-Western History

### **HIST 33503 - Topics in Non-Western History**

Study and analysis of selected historical issues and problems in non-Western, Russian, and Latin American history from the perspective of the arts and humanities. Topics will vary. May be repeated for credit with different topics.

Cr. 3

Variable Title

(V.T.)

Approved by Arts and Sciences for the Cultural Studies (Non-Western Culture) requirement

Subject Area

[OW] - [US] United States [WE] Western Europe [OW] Other World

HIST 34101 - Latin America: Conquest And Empire

# HIST 34101 - Latin America: Conquest And Empire

Geographical, Indian, Spanish, Portuguese, and African backgrounds; discovery and conquest; settlement and expansion; political, economic, social, cultural, and religious institutions; trans-European struggle for hemispheric dominance; wars of independence; 1492-1825. Approved by Arts and Sciences for the nonwestern culture studies requirement.

Cr. 3.

HIST 34201 - Latin America: Evolution and Revolution

### **HIST 34201 - Latin America: Evolution and Revolution**

Hispanic America since independence, with emphasis on common problems of nation building in multi-racial former colonial societies; latifundia; dependency relationships; impact of industrialization; the conservative and revolutionary responses; 1810- present.

Cr. 3.

Notes

Approved by Arts and Sciences for the Cultural Studies (Non-Western Culture) requirement.

Subject Area

[OW] - [US] United States [WE] Western Europe [OW] Other World

**Dual Level Course** 

Eligible for graduate credit.

# HIST 34501 - American Diplomatic History I

American diplomacy from 1775 to 1823; diplomacy of American continental expansion to 1898. America as a world power. Involvement in Far Eastern affairs after 1898, diplomacy of World Wars I and II, developments to present. Credit not given for both 34501 and U S Diplomatic History.

Subject Area [US] - [US] United States [WE] Western Europe [OW] Other World **Dual Level Course** Eligible for graduate credit.

HIST 34502 - History of Espionage: Spies, Intelligence, and Intelligence Agencies in an International Context

# HIST 34502 - History of Espionage: Spies, Intelligence, and Intelligence Agencies in an International Context

The course examines the development of espionage and intelligence agencies in an international context. The evolution of spying will be studied alongside major historical developments such as the growth of the state, the rise of public opinion, and the appearance of the 20th century's catastrophic international conflicts, the First World War, the Second World War and the Cold War. Through the study of espionage and intelligence agencies we will ask and try to answer questions about the role of knowledge and of secrecy in construction and maintenance of the modern state

Cr. 3.

HIST 34601 - Modern Mexico

### HIST 34601 - Modern Mexico

Places contemporary Mexico in historical perspective, focusing on the 19th and 20th centuries. Topics include 19th century social and political movements, the causes and consequences of the 1910 revolution, the formation of Mexico's political system, problems of economic growth, and the changing patterns of gender, class, and ethnicity in Mexican society.

Approved by Arts and Sciences for the Cultural Studies (Non-Western Culture) requirement.

Subject Area

[OW] - [US] United States [WE] Western Europe [OW] Other World

HIST 35002 - History Of Modern Medicine

# **HIST 35002 - History Of Modern Medicine**

This course examines the major developments in the history of American medicine from the colonial era through the twentieth century. It explores the changing meaning of "health" through the years and the political, economic, social, and cultural developments that have helped create America's modern health care industry. Particular attention is paid to the evolving role of the doctor and the development of the medical profession during the nineteenth century, as well as the role of commercialized health care and the rise of the pharmaceutical industry in the twentieth century. This class is designed with the non-medical student in mind, so while a general knowledge of U. S. history will be useful, knowledge of medicine is not a prerequisite.

Cr. 3.

HIST 35101 - The United States in World War II

### HIST 35101 - The United States in World War II

Examination of U.S. effect on the outcome of World War II and change in America caused by the war. Major topics: the process of U.S. involvement, strategies of the major land and sea campaigns, relations within the Grand Alliance, development of the A-bomb, and the origins of the Cold War.

Cr. 3.

Subject Area

[US] - [US] United States [WE] Western Europe [OW] Other World

### **HIST 35102 - Western Europe in the Early Middle Ages**

Evolution of European civilization from the fall of Rome, development of Christianity and the Germanic invasions; through Charlemagne's Empire and the subsequent development of feudalism, manorialism, and papacy.

Cr. 3.

Variable Title
(V.T.)

Subject Area
[WE] - [US] United States [WE] Western Europe [OW] Other World
Dual Level Course
Eligible for graduate credit.

HIST 35202 - Western Europe in the High And Later Middle Ages

### HIST 35202 - Western Europe in the High And Later Middle Ages

Expansion of European culture and institutions: chivalry, Crusades, rise of towns, universities, Gothic architecture, law, revival of central government. Changes in late medieval Europe: famine, plague, Hundred Years' War, peasant revolt, crime, Inquisition, and heresy.

Cr. 3.

Variable Title
(V.T.)

Subject Area
[WE] - [US] United States [WE] Western Europe [OW] Other World

Dual Level Course

Eligible for graduate credit.

HIST 35501 - Europe: Louis XIV to French Revolution

### **HIST 35501 - Europe: Louis XIV to French Revolution**

Absolutism to enlightened despotism; the European state and its authority in fiscal, judicial, and military affairs; sources, content, diffusion of the Enlightenment; agriculture, commerce, and industry in pre-industrial economies; Old Regime France.

Cr. 3.

Subject Area
[WE] - [US] United States [WE] Western Europe [OW] Other World
Dual Level Course
Eligible for graduate credit.

HIST 36001 - Atlantic World, 1400-1900

### HIST 36001 - Atlantic World, 1400-1900

This course will examine the political, cultural, economic, and biological history of the Atlantic World from 1400 to 1900. there will be an emphasis on how the development of Europe impacted the peoples and cultures of Africa and the Americas, and how these societies likewise shaped Europe's development.

Cr. 3

Subject Area

[US] [WE] [OW] - [US] United States [WE] Western Europe [OW] Other World

HIST 36102 - Europe in the 20th Century I

# HIST 36102 - Europe in the 20th Century I

Diplomatic, economic, intellectual, military, political, and social developments within Europe from World War I to World War II.

Cr. 3.
Variable Title
(V.T.)
Subject Area
[WE] - [US] United States [WE] Western Europe [OW] Other World

Eligible for graduate credit.

### HIST 37701 - The History of American Sports

# **HIST 37701 - The History of American Sports**

This course is an exploration of the interplay of social, cultural, economic, and political forces in the formation of an American sporting culture from the colonial era to the present. It examines the ways social class, race, gender, ethnicity, and region have influenced sporting experiences and the place of sport in American society.

Cr. 3.

**HIST 37801 - American Constitutional History** 

### **HIST 37801 - American Constitutional History**

This course surveys the process of framing, amending, and interpreting the United States Constitution from the 1780's until today. It features a detailed study of the history and context of the Constitutional Convention of 1787. It also examines the decisions and justices of the Supreme Court from its origins to the present.

3 c1

HIST 37802 - Germany: 1871-Present

### HIST 37802 - Germany: 1871-Present

Political/social fault lines of Second German Empire of 1871; imperialism; origins, impacts, and legacies of World War I; achievements/limits of Weimar Republic; rise of Nazis; Nazism in power; World War II and Holocaust; Cold War and division of Germany; politics and culture in the two Germanies, 1949-1990; reunification; contemporary problems.

Cr. 3.

HIST 38201 - The Sixties

### **HIST 38201 - The Sixties**

An intensive examination of the decade that tore apart post-World War II American society, beginning with the confident liberalism that believed the nation could "pay any price" and "bear any burden" to stop Communism abroad and to promote reform at home. Focuses on the internal contradictions and external challenges that destroyed this liberal agenda: civil rights and black power, the New Left, the counterculture, second-wave feminism, the sexual revolution, the Vietnam War, and the globalization of the economy, and finishing with the more conservative order that emerged in the early 1970s to deal with the conflicting realities of limited national power and wealth on the one hand, and rising demands for rights and opportunities on the other.

Cr. 3.
Hours
Class 2-3, Lab. 0-1,
Subject Area
[US] - [US] United States [WE] Western Europe [OW] Other World

HIST 38601 - Greek History

# HIST 38601 - Greek History

Political, social, and economic developments in the Greek world from the age of Mycenae and Troy until the Roman conquest (167 B.C.). Greek colonial world, Athens and Sparta, career and legend of Alexander the Great, the Hellenistic age. Archaeology as a source for political and social history.

Cr. 3. Notes

Eligible for graduate credit.

Subject Area

[WE] - [US] United States [WE] Western Europe [OW] Other World

**Dual Level Course** 

Dual Level: Undergradute - Graduate

### **HIST 38801 - Roman History**

Development of the history of the Roman people from legendary origins through the regal period, the Republic, the Early Empire, and the Late Empire.

Cr. 3.

Subject Area

[WE] - [US] United States [WE] Western Europe [OW] Other World

**Dual Level Course** 

Eligible for graduate credit.

### HIST 39002 - Decline & Fall Of Roman Empire

### HIST 39002 - Decline & Fall Of Roman Empire

The Decline and Fall of the Roman Empire from the Golden Age of the second century A.D. until the collapse of the Roman power in the West (476 A.D.). and the rise of Islam; Christianity and the fate of classical culture in an age of political, social, and religious transformation; the impact of recent archaeological discoveries on "the fall of Rome" as a historical problem.

Cr. 3.

HIST 39301 - Ottoman History

# **HIST 39301 - Ottoman History**

Political, social, and economic developments in the Ottoman Empire from the rise of its power in Anatolia (1299) to the end of the classical period (1826). Evolution of Ottoman institutions and relations with major European powers.

Cr. 3

Notes

Approved by Arts and Sciences for the Cultural Studies (Non-Western Culture) requirement.

Subject Area

[OW] - [US] United States [WE] Western Europe [OW] Other World

**Dual Level Course** 

Eligible for graduate credit.

### HIST 40201 - Byzantine History and Civilization II

# **HIST 40201 - Byzantine History and Civilization II**

History of the Byzantine Empire from 867 to 1453; survey of cultural, demographic, and political developments prior to 867; Orthodoxy and the conceptual foundations of state organization; civil and military aristocracy; social and economic conditions; foreign policy: rival states and war, Latin invasion, imperial restoration, and Ottoman conquest; the Byzantine cultural legacy in the East.

Cr. 3.

Notes

Approved by Arts and Sciences for the Cultural Studies (Non-Western Culture) requirement.

Eligible for graduate credit.

Subject Area

[OW] - [US] United States [WE] Western Europe [OW] Other World

**Dual Level Course** 

Dual Level Course

### HIST 41601 - Slavery In Americas

# **HIST 41601 - Slavery In Americas**

Slavery in the New World is explored by comparing its forms in North America and in the Caribbean and South America. Special attention is paid to the mechanisms by which slaves were held in slavery and the adaptation and accommodations that were made by both masters and slaves.

# **HIST 42501 - Topics in History**

Intensive study and analysis of selected historical issues and problems of limited scope from the perspective of arts and humanities. Topics will vary but will ordinarily cut across fields, regions, and periods. May be repeated for credit.

Cr. 1-3. Variable Title (V.T.) Dual Level Course Eligible for graduate credit.

HIST 42601 - History of Balkans: 1914 to Present

### HIST 42601 - History of Balkans: 1914 to Present

First World War in the Balkans; politics, economies, and societies in the Balkan countries during the 20th century; Balkan unity movements; international events and World War II; rise of socialism in the region; era of cold war and detente; revolutions of '80s and '90s.

Cr. 3

Subject Area

[OW] - [US] United States [WE] Western Europe [OW] Other World

HIST 42800 - Eastern Europe: 1914-Present

### HIST 42800 - Eastern Europe: 1914-Present

World War I; the peace settlements in Poland, Czechoslovakia, Austria, Hungary, Yugoslavia, Bulgaria, Albania, Greece, Romania, and Turkey. Parliamentary democracy vs. military dictatorship; irredentism; economic transformation; Nazi domination; Munich; Soviet seizure of power. National communism of Tito, Gromulka, Kadar, Ceausescu, Dubcek, and Hoxha. Soviet and Western rivalry in Eastern Europe.

Cr. 3.

HIST 43200 - 20th Century Latin American Revolutions

# **HIST 43200 - 20th Century Latin American Revolutions**

Revolutions, revolutionary movements, rapid social change, and modernization from Battle through Menem. Particular attention to the Mexican, Cuban, Bolivian, Guatemalan, Costa Rican, and Nicaraguan revolutions, to the Peron, Vargas, and Velasco Alvarado administrations and Cold War confrontations.

Cr. 3.

Notes

Approved by Arts and Sciences for the Cultural Studies (Non-Western Culture) requirement.

Subject Area

[OW] - [US] United States [WE] Western Europe [OW] Other World

**Dual Level Course** 

Eligible for graduate credit.

HIST 44700 - US-Latin American Relations

### HIST 44700 - US-Latin American Relations

Diplomatic and economic relations of the United States with Latin America, from American independence to the present. Evolution of Monroe Doctrine, Mexican War, development of trade and investments, establishment and abandonment of protectorates, Good Neighbor Policy, increased hemispheric interaction in the World War II and Cold Waq eras. Eligible for graduate credit.

### **HIST 49501 - Undergraduate Reading in History**

Reading course in history. May be taken three times.

Cr. 1-3. Variable Title (V.T.)

HIST 49502 - Proseminar for History Majors

# HIST 49502 - Proseminar for History Majors

Selected topics of history. May be repeated for credit with a different topic.

#### **Preparation for Course**

P: HIST 21700 or equivalent.

Cr. 3. Variable Title (V.T.)

HIST 49601 - Internship in History

### HIST 49601 - Internship in History

Faculty-supervised experience in museum work, historical preservation, historical societies or libraries, or other history-related fields in public or private institutions.

P: junior class standing, 12 credits of related course work, consent of instructor and field supervisor.

Cr. 1-6.

HONR 10101 - Ideas and Human Experience

# **HONR 10101 - Ideas and Human Experience**

A discussion class with limited enrollment and an interdisciplinary foundation. Topics vary and are usually focused on personal growth and exploration. Students are encouraged to think for themselves and look in unusual places to find the answers to life's tough questions. May be repeated for credit.

Cr. 1-3.

Questions about the Honors Program or specific honors courses may be directed to the Honors Program director or to the department sponsoring the course. To register in an honors course, students must have Honors Program eligibility or instructor's permission.

**HONR 15000 - Honors H-Option Contract** 

# **HONR 15000 - Honors H-Option Contract**

A regularly scheduled course may be converted into an honors course through contracted changes to the course syllabus negotiated with a willing instructor. In addition to the contracted course, HON H150 with a matching title adding the word "honors" will appear on the student's transcripts indicating the honors status of the course.

Cr. 0.

Variable Title

(V.T.)

Notes

Questions about the Honors Program or specific honors courses may be directed to the Honors Program director or to the department sponsoring the course. To register in an honors course, students must have Honors Program eligibility or instructor's permission.

HONR 20100 - Interdepartmental Colloquium - Sciences

# **HONR 20100 - Interdepartmental Colloquium - Sciences**

Honors seminar focusing on issues in the social and behavioral sciences from an interdisciplinary perspective.

Cr. 3.

Variable Title

(V.T.)

Notes

Approved by Arts and Sciences for the social and behavioral sciences requirement. Questions about the Honors Program or specific honors courses may be directed to the Honors Program director or to the department sponsoring the course. To register in an honors course, students must have Honors Program eligibility or instructor's permission.

### **HONR 25000 - Honors H-Option Contract**

### **HONR 25000 - Honors H-Option Contract**

A regularly scheduled course may be converted into an honors course through contracted changes to the course syllabus negotiated with a willing instructor. In addition to the contracted course, HON H250 with a matching title adding the word "honors" will appear on the student's transcripts indicating the honors status of the course.

Cr. 0.

Variable Title

(V.T.)

Notes

Questions about the Honors Program or specific honors courses may be directed to the Honors Program director or to the department sponsoring the course. To register in an honors course, students must have Honors Program eligibility or instructor's permission.

#### HONR 30200 - Interdepartmental Colloquium

### HONR 30200 - Interdepartmental Colloquium

Honors seminar focusing on topics in the natural and mathematical sciences areas from an interdisciplinary perspective.

Cr. 1-3.

Variable Title

(V.T.)

Notes

Approved by Arts and Sciences for the science and mathematics requirement. Questions about the Honors Program or specific honors courses may be directed to the Honors Program director or to the department sponsoring the course. To register in an honors course, students must have Honors Program eligibility or instructor's permission.

#### **HONR 35000 - Honors H-Option Contract**

### **HONR 35000 - Honors H-Option Contract**

A regularly scheduled course may be converted into an honors course through contracted changes to the course syllabus negotiated with a willing instructor. In addition to the contracted course, HONR 35000 with a matching title adding the word "honors" will appear on the student's transcripts indicating the honors status of the course.

Cr. 0.

Variable Title

(V.T.)

Notes

Questions about the Honors Program or specific honors courses may be directed to the Honors Program director or to the department sponsoring the course. To register in an honors course, students must have Honors Program eligibility or instructor's permission.

#### **HONR 39901 - Honors Independent Study**

# **HONR 39901 - Honors Independent Study**

The Honors Program capstone course. The honors project provides an opportunity for honors students to undertake research under the guidance of a faculty mentor. The format may vary, but each project encourages intellectual independence and introduces students to proper research methods in preparation for graduate work. Projects must have some written component and will be a product that is representative of professional work in the chosen field. The project must be presented and defended before a committee including representatives of the Honors Program Council.

Cr. 1-6.

Notes

Questions about the Honors Program or specific honors courses may be directed to the Honors Program director or to the department sponsoring the course. To register in an honors course, students must have Honors Program eligibility or instructor's permission.

### **HONR 45001 - Honors H-Option Contract**

# **HONR 45001 - Honors H-Option Contract**

A regularly scheduled course may be converted into an honors course through contracted changes to the course syllabus negotiated with a willing instructor. In addition to the contracted course, HONR 45001 with a matching title adding the word "honors" will appear on the student's transcripts indicating the honors status of the course.

Cr. 0. Variable Title

(V.T.)

#### Notes

Questions about the Honors Program or specific honors courses may be directed to the Honors Program director or to the department sponsoring the course. To register in an honors course, students must have Honors Program eligibility or instructor's permission.

#### **HORT 10100 - Fundamentals of Horticulture**

### **HORT 10100 - Fundamentals of Horticulture**

Biology and technology involved in the production, storage, processing, and marketing of horticultural plants and products. Laboratories include experiments demonstrating both the theoretical and practical aspects of horticultural plant growth and development.

Cr. 3.

Hours

Class 2, Lab. 2,

### HPER 11100 - Basketball

### HPER 11100 - Basketball

Instruction in fundamental skills of shooting, passing, ball handling, footwork, basic strategies of offensive and defensive play, and interpretation of rules.

Cr. 1.

#### Note

Letter grades are given in all HPER classes. Some classes are offered in eight-week sessions; check the Schedule of Classes for scheduling information. Activity classes cannot be repeated for credit.

### HPER 11700 - Bowling

### **HPER 11700 - Bowling**

Beginning instruction in the fundamentals of approach, release, arm swing, methods of scoring, rules, and etiquette on the lanes. Explanation of lane construction, lane condition, and automatic machines.

Cr. 1.

Notes

Letter grades are given in all HPER classes. Some classes are offered in eight-week sessions; check the Schedule of Classes for scheduling information. Activity classes cannot be repeated for credit.

#### **HPER 11900 - Personal Fitness**

### **HPER 11900 - Personal Fitness**

Instruction in basic principles of conditioning and fitness. Emphasis on muscular strength, muscular endurance, flexibility, and cardiorespiratory endurance. Designed for students without prior knowledge of conditioning methods.

Cr. 1.

Notes

Letter grades are given in all HPER classes. Some classes are offered in eight-week sessions; check the Schedule of Classes for scheduling information. Activity classes cannot be repeated for credit.

#### **HPER 12100 - Conditioning & Weight Training**

# HPER 12100 - Conditioning & Weight Training

Instruction in basic principles of conditioning, and weight training. Emphasis on muscular strength, muscular endurance, flexibility and cardiorespiratory endurance.

Cr. 1

Notes

May be repeated for up to 2 credits.

### HPER 13300 - Fitness and Jogging I

Beginning instruction in the basic principles of fitness as they apply to a jogging program. Emphasis on cardiorespiratory endurance and flexibility. Basic concepts underlying Dr. Kenneth Cooper's aerobic program. For students without prior experience in jogging programs, aerobics levels I through III.

Cr. 1.

#### Notes

Graded S/U only. Letter grades are given in all HPER classes. Some classes are offered in eight-week sessions; check the Schedule of Classes for scheduling information. Activity classes cannot be repeated for credit.

#### HPER 13501 - Golf

### **HPER 13501 - Golf**

Beginning instruction in techniques for putting, chipping, pitching, iron swing, and wood strokes. Course includes rules and etiquette of golf. Students play on par 3 course.

Cr. 1.

#### Notes

Letter grades are given in all HPER classes. Some classes are offered in eight-week sessions; check the Schedule of Classes for scheduling information. Activity classes cannot be repeated for credit.

#### HPER 15000 - Karate

### HPER 15000 - Karate

Beginning instruction in techniques of blocking, kicking, striking, and punching, limited free fighting and self-defense. Students should achieve technical level of yellow belt.

Cr. 1.

#### Notes

Letter grades are given in all HPER classes. Some classes are offered in eight-week sessions; check the Schedule of Classes for scheduling information. Activity classes cannot be repeated for credit.

### HPER 15900 - Racquetball

# **HPER 15900 - Racquetball**

Instruction in basic skills for beginning players. Includes both four-wall singles and doubles games.

Cr. 1.

#### Notes

Letter grades are given in all HPER classes. Some classes are offered in eight-week sessions; check the Schedule of Classes for scheduling information. Activity classes cannot be repeated for credit.

#### HPER 16000 - First Aid

### HPER 16000 - First Aid

Lecture and demonstration of first-aid measures for wounds, hemorrhage, burns, exposure, sprains, dislocation, fractures, unconscious conditions, suffocation, drowning, and poisons, with skill training in all procedures.

Cr. 1-2.

### Notes

Letter grades are given in all HPER classes. Some classes are offered in eight-week sessions; check the Schedule of Classes for scheduling information. Activity classes cannot be repeated for credit.

### **HPER 16300 - Emerging Health Topics**

# **HPER 16300 - Emerging Health Topics**

Addresses topics related to emerging issues that affect the health of individuals and society. Repeatable for credit up to 15 credit hours.

Cr. 1-3. Variable Title (V.T.)

#### HPER 16500 - Soccer

### HPER 16500 - Soccer

Instruction in fundamental techniques, rules, basic team tactics, and strategies. Emphasis on competitive game scrimmages and functional drills.

Cr. 1.

#### Notes

Letter grades are given in all HPER classes. Some classes are offered in eight-week sessions; check the Schedule of Classes for scheduling information. Activity classes cannot be repeated for credit.

#### HPER 18100 - Tennis

### **HPER 18100 - Tennis**

Beginning instruction in the fundamental skills of forehand and backhand strokes and serves. Competitive play in women's, men's, and mixed doubles.

Cr. 1.

#### Notes

Letter grades are given in all HPER classes. Some classes are offered in eight-week sessions; check the Schedule of Classes for scheduling information. Activity classes cannot be repeated for credit.

### HPER 18500 - Volleyball

### HPER 18500 - Volleyball

Instruction in fundamental skills of power volleyball. Emphasis on overhand serve, bump, set, dig, and spike. Team offensive and defensive strategies included.

Cr. 1.

#### Notes

Letter grades are given in all HPER classes. Some classes are offered in eight-week sessions; check the Schedule of Classes for scheduling information. Activity classes cannot be repeated for credit.

### HPER 19000 - Yoga I

# HPER 19000 - Yoga I

Hatha yoga postures for flexibility, toning, suppleness, stamina. Deep-complete breathing for vitality and in-depth relaxation. Introduction to basic yogic philosophy.

Cr. 1.

#### Notes

Letter grades are given in all HPER classes. Some classes are offered in eight-week sessions; check the Schedule of Classes for scheduling information. Activity classes cannot be repeated for credit.

### HPER 21100 - Advanced Basketball

### HPER 21100 - Advanced Basketball

Instruction in advanced skills and team play in basketball. Extension of basic skills with emphasis on improvement of techniques. Also more involved instruction in team offenses and defenses, while developing an understanding of why and when to perform certain team concepts.

### **Preparation for Course**

P: HPER 11100 or permission of instructor.

Cr. 1.

#### Note:

Letter grades are given in all HPER classes. Some classes are offered in eight-week sessions; check the Schedule of Classes for scheduling information. Activity classes cannot be repeated for credit.

# **HPER 21701 - Bowling - Intermediate**

Emphasis on improving hook ball delivery and an understanding of angles needed for spare bowling. Interclass competition with and without handicaps.

Cr. 1.

#### Notes

Letter grades are given in all HPER classes. Some classes are offered in eight-week sessions; check the Schedule of Classes for scheduling information. Activity classes cannot be repeated for credit.

#### HPER 25001 - Karate - Intermediate

### HPER 25001 - Karate - Intermediate

Instruction in advanced applications of basic techniques and free fighting. Students should achieve technical level of green belt.

#### **Preparation for Course**

P: yellow belt technical level or consent of instructor.

Cr. 1

Notes

Letter grades are given in all HPER classes. Some classes are offered in eight-week sessions; check the Schedule of Classes for scheduling information. Activity classes cannot be repeated for credit.

### HPER 28000 - Principles of Athletic Training and Emergency Care

# HPER 28000 - Principles of Athletic Training and Emergency Care

An introduction to the principles of injury prevention. Lecture and demonstration of emergency measures to treat, for example, fractures, sprains, dislocations, and spinal injuries. Skill training in bandaging, strapping, splinting techniques.

Cr. 2.

Hours

Class 1, Practice 2,

Notes

Letter grades are given in all HPER classes. Some classes are offered in eight-week sessions; check the Schedule of Classes for scheduling information. Activity classes cannot be repeated for credit.

### HPER 29000 - Yoga II

# **HPER 29000 - Yoga II**

Intensive Hatha yoga postures, additional breathing techniques, extensive relaxation, and continuation of yoga philosophy.

#### **Preparation for Course**

P: HPER 19000 or consent of instructor.

Cr. 1

Notes

Letter grades are given in all HPER classes. Some classes are offered in eight-week sessions; check the Schedule of Classes for scheduling information. Activity classes cannot be repeated for credit.

#### HPER 39700 - Kinesiology

# **HPER 39700 - Kinesiology**

Application of facts and principles of anatomy, physiology, and mechanics to problems of teaching physical education skills and activities of daily living.

#### Preparation for Course

P: BIOL 21500.

Cr. 3.

#### Notes

Letter grades are given in all HPER classes. Some classes are offered in eight-week sessions; check the Schedule of Classes for scheduling information. Activity classes cannot be repeated for credit.

### **HPER 40900 - Physiology of Exercise**

A survey of human physiology parameters as related to physical exercise and work and the development of physiological fitness factors. Physiological foundations will be considered.

#### **Preparation for Course**

P: BIOL 21500, 21600.

Cr 3

#### Notes

Letter grades are given in all HPER classes. Some classes are offered in eight-week sessions; check the Schedule of Classes for scheduling information. Activity classes cannot be repeated for credit.

### HPER 45000 - Principles and Psychology of Coaching

### **HPER 45000 - Principles and Psychology of Coaching**

A study of the many psychological aspects pertaining to coaching competitive athletics, including motivation, player-coach relationships, team selection, team morale, and strategy. Emphasis on underlying sociological determinants of environment as contributing factors in competition.

#### Preparation for Course

P: junior or senior class standing.

Cr. 3

#### Notes

Letter grades are given in all HPER classes. Some classes are offered in eight-week sessions; check the Schedule of Classes for scheduling information. Activity classes cannot be repeated for credit.

#### **HPER 48000 - Care and Prevention of Athletic Injuries**

# **HPER 48000 - Care and Prevention of Athletic Injuries**

Course designed to assist student in recognizing, understanding, and managing athletic injuries. Methods of taping and bandaging are emphasized.

Cr. 1

#### Notes

Letter grades are given in all HPER classes. Some classes are offered in eight-week sessions; check the Schedule of Classes for scheduling information. Activity classes cannot be repeated for credit.

#### **HSRV 10000 - Introduction to Human Services**

### **HSRV 10000 - Introduction to Human Services**

An orientation to human services. History, current concepts, ethics, and roles of the various workers in the field are discussed. This course is open to non-HSRV majors.

Cr. 3.

### **HSRV 10300 - Helping Relationship Techniques**

# **HSRV 10300 - Helping Relationship Techniques**

This course will provide students with opportunities to increase their effectiveness in helping people. This course will examine the helping process in terms of skills, helping relationship. This course is appropriate for anyone who is entering a career dealing with people. This course is open to non-HSRV majors.

### **HSRV 10500 - Basic Interviewing Skills**

This course is designed to introduce and develop skills associated with interviewing clients. The focus will be on skill-building and competencies in attending behaviors, client observation skills, open and closed questions, encourager skills, paraphrasing and summarizing, and reflection of feelings and meaning. Advanced interviewing skills will include confrontation, focusing, and information giving. This course is open to non-HSRV majors.

Cr. 3

### **HSRV 10600 - Medical Terminology**

### **HSRV 10600 - Medical Terminology**

This course is designed to provide a general understanding of the language of medicine, including word construction, definitions, spelling, and abbreviations. Emphasis is placed on speaking, reading and writing skills.

Cr. 3

### HSRV 16900 - Introduction to Wellness and Stress Management

### HSRV 16900 - Introduction to Wellness and Stress Management

Introduction to the philosophies and techniques for achieving individual wellness and optimum health. Includes topics in stress management, nutrition awareness, lifestyle planning, nontraditional approaches to building healthy lifestyles, exercise, and psycho-physiological well-being. Class sessions will incorporate experiential and participatory styles of learning, lecture, discussion, and small group interaction.

Cr. 3.

### **HSRV 20000 - Behavioral Therapies**

# **HSRV 20000 - Behavioral Therapies**

This course will cover major theories, terms, and techniques of behavioral therapeutic approaches. It will explore a broad range of intervention strategies with application appropriate for diverse problems, the course will critically examine how these techniques can be adapted in different cultures where different interpersonal dynamics and values may exist.

### **Preparation for Course**

P: HSRV 10000, 10300, and 10500.

Cr. 3.

### HSRV 20100 - Clinical in Case Study Method I

# HSRV 20100 - Clinical in Case Study Method I

This is the first of two courses which will provide the student with field opportunities in an approved field instruction site that provides structured learning opportunities for the student to demonstrate human services foundational knowledge, professional standards, and practice competencies required of an entry-level human services worker. An agency supervisor and a faculty member supervise students as they complete the required 180 hours of field work. The classroom component relates theory and principles of practice to agency field-study experience. Through group interaction, discussion, and analysis, students learn to develop supportive relationships with clients and apply the values of confidentiality and client self-determination. They learn how their values and personal experiences affect their work with clients.

### **Preparation for Course**

P or C: HSRV 20000.

Cr. 2. Notes

This course is restricted to HSRV majors and must have departmental approval.

### **HSRV 21100 - The Dynamics of Group Behavior**

This course is appropriate for anyone who will be working with groups. Focus is upon the properties of groups, awareness of personal factors in group interaction, dimensions of leadership behavior in achieving group effectiveness, characteristics of larger social systems, and the dynamics of change. Small-group experiences are supplemented by skill practice sessions and theory presentations.

**Preparation for Course** 

P: HSRV 10000, 10300, and 10500.

Cr. 3.

HSRV 25100 - Clinical in Case Study Method II

### **HSRV 25100 - Clinical in Case Study Method II**

This is the second of two courses which will provide the student with field opportunities in an approved field instruction site that provides structured learning opportunities for the student to demonstrate human services foundational knowledge, professional standards, and practice competencies required of an entry-level human services worker. An agency supervisor and a faculty member supervise students as they complete the required 180 hours of field work. The classroom component relates theory and principles of practice to agency field-study experience. Through group interaction, discussion, and analysis, students learn to develop supportive relationships with clients and apply the values of confidentiality and client self-determination. They learn how their values and personal experiences affect their work with clients.

**Preparation for Course** 

P: HSRV 20100.

Cr. 3

Note

This course is restricted to HSRV majors and must have departmental approval.

**HSRV 29900 - Human Services** 

### **HSRV 29900 - Human Services**

Hours and subject matter to be arranged. See department for current course selection.

Cr. 1-3.

Variable Title

(V.T.) Notes

(This is an independent study course and must be approved by the department chair.)

HSRV 30300 - Interdisciplinary Healthcare In Gerontology

# HSRV 30300 - Interdisciplinary Healthcare In Gerontology

Research that encompasses the holistic aspect of geriatric health care that promotes healthy aging and optimal quality of life is included in the course study. A focus of ageism and stigmatization are integrated into the course. Geriatric health assessment and correlation of physiological disease processes such as diabetes, vascular disease, cardiac, pulmonary, and renal disease are studied. Psychological disease processes that include dementia, depression, and etiologies of behavioral changes commonly experienced by the elderly population are emphasized.

Cr. 3.

**HSRV 31500 - Introduction to Theories and Therapies** 

# **HSRV 31500 - Introduction to Theories and Therapies**

Discusses specific theories and therapies that are essential for human service professional practice. This course also provides knowledge that is required to pass the Indiana certification examination for addiction counselors.

**Preparation for Course** 

P: PSY 12000, HSRV 20000 and 20100.

### **HSRV 32000 - Case Methods**

This course will provide theoretical knowledge of techniques in case management related to human service clients and agencies. Case management with a wide range of populations will be discussed.

#### **Preparation for Course**

P:  $\bar{\text{HS}}\text{RV}$  10000, 10300, 10500, 20000, 20100 and HSRV 21100.

Cr 3

### HSRV 32400 - Non-Profit Management

### HSRV 32400 - Non-Profit Management

The focus of non-profit human services agencies is to serve clients as well as to function as a business. This course will provide information on managing non-profit agencies. Topics will include: working with a board of directors, budget, engagement with stakeholders, information dissemination, fundraising, grant writing, logic models, ethics, human resource and legal issues, marketing, strategic planning and program evaluation.

### **Preparation for Course**

P: HSRV 20100 and 25100 or jr standing.

Cr. 3.

### HSRV 33000 - Psychopharmacology for Human Services

# HSRV 33000 - Psychopharmacology for Human Services

An overview of the effects and side effects of psychiatric medications. Focus of the course will be knowledge useful in identifying 1) whether or not a client is responding to pharmacological treatment and 2) client behaviors indicating adverse effects of medication that should be reported to the client's healthcare provider.

### Preparation for Course

P: PSY 35000, HSRV 20000 and 21100.

Cr. 1

### **HSRV 35000 - Drugs and Society**

# **HSRV 35000 - Drugs and Society**

Emphasizes the social, psychological, biological, and cultural contexts in which addiction develops and occurs. Encourages an understanding of substance use, abuse, and addictive behaviors within a larger pattern. For this reason, the course is applicable to anyone who will be in a position in which they must a) work with people on a daily basis, b) provide supervision or support services within an organization, or c) work in any aspect of the helping professions.

Cr. 3.

HSRV 37700 - Ethics, Policy, Law and Professional Issues in Human Services

# HSRV 37700 - Ethics, Policy, Law and Professional Issues in Human Services

This course will examine ethics, social policy, and laws that arise in the practice of human services. In addition, standards for professional behavior in human services will be addressed.

### Preparation for Course

P: HSRV 10000, 10300, 10500, 20000, 21100

### **HSRV 39900 - Special Topics**

Hours, credits, and subject matter to be arranged by department. See department for current course selection.

Cr. 1-3. Variable Title (V.T.)

HSRV 40000 - Internship I

### HSRV 40000 - Internship I

This course will provide experiential learning related to human service agencies. Students will be assigned to a human service agency and work with an agency supervisor to apply knowledge of case management skills including intake, client assessment, and development and implementation of intervention plans.

#### Preparation for Course

P: HSRV 31500, 32000, and 25100; C: HSRV 40100.

Cr. 1-4

Notes

Course is limited to students admitted to the B.S. in Human Services degree program (Human Services majors). Additionally, students must have departmental approval to enroll.

### HSRV 40100 - Internship Seminar I

### HSRV 40100 - Internship Seminar I

This course will focus on professionalism, ethical issues, and social welfare policy as applied with human service clients and agencies. Course is limited to students admitted to the B.S. in human services program.

#### **Preparation for Course**

C: HSRV 31500, 32000, and 40000.

Cr.

Notes

This course is restricted to HSRV majors and must have departmental approval.

#### **HSRV 41700 - Research Methods**

### **HSRV 41700 - Research Methods**

This course is designed to provide the student with a comprehensive knowledge of quantitative, qualitative, and mixed method research designs. Specific information will be provided on: the research problem, the research question, IRB application and the informed consent form, the literature review, instrumentation, methodology, ethics, and the research proposal.

### **Preparation for Course**

P: HSRV 31500, 32000, ENG W233, and STAT 12500.

Cr. 3.

Hours

Class 3

#### **HSRV 41900 - Advanced Intervention Strategies**

# **HSRV 41900 - Advanced Intervention Strategies**

This course builds on and complements foundational courses in the Department of Human Services. This course is intended for upper level students who have successfully grasped the concepts in lower level interviewing, helping relationships, and behavior modification courses. Intervention techniques with applicability to: individual, family, and group counseling, schools, and organizations will be covered. From a perspective of Choice Theory, key concepts in this course include: cultural competency, individual choices, mental health issues, and the process of assessing, implementing, and evaluating interventions for a wide range of populations.

### **HSRV 42000 - Substance Abuse Prevention**

Provides an overview of substance abuse theory, practice, and prevention. Includes concepts related to substance abuse prevention in the educational setting.

Cr. 3.

HSRV 45000 - Internship II

### HSRV 45000 - Internship II

This course will provide advanced experiential learning related to human service agencies. Students will be assigned to a human service agency and work with an agency supervisor to apply knowledge of program evaluation, legal implications related to human service practice, and management issues related to directing human service programs. Course is limited to students admitted to the B.S. in human services program.

**Preparation for Course** 

P: HSRV40000, 40100; C: HSRV 45100.

Cr. 2-4.

Notes

This course is restricted to HSRV majors and must have departmental approval.

HSRV 45100 - Internship Seminar II

### **HSRV 45100 - Internship Seminar II**

This course will provide a forum for discussion of advanced theories and skills applicable to developing, assessing, and managing human service agencies. Topics will include program evaluation, legal implications related to human service practice, and management issues related to implementing human service programs. Course is limited to students admitted to the B.S. in human services program.

**Preparation for Course** 

P: HSRV 40000, 40100; C: HSRV45000.

Cr.

This course is restricted to HSRV majors and must have departmental approval.

HTM 10000 - Introduction to the Hospitality and Tourism Industry

# HTM 10000 - Introduction to the Hospitality and Tourism Industry

An overview of supervisory careers, opportunities, and responsibilities in the food service, lodging, and tourism industry including historical developments, pioneers, and industry leaders; representatives or companies from the three areas.

Cr. 1-3.

HTM 14100 - Financial Accounting for the Service Industries

# HTM 14100 - Financial Accounting for the Service Industries

Fundamental accounting principles and procedures applied to the hospitality and service industries. Includes study of the uniform system of accounts, financial statements, special purpose journals, and subsidiary ledgers unique to the hospitality and service industries.

Cr. 3.

HTM 18100 - Lodging Management

# HTM 18100 - Lodging Management

Organization, management and operating procedures of lodging facilities. Guest-employee interactions will be analyzed along with current trends and cutting edge topics in the lodging industry. A history of the lodging industry will be discussed.

**Preparation for Course** 

P: HTM10000.

Cr. 3

HTM 21400 - Introduction to Food Selection and Preparation

# HTM 21400 - Introduction to Food Selection and Preparation

This course will introduce students to fundamental knowledge, skills and working environment pertaining to professional food preparation through lecture and laboratory exercises. Lectures will introduce food types, compare and contrast culinary methods as well as explain the underpinning physical and bio-chemical transformations that are occurring. Laboratory work, will allow students to observe and practice professional cooking as well as appreciate the results from a consumer's perspective.

Cr 3

HTM 21500 - Science Of Cooking

# HTM 21500 - Science Of Cooking

This course examines the fundamental principles of good cooking applied to a commercial kitchen environment by examining and applying basic scientific principles. The focus is developing an understanding of the processes that will ensure consistent results of quality food preparations. \$50.00 lab fee; uniform and knife set assessment if not previously purchased.

**Preparation for Course** 

P: HTM 21400.

Cr. 3.

HTM 22400 - Destination Management/Convention Management

### HTM 22400 - Destination Management/Convention Management

This course will give students a basic understanding of the roles destination management organizations (DMOs) and convention and visitors bureaus (CVBs) play in the tourism industry. All aspects of organization operations are covered, including service, research, product development, human resources, and financial management.

**Preparation for Course** 

P: HTM 10000, 18100 and 21400.

HTM 23100 - Hospitality and Tourism Marketing

# HTM 23100 - Hospitality and Tourism Marketing

Provides students with a customer-oriented approach to marketing in hospitality and tourism. Techniques available to hotels, restaurants, tourism, and travel businesses are described and evaluated, including packing, the travel trade, advertising, sales promotion, merchandising, and personal selling.

**Preparation for Course** 

P: HTM 10000, HTM 18100, HTM 21400

Cr. 3.

HTM 24200 - Managerial Accounting And Financial Management In Hospitality Operations

# HTM 24200 - Managerial Accounting And Financial Management In Hospitality Operations

Managerial and financial analysis of numerical data used for decision-making. Consideration of systems, techniques, information types and presentational forms used by hospitality management. Emphasis on situations oriented to the hospitality industry.

**Preparation for Course** 

P: HTM 14100.

### HTM 25200 - Professional Development I

This course is designed to help students begin their journey toward obtaining gainful employment upon graduation. Students will be familiarized with current and future industry needs as well as current employment opportunities. They will be guided in planning their studies and work experience towards meeting their goals. This course is also designed to help students choose the specialization track that suits their professional aspirations. This course will prepare students for academic success by introducing selected learning and thinking tools.

#### **Preparation for Course**

P: HTM 10000.

HTM 30100 - Hospitality and Tourism Industry Practicum

### HTM 30100 - Hospitality and Tourism Industry Practicum

Training and practical experience at the entry level, totaling at least 300 hours in an approved hospitality or tourism operation.

#### **Preparation for Course**

P: 6 credits in HTM or consent of program coordinator.

Cr. 1.

HTM 30200 - Hospitality and Tourism Industry Internship

### HTM 30200 - Hospitality and Tourism Industry Internship

Supervised and structured industry practical experience. Requires signed learning agreement between student and employer prior to initiating internship; a minimum of 400 work hours for each credit hour. Maximum number of credit hours given for a summer experience is one. Maximum number of credits given in a semester experience is two.

Cr. 1.

HTM 31000 - Food and Beverage Operation Management

# HTM 31000 - Food and Beverage Operation Management

This course builds on the foundation skills gained in food preparation and accounting putting them in practice in a real world setting where students plan, operate and manage a full service restaurant open to the public. Emphasis is placed on developing and utilizing effective operational management skills to create a high quality, profitable operation with well-planned systems and highly motived, organized employees.

#### **Preparation for Course**

P: HTM 18100, HTM 21000, and NUTR 20400

Cr. 4

HTM 31200 - Human Resources Management for the Service Industries

# HTM 31200 - Human Resources Management for the Service Industries

The principles and practices of managing human resources for effective operations of hospitality and tourism businesses will be covered including: Analysis and design of work, recruiting, selection, training and development, performance management, compensation, employee relations, and strategies for supporting organizational strategies.

### **Preparation for Course**

P: HTM 10000, HTM 18100, HTM 21400

# HTM 31400 - Franchising

The study of franchise administration, operations, and marketing, with a special emphasis on hospitality-related franchises. Includes a study of the legal regulation of franchises, the franchisee-franchiser relationship and unique problems in operating a franchise.

Cr. 3.

HTM 31500 - Club Management and Operations

### HTM 31500 - Club Management and Operations

A study of the organization, administration, operation, and opportunities within the private club industry with emphasis on the manager's duties.

#### **Preparation for Course**

P: HTM 23100.

Cr. 3.

HTM 32400 - Distribution Management

### HTM 32400 - Distribution Management

This course is intended to help undergraduate students gain fundamental knowledge about electronic distribution as it relates to the lodging industry. The course covers a wide range of topics that are related to marketing, yield management, content distribution, payments, channel management, and networks in context of a rapidly changing landscape.

#### **Preparation for Course**

P: HTM 18100.

Cr. 3.

HTM 32500 - Special Events

# HTM 32500 - Special Events

Students will be introduced to various kinds of events and venues that are common in the industry. They will be familiarized with specific requirements pertaining to these events and typical arrangements expected by organizers. They will learn how to sell, plan, conduct and evaluate special events.

### Preparation for Course

P: HTM 42000.

Cr. 3.

HTM 33200 - Emerging Technology Trends

# HTM 33200 - Emerging Technology Trends

This course covers the major aspects and impact of the digital age on the hospitality industry, from computer and network basics to the latest and applications. The focus is on how customer engagement technology is changing the guest-host relationship. Attention will focus on the areas of: e-commerce, social media, mobile devices and applications, the guest life-cycle.

### **Preparation for Course**

P: HTM 10000, 18100 and 21400.

Cr. 3

HTM 33400 - Introduction To Sports Hospitality Management

# HTM 33400 - Introduction To Sports Hospitality Management

This course provides an introduction to various components of the hospitality and tourism industry and examines the role hospitality plays in professional and collegiate pro

sports, with particular focus on hosting of pro sports events. Students will learn business and marketing principles of pro sports and hospitality, study and practice customer services principles, and gain exposure to various careers available in hospitality and tourism. Students will also develop interpersonal relationship skills and gain crisis mode training.

Cr. 3.

### HTM 33600 - Global Hospitality Growth

# HTM 33600 - Global Hospitality Growth

This course studies a series of case studies, examining the global impact of the hospitality industry over the course of several decades. Hospitality history, as well as current trends are explored and compared from an international perspective, providing global statistics and analysis.

#### **Preparation for Course**

P: HTM 10000, 18100 and 21400.

Cr. 3.

HTM 33800 - Culinary Traditions Of Italy

# HTM 33800 - Culinary Traditions Of Italy

This 2-week study abroad course focuses on the culinary traditions of Italy. There will be a study of the cuisine including the history and culture surrounding the food. Where and how food is produced, marketed, prepared and consumed will be explored. The impact of the cuisine on health will be compared and contrasted with other cuisines. Regions in Italy for study may vary from year to year.

Cr. 3.

HTM 34100 - Cost Controls in Foodservice and Lodging

# HTM 34100 - Cost Controls in Foodservice and Lodging

Application of cost controls; development of cost reduction methods through management policy and decisions; examination of cost control techniques for food, labor, and supplies in addition to the emphasis on beverage management control.

#### **Preparation for Course**

P: HTM 10000, HTM 18100, HTM 21400

Cr. 3.

HTM 35000 - Professional Development II

# HTM 35000 - Professional Development II

This course will allow students to take stock of their progress in the program and make realistic adjustments to their student plan. Students will develop their personal mission statement. They will reassess their goals and study plan while maintaining a steady and timely pathway to graduation. In addition, the course will address professional etiquette, attire and demeanor.

#### **Preparation for Course**

P: HTM 10000, 18100, 21400 and 25200.

HTM 37100 - Introduction to Tourism

### **HTM 37100 - Introduction to Tourism**

Principles, practices, and philosophies that affect the economic, social, cultural, psychological, and marketing aspects of human travel and the tourism industry.

#### **Preparation for Course**

P: HTM 10000, HTM18100, HTM 21400

### HTM 37400 - Revenue Management

Revenue management is widely used in the field of hospitality management to maximize revenue or profits from fixed and/or perishable resources such as event space, resort facilities or hotel rooms. Revenue management is a multidisciplinary process that blends elements of marketing, operations, and financial skills. This course will review a set of revenue maximization strategies and tactics that use rate, revenue streams, and distribution channel management to achieve the above mentions business objectives.

#### **Preparation for Course**

P: HTM 10000, HTM 18100, BUS 20100 or BUS 20000.

Cr. 3.

HTM 37600 - Sustainable Tourism Development

### HTM 37600 - Sustainable Tourism Development

Students will study the effects of tourism on the local and ecological environment. They will gain understanding of ways to minimize the impact of tourism on the local environment while providing opportunities that directly benefit hosts and visitors as well as the environment. This course will also explore current trends in the travel market in terms of perceptions and needs of the contemporary traveler asking the question whether ecotourism is itself a trend or the reflection of a more profound change in values that impact consumer behavior in the tourism industry.

#### **Preparation for Course**

P: HTM 10000, HTM 18100, HTM 21400, HTM 37100

Permission of department required.

Special Fees.

HTM 37700 - Resort Property, Rental And Services Management

### HTM 37700 - Resort Property, Rental And Services Management

Linking practice to theory, this course will allow students to participate fully in the operation of a resort to become familiar with all its services and activities. Particular attention will be paid on understanding the different revenue streams and their role in offering a total resort experience to the different market segments that are being attracted to the island resort.

### **Preparation for Course**

P: HTM 10000, HTM 18100, HTM 21400, HTM 37100

Hours

Class 2, Exp. 3.

Notes

Permission of department required.

HTM 37800 - Destination And Resort Marketing

# HTM 37800 - Destination And Resort Marketing

Destinations are emerging as a fundamental concept in the study of tourism development. Resorts are, in most cases, nested within destinations, their commercial destiny being therefore interdependent. This course will examine the challenges and opportunities associated with promoting resorts and destinations. Students will examine and compare strategies. They will also have opportunities to develop and apply some hands on marketing approaches.

### **Preparation for Course**

P: HTM 10000, HTM 18100, HTM 21400, HTM 37100

Cr. 3

Notes

Permission of department required. Special fees.

# HTM 40800 - Hospitality Management Environmental Issues, Opportunities And Challenges

This course introduces the student to the global sustainability trends, their impact on the hospitality industry, and responses to and opportunities associated with sustainability. The course attempts to portray a variety of viewpoints regarding issues of contemporary interest to society and the business community, particularly those in the hospitality industry. The current interest in sustainability within the hospitality industry is fueled by the consumers increased awareness and changes in the regulatory environment. These trends seriously influence strategic and operational management decision. Impact consumer behavior and directly affect profitability as well as growth in all sectors of the hospitality industry. A clear understanding of the issues surrounding environmental politics, private industry environmental impacts, and corporate social responsibility will help those in the hospitality industry enhance their reputation, obtain badly needed capital funds, and attract the best and brightest human resources. This is a trend that is not going away and understanding of basics of sustainability and the trends inherent in the industry will assist the student in the student's career path in the hospitality industry

### **Preparation for Course**

P: HTM 18100, HTM 21400, and NUTR 20400

Cr. 3

HTM 41100 - Hospitality and Tourism Law

### HTM 41100 - Hospitality and Tourism Law

Overview of the fundamental legal framework that governs the conduct of hospitality and tourism managers. Topics include civil rights, contracts, court procedures, ethics, and risk management.

#### **Preparation for Course**

P: ĤTM 10000, HTM 18100, HTM 21400, BUS 20000 or BUS 20100.

Cr. 3.

HTM 42000 - Event Management

# HTM 42000 - Event Management

This course will review the field of event management, convention and association management. Emphasis will be put on the logistical requirements and economics impact of this area of business as well as on the required skill set needed in the various employment opportunities existing in this field. The course will include a practical application that will involve students in the planning, organizing and execution of an event.

### **Preparation for Course**

P: HTM 10000, HTM 18100, HTM 21400

Cr. 3.

HTM 43000 - Hospitality Strategic Management

# HTM 43000 - Hospitality Strategic Management

The purpose of this course is to understand the use and effects of strategic management at various levels of implementation such as personal, business and political in as far as they can positively affect a person's life and business success. To achieve this we will put in practice management skills and knowledge together with personal skills in both practical and reflective situations. This is a dynamic process that will prepare you and develop life long learning skills in areas such as formulating and implementing strategic management.

### **Preparation for Course**

P: HTM 32400, HTM 37400, BUS 20000 or BUS 20100, ECON 20000.

Cr. 3.

HTM 44100 - Financial Management for the Hospitality Industry

# HTM 44100 - Financial Management for the Hospitality Industry

This course deals with the conceptual framework to understand the issues facing a hospitality financial manager. The primary purposes of this course are to understand the role of financial management, to learn analytic concepts and managerial tools to make capital investment decision and to become familiar with major financial instruments and concepts such as time value of money, risk-return, bond and stock valuation, capital budgeting, cost of capital, capital structure, and dividend policy. This course also handles hospitality-

specific cases and readings for investments, capital structure, and dividends.

#### **Preparation for Course**

P: HTM 10000, HTM 18100, HTM 21400, BUS 20000 or BUS 20100.

Cr 3

### HTM 45200 - Professional Development

### HTM 45200 - Professional Development

This capstone course is designed to help senior students identify their strengths and weaknesses in the context of prospective employment. Students will apply interviewing skills, web presence and learn to adapt their application letters and curriculum vitae to specific employment opportunities.

#### **Preparation for Course**

P: HTM 35000.

Cr. 1.

#### HTM 49100 - Beverage Management

### HTM 49100 - Beverage Management

Principles and practices regarding the production, selection, purchasing, storage, and service of beverage alcohol in the hospitality industry. State of Indiana responsible alcohol service certification is required to earn course credit.

#### **Preparation for Course**

P: HTM 31000

Cr. 2

Notes

Must be a minimum of 21 years of age. Permission of department required.

#### HTM 49200 - Advanced Foodservice Management

# HTM 49200 - Advanced Foodservice Management

Utilize managerial skills and techniques with planning, organizing, directing, and controlling a full-service restaurant operation. Management teams of two to three students develop, market, and operate an international theme restaurant that is open to the public. Emphasis is placed on utilizing effective management skills to create a high-quality, profitable operation with well planned systems and highly motivated, organized employees.

#### **Preparation for Course**

P: HTM 18100, HTM 21400, HTM 31000, BUS 20000 or BUS 20100.

Cr. 4

### HTM 49400 - Advanced Restaurant Management

# HTM 49400 - Advanced Restaurant Management

Demonstrate managerial skills and knowledge by developing a complete business plan that includes development of the concept, design of the operational environment, menu and service product, financial documentation, marketing study and plans as well as necessary operating procedures and manuals for opening a "turn-key" full-service restaurant. Emphasis is placed on utilizing effective management skills and knowledge to create a business plan that has a realistic potential to raise the necessary capital to create a sustainable business.

#### **Preparation for Course**

P: HTM 31000

Cr. 4

IDIS 10301 - Freshman Seminar/The Individual, Culture, and Society

# IDIS 10301 - Freshman Seminar/The Individual, Culture, and Society

Introduction to study of the nature and diversity of individuals, cultures, and societies. Interdisciplinary approach integrating mastery of subject-matter content with improvement of learning strategies, critical thinking, and problem solving.

Cr. 3. Variable Title (V.T.)

Notes

Meets criteria of PFW General Education Area III. Topic varies. Open only to freshmen. Credit for only one of: IDIS 11000, 10301 and 10401.

#### IDIS 10401 - Freshman Seminar/ Humanistic Thought

### IDIS 10401 - Freshman Seminar/ Humanistic Thought

Introduction to major questions, traditions, and tools of humanistic inquiry. Interdisciplinary approach integrating mastery of subject-matter content with improvement of learning strategies, critical thinking, and problem solving.

Cr. 3.

Variable Title

(V.T.)

Notes

Meets criteria of PFW General Education Area IV. Topic varies. Open only to freshmen. Credit for only one of: IDIS 11000, 10301 and 10401.

#### IDIS 11000 - Freshman Success Course

### IDIS 11000 - Freshman Success Course

Freshman Success is a course designed to increase the success of freshmen by assisting them with the skills necessary to reach their educational goals. Topics in this course include academic concerns (academic major information, learning skills, study skills, time management) and personal-social concerns (interpersonal relationship skills, communication skills, setting goals). Credit for only one of: IDIS 11000, 10301, 10401.

#### Preparation for Course

P: freshman classification.

Cr. 1-3.

#### IDIS 11500 - Career Beginnings

# **IDIS 11500 - Career Beginnings**

Eight-week course designed for the undecided student entering PFW who wants to begin career exploration. Includes strategies to confirm major choice through topics such as decision making, goal setting, self-assessment, major information, career information, and employment trends.

#### **Preparation for Course**

P: freshman classification

Cr. 2.

### IDIS 20000 - Interdepartmental Colloquium

# IDIS 20000 - Interdepartmental Colloquium

A more advanced seminar but similar to IDIS 10000 with limited enrollment. Typical titles might be Lectures on the History of Science, 1984 and Beyond, or War Crimes and Individual Responsibility.

#### **Preparation for Course**

P: consent of instructor.

Cr. 1-3.

#### IDIS 20200 - Humanities II: Foundations of the Modern Western World

### IDIS 20200 - Humanities II: Foundations of the Modern Western World

Investigates art, architecture, literature, philosophy, religion, and music from 1300 to present. Primary focus on Western tradition. Representative works treated chronologically in their historical/cultural settings. Practicum develops critical appreciation through interpretive observation, listening, and reading.

#### **Preparation for Course**

P: ENGL 13100.

Cr. 3

### IDIS 41700 - General Studies Degree Capstone

### **IDIS 41700 - General Studies Degree Capstone**

This Course is a summation and finalization of components learned over the completion of the Bachelors of General Studies curriculum. The course is designed to showcase the interdisciplinary ideas, skills, and abilities of the degree as achieved by the student. Students will complete assignments that highlight their Bachelors of General Studies skills in the current job market and their intended career. A number of various assignments will be utilized during the course.

Cr. 3.

### IET 10500 - Industrial Management

### **IET 10500 - Industrial Management**

An overview of industrial engineering technology including manufacturing organization and quality production.

Cr. 3.

Hours

Class 3,

### IET 20400 - Techniques of Maintaining Quality

# **IET 20400 - Techniques of Maintaining Quality**

An analysis of the basic principles of quality control, includes statistical aspects of tolerances, basic concept of probabilities, frequency distribution, X and R charts and uses of mechanical, electronic, air, and light devices for checking and measuring to determine quality levels of acceptance.

#### **Preparation for Course**

C: MA 15900 or MA 15300.

Cr. 3. Hours

Class 2, Lab 2

#### IET 20500 - Applied Statistics for Engineering Technology

# **IET 20500 - Applied Statistics for Engineering Technology**

Introduction to Engineering Technology applications of statistical methods. Emphasis on data analysis of technological and industrial problems. Introduction of Design of Experiments, basic probability, sampling distributions, confidence intervals, significance tests for means and proportions, correlation and regression. Software is used throughout.

#### **Preparation for Course**

P: MA 15300 with a grade of C- or better.

Cr. 3.

#### IET 22400 - Production Planning and Control

# **IET 22400 - Production Planning and Control**

A survey of production inventory control procedures including material requirements planning, just-in-time methods, and project management.

**Preparation for Course** 

P: MA15300

Hours

Class 3.

#### IET 25700 - Ergonomics

# **IET 25700 - Ergonomics**

The course covers application of ergonomic principles to the design of interface between human and machine systems, and consideration of human abilities and limitations in relation to design of equipment and work environment.

Cr. 3. Hours Class 3.

#### IET 26700 - Work Methods Design

# IET 26700 - Work Methods Design

An introduction to workplace design and work measurement, including time and motion study, ergonomics, and process standardization.

#### **Preparation for Course**

P: IET 10500.

Cr. 3. Hours Class 3,

### IET 27400 - Industrial Practice I

### **IET 27400 - Industrial Practice I**

Practice in industry and written reports of this practice for co-op students.

#### **Preparation for Course**

P: admission to the Cooperative Education program.

Cr. 1.

### IET 27500 - Industrial Practice II

### **IET 27500 - Industrial Practice II**

Practice in industry and written reports of this practice for co-op students.

**Preparation for Course** 

P: IET 27400.

Cr. 1

### IET 30400 - Advanced Metrology

# **IET 30400 - Advanced Metrology**

Variable and attribute gage capability studies; measurements and calculations of repeatability, reproducibility, bias, stability, and linearity; measurement uncertainty; traceability to NIST standards; inspection of parts using GD&T callouts.

### **Preparation for Course**

P: IET 20400, MET 22300.

# **IET 31000 - Plant Layout and Material Handling**

Analysis of material flow in a manufacturing facility.

#### **Preparation for Course**

P: MET 10400, and either MA15400 or MA 15900.

Cr. 3.

Hours

Class 3.

### IET 35000 - Engineering Economy

# **IET 35000 - Engineering Economy**

Analysis of the time value of money as applied to the manufacturing and construction environment. It also covers principles of product and project costing.

#### **Preparation for Course**

P: MA15400 or MA 15900.

Cr. 3.

Hours

IET 36200 - Technological Optimization

# **IET 36200 - Technological Optimization**

An introduction to linear programming applied to optimization in a manufacturing environment.

### Preparation for Course

P: MA15400

Cr. 3.

Hours

Class 3.

### IET 36900 - Manufacturing Simulation

# **IET 36900 - Manufacturing Simulation**

An introduction to computer simulation of complex manufacturing systems.

#### **Preparation for Course**

P: STAT 30100 or IET 20500.

Cr. 3.

Hours

Class 3.

IET 37500 - Industrial Practice III

### **IET 37500 - Industrial Practice III**

Practice in industry and written reports of this practice for co-op students.

**Preparation for Course** 

P: IET 27500.

Cr. 1.

### **IET 37600 - Industrial Practice IV**

Practice in industry and written reports of this practice for co-op students.

#### **Preparation for Course**

P: IET 37500.

Cr. 1.

### IET 40100 - Manufacturing Process Planning

# **IET 40100 - Manufacturing Process Planning**

Analysis and planning of common production processes.

#### **Preparation for Course**

P: MET 33500.

Cr. 3. Hours Class 3.

### IET 45400 - Statistical Process Control

### **IET 45400 - Statistical Process Control**

Online process control including design and analysis of process control charts and sampling plans.

### **Preparation for Course**

P: IET 20400 and IET 20500.

Cr. 3.

Hours

Class 3.

### IET 47500 - Industrial Practice V

### **IET 47500 - Industrial Practice V**

Practice in industry and written reports of this practice for co-op students.

#### **Preparation for Course**

P: IET 37600.

Cr. 1. Hours Class 3,

### IET 47800 - Lean Manufacturing and Design

# **IET 47800 - Lean Manufacturing and Design**

This course covers theory and practical aspects of lean manufacturing concepts. Students will be able to apply the basic lean concepts of 5S, waste elimination, inventory and setup reduction, visual management, standardized work, error proofing, lean layout design, value stream mapping, pull system, and lean measurables. The course includes required project work to be done in teams.

### **Preparation for Course**

P: junior standing

### IET 48000 - Cost Estimating and Design

### **IET 48000 - Cost Estimating and Design**

Economic design of manufacturing systems. Includes a capstone project.

#### **Preparation for Course**

P: Senior standing.

Cr. 3. Hours

Class 0-5, Lab. 0-9.

IET 49900 - Industrial Engineering Technology

### **IET 49900 - Industrial Engineering Technology**

Hours and subject matter to be arranged by staff.

Cr. 1-3.
Variable Title
(V.T.)
Notes
May be repeated up to 9 credits.

ILCS 20800 - International Cinema

### ILCS 20800 - International Cinema

In this course students will study international cinema in order to increase their critical thinking, analytical, and communicative ability through reading and writing about films made outside of the United States. It will focus on the international filmmakers that work consiously to express their own sense of national identity.

Cr. 3.

ILCS 30000 - Methods of Research and Criticism

### ILCS 30000 - Methods of Research and Criticism

Study of methods of literary analysis and bibliographical documentation. Basic techniques of research, footnoting, and intensive writing. Critical approaches to drama, novel, and poetry. Approved by Arts and Sciences for use in fulfilling the sophomore writing requirement.

#### Preparation for Course

P: ENGL 13100 or equivalent and two years of college foreign language.

Cr. 3.

#### **ILCS 33100 - Comparative International Culture**

# **ILCS 33100 - Comparative International Culture**

The term "culture" elicits inquiry on shared thoughts and practices of people around the world. The term invites exploration of cultural practice that involves differences, similarities, and what yields harmony and conflict.

The course brings together faculty members from across the university, mainly in the humanities and social sciences. They will present case study material and explicitly draw on their disciplines and areas of expertise.

Students will explore diverse ways to approach the subject of culture and appreciate the importance of the cultural paradigm applied to manifestations of culture (art, literature, movies, religion, education, habits, or countless other activities in today's world).

### **Preparation for Course**

P: ENGL 13100.

# **ILCS 35000 - International Communication**

This course examines international communication, global business etiquette, and it teaches cultural sensitivity and awareness based on the study of the interfaces of language, culture, and communication.

Cr. 3.

IM 10500 - Introduction to Informatics

## IM 10500 - Introduction to Informatics

This is a required foundation course for all students interested in the study of informatics leading to the fulfillment of requirements in the minor or certificate programs. The course will cover key topics relating to ethics and social issues regarding informatics. The course will provide applications and discipline-specific examples involving all of the current converging technologies utilized in informatics. The material presented will explore the interdisciplinary nature of informatics. This course will provide the program plan of study and describe various courses so the student can make the decisions necessary for elective options as well as the semesters in which courses will be taken.

### **Preparation for Course**

P: ETCS 10600 or equivalent.

Cr. 1.

IM 21000 - Problem Solving and Programming for Informatics

# **IM 21000 - Problem Solving and Programming for Informatics**

An introduction to computer programming and problem solving at the level needed for the study of informatics. Programming topics include data representation, expressions, control statements, subprograms, simple input/output, GUI development basics, and event-driven programming. Problem-solving techniques include problem specification, pseudo-code, and stepwise refinement.

#### **Preparation for Course**

P: MA 15300, ETCS 10600, or equivalent and IM 10500.

Cr. 4

IM 22000 - Database Applications for Informatics

# **IM 22000 - Database Applications for Informatics**

Theory and application of database systems from the viewpoint of informatics. Topics include data analysis and design, data storage, data querying, and data visualization. A special emphasis will be on developing Web applications that allow for information gathering and graphical representation of information through the deployment of database technology.

### Preparation for Course

P: IM 21000.

Cr. 3.

IM 23000 - Informatics Infrastructure

### IM 23000 - Informatics Infrastructure

This course focuses on the fundamental informatics technologies and their use in the company, business, or organization. Topics include design and development of Web and other applications, computer operating systems, distributed systems, data applications, data information analysis, e-commerce, multimedia technology, social implication of informatics, current and emerging technologies.

#### **Preparation for Course**

P: IM 21000.

### IM 31000 - Problem Solving and Programming for Informatics

# **IM 31000 - Problem Solving and Programming for Informatics**

A continuation of IM 21000 for students interested in a deeper understanding of program development. New topics include arrays, file I/O, fundamentals of object-oriented programming, and development of user-defined classes, advanced GUI programming, graphics, and presentation of visual data. Reinforcement of problem-solving techniques.

#### **Preparation for Course**

P: IM 21000

Cr. 3.

IM 33000 - Information Retrieval and Presentation

### IM 33000 - Information Retrieval and Presentation

An introduction to the basic concepts and techniques in information retrieval and visualization. Topics include information organization, access, and visualization, Web-based information retrieval, searching, and graphical presentations and interfaces. Students will study existing information retrieval and visualization systems.

#### **Preparation for Course**

P: IM 21000.

Cr. 3.

IM 38000 - HCI Design for Informatics

# **IM 38000 - HCI Design for Informatics**

A survey of human-computer interaction concepts, methods, and evaluation. Topics include HCI design issues, Web design, user interface design and techniques, multimedia, and simulated environments. Students are expected to design, implement, and evaluate user interface designs in small projects.

#### **Preparation for Course**

P: IM 33000.

Cr. 3.

IM 45000 - Informatics Design Project

# **IM 45000 - Informatics Design Project**

This course will incorporate a discipline-oriented project. The student will be involved in a project from the planning through the end product. Parts of the project will include the data design, gathering, manipulating, and analysis. The project will also consider Web interface and network considerations. Final graphics and visualization presentations (including multimedia if needed) will be the end product. Students will work in teams.

### Preparation for Course

P: IM 31000 or 37000 or IM 38000.

Cr. 3.

INTD 11100 - Introduction To Interior Design

# INTD 11100 - Introduction To Interior Design

This is an introduction course for interior design majors. The course covers topics of design theory, color theory, light and lighting system, design process, interior finishes, brief interior design history and interior design practice.

Cr. 3. Hours

Class 2, Studio 3.

# **INTD 11200 - Interior Design I**

This course emphasizes on residential design. Emphasis will be placed on kitchen and bath design. The projects include house design, apartment design and any other residential related projects.

#### **Preparation for Course**

P: INTD 11100 and 20100.

Cr. 3.

Hours

Class 2, Studio 3.

### INTD 12100 - Freehand Sketching

# **INTD 12100 - Freehand Sketching**

Drawing in the freehand method will be presented in pencil, ink, and markers. The course is aimed at the beginning design student. It will utilize objects of interior environment as a means of understanding various drawing principles and familiarize the student with basic rendering techniques.

Cr. 3.

Hour

Class 2, Studio 3.

### INTD 12300 - Perspective Drawing

# **INTD 12300 - Perspective Drawing**

This course emphasizes on perspective drawing techniques. One-point perspective and two-point perspective concepts and drawings are introduced and demonstrated. Perspective drawings are created with multimedia.

### Preparation for Course

P: INTD 12100.

Cr. 3.

Hours

Class 2, Studio 3.

INTD 13100 - Decorative Materials And Accessories I

# INTD 13100 - Decorative Materials And Accessories I

History of textiles, fiber content, weaves, and designs. Functional uses of fabrics for interiors (i.e., windows, upholstery). Emphasis will be put on the textile and use of materials through design problems. The assembling of notebooks is required.

Cr. 3.

INTD 13200 - Decorative Materials And Accessories II

# INTD 13200 - Decorative Materials And Accessories II

This course emphasizes on architectural and interior materials including floor materials, wall materials, ceiling materials as well as any hard surface materials. The materials application and installation will be introduced.

Cr. 3

INTD 20100 - CAD For Interior Design

# **INTD 20100 - CAD For Interior Design**

This course introduces techniques of using computer software to create 2D drawings and 3D models. It also introduces multi-media approach to create 3D models by applying

materials and lighting.

Cr. 3. Hours

Class 2, Studio 3.

#### INTD 20600 - Portfolio And Professional Presentation

# INTD 20600 - Portfolio And Professional Presentation

Students will study portfolio design and publication methods. Graphic presentation techniques will be studied and developed. Development of a personal portfolio is required. Cover letters, digital portfolio, resume and job search strategies will be coved in this course.

#### **Preparation for Course**

P: INTD 11200, 20100 and 24100.

Cr. 3.

INTD 22000 - Architecture And Urban Form

# INTD 22000 - Architecture And Urban Form

Survey of styles and influence of cultures that led to the development of architecture and engineering from the earliest times to the early 20th century.

Cr. 3.

INTD 24100 - Lighting And Color Design

# **INTD 24100 - Lighting And Color Design**

Study of how natural and artificial lighting and color affect the human environment. The course emphasizes on lighting design for different commercial spaces.

### Preparation for Course

P: INTD 11200 and 20100.

Cr. 3.

Hours

Class 2, Studio 3.

INTD 29900 - Interior Design

# INTD 29900 - Interior Design

Special topics of study with concentration on developing knowledge in a specific area of interior design. This course may be repeated for up to 6 credits.

#### **Preparation for Course**

P: Instructor permission required.

Cr. 1-3. Variable Title (V.T.)

INTD 30600 - Interior And Furniture Styles I

# **INTD 30600 - Interior And Furniture Styles I**

This course introduces historical interiors and furniture styles of the ancient world: Egyptian, Greek, Roman, Byzantine, Romanesque, Gothic, and 15th, 16th, and 17th centuries of Renaissance Europe.

Cr. 3

# INTD 30700 - Interior And Furniture Styles II

This course covers historical interiors and furniture styles of the 18th, 19th, and 20th centuries in France, England, and the United States.

Cr. 3.

### INTD 30800 - Interior Design II

# INTD 30800 - Interior Design II

This course emphasizes on design principles of commercial/institutional projects. The course covers topics of space planning for office building, reception area design, conference room design as well as workstation design. This course also covers topics of building code, clearance and circulation.

#### **Preparation for Course**

P: INTD 11200 and 20100.

Cr. 3.

Hours

Class 2, Studio 3.

### INTD 30900 - Interior Design III

# **INTD 30900 - Interior Design III**

The development and application of spatial concepts through the design of a commercial/institutional interior project. The course incorporates contents of all prerequisite courses. Presentation techniques will be emphasized.

#### **Preparation for Course**

P: INTD 20100 and 30800.

Cr. 3.

Hours

Class 2, Studio 3.

### INTD 31000 - Interior Design Travel

# **INTD 31000 - Interior Design Travel**

This course emphasizes on the investigation of design solutions, aesthetic language, symbol language, and cultural context through visits to sites of art, architecture and design significance. A greater understanding is developed through analysis and reflection.

#### **Preparation for Course**

P: Department permission required.

Cr. 3.

Hours

Field Trip of 30 to 40 hours.

### INTD 32001 - Architecture And Urban Form In The Modern World

# INTD 32001 - Architecture And Urban Form In The Modern World

Survey of architectural styles, design theories and the influence of cultures that led to the development of architecture in modern world.

**Preparation for Course** 

P: INTD 22000.

# INTD 33000 - Culture And Design: A Cross-cultural Comparison Of Architecture

Architecture and the built-environment reflect cultural aspects of a society. In this course, Eastern architecture and Western architecture are compared with emphasis on palace architecture, house, garden and modern architecture. The interrelationship of architecture and culture is examined through design principles and famous architecture.

### **Preparation for Course**

P: COM 11400 and ENGL 13100.

Cr. 3.

### INTD 40001 - Interior Design Studio I

# INTD 40001 - Interior Design Studio I

The course is the first senior capstone course. In this course, students will develop project program and schematic design for the projects. Studio projects will be real world projects chosen from the following list: residential design, special population - aging; healthcare design, education design, noted design, restaurant design, or corrections design.

#### **Preparation for Course**

P: INTD 20100 and 30900; instructor permission required.

Cr. 3.

Hours

Class 2, Studio 3.

### INTD 40100 - Interior Design Studio II

# INTD 40100 - Interior Design Studio II

Interior Design Studio II is the second capstone course. It emphasizes on design development and construction documents for the project that is continued from INTR 400. The course contents include how to create construction documents for senior projects and senior project report. Graphic presentation skills and digital 3-D model creation skills will be further developed. Senior students will participate in annual senior exhibition.

### **Preparation for Course**

P: INTD 40001.

Cr. 3.

Hours

Class 2, Studio 3.

### **INTD 40200 - Professional Practice**

# **INTD 40200 - Professional Practice**

The study of professional office and business procedures for the practice of interior design. Includes public relations, marketing, legal, accounting and financial considerations, professional organizations and conduct, resourcing, project management, contracts, forms, and documents.

### **Preparation for Course**

P: INTD 30800 and ENGL 23202.

Cr. 3

### INTD 40300 - Interior Design Details

# **INTD 40300 - Interior Design Details**

This course introduces how to create interior details in construction documents. Construction documents standards, contents, orders and graphic symbols will be introduced as well.

#### **Preparation for Course**

P: INTD 20100 and 24100.

# INTD 40400 - Interior Design Practicum

Special problems in space planning and design. The work-study or internship provides students the opportunity to supplement traditional education with practical work.

#### **Preparation for Course**

P: INTD 40001 and 40200.

Cr. 3

INTD 49900 - Interior Design Project

# INTD 49900 - Interior Design Project

Special topics of study with concentration on developing knowledge in a specific area of interior design. Must be in INTR program/INTR major. Authorized equivalent courses or consent of instructor may be used in satisfying course pre- and co-requisites.

#### **Preparation for Course**

P: Interior Design major, or consent of instructor.

Cr. 1-3.

INTL 15500 - Introduction to Language and Culture in Near Eastern Studies and East Asian Studies

# INTL 15500 - Introduction to Language and Culture in Near Eastern Studies and East Asian Studies

This course enables students to acquire a basic understanding of the cultures and languages of the Arab world and East Asia, primarily China and Japan. The emphasis on each culture varies from time to time. May be repeated with different aspects of culture of these regions for a maximum of 6 credit hours.

Cr. 3.

INTL 20000 - Introduction to International Studies: Emerging Global Visions

# INTL 20000 - Introduction to International Studies: Emerging Global Visions

An interdisciplinary, team-taught course for students who wish to deepen their understanding of an increasingly interdependent world and broaden their perspective of a variety of international topics such as international politics and history, global environmental issues, international business and economics, and international cultural studies.

#### Preparation for Course

P: sophomore standing.

Cr. 3.

INTL 20800 - International Cinema

# INTL 20800 - International Cinema

In this course students will study international cinema in order to increase their critical thinking, analytical, and communicative ability through reading and writing about films made outside of the United States. It will focus on the international filmmakers that work consciously to express their own sense of national identity.

Cr. 3.

IST 14000 - Introduction To Visual Programming

# IST 14000 - Introduction To Visual Programming

This course introduces programming using a visual approach. Students will learn the syntax and structure of an object-oriented programming language. They will develop standalone, event-driven graphical user interface (GUI) applications for personal computer use.

# IST 16000 - Foundation And Role Of Information Systems

This course is designed to introduce students to contemporary information systems (IS) and demonstrate how these systems are used throughout global organizations. The focus of this course will be on the key components of information systems - people, software, hardware, data, and communication technologies, and how these components can be integrated and managed to create competitive advantage. Through the knowledge of how IS provides a competitive advantage students will gain an understanding of how information is used in organizations and how information technology (IT) enables improvement in quality, speed, and agility. This course also provides an introduction to systems and development concepts, technology acquisition, and current emerging application softward in modern organizations and society.

Cr. 3. **Hours** Class 3.

IST 20300 - Advanced Visual Programming

# IST 20300 - Advanced Visual Programming

This course continues the study of visual programming begun in IST 14000. Students will create multi-tier, event-driven applications using object-oriented approaches and databases. Students will also create applications. Students will be introduced to data structures.

#### **Preparation for Course**

P: IST 14000 Or CS 11400 Or ECET 11400.

Cr. 3.

IST 26500 - Enterprise Systems

# IST 26500 - Enterprise Systems

This course is designed to provide students with an understanding of the theoretic and practical issues related to the application of Enterprise Systems within organizations. The main focus of this course is to demonstrate how Enterprise Systems integrate information and organizational processes across functional areas, and global operations, with a unified system comprised of a single database and shared reporting tools. Example software will be used to illustrate how Enterprise Systems work.

### **Preparation for Course**

P: IST 16000.

Cr. 3.
Hours

IST 27000 - Data And Information Management

# IST 27000 - Data And Information Management

This course provides the students with an introduction to the core concepts in data and information management. It is centered around the core skills of identifying organizational information requirements, modeling them using conceptual data modeling techniques, converting the conceptual data models into relational data models and verifying its structural chacteristics with normalization techniques, and implementing and utilizing a relational database using a database management system. This course will also include coverage of basic database administration tasks, how large-scale packaged systems are highly dependent on the use of a Database Management System (DBMS) and data and information management technologies.

**Preparation for Course** 

P: IST 16000.

Cr. 3.

Hours

Class 3.

IST 29200 - Intermediate Topics In Information Systems

# IST 29200 - Intermediate Topics In Information Systems

Intermediate seminar addressing current topics or issues in Computer Science or Information Systems.

**Preparation for Course** 

P: Instructor Permission Required.

Cr. 2-3. Variable Title (V.T.)

### IST 29500 - Industrial Practicum

# IST 29500 - Industrial Practicum

Practical problems in local industry limited to about 10 to 20 hours per week for which the student may receive some remuneration. May be repeated but the total combined credit that may be applied to a degree is limited to 3. Open only to full-time students.

#### **Preparation for Course**

C: Sophomore Class Standing Required.

Cr. 1

### IST 30100 - Quantitative Methods For Decision Making

# IST 30100 - Quantitative Methods For Decision Making

The course will focus on solving business problems using quantitative methods. These methods include linear programming, network analysis, transportation linear programming, forecasting, and statistical classification methods. Students will demonstrate understanding of analytical, computer, and modeling skills in business decision making.

#### **Preparation for Course**

P: STAT 30100 Or ECON 27000 Or Equivalent.

Cr. 3.

#### IST 34000 - Business Process Management

# **IST 34000 - Business Process Management**

In this course students will be introduced to the design and approaches to business process management and improvement. Students will learn how to identify, document, model, assess, and improve core business processes, be introduced to process design principles, how information technology can be used to manage, transform, and improve business processes and be exposed to challenges and approaches to organizational change, outsourcing, and inter-organizational processes.

### **Preparation for Course**

P: IST 26500, Restricted to: IST MAjor Or Minor, Non-majors: Instructor Approval Required

Cr. 3. Hours

Class 3

IST 35000 - IT Infrastructure

# IST 35000 - IT Infrastructure

This course provides an introduction to IT infrastructure issues for students majoring in Information Systems. It covers topics related to both computer and systems architecture and communication networks, with an overall focus on the services and capabilities that IT infrastructure solutions enable in an organizational context. The students will gain the knowledge on designing organizational processes and software solutions that require in-depth understanding of the ITY infrastructure. The course focuses strongly on Internet-based solutions, computer and network security, business continuity, and the role of infrastructure in regulatory compliance.

#### **Preparation for Course**

P: IST 26500.

Cr. 3.
Hours
Class 3.

IST 36500 - Enterprise Architecture

# IST 36500 - Enterprise Architecture

This course explores the design, selection, implementation and management of enterprise information technology (IT) solutions. The focus is on applications and infrastructure

and their fit with the business. Students learn frameworks and strategies for infrastructure management, system administration, content management, distributed computing, middleware, legacy system integration, system consolidation, software selection, total cost of ownership calculation, IT investment analysis, and emerging technologies. These topics are addressed both within and beyond the organization, with attention paid to managing risk and security within audit and compliance standards.

#### **Preparation for Course**

P: IST 16000.

Cr. 3. Hours

Class 3.

### IST 37000 - Systems Analysis And Design

# IST 37000 - Systems Analysis And Design

This course discusses the processes, methods, techniques and tools that organizations use to determine how they should conduct their business, with a particular focus on how computer-based technologies can most effectively contribute to the way business is organized. The course covers a systematic methodology for analyzing a business problem or opportunity, determining what role, if any, computer-based technologies can play in addressing the business need, articulating business requirements for the technology solution, specifying alternative approaches to acquiring the technology capabilities needed to address the business requirements, and specifying the requirements for the information systems solution. The course specifically acknowledges the fact that in many cases technology capabilities are purchased from outside the organization either through the use of packaged systems or consulting resources.

#### **Preparation for Course**

P: IST 27000 OR CS 36400

Cr. 3.

Class 3

IST 39500 - Industrial Practice I

# IST 39500 - Industrial Practice I

Practical problems in local industry limited to about 10-20 hours per week. May be repeated, but the total combined credit that may be applied to a degree is limited to 6. Open only to full-time students. Permission of the department is required.

### Preparation for Course

P: Junior Class Standing Required.

Cr. 0-3.

### IST 43000 - IT Security And Risk Management

# IST 43000 - IT Security And Risk Management

This course provides an introduction to the fundamental principles and topics of Information Technology Security and Risk Management at the organizational level. Students will learn critical security principles that enable them to plan, develop, and perform security tasks. The course will address hardware, software, processes, communications, applications, and policies and procedures with respect to organizational IT Security and Risk Management.

#### **Preparation for Course**

P: IST 35000.

Cr. 3.

Hours

Class 3

IST 44000 - Introduction To Human-Computer Interaction

# IST 44000 - Introduction To Human-Computer Interaction

This course provides an introduction to the field of human-computer interaction (HCI) an interdisciplinary field that integrates cognitive psychology, design, computer science and others. Examining the human factors associated with information systems provide the students with knowledge to understand the factors that influence usability and acceptance of interactive systems. This course will examine human performance, components of technology, methods and techniques used in design and evaluation of interactive systems. Societal impacts of HCI such as accessibility, user-centered design methods, and contemporary technologies will be discussed.

### **Preparation for Course**

P: IST 20300 Or Equivalent.

### IST 45000 - IT Audit And Controls

# **IST 45000 - IT Audit And Controls**

This course introduces the fundamental concept and technologies of the information technology audit and control functions. Focusing on understanding information controls, the types of controls and their impact on the organization, and how to manage and audit them. Students will learn the process of creating a control structure with goals and objectives, audit an information technology infrastructure against it, establish a systematic remediation procedure for any inadequacies, and the challenges of dealing with best practices, standards, and regulatory requirements governing information and controls.

#### **Preparation for Course**

P: IST 35000.

Cr. 3.

Hours Class 3.

IST 46600 - Information Systems & Technology Strategy, Management & Acquisition

# IST 46600 - Information Systems & Technology Strategy, Management & Acquisition

This course explores the issues and approaches in managing the information systems function in organizations and how the IST function integrates/supports/enables various types of organizational capabilities particularly for strategic advantage. It takes a senior management perspective in exploring the acquisition, development and implementation of plans and policies to achieve efficient and effective information systems. The course addresses issues relating to defining the high-level IST infrastructure and the systems that support the operational, administrative and strategic needs of the organization. The remainder of the course is focused on developing an intellectual framework that will allow leaders of organization to critically assess existing IST infrastructures and emerging technologies as well as how these enabling technologies might affect organizational strategy. The ideas developed and cultivated in this course are intended to provide an enduring perspective that can help leaders make sense of an increasingly globalized and technology intensive business environment.

#### Preparation for Course

P: IST 37000.

Cr. 3

IST 46700 - Information Systems Project Management

# IST 46700 - Information Systems Project Management

This course discusses the processes, methods, techniques and tools that organizations use to manage their information systems projects. The course covers a systematic methodology for initiating, planning, executing, controlling, and closing projects. This course assumes that project management in the modern organization is a complex teambased activity, where various types of technologies (including project management software as well as software to support goup collaboration) are an inherent part of the project management process. This course also acknowledges that project management involves both the use of resources from within the firm, as well as contracted from outside the organization.

#### **Preparation for Course**

P: IST Majors With Senior Class Standing Required.

Cr. 3.

IST 49200 - Topics In Information Systems

# **IST 49200 - Topics In Information Systems**

Seminar addressing current topics or issues in computer science or information systems.

### **Preparation for Course**

P: Instructor Permission Required.

Cr. 3

# IST 49400 - Directed Study

Independent study for students who desire to execute a complete computer-oriented project. Course may be repeated for credit up to 6 hours toward graduation.

#### **Preparation for Course**

P: Junior Or Senior Class Standing Required.

Cr. 1-3.

IST 49500 - Cooperative Experience

# **IST 49500 - Cooperative Experience**

For Cooperative Education students only.

#### **Preparation for Course**

Department Permission Required.

Cr. 0-3.

IT 50700 - Measurement and Evaluation in Industry and Technology

# IT 50700 - Measurement and Evaluation in Industry and Technology

An introduction to measurement strategies in industrial, technical, and human resource development environments. The evaluation of measurement outcomes will be the primary focus of the course.

Cr. 3

**Dual Level Course** 

Dual Level, Undergraduate-Graduate

IT 50800 - Quality and Productivity in Industry and Technology

# IT 50800 - Quality and Productivity in Industry and Technology

Examines the contemporary issues of continuous improvement in quality and productivity in manufacturing and service industries. Includes a close examination of the evolving philosophies bearing on the scope, improvement, and costs of quality assurance programs in industry and technology.

Cr. 3.

**Dual Level Course** 

Dual Level, Undergraduate-Graduate

IT 59000 - Special Problems in Industrial Technology

# IT 59000 - Special Problems in Industrial Technology

Independent study of a special problem under the guidance of a member of the staff (or, student's academic advisor). Does not substitute for either M.S. thesis or M.S. project credit.

### **Preparation for Course**

P: permission of department required.

Cr. 1-6.

**Dual Level Course** 

Dual Level, Undergraduate-Graduate

ITC 11000 - Information Technology Fundamentals

# ITC 11000 - Information Technology Fundamentals

An introduction to the discipline of Information Technology. This includes the pervasive Information Technology themes, the history of Information Technology, and organization issues surrounding Information Technology and its uses. The relationships to the other main area of computing such as Information Systems, Computer Engineering, Software Engineering, and Computer Science are explored. The main branches of Information Technology including infrastructure and application software are covered. A brief introduction to the various Information Technology courses involved in the degree program will be done. Careers and job opportunities will also be noted in the course.

Cr. 3.

### ITC 13000 - Programming Fundamentals I

# ITC 13000 - Programming Fundamentals I

An introduction to computer programming and problem solving at the level needed for the study of information technology. Programming topics include data representation, expressions, control statements, subprograms, recursion, simple input/output, basics of GUI development, and event-driven programming. Problem solving techniques include problem specification and algorithm development using pseudo-code and stepwise refinement.

Cr. 3.

#### ITC 14500 - Electrical Fundamentals

### ITC 14500 - Electrical Fundamentals

A study of the basic fundamentals of electronics that introduces analog electronics including basic electricity, ohms law, DC and AC circuit analysis, and semiconductor fundamentals such as transistors and co-amps. The principles and practices of digital electronics including number systems, logic gates, memory devices, registers, and counters are also studied.

Cr. 4

### ITC 21000 - Information Technology Systems

# ITC 21000 - Information Technology Systems

A study of essential knowledge and skills that an effective IT specialist must know. Introduction to the basic components of IT systems and the issues encountered in integrating various IT components and administrating IT systems. Topics covered include foundations of networking, database systems and administration, web technologies, scripting techniques, integrative coding, and system integration and administration.

**Preparation for Course** 

P: ITC11000

Cr. 3.

ITC 22000 - Computer Systems

# ITC 22000 - Computer Systems

An overview of the hardware of modern microcomputers including motherboards, CPUs, I/O devices, peripherals, bus architectures, memory and storage devices. Techniques of maintenance, upgrading and installation of hardware, and low level software integration are examined. Other topics covered include identifying hardware components along with the study of multiple troubleshooting strategies and electrical safety. Other topics covered include identifying hardware components along with the study of multiple troubleshooting strategies and electrical safety. Theoretical concepts of the underlying hardware functions will be deliberated and how networking and software relate to hardware functionality.

**Preparation for Course** 

P: ITC 11000; P or C: ITC 14500.

Cr. 4.

ITC 23000 - Computer Operating Systems

# **ITC 23000 - Computer Operating Systems**

This course is an introduction to computer operating systems, their organization and functions of hardware components, as w4ll as, system software. Emphasis on system commands, operating system interface, system utilities, shells programming, file systems and security. Concepts, such as, the graphical user interface, device drivers, memory management, processes, concurrency, scheduling, multitasking and multiprocessing will be covered. Laboratory experimentation includes the installation, management, troubleshooting, and administration of Microsoft Windows, and UNIX like operating systems.

### **Preparation for Course**

P: ITC 11000.

Cr 3

### ITC 25000 - Web Systems

# ITC 25000 - Web Systems

A study of essential knowledge and skills that an effective web administrator must know. Introduction to fundamental topics of web technologies, web-based systems, and web page design. Topics covered include Internet applications, web site development and publishing, information architecture, client and server-side programming, multimedia technologies and publishing, vulnerabilities, and web site implementation and maintenance.

#### **Preparation for Course**

P: ITC 35000 and CS 16000.

Cr. 3.

### ITC 29199 - Industrial Practice Co-op I

# ITC 29199 - Industrial Practice Co-op I

Practice in industry and written report of this experience for co-op students.

#### **Preparation for Course**

P: Admission to the Cooperative Education Program.

Cr.1.

Notes

Department consent required.

### ITC 29299 - Industrial Practice Co-op II

# ITC 29299 - Industrial Practice Co-op II

Practice in industry and written report of this experience for co-op students.

#### **Preparation for Course**

P: ITC 29199.

Notes

Department consent required.

### ITC 29900 - Python Programming

# ITC 29900 - Python Programming

This course provides an introduction to programming using Python programming language. Topics to be covered include the syntax and structure of the language; programming structures (sequence, decision and repetition); basic input and output operations; use of sequences; use of Python libraries; reading from a file or writing to a file.

#### **Preparation for Course**

Prerequisites: None

Cr. 3

Subject Area

ITC

#### ITC 31000 - Information Technology Project Management

# ITC 31000 - Information Technology Project Management

This course provides an introduction to the process and methodology of managing the assets and resources on an Information Technology (IT) project. Topics covered will be the role of the project manager, IT project lifecycle and phases, IT project management methodology, how to develop and monitor a project plan/schedule and effective project management communications. Students will also be introduced to the concepts of managing scope, time, cost, quality, risk and human resources in relation to an IT project. Students will use a popular project management software tool for case studies and homework.

### Preparation for Course

P: ITC 11000.

Cr. 1-3.

### ITC 33000 - Networking

# ITC 33000 - Networking

A study of issues in local area network (LAN) planning, design, installation, and management. Topics include LAN components and protocols, topologies and network architecture, network system hardware consideration, LAN design and network layout, wiring and installation, network operating systems, network servers, connection and services for clients, network system administration and management. Other topics may include LAN applications, performance tuning, disaster recovery, hybrid networking environment and integration, network monitoring tools, and network management tools. Laboratory experiences include Microsoft Windows NT and UNIX.

#### Preparation for Course

P: ITC 22000.

Cr. 4.

ITC 33100 - Networks I

## ITC 33100 - Networks I

A study of networks and issues in network planning, design, installation, and management. Topics include network components, standards and protocols, topologies, architectures, system hardware, design and network layout, wiring and installation, network operating systems, servers, connection and services for clients, security and system administration and management. Other topics may include network applications, performance tuning, disaster recovery, hybrid systems, virtual networks, VoIP, and network monitoring and management tools. Work will include experience in Windows and Linux. No Lab fees.

#### **Preparation for Course**

P: ITC 11000 or 23000 or CPET 18100.

Cr. 3. Hours

Class 2, Lab 2.

#### ITC 33600 - Wireless Networking

# ITC 33600 - Wireless Networking

This course covers both theoretical issues related to wireless networking and wireless systems for both wireless data networks and cellular wireless telecommunication systems. Students will also work on a Project that addresses some recent issues in wireless and mobile networking. An extensive individual design, special topics course, research, and/or analytical project in any of the following areas: networking, cloud computing, mobile applications, IT architecture, IT strategy, IT ethics, network and data security, business processes modeling, human computer interaction, wireless technologies and web technologies.

#### **Preparation for Course**

P: ITC 33100 or ITC 33000.

Cr. 3

ITC 35000 - Databases

### ITC 35000 - Databases

Theory and application of database systems for information organization and retrieval based on the relational model. Includes database models, query languages, data dependencies, normal forms, and database design. Projects include use of commercial mainframe and microcomputer database software.

#### **Preparation for Course**

P: ITC 11000 and ITC 130 or ECET 11400 or CS 16000.

# **ITC 37000 - Human Computer Interaction**

Introduction to how humans interact with computers and how to improve and evaluate user interfaces. Topics include human factors, HCI design issues, HCI aspects of application domains, human-centered evaluation, cognitive processing, environment, and emerging technologies. Students are expected to design, implement, and evaluate user interfaces in small projects. Credit not granted for both ITC 37000 and CS 36800 or IST 44000 due to overlapping content.

**Preparation for Course** 

P: ITC 21000.

Cr. 3.

ITC 38000 - Project Analysis Design And Implementation

# ITC 38000 - Project Analysis Design And Implementation

Topics include emerging IT technologies, secured data and application integration through enterprise networking infrastructure, Web, data databases, middleware, remote access and mobile services. The student will analyze, design, and implement an instructor-let, team-based, one-semester IT project to practice integration concepts and skills learned from the core courses. The student will also learn how to prepare various project reports, communication memos, and present the final project.

Preparation for Course

P: ITC 11000.

Cr 3

ITC 39000 - IT Ethics And Law

# ITC 39000 - IT Ethics And Law

This course will introduce the ethics and laws that are involved in Information Technology and the computing disciplines. Topics covered involve intellectual property, privacy, freedom of expression, technology crimes, social networking issues, and laws associated with the development of technology.

**Preparation for Course** 

P: ITC 21000.

Cr. 3.

ITC 39399 - Industrial Practice Co-op III

# ITC 39399 - Industrial Practice Co-op III

Practice in industry and written report of this experience for co-op students.

**Preparation for Course** 

P: ITC 29299.

Cr. 1.

Notes

Department consent required.

ITC 39499 - Industrial Practice Co-op IV

# ITC 39499 - Industrial Practice Co-op IV

Practice in industry and written report of this experience for co-op students.

**Preparation for Course** 

P: ITC 39399.

Cr. 1

Notes

Department consent required.

#### ITC 41000 - Information Assurance & Security

# ITC 41000 - Information Assurance& Security

This course examines the analysis, design, implementation, and management issues surrounding effective concepts of data security. The business, conceptual and technological aspects of data security for computer and networks will be examined. Topics include virus protection, business, conceptual, and technological aspects of data security for computer and networks will be examined. Topics include virus protection, firewalls, authentication, encryption, wireless security, security protocols, and network security policy development, forensics and fraud protection.

**Preparation for Course** 

P: ITC 33000 or 33100.

Cr. 3.

ITC 42000 - Web Development

# ITC 42000 - Web Development

A study of essential knowledge and skills that an effective web administrator must know. Introduction to fundamental topics of web technologies, web-based systems, and web page design. Topics covered include Internet applications, web site development and publishing, information architecture, client and server-side programming, multimedia technologies and publishing, vulnerabilities, and web site implementation and maintenance.

### **Preparation for Course**

P: CS 16000.

Cr. 3.

ITC 43000 - Mobile Application Development

# ITC 43000 - Mobile Application Development

This course provides an introduction to developing mobile applications in the Android development environment. Students will be introduced to the Android operating system, designing the user interface in the development environment, programming functionality, interacting with databases, how to use images and audio in the design, testing the application and how to publish and market mobile apps.

**Preparation for Course** 

P: CS 16000.

Cr. 3

ITC 43200 - Mobile And Cellular Networking Technologies

# ITC 43200 - Mobile And Cellular Networking Technologies

An introduction of the system architecture, technologies and applications of mobile computing. Topics covered include mobile and wireless environment, mobile device technology, mobile computing architecture and protocols, mobile computing security and applications in wireless and mobile computing including distribution applications, mobile middle-ware, mobile information and database access, mobile multimedia and remote execution. A combination of lectures, readings, presentation and reports, case studies and group discussion is used.

**Preparation for Course** 

P: ITC 33100.

# ITC 44000 - Foundations Of Cloud Computing

This course provides a detailed examination of distributed and cloud computing systems, enabling technologies and infrastructures; cloud architectures, interoperability, and standards; cloud computing service models, and use cases; enterprise, business, and government cloud strategies for optimizing computing resources. Students are introduced to the concepts and issues of cloud computing and service models (IaaS, PaaS, and SaaS), service-oriented architectures (SOA), lease-or-buy evaluation and trade-off decision models, investing strategies and sustainable IT development; cloud computing programming and software environments, cloud applications in different industry sectors, and open issues including security, legal, ethical, and public policy.

#### **Preparation for Course**

P: ITC 33100.

Cr. 3.

ITC 45000 - Network Design

# ITC 45000 - Network Design

This course prepares the student to analyze network infrastructure requirements and to design and implement the infrastructure for business solutions. Implementation responsibilities include installing, configuring, and troubleshooting network systems. In addition, this course takes a deep look at how network protocols are designed and implemented using the Linux kernel as a case study. The goal is to understand how this important subsystem works in detail in order to conduct experimental research using the Linux kernel. This course discusses on: 1) design and implementation of network systems such as Ethernet switches and Internet routers; 2) design principles and issues of traditional protocol processing systems and network processor technology; 3) Packet processing, protocol processing, classification and forwarding, switching fabrics, network processors, and network systems design tradeoffs.

#### **Preparation for Course**

P: ITC 23000 and 33100.

Cr. 3.

ITC 48000 - Information Technology Senior Project I

# ITC 48000 - Information Technology Senior Project I

An intensive individual and/or team-based, real-world IT senior project performed in consultation with one or more faculty advisors. Phase I includes, but not limited to: (1) project proposal, (2) defining and limiting project objective, (3) initial research, feasibility and trade/off studies, (4) intellectual property, (5) team collaboration and communication, (6) project budgeting and schedule management, (7) periodic progress reports, and (8) project presentation.

### Preparation for Course

P: sr standing. C: ITC 31000 and 38000.

CR. 1

ITC 48100 - Information Technology Senior Project II

# ITC 48100 - Information Technology Senior Project II

Phase II includes, but not limited to: (1) continuing research and finalize the project, (2) project schedule, cost, and quality management, (3) project team building, collaboration and communication, (4) project analysis, modeling, design, and implementation, (5) periodic progress reports, (6) oral presentation to faculty and other interested parties, (7) standard-format written technical reports.

#### **Preparation for Course**

P: ITC 48000.

Cr. 2.

ITC 48300 - Information Technology Senior Design

# ITC 48300 - Information Technology Senior Design

An intensive individual and/or team based, real-world IT senior project in consultation with one or more faculty advisors. In addition to researching, analyzing, designing and developing the project, it will also include but not be limited to developing documentation such as creating a project proposal and objectives, performing research and feasibility studies, assessing project risk, developing project budget and schedule, writing progress reports and presenting final project.

**Preparation for Course** 

P: Senior, ITC 31000 and ITC 38000.

Cr. 3.

ITC 49900 - Cyber Security

# ITC 49900 - Cyber Security

This course covers the underlying principle and techniques of using penetration testing to provide cybersecurity. Student will understand the methodologies and procedures of penetration testing. They will learn to use existing tools and techniques to perform penetration testing and protect system from hacking attacks. Topics include ethics of ethical hacking, penetration testing process, discover and exploit system vulnerability, penetration testing methods and tools, how to secure system against attacks. Hands-on experiences are provided through practical labs, programming assignments and penetrating testing examples.

#### **Preparation for Course**

P. Department permission required ITC3300 or ITC33100

Cr. 3 Variable Title (v.t.) Subject Area ITC Core

ITC 49900 - Information Technology Topics

# **ITC 49900 - Information Technology Topics**

Hours and subject matter arranged by staff. An extensive individual design, special topics course, research, and/or analytical project in any of the following areas: networking, cloud computing, mobile applications, IT architecture, IT strategy, IT ethics, network and data security, big data, data management, data warehousing, data analytics, enterprise systems, computer hardware, business processes modelling, human computer interaction, wireless technologies and web technologies. May be repeated for up to 12 credit hours.

#### **Preparation for Course**

P: Department permission required.

Cr. 1-4. Variable Title (V.T.)

### LBST 30100 - Interdisciplinary Topics in Humanities

# LBST 30100 - Interdisciplinary Topics in Humanities

An interdisciplinary seminar focusing primarily on humanities-based approaches to the knowledge or analysis of a particular topic. As appropriate, connections will be made with the social and natural sciences.

#### Preparation for Course

P: Junior class standing or higher.

Cr. 3. Variable Title V.T.

Note

May be repeated with different topics for a maximum of 6 credits.

### LBST 30200 - Interdisciplinary Topics in Social Sciences

# LBST 30200 - Interdisciplinary Topics in Social Sciences

An interdisciplinary seminar focusing primarily on social science-based approaches to the knowledge or analysis of a particular topic. As appropriate, connections will be made with the humanities and natural sciences.

#### **Preparation for Course**

P: Junior class standing or higher.

Cr. 3.

Variable Title

V.T.

Notes

May be repeated with different topics for a maximum of 6 credits.

LBST 30300 - Interdisciplinary Topics in Natural Sciences

# LBST 30300 - Interdisciplinary Topics in Natural Sciences

An interdisciplinary seminar focusing primarily on natural science-based approaches to the knowledge or analysis of a particular topic. As appropriate, connections will be made with the humanities and social sciences.

#### **Preparation for Course**

P: Junior class standing or higher.

Cr. 3.

Variable Title

V.T.

Notes

May be repeated with different topics for a maximum of 6 credits.

LGBT 20000 - Introduction to Scholarship on Lesbian, Gay, Bisexual, and Transgender Issues

# LGBT 20000 - Introduction to Scholarship on Lesbian, Gay, Bisexual, and Transgender Issues

This course provides an interdisciplinary introduction to scholarship and research on lesbian, gay, bisexual, and transgender (LGBT) issues in a number of fields, including history, philosophy, cultural studies, literature, film, psychology, sociology, education, medicine, and law. Through examining the lives, concerns, and contributions of lesbian, gay, bisexual, and transgender individuals, students will have the opportunity to gain a greater understanding and appreciation of the multifaceted nature of the society within which we live. Additionally, it is intended that this greater appreciation will cultivate a more accepting and supportive society.

Cr. 3

LGBT 40000 - Capstone Independent Study on Lesbian, Gay, Bisexual, and Transgender Issues

# LGBT 40000 - Capstone Independent Study on Lesbian, Gay, Bisexual, and Transgender Issues

The course provides the opportunity to demonstrate that a student has achieved the learning goals established for the Lesbian, Gay, Bisexual, and Transgender (LGBT) Certificate Program. This involves individualized work on one major project (e.g., empirical study, scholarly paper, creative project).

### **Preparation for Course**

P: LGBT 2000.

Cr. 3.

LGBT 40100 - LGBT Certificate Portfolio Evaluation

### LGBT 40100 - LGBT Certificate Portfolio Evaluation

Students pursuing the LGBT Certificate are required to create a portfolio of all work completed for the certificate. The purpose of LGBT 40100 is to formalize and complete the organization, documentation, and analysis of these previous works. A final document by the student should be included in the portfolio indicating how the works, projects, and

artifacts submitted achieve the certificate objectives. Students must register for LGBT 40100 after completing all other requirements for the certificate. The portfolio will be submitted to three members of the Certificate Advisory Committee for review and approval prior to the award of the LGBT certificate.

Cr. 1

### LING 10300 - Introduction to the Study of Language

# LING 10300 - Introduction to the Study of Language

Linguistics as a body of information; nature and function of language; relevance of linguistics to other disciplines, with reference to modern American English.

#### **Preparation for Course**

P: placement at or above ENGL 13100 (or equivalent) and exemption from or completion of ENGL 15000.

Cr. 3.

### LING 30300 - Introduction to Linguistic Analysis

# LING 30300 - Introduction to Linguistic Analysis

Introduction to basic concepts of linguistic analysis, exemplifying the general principles of structural approaches to the study of language. Application of analytical methods to problems in phonology, syntax, and semantics.

#### **Preparation for Course**

P: LING 10300.

Cr. 3.

### LING 30700 - Phonology

# LING 30700 - Phonology

Basic concepts such as phoneme and distinctive feature as defined and used within particular theories. The relationship of phonology to phonetics and morphology; exploration of salient aspects of sound structure and some characteristic modes of argumentation; extensive phonological analysis with some practice in writing phonological rules.

#### **Preparation for Course**

R: LING 10300 or LING 30300.

Cr. 3.

### LING 41000 - Syntax

# LING 41000 - Syntax

Examination of the basic concepts, assumptions, and argumentation of modern syntactic theory to describe and analyze common syntactic structures in English and other languages. Practice in constructing and evaluating grammars.

#### **Preparation for Course**

P: LING 10300 or 30300.

Cr. 3.

### LING 42102 - Methods and Materials for TESOL I

# LING 42102 - Methods and Materials for TESOL I

This course provides an overview of teaching English to speakers of other languages with an emphasis on methodology, examining different approaches, techniques, and various instructional options in light of different teaching contexts and learners' needs.

### Preparation for Course

P: LING 10300.

# LING 42203 - Methods and Materials for TESOL II

This course aims at enhancing participants' understanding of theoretical principles underlying the preparation of ESL instructional materials as well as course participants' knowledge and skills in materials preparation and effective implementation. It also addresses issues related to course design, content selection and organizing, and language assessment.

#### **Preparation for Course**

P: LING 10300 and LING 42102.

Cr. 3.

LING 42500 - Semantics

### LING 42500 - Semantics

An introduction to the systematic investigation of the relation between linguistic form, its use, and interpretation.

#### **Preparation for Course**

P: LING 10300 or 30300.

Cr. 3.

LING 43000 - Language Change and Variation

# LING 43000 - Language Change and Variation

Basic principles of diachronic linguistics. The comparative method. Phonological and morphological development. Growth of lexicon.

### **Preparation for Course**

P: LING 10300 or 30300.

Cr. 3

### **Dual Level Course**

Eligible for graduate credit.

LING 45000 - Corpus Linguistics

# LING 45000 - Corpus Linguistics

This course equips language teachers to use corpus linguistics to inform their teaching and/or bring corpus linguistics into the second/foreign language classroom. Non-TENL students are welcome and the course can be adjusted to fit their needs, as well. (Namely, an alternative to the mini-lesson requirement can be offered, and the corpus of such students can consist of any text or transcribed speech in any language). No experience with corpus linguistics, programming or statistics is assumed. The first half is an overview of corpus linguistics (history, tools, methods, corpora). The second half covers the relevance of corpus methods for language teaching and linguistics research in general. You will walk away with from this class with your own mini-corpus that you may build on in the future.

Graduate students read primary sources (in addition to the course readings) and are expected to be especially mindful of theroetical and methodological considerations behind corpus-building and corpus linguistics (in the readings and regarding their own corpus), and to express their understanding of these considerations orally and in writing.

#### Preparation for Course

P: LING 10300 or 30300

Cr. 3.

LING 46000 - Language in Society

# LING 46000 - Language in Society

A general introduction to sociolinguistics, for the nonspecialist. Topics covered include regional and social dialects, the politics of language use in social interaction, language and social change, and men's and women's language, as well as issues in applied sociolinguistics such as bilingualism and black English in education.

#### Preparation for Course

P:LING 10300 or 30300.

### LING 47000 - TENL Practicum

# LING 47000 - TENL Practicum

Under supervision, students teach English as a new language. The course provides experience in instruction, assessment, placement, and materials preparation. Classroom lectures, discussions, and assigned readings focus on teaching English as a new language.

#### **Preparation for Course**

P: permission of instructor.

Cr. 3.

LING 47100 - Internship in Teaching English (as a New Language)

# LING 47100 - Internship in Teaching English (as a New Language)

The internship provides an opportunity to gain teaching experience (in overseas or domestic settings) and work with language learners. Students participate in providing instructions and assist in learning by completing specified hours of instructional practice. Journals reflecting on the experience are required as well. This course may be repeated with permission of instructor for a maximum of 6 hours.

#### **Preparation for Course**

P: Students must be admitted into TENL program.

Cr. 1 to 3.

LING 48500 - Topics in Linguistics

# LING 48500 - Topics in Linguistics

Studies in special topics not ordinarily covered in departmental courses. May be repeated, with different topics for a maximum of 9 credits.

#### Preparation for Course

P: varies according to topic.

Cr. 3.
Variable Title
(V.T.)
Dual Level Course
Eligible for graduate credit.

### LING 49001 - Linguistic Structures

# LING 49001 - Linguistic Structures

The linguistic analysis of particular aspects of the structure of one language or a group of closely related languages. May be repeated with different topics for a maximum of 9 credits.

### **Preparation for Course**

P: consent of instructor.

Cr. 3. Variable Title (V.T.)

### MA 10100 - Mathematics for Elementary Teachers I

# MA 10100 - Mathematics for Elementary Teachers I

A teacher's perspective of the mathematics of the elementary school curriculum; in particular, mathematical problem solving, sets, numeration, and operations on the whole numbers.

#### **Preparation for Course**

P: MA 10900 with a grade of C- or better or placement at or above the MA 11300 level and one year of high school geometry.

### MA 10200 - Mathematics for Elementary Teachers II

# MA 10200 - Mathematics for Elementary Teachers II

A teacher's perspective of the mathematics of the elementary school curriculum, including operations on the integers and rationals, probability, and statistics.

#### **Preparation for Course**

P: MA 10100with a grade of C- or better.

Cr. 3

### MA 10300 - Mathematics for Elementary Teachers III

# MA 10300 - Mathematics for Elementary Teachers III

Geometry and measurement concepts appropriate for the elementary school curriculum, including metric and nonmetric properties of geometric figures, measurement, coordinate geometry, graphs, and real-world applications of geometry.

#### **Preparation for Course**

P: MA 10200 with a grade of C- or better and one year of high school geometry.

Cr. 3

### **MA 11100 - Algebra**

# MA 11100 - Algebra

This is an algebra review course for students not prepared for MA 15200, 15300, or 15900. Topics covered: real numbers, linear functions, solving linear equations and systems of linear equations, absolute value equations and inequalities, rational expressions, complex numbers, proportions, solving quadratic equations.

#### **Preparation for Course**

P: MA 12401 with a grade of C- or higher, or placement by departmental exam.

Cr. 3.

### MA 11101 - Algebra Appliations And Activities

# MA 11101 - Algebra Appliations And Activities

This course will include activities and projects to accompany and enhance the material covered in MA 11100.

### Preparation for Course

C: MA 11100.

Cr. 1.00

### MA 12401 - Introduction to Mathematical Ideas

# MA 12401 - Introduction to Mathematical Ideas

Introduction to problem solving and critical thinking including set theory, logic, numbers and numerical reasoning and elementary algebra. Not intended for programs requiring calculus.

# MA 14000 - Practical Quantitative Reasoning

A course for liberal arts students that shows mathematics as the language of modern problem solving. The course is designed around problems concerning management science, statistics, social choice, size and shape, and computer science. Applications in quality control, consumer affairs, wildlife management, human decision making, architectural design, political practices, urban planning, space exploration, and more may be included in the course. Typically offered Fall Spring.

#### **Preparation for Course**

P: MA 11100 or 12401 with a grade of C- or better, or placement exam.

Cr. 3.

Notes

MA 14000 is the new course number for MA 16800. Course content and required textbook have not changed. MA 14000 satisfies the General Education Quantitative Reasoning requirement. Students who are not required to take MA 15300 would likely be better off taking MA 14000 or STAT 12500.

### MA 15300 - College Algebra

# MA 15300 - College Algebra

Review of algebraic operations, factoring, exponents, radicals and rational exponents, and fractional expressions. Linear and quadratic equations and modeling, problem solving, and inequalities. Graphs of functions and transformations, including polynomial, rational, exponential, and logarithmic functions with applications.

P: MA 11100 or MA 11300 with a grade of B- or better or placement by departmental exam.

Cr. 3.

Indiana Core Transfer Library course.

### MA 15400 - Trigonometry

# MA 15400 - Trigonometry

Trigonometric functions and graphs, vectors, complex numbers, conic sections, matrices, and sequences.

### Preparation for Course

P: MA 14900 or 15300 with a grade of C- or better or placement by departmental exam.

Indiana Core Transfer Library course.

### MA 15900 - Precalculus

# MA 15900 - Precalculus

Algebra and trigonometry topics designed to prepare students for calculus. This course is equivalent to MA 15300 and MA 15400 together.

#### **Preparation for Course**

P: MA 11300 with a grade of B- or higher or placement by departmental exam.

Cr. 5.

### MA 16500 - Analytic Geometry and Calculus I

# MA 16500 - Analytic Geometry and Calculus I

Introduction to differential and integral calculus of one variable, with applications. Conic sections.

#### Preparation for Course

P: MA 15400 or 15900 with a grade of C- or better or placement by departmental exam.

Notes

Indiana Core Transfer Library course.

# MA 16600 - Analytic Geometry and Calculus II

Continuation of MA 16500. Vectors in two and three dimensions. Techniques of integration, infinite series, polar coordinates, surfaces in three dimensions.

#### **Preparation for Course**

P: MA 16500 with a grade of C- or better.

Cr. 4.

Notes

Indiana Core Transfer Library course.

### MA 17500 - Introductory Discrete Mathematics

# **MA 17500 - Introductory Discrete Mathematics**

Sets, logical inference, induction, recursion, counting principles, binary relations, vectors and matrices, graphs, algorithm analysis.

#### **Preparation for Course**

P: MA 16500 or 15300 and CS 16000; or MA 15300 and EET 26400 with a grade of C- or better in each course.

Cr. 3

### MA 18300 - Professional Practicum I

# MA 18300 - Professional Practicum I

For Cooperative Education students only.

### **Preparation for Course**

P: Must be accepted for the program by the Cooperative Education coordinator.

Cr. 0.

### MA 18400 - Professional Practicum II

# MA 18400 - Professional Practicum II

Authorized equivalent courses or consent of instructor may be used in satisfying course pre- and corequisites.

### **Preparation for Course**

P: MA 18300.

Cr. 0.

### MA 19000 - Topics In Mathematics For Undergraduates

# MA 19000 - Topics In Mathematics For Undergraduates

Supervised reading courses as well as special topics courses for undergraduates are given under this number.

### **Preparation for Course**

P: Permission of instructor required.

Cr. 1-5. Variable Title (V.T.)

# MA 21300 - Finite Mathematics I

Basic logic, set theory. Elementary probability, Markov chains. Vectors, matrices, linear systems, elementary graph theory. Applications to finite models in the managerial, social, and life sciences; and computer science.

#### **Preparation for Course**

P: MA 12401 or MA 11100 with a grade of C- or better or placement by departmental exam.

Cr. 3.

#### Notes

Indiana Core Transfer Library course.

### MA 22700 - Calculus for Technology I

# MA 22700 - Calculus for Technology I

Functions, derivatives, integrals. Applications to problems in the engineering technologies.

#### **Preparation for Course**

P: MA 15400 or 15900 with a grade of C- or better or placement by departmental exam.

Cr. 4

### MA 22800 - Calculus for Technology II

# MA 22800 - Calculus for Technology II

Continuation of 22700. Further topics in differentiation and integration. Introduction to infinite series, harmonic analysis, differential equations, and Laplace transforms. Applications to problems in the engineering technologies.

### Preparation for Course

P: MA 22700 with a grade of C- or better.

Cr. 3

### MA 22900 - Calculus for the Managerial, Social, and Biological Sciences I

# MA 22900 - Calculus for the Managerial, Social, and Biological Sciences I

Differential and integral calculus of one variable. Applications to problems in business and the social and biological sciences.

#### **Preparation for Course**

P: MA 15300 or 14900 with a grade of C- or better or placement by departmental exam.

Cr. 3.

Notes

Indiana Core Transfer Library course.

# MA 23000 - Calculus for the Managerial, Social, and Biological Sciences II

# MA 23000 - Calculus for the Managerial, Social, and Biological Sciences II

A continuation of 229 covering topics in elementary differential equations, calculus of functions of several variables, and infinite series.

### **Preparation for Course**

P: MA 22900 with a grade of C- or better.

Cr. 3

Notes

Indiana Core Transfer Library course.

#### MA 26100 - Multivariate Calculus

# MA 26100 - Multivariate Calculus

Solid analytic geometry, vector calculus, partial derivatives, and multiple integrals.

#### **Preparation for Course**

P: MA 16600 with a grade of C- or better.

Cr. 4

#### MA 26300 - Multivariate and Vector Calculus

# MA 26300 - Multivariate and Vector Calculus

This course is primarily for students majoring in mathematics, but is appropriate for students majoring in engineering and the physical sciences who want a stronger background in vector calculus than is available in MA 261. Geometry of Euclidean space; partial derivatives, gradient; vector fields, divergence, curl; extrema, Lagrange multipliers; multiple integrals, Jacobian; line and surface integrals; theorems of Green, Gauss, and Stokes.

#### **Preparation for Course**

P: MA 16600 with a grade of C- or better.

Cr. 4.

Hours

Class 4

### MA 27300 - Financial Mathematics

## MA 27300 - Financial Mathematics

a mathematical treatment of some of the fundamental concepts of financial mathematics and their application to real world business situations and basic risk management. Includes discussions of interest rates, discount rates, annuity valuation, bond valuation, cash flow valuation, spot rates, forward rates. Macaulay duration, modified duration, effective duration, convexity, and immunization, and their use in risk management. Provides preparation for the SOA/CAS Actuarial Exam FM/2.

#### **Preparation for Course**

P: MA 16600, MA 22800, or MA 23000 with a grade of C- or better

Cr. 3.

### MA 27500 - Intermediate Discrete Math

# MA 27500 - Intermediate Discrete Math

Formal logic, proof techniques, elementary number theory, mathematical induction, functions, recurrence relations, sets, combinatorics, elementary graph theory, and applications. Students may not count both MA 17500 and MA 27500 toward graduation.

### **Preparation for Course**

P: MA 26100 or 26300.

Cr. 3.

### MA 28400 - Professional Practicum III

# MA 28400 - Professional Practicum III

Authorized equivalent courses or consent of instructor may be used in satisfying course pre- and corequisites.

#### **Preparation for Course**

P:MA18400.

Cr. 0.

# MA 30500 - Foundations of Higher Mathematics

Fundamental concepts used in higher courses, including logic and proof techniques, set theory, functions and relations, cardinality, number systems, the real numbers as a complete ordered field, and Epsilon-delta techniques.

#### **Preparation for Course**

P: MA 16600 and 17500 with a grade of C- or better.

Cr 3

### MA 31400 - Introduction to Mathematical Modeling

# MA 31400 - Introduction to Mathematical Modeling

This course is intended to be accessible to students outside the mathematical and physical sciences. Formulation of mathematical models for applications in the biological, physical, and social sciences. Discrete and continuous models employing random and nonrandom simulation will be studied, with projects selected to fit the background and interests of the students.

#### Preparation for Course

P: One semester of calculus, and MA 17500 or MA 27500 with a grade of C- or better.

Cr. 3.

### MA 32100 - Applied Differential Equations

# **MA 32100 - Applied Differential Equations**

Designed primarily for EET majors. Ordinary differential equations with emphasis on linear equations and their applications. Laplace transforms. Fourier series, and an introduction to partial differential equations and their applications. No credit for math majors.

### Preparation for Course

P: MA 22800 with a grade of C- or better.

Cr. 3.

### MA 35100 - Elementary Linear Algebra

# MA 35100 - Elementary Linear Algebra

Linear transformations, finite dimensional vector spaces, matrices, determinants, systems of linear equations, and applications to areas such as linear programming. Markov chains and differential equations.

### Preparation for Course

P: two semesters of calculus with grades of C- or better.

Cr. 3

### MA 36300 - Differential Equations

# **MA 36300 - Differential Equations**

First order differential equations, higher order linear differential equations, systems of first order equations, series solutions, integral transforms, introduction to partial differential equations: separation of variables, Fourier series, Sturm-Liouville equations.

### **Preparation for Course**

P: MA 26100 or 26300 with a grade of C- or higher. C: MA 35100 with a grade of C- or higher or current enrollment in MA 35100.

# MA 38600 - Professional Practicum IV

Authorized equivalent courses or consent of instructor may be used in satisfying course pre- and corequisites.

#### **Preparation for Course**

P: MA 28400.

Cr. 0.

### MA 41700 - Mathematical Programming

# MA 41700 - Mathematical Programming

This course is appropriate for majors in engineering, computer science, and mathematics. Construction of linear programming models; the simplex methods and variants, degeneracy and uncertainty in linear programming, gradient methods, dynamic programming, integer programming, principles of duality; two-person zero-sum, n-person, and cooperative games.

#### **Preparation for Course**

P: MA 26100 or 26300 and one of: MA 26200, 35100 or 51100 with grades of C- or better.

Cr. 3

### MA 41800 - Computations Laboratory for MA 417

# MA 41800 - Computations Laboratory for MA 417

Implementation on digital computer of those appropriate algorithms created in class to solve mathematical programming problems.

### **Preparation for Course**

P: CS 16000 or CS 11400; C: or P: CS 41700.

Cr. 1.

Hours

Practice 2.

# MA 44100 - Real Analysis

# MA 44100 - Real Analysis

The theory of functions of a real variable; continuity, theory of differentiation and Riemann integration, sequences and series of functions, uniform convergence, interchange of limit operations.

### Preparation for Course

P: MA 26100 and 35100 with a grade of C- or higher or instructor permission.

Cr. 3

### MA 45300 - Elements of Algebra

# MA 45300 - Elements of Algebra

Fundamental properties of homomorphisms, groups, rings, integers, polynomials, fields.

#### **Preparation for Course**

P: MA 17500 and MA 35100 with grades of C- or better.

### MA 46000 - Geometry

# MA 46000 - Geometry

This course begins at the high-school level and then moves quickly to intermediate and advanced topics including an introduction to non-Euclidean geometry. Emphasis on proofs.

#### **Preparation for Course**

P: MA 26100 or MA 26300.

Cr. 3.

### MA 48700 - Professional Practicum V

# MA 48700 - Professional Practicum V

Authorized equivalent courses or consent of instructor may be used in satisfying course pre- and corequisites.

#### **Preparation for Course**

P: MA38600.

Cr. 0.00 - 1.00.

### MA 49000 - Topics in Mathematics for Undergraduates

# MA 49000 - Topics in Mathematics for Undergraduates

Supervised reading and reports on approved topics in various fields.

Cr. 1-5. Variable Title (V.T.)

### MA 51000 - Vector Calculus

# MA 51000 - Vector Calculus

Calculus of functions of several variables and of vector fields in orthogonal coordinate systems; optimization problems; the implicit function theorem; Green's, Stokes', and the Divergence theorems; applications to engineering and the physical sciences.

### **Preparation for Course**

P: MA 26100 or MA 26300

Cr. 3

**Dual Level Course** 

Eligible for graduate credit.

## MA 51100 - Linear Algebra with Applications

# MA 51100 - Linear Algebra with Applications

Real and complex vector spaces; linear transformations; Gram- Schmidt process and projections; least squares; QR and LU factorization; diagonalization, real and complex spectral theorem; Schur triangular form; Jordan canonical form; quadratic forms.

# Preparation for Course

P: MA 35100.

Cr. 3.

### **Dual Level Course**

Eligible for graduate credit.

# **MA 52100 - Introduction to Optimization Problems**

Necessary and sufficient conditions for local extrema in programming problems and in the calculus of variations. Control problems, statement of maximum principles, and applications. Discrete control problems.

#### **Preparation for Course**

P: MA 51000, and MA 35100 or 51100.

Cr 3

### **Dual Level Course**

Eligible for graduate credit.

### MA 52300 - Introduction to Partial Differential Equations

# MA 52300 - Introduction to Partial Differential Equations

First-order quasi-linear equations and their application to physical and social sciences; the Cauchy-Kovalevsky theorem; characteristics, classification, and canonical form of linear equations: equations of mathematical physics; study of the Laplace, wave, and heat equations; methods of solution.

#### **Preparation for Course**

P: MA 26100 or MA 26300 and MA 36300.

Cr. 3.

Note

Eligible for graduate credit.

**Dual Level Course** 

Undergraduate-Graduate

### MA 52500 - Introduction to Complex Analysis

# MA 52500 - Introduction to Complex Analysis

Complex numbers and complex-valued functions of one variable; differentiation and contour integration; Cauchy's theorem; Taylor and Laurent series; residues; conformal mapping; applications.

### **Preparation for Course**

P: MA 26300, 44100 or MA 51000.

Cr. 3.

### **Dual Level Course**

Eligible for graduate credit.

### MA 54000 - Analysis I

# MA 54000 - Analysis I

Metric spaces, compactness and connectedness, sequences and series, continuity and uniform continuity, differentiability, Taylor's Theorem, Riemann-Stieltjes integrals.

#### **Preparation for Course**

P: MA 44100.

Cr. 3.

#### **Dual Level Course**

Eligible for graduate credit.

# MA 54100 - Analysis II

# MA 54100 - Analysis II

Sequences and series of functions, uniform convergence, equicontinuous families, the Stone-Weierstrass Theorem, Fourier series, introduction to Lebesgue measure and integration.

#### **Preparation for Course**

P: MA 54000.

Cr. 3. Dual Level Course

Eligible for graduate credit.

### MA 55300 - Introduction to Abstract Algebra

# MA 55300 - Introduction to Abstract Algebra

Group theory: Sylow theorems, Jordan-Holder theorem, solvable groups. Ring theory: unique factorization in polynomial rings, and principal ideal domains. Field theory: straightedge and compass constructions, roots of unity, finite fields, Galois theory, and solubility of equations by radicals.

#### **Preparation for Course**

P: MA 45300.

Cr. 3

**Dual Level Course** 

Eligible for graduate credit.

### MA 55400 - Linear Algebra

# MA 55400 - Linear Algebra

Review of basics: vector spaces, dimension, linear maps, matrices, determinants, linear equations. Bilinear forms; inner product spaces; spectral theory; eigenvalues. Modules over a principal ideal domain; finitely generated abelian groups; Jordan and rational canonical forms for a linear transformation.

#### **Preparation for Course**

P: MA 45300.

Cr. 3

**Dual Level Course** 

Eligible for graduate credit.

### MA 55600 - Introduction to the Theory of Numbers

# MA 55600 - Introduction to the Theory of Numbers

Divisibility, congruences, quadratic residues, Diophantine equations, the sequence of primes.

Preparation for Course

P: MA 26300 or MA 26100.

Cr. 3.

**Dual Level Course** 

Eligible for graduate credit.

### MA 56000 - Fundamental Concepts of Geometry

# MA 56000 - Fundamental Concepts of Geometry

Foundations of Euclidean geometry, including a critique of Euclid's Elements and a detailed study of an axiom system such as that of Hilbert. Independence of the parallel axiom and introduction to non-Euclidean geometry.

### **Preparation for Course**

P: MA 26100 and 35100 with a C- or higher or instructor permission.

Cr. 3.

**Dual Level Course** 

Eligible for graduate credit.

### MA 57100 - Elementary Topology

# MA 57100 - Elementary Topology

Fundamentals of point-set topology with a brief introduction to the fundamental group and related topics; topological and metric spaces; compactness and connectedness; separation properties; local compactness; introduction to function spaces; basic notions involving deformations of continuous paths.

### **Preparation for Course**

P. MA 44100.

Cr. 3.

### **Dual Level Course**

Eligible for graduate credit.

### MA 57500 - Graph Theory

# MA 57500 - Graph Theory

Introduction to graph theory with applications.

#### **Preparation for Course**

P: MA 30500 or MA 35100

Cr. 3

### **Dual Level Course**

Eligible for graduate credit.

### MA 58000 - History of Mathematics

# MA 58000 - History of Mathematics

The origins of mathematical ideas and their evolution over time, from early number systems and the evolution of algebra, geometry, and calculus to 20th-century results in the foundations of mathematics. Connections between mathematics and society, including the role of applications in the development of mathematical concepts.

#### **Preparation for Course**

P: MA 26100 and one of the following: EDU 20000 or graduate status or instructor permission.

Cr 3

#### **Dual Level Course**

Eligible for graduate credit.

### MA 59800 - Topics in Mathematics

# MA 59800 - Topics in Mathematics

Supervised reading courses as well as dual-level special topics courses are given under this number.

Cr. 1-5.

Variable Title

(V.T.)

Notes

Permission of instructor required.

**Dual Level Course** 

Eligible for graduate credit.

### MARS 20100 - Medieval Encounters

# **MARS 20100 - Medieval Encounters**

This course is a team-taught, interdisciplinary course which introduces students to the medieval world, circa 500-1500, through an examination of the history, Literature, Art, Philosophy, and Religion of the time period.

Cr. 3

### ME 16000 - Solid Modeling

# ME 16000 - Solid Modeling

Communication of form and layout of real world objects, solid modeling of objects. Engineering drawing layouts, orthogonal projections, dimensioning, tolerancing and standard drawing symbols, principles of detain design drawings and assembly drawings, and manufacturability. Use of computer graphics and production of drawings.

**Preparation for Course** 

P: MA 16500; C: ENGR 12800.

Cr. 2. Hours

Class 1, Lab 2.

### ME 20000 - Thermodynamics I

# ME 20000 - Thermodynamics I

First and second laws, entropy, reversible and irreversible processes, properties of pure substances, applications to engineering problems.

#### **Preparation for Course**

P: CHM 11500; C: MA 26100.

Cr. 3.

Hours Class 3.

ME 25000 - Statics

# **ME 25000 - Statics**

Forces and couples, free body diagrams, two- and three-dimensional equilibrium of a particle and rigid bodies. Principles of friction, centroids, centers of gravity, and moments of inertia. Virtual work, potential energy, and static stability of equilibrium. Internal forces, shear and bending moment diagrams.

#### **Preparation for Course**

P: PHYS 15200; C: MA 26100.

Cr. 3.

Hours

Class 3.

ME 25100 - Dynamics

# ME 25100 - Dynamics

Kinematics of particles in rectlinear and curvelinear motion. Kinetics or particles, Newton's second law, energy and momentum methods. Systems of particles. Kinematics and plane motion of rigid bodies, forces and accelerations, energy and momentum methods. Introduction to mechanical vibrations.

#### **Preparation for Course**

P: MA 25000; C: MA 36300.

Cr. 3.

### ME 25200 - Strength of Materials

# ME 25200 - Strength of Materials

Plane stress, plane strain, and stress-strain laws. Applications of stress and deformation analysis to members subjected to centric, torsional, flesual, and combined loading. Introduction to theories of failure, buckling, and energy methods.

### **Preparation for Course**

P: ME 25000.

Cr 3

### ME 25300 - An Introduction to Mechanics

# ME 25300 - An Introduction to Mechanics

A shortened combined course in statics, including a study of force systems, free-body diagrams, problems in equilibrium, and mass moment of inertia. Dynamics, including introduction to rigid body kinematics and kinetics using Newton's laws, and mechanical vibations.

### **Preparation for Course**

P: MA 26100 and PHYS 15200.

### ME 28500 - Industrial Practice I

# **ME 28500 - Industrial Practice I**

For Cooperative Education students only. Practice in industry and comprehensive written report of this experience.

Cr. 0

### ME 28600 - Industrial Practice II

# ME 28600 - Industrial Practice II

For Cooperative Education students only. Practice in industry and comprehensive written report of this experience.

#### **Preparation for Course**

P: ME 28500.

Cr. 0.

ME 28700 - Industrial Practice III

# ME 28700 - Industrial Practice III

For Cooperative Education students only. Practice in industry and comprehensive written report of this experience.

#### **Preparation for Course**

P: ME 28600.

Cr. 0.

ME 28800 - Industrial Practice IV

# ME 28800 - Industrial Practice IV

For Cooperative Education students only. Practice in industry and comprehensive written report of this experience.

### **Preparation for Course**

P: ME 28700.

Cr. 0.

ME 28900 - Industrial Practice V

# ME 28900 - Industrial Practice V

For Cooperative Education students only. Practice in industry and comprehensive written report of this experience. May be repeated for credit.

#### **Preparation for Course**

P: ME 28800.

Cr. 0.

ME 29300 - Measurements and Instrumentation

# **ME 29300 - Measurements and Instrumentation**

Introduction to the theory and application of sensors/devices and their instrumentation for measurements problems in engineering and science. Experiments utilizing basic circuits and sensors are preformed. Methods for recording, interpretation and presentation of experimental results are illustrated. Statistic and design of experiments are emphasized.

#### **Preparation for Course**

P:ECE 20100, COM11400, ENGL 13100.

Cr. 2

### ME 30100 - Thermodynamics II

## ME 30100 - Thermodynamics II

Reversibility, availability, power cycles, and the conversion of heat into work; combustion, heat pumps, refrigeration, and air conditioning.

#### **Preparation for Course**

P: ME 20000.

Cr 3

### ME 30300 - Material Science and Engineering

# ME 30300 - Material Science and Engineering

Concepts of materials science and their relevance to engineering design. Structure, properties, and uses of engineering materials. Strengthening methods and environmental effects.

#### **Preparation for Course**

P: CHM 11500 and PHYS 25100; C: ME 25200.

Cr. 2.

### ME 30400 - Mechanics and Materials Laboratory

## ME 30400 - Mechanics and Materials Laboratory

Experimental determination of mechanical properties of selected engineering materials. Experimental verification of assumptions made in ME 252. Use of strain measuring devices. Design of experiments.

### **Preparation for Course**

P: ME 29300 and ME 30300.

Cr. 1.

### ME 31800 - Fluid Mechanics

## ME 31800 - Fluid Mechanics

Continuum hypothesis, velocity field, fluid statics, basic conservation laws for systems and control volumes, dimensional analysis and similitude, Euler and Bernoulli equations, Navier-Stokes equations, viscous flows, boundary-layer flow in channels and around submerged bodies, applications.

#### **Preparation for Course**

P: ME 20000, 25100, MA 36300.

Cr. 3.

## ME 31900 - Fluid Mechanics Laboratory

# **ME 31900 - Fluid Mechanics Laboratory**

Introduction to fluid mechanics laboratory and design of experiments, including experiments on flow patterns, velocity profile in an air pipe, wind tunnel calibration, draining of a tank, pipe friction, drag forces, boundary layer studies, falling ball experiments, and measurements of fluid properties.

#### Preparation for Course

P: ME 29300 and ME 31800.

Cr. 1.

## ME 32100 - Heat Transfer

Fundamental principles of heat transfer by conduction, convection, and radiation; mass transfer by diffusion and convection. Application to engineering situations.

#### **Preparation for Course**

C: ME 31800.

Cr. 3.

### ME 32200 - Heat Transfer Laboratory

## ME 32200 - Heat Transfer Laboratory

Introduction to heat transfer laboratory and design of experiments. Experiments on measurements of temperature and thermal conductivity, transient heat conduction, convection, radiation, boiling, and heat exchangers.

#### **Preparation for Course**

P: ME 29300 and ME 32100; C: ME 31900.

Cr. 1.

### ME 33100 - System Dynamics

# ME 33100 - System Dynamics

Mathematical modeling and response analysis of dynamic systems with mechanical, electrical, fluid/thermal, and electron mechanical components used in modern control systems. Concepts of analogous systems; transfer function and block diagram; state-space formulation; time-domain and frequency-domain analysis.

### **Preparation for Course**

P:MA 36300, ME 25100.

Cr. 3.

### ME 33300 - Automatic Control Systems

# ME 33300 - Automatic Control Systems

Analysis and design of control systems, from modeling and computer solutions to stability and performance issues with an orientation toward electrical and mechanical systems. Classical control system concepts are emphasized but an introduction to modern techniques is also provided.

### Preparation for Course

P:ME 33100.

Cr. 3.

### ME 36100 - Kinematics and Dynamics of Machinery

# ME 36100 - Kinematics and Dynamics of Machinery

Position, velocity, and acceleration analysis and design of machine elements including n-bar linkages, cam followers, and gear trains. Dynamic force analysis and balancing of linkages; flywheels; introduction to cam dynamics.

### **Preparation for Course**

P: ME 16000, ME 25100, and MA 36300.

### ME 36900 - Design of Machine Elements

## **ME 36900 - Design of Machine Elements**

Application of principles of strength of materials to the design of typical mechanical components.

#### **Preparation for Course**

P: ME 25200, ME 30300, and ME 36100; C: ME 30400.

Cr. 3

ME 42100 - Heating and Air Conditioning I

## ME 42100 - Heating and Air Conditioning I

Fundamentals of fluid flow and heat transfer. Comfort conditions. Psychometrics. Solar radiation. Design conditions. Heating and cooling loads. Ventilation. Air distribution. Fans and pumps. Duct design. Air conditioning system.

#### **Preparation for Course**

P: ME32100.

Cr. 3.

ME 42400 - Design and Optimization of Thermal Systems

## ME 42400 - Design and Optimization of Thermal Systems

Application of the principles of thermodynamics, fluid mechanics, and heat transfer to the design of thermal systems with an emphasis on modeling, simulation, economic analysis, and optimization. Systems to be studied include heat exchangers, thermal storage devices, fluid machinery, pipes and ducts, and electronics cooling devices.

### **Preparation for Course**

P: ME 30100 and 32100.

Cr. 3.

ME 42500 - Intermediate Heat Transfer: Theory and Applications

# ME 42500 - Intermediate Heat Transfer: Theory and Applications

Analytical study of conduction; energy and momentum equations in convective heat transfer and review of empirical relations; boiling and condensation; applications in heat transfer such as heat exchangers, refrigeration and freezing of foods, cooling of electronic equipment, and heating and cooling of buildings.

### Preparation for Course

P: ME 32100.

Cr. 3.

ME 42700 - Sustainable Energy Sources and Systems

# ME 42700 - Sustainable Energy Sources and Systems

An introduction to energy sources and energy systems with an emphasis on sustainability. Students will apply material from thermodynamics, fluid mechanics, and heat transfer to analyze and design energy systems that utilize non-renewable energy sources such as fossil fuels, nuclear fission & fusion, and hydrogen, as well as renewable energy sources such as solar, wind, biofuels, geothermal, and oceans. Economic, environmental, social, and political issues related to energy are also considered.

**Preparation for Course** 

P: ME 30100 and 32100

### ME 43200 - Manufacturing Processes

# **ME 43200 - Manufacturing Processes**

This course provides students in Mechanical Engineering program with an opportunity of learning the fundamentals of modern manufacturing processes. The course introduces the fundamentals of different manufacturing processes, and it also introduces the machine tools and systems for manufacturing processes.

#### **Preparation for Course**

P: ME 30300.

Cr. 3.

#### ME 44500 - Biomaterials

## ME 44500 - Biomaterials

Science of biomaterials including understanding bulk and surface properties, interactions between materials and biological systems, response of biological systems to the material, response of the material to biological systems, and in vitro and in vivo biocompatibility. Overview of regulatory compliance and commercialization of biomaterials.

#### **Preparation for Course**

P: BIOL 20300 and ME 30300.

CR. 3.

### ME 46900 - Advanced Mechanics of Materials

### ME 46900 - Advanced Mechanics of Materials

Studies of stress and strain in three-dimensional problems. Theories of failure and energy methods. Unsymmetrical bending, curved beans, cross stress, shear center, torsion of thin-walled noncircular sections, thick-wall cylinders. Introduction to fracture mechanics, plates, and contract stresses.

#### **Preparation for Course**

P: ME 25200 and 30300.

Cr. 3

### ME 47100 - Vibration Analysis

# **ME 47100 - Vibration Analysis**

Introduction to simple vibratory motions such as damped and undamped free and forced vibrations, resonance, vibratory systems with more than one degree of freedom, Coulomb and systeretic damping, transverse vibration of beams, torional vibration, computation of natural frequencies and mode shapes, applications.

#### **Preparation for Course**

P: ME 25100.

Cr. 3.

### ME 48000 - Finite Element Analysis

# ME 48000 - Finite Element Analysis

Introduction to the finite-element method through applications to problems in elasticity and heat transfer. Emphasis on one-and two-dimensional problems. Computer implementation.

#### **Preparation for Course**

C: ME 32100 and 36900.

## ME 48700 - Mechanical Engineering Design I

The first course of a two-semester sequence of senior capstone design. Provides students with experience in the process and practice of mechanical component/system design from concept through final design. Emphasis on teamwork, project management, testing through simulation or prototype, oral and written communications.

#### **Preparation for Course**

P: ME 32100 and ME 36900; C: ME 32200.

Cr. 3.

ME 48800 - Mechanical Engineering Design II

## ME 48800 - Mechanical Engineering Design II

Continuation of ME 48700.

**Preparation for Course** 

P: ME 48700.

Cr. 3.

ME 49800 - Research in Mechanical Engineering I

## ME 49800 - Research in Mechanical Engineering I

Individual research projects for students with honors classification. Requires prior approval of, and arrangement with, a faculty research advisor.

#### Preparation for Course

P: honors classification.

Cr. 0-6.

ME 50500 - Intermediate Heat Transfer

## ME 50500 - Intermediate Heat Transfer

Heat and mass transfer by diffusion in one-dimensional, two-dimensional, transient, periodic, and phase change sytems. Convective heat transfer for external and internal flows. Similarity and integral solution methods. Heat, mass, and momentum analogies. Turbulence. Buoyancy driven flows. Convection with phase change. Radiation exchange between surfaces and radiation transfer in absorbing-emitting media. Multimode heat transfer problems.

### **Preparation for Course**

P: ME 32100.

For graduate engineering courses presented by tape delay from West Lafayette, contact Continuing Engineering Education in West Lafayette, 765-494-7015.

**Dual Level Course** 

Dual-Level, Undergraduate-Graduate

ME 50900 - Intermediate Fluid Mechanics

## **ME 50900 - Intermediate Fluid Mechanics**

Fluid properties. Basic laws for a control volume. Kinematics of fluid flow. Dynamics of frictionless incompressible flow and basic hydrodynamics. Equations of motion for viscous flow, viscous flow applications, boundary layer theory. Wall turbulence, lift and drag of immersed bodies.

### **Preparation for Course**

P: ME 31800 or CE 31800.

Cr. 3.

For graduate engineering courses presented by tape delay from West Lafayette, contact Continuing Engineering Education in West Lafayette, 765-494-7015.

**Dual Level Course** 

Dual-Level, Undergraduate-Graduate

## ME 54400 - Modeling And Simulation Of Mechanical Engineering Systems

Modeling and simulation paradigms and methodologies applied to mechanical engineering systems. Emphasis is on the modeling and simulation life-cycle process which includes purpose & scope, model development, computer implementation, numerical solution, and verification and validation. Examples illustrating design decision models, optimization, and simulation experiment design are presented. Engineering applications include manufacturing, static, dynamic, energy, and thermal-fluid systems.

### **Preparation for Course**

P: permission of department and instructor required.

Cr. 3.

ME 54500 - Finite Element Analysis: Advanced Theory and Applications

## ME 54500 - Finite Element Analysis: Advanced Theory and Applications

Theory of the course covers various algorithms for non-linear and time-depended problems in two and three dimensions. Application of the course cover the advanced topics with problems chosen from solid mechanics, heat transfer, and fluid dynamics. Commercial FEA packages such as ANSYS and/or ABAQUS are applied to solve various engineering problems. Students must possess an appropriate level of mathematics and programming skills to understand, develop and program solvers for finite element models.

#### **Preparation for Course**

P: ME 48000 or Graduate standing.

Cr. 3.

ME 54600 - CAD/CAM Theory And Advanced Applications

## ME 54600 - CAD/CAM Theory And Advanced Applications

Theory of CAD/CAM. Geometric modeling for seamless CAD/CAM integration. Solid modeling data structure design/manipulation. CAD and CAM tools with a focus on product development integration and automation. Machining theory, automated CNC machining, and process control. CAD/CAM applications using programming languages and open architecture kernel for modeling. Projects involve CAD/CAM aspects for advanced engineering.

Cr 3

ME 54700 - Mechatronics, Robot And Automation

## ME 54700 - Mechatronics, Robot And Automation

Modern products are mostly mechatronic products, where mechanical components are integrated with electrical, electronic, and control components to fulfill high-level system functionalities. Especially, robots are critical components in modern manufacturing; their roles to our societies are becoming increasingly of importance. The design, manufacture, assembly, and operation of mechatronic products require engineers to understand a wide scope of engineering knowledge and to be able to design and integrate mechanical, electric, and control subsystems. This course is designed for graduate students to (1) understand the concept of mechatronics, (2) learn design principles to integrate multidisciplinary components as a system to meet requirements of products, (3) gain the fundamental knowledge about robots and automation, (4) have hand-on skills in developing basic mechatronic products.

#### **Preparation for Course**

P: ME 36100, and permission of instructor.

Cr. 3.

ME 55000 - Adv Stress Analysis

# ME 55000 - Adv Stress Analysis

Studies of stresses and strains in three-dimensional problems. Failure theories and yield criteria. Stress function approach to two-dimensional problems. Bending of nonhomogeneous asymmetric curved beams. Torsion of bars with noncircular cross sections. Energy methods. Elastic stability. Introduction to plates. Students may not receive credit for both ME 55000 and CE 57000.

Cr. 3

**Dual Level Course** 

Dual-Level, Undergraduate-Graduate

## **MET 10400 - Technical Graphics Communications**

An introduction to the graphic language used to communicate design ideas using CAD. Topics include sketching, multiview drawings, auxiliary views, pictorial views, working drawings, dimensioning practices, and section views.

#### **Preparation for Course**

C: MA 15900 or 15300.

Cr. 3. Hours

Class 2, Lab. 3,

MET 10600 - Analytical and Computational Tools in MET

## MET 10600 - Analytical and Computational Tools in MET

Introduction to analytical and computational problem-solving techniques. The electronic calculator, the factor-label method of unit conversions, engineering graphs, and the computer are used to solve problems. Computer emphasis is on spreadsheet analysis, graphics, and generation of technical reports through the integrated use of software packages.

Cr. 2. Hours

Class 1, Lab. 2,

MET 18000 - Materials and Processes

### **MET 18000 - Materials and Processes**

Application and characteristics, both physical and chemical, of the materials most commonly used in industry; the mechanical processes by which materials may be shaped or formed.

#### **Preparation for Course**

P: ET 10600; C: MA 15300 or 15900.

Cr. 3.

Hours

Class 2, Lab. 2,

MET 21600 - Machine Elements

### **MET 21600 - Machine Elements**

The design and analysis of machine components with emphasis on safety factors based on various failure theories in consideration of fluctuating loads, stress concentration, and other factors affecting failure. A study of standard machine elements such as brakes, clutches, belts, chains, gears, screws, springs, and bearings; their application, operational behavior, efficiency, economy, and standardization.

### **Preparation for Course**

P: ET 20000, MET 10400, ECET 11400 and IET 20500 with a grade of C- or higher.

Cr. 4.

Hours

Class 4.

### MET 22300 - Introduction to Computer- Aided Modeling and Design

# MET 22300 - Introduction to Computer- Aided Modeling and Design

An introduction to computer-aided modeling and design (CAMD) with hands-on experience in the operation of an interactive computer graphics system. Generation of 3-D computer models and preparation of working drawings including geometric dimensioning and tolerancing.

### **Preparation for Course**

P: MET 10400 or ARET 12300 with a C- or better.

Class 2, Lab. 3,

### MET 24700 - Computer-Aided Tool and Fixture Design

# MET 24700 - Computer-Aided Tool and Fixture Design

Tool design methods; tooling materials and heat treatment; design of cutting tools; gage design; design of drill jigs and fixtures; tool design for NE and CNC machines; tool design on the CAD system. Term projects using the CAD system are required.

#### **Preparation for Course**

P: MET 22300, MET 33500 and ET 19000 with a grade of C- or higher.

Cr. 3. Hours Class 2, Lab. 3,

MET 27500 - Industrial Practice I

## **MET 27500 - Industrial Practice I**

Practice in industry and written reports of this practice for co-op students.

#### **Preparation for Course**

P: admission to the Cooperative Education program.

Cr. 1.

MET 27600 - Industrial Practice II

## **MET 27600 - Industrial Practice II**

Practice in industry and written reports of this practice for co-op students.

Preparation for Course

P: MET 27500.

Cr. 1.

MET 29500 - Industrial Practicum

## **MET 29500 - Industrial Practicum**

For full-time students who have completed one year of study. Practical problems in local industry limited to about 10 hours per week for which the student receives some remuneration. May be repeated.

Cr. 1.

MET 29900 - Mechanical Engineering Technology

# **MET 29900 - Mechanical Engineering Technology**

Independent project laboratory work is conducted under the supervision of appropriate MET faculty. Hours and subject matter must be arranged by instructor and approved by MET Curriculum Subcommittee.

Cr. 1-3. Variable Title (V.T.)

## **MET 30000 - Applied Thermodynamics**

The fundamentals of thermodynamics including application of the first and second laws, enthalpy, entropy, reversible and irreversible processes.

#### **Preparation for Course**

P: MA 22700 and PHYS 21800 with grades of C- or better.

Cr. 3.

Hours

Class 3,

### MET 31200 - Dynamics and Mechanisms

## **MET 31200 - Dynamics and Mechanisms**

The slider crank, four-bar linkage and Scotch Yoke mechanisms along with cam and follower systems will be studied. Both the kinematics and dynamics of the mechanisms will be covered. Dynamic studies will include both Newton's Second Law and energy methods.

#### **Preparation for Course**

P: ET 19000, MA 22700, and PHYS 21800 with grades or C- or better.

Cr. 3.

Hours

Class 3

### MET 33000 - Introduction to Fluid Power

## MET 33000 - Introduction to Fluid Power

A study of the development, transmission, and utilization of power through fluid power circuits and controls.

#### **Preparation for Course**

P: MA15400 or MA 15900 with a grade of C- or better.

Cr. 3.

Hours

Class 2, Lab. 2.

### MET 33500 - Basic Machining

# MET 33500 - Basic Machining

A comprehensive survey of machine tools as they are used in converting workpieces into finished products with consideration of cost, quality, quantity, and interchangeability and safety requirements. Actual operation analysis of many machine tools set-ups will be provided for comparison studies.

#### **Preparation for Course**

P: MET 18000, PHYS 21800 and MA 15400 or 15900 with grades of C- or better.

Cr. 3.

Hours

Class 2, Lab. 3,

### MET 34700 - Programming of Automation Systems

# **MET 34700 - Programming of Automation Systems**

A study of programming on computer numerical control systems, including tool geometry compensation, coordinate transformation, and macros for developing canned cycles; and study of geometric and kinetic characteristics of industrial robots, end-effectors, sensors, applications, programming and safety.

#### Preparation for Course

P: ECET 11400 or 26400, MET 22300, MET 33500, ENG W234, and PHYS 21900, all with grades of C- or better.

#### Hours

Class 2, Lab 3.

### MET 35000 - Applied Fluid Mechanics

# **MET 35000 - Applied Fluid Mechanics**

The fundamentals of fluid mechanics including properties of fluid, pressure, hydrostatic force on submerged areas; kinematics and dynamics of fluid flow; friction losses and sizing of pipe.

#### **Preparation for Course**

P: PHYS 21800 and MA 22700 with a grade of C- or better.

Cr. 3. Hours

Class 3,

MET 37000 - Introduction to Heat Transfer

## **MET 37000 - Introduction to Heat Transfer**

This course introduces fundamental principles of heat transfer: conduction, natural convection, forced convection, and radiation, with an emphasis on practical applications (e.g. HVAC). Both analytical and numerical solution methods will be introduced. Calculated solutions will be compared with measurements using in-class demonstrations.

### **Preparation for Course**

P: Junior standing; MA 22700 and PHYS 21900 with grades of C- or better.

Cr. 3.

MET 37500 - Industrial Practice III

## MET 37500 - Industrial Practice III

Practice in industry and written reports of this practice for co-op students.

**Preparation for Course** 

P: MET 27600.

Cr. 1.

MET 37600 - Industrial Practice IV

## **MET 37600 - Industrial Practice IV**

Practice in industry and written reports of this practice for co-op students.

**Preparation for Course** 

P: MET 37500.

Cr. 1.

### MET 38100 - Engineering Materials

## **MET 38100 - Engineering Materials**

Applications and characteristics of engineering materials used in industry with special emphasis on plastics and other nonferrous materials such as elastomers, composites, ceramics, and glass, including a survey of the processes involved. Also, metallurgy, failure analysis, corrosion resistance, and surface treatments of metallic and nonmetallic materials.

### **Preparation for Course**

P: MET 18000 and CHM 11100 with a grade of C- or better.

Cr. 3.

### Hours

Class 3,

# **MET 44000 - Advanced CNC Machining**

Advanced CNC Machining is a continuation of the basic machining and introductory CAD courses. Students learn additional concepts for manufacturing metal and plastic parts by developing CAD drawings, translating these drawings into CNC code, producing parts on a CNC lathe and a CNC machining center, and analyzing the process and results. Shop safety and preventive maintenance are also emphasized.

#### **Preparation for Course**

P: MET 22300 and MET 33500 with a grade of C- or better.

Cr. 3.

MET 47500 - Industrial Practice V

## MET 47500 - Industrial Practice V

Practice in industry and written reports of this practice for co-op students.

#### **Preparation for Course**

P: MET 37600.

Cr. 1 - 2.

MET 48700 - Instrumentation and Automatic Control

## **MET 48700 - Instrumentation and Automatic Control**

Instrumentation for pressure, temperature, velocity, rpm, strain, force, displacement, acceleration, counting, and sound will be studied. Automatic control will be studied covering topics of on-off and proportional control, programmable controllers, and computer control.

#### **Preparation for Course**

P: ECET 21100 with a grade of C- or better.

Uann

Hours

Class 2, Lab. 2,

### MET 49400 - Senior Design and Analysis

## MET 49400 - Senior Design and Analysis

This course will focus on mechanical design, finite element analysis, environmental concerns, and/or ethical challenges. Technical reports will be written and one will involve an oral presentation.

#### **Preparation for Course**

P: senior class standing.

Cr. 3. **Hours** 

Class 3,

MET 49900 - Mechanical Engineering Technology

# **MET 49900 - Mechanical Engineering Technology**

Hours and subject matter to be arranged by staff.

Cr. 1-6. Hours Class 0-3, Lab. 2-6, Variable Title

(V.T.)

### MSL 10100 - Foundation Officership

## MSL 10100 - Foundation Officership

Examine the unique duties and responsibilities of officers. Discuss organization and role of the Army. Review basic life skills pertaining to fitness and communication. Analyze Army values and expected ethical behavior.

Cr. 1-2.

MSL 10200 - Basic Leadership

## MSL 10200 - Basic Leadership

Presents fundamental leadership concepts and doctrine. Practice basic skills that underlie effective problem solving. Apply active listening and feedback skills. Examine factors that influence leader and group effectiveness. Examine the officer experience.

Cr. 1-2.

MSL 20100 - Individual Leadership

## MSL 20100 - Individual Leadership

Develop knowledge of self-confidence and individual leadership skills. Develop problem-solving and critical-thinking skills. Apply communication, feedback, and conflict resolution skills.

Cr. 2-3.

MSL 20200 - Leadership and Teamwork

## MSL 20200 - Leadership and Teamwork

Focuses on self-development guided by knowledge of self and group processes. Challenges current beliefs, knowledge, and skills. Provides equivalent preparation for the ROTC Advanced Course and the Leader's Training Course.

Cr. 2-3.

MSL 30100 - Leadership and Problem Solving

# MSL 30100 - Leadership and Problem Solving

Examines basic skills that underlie effective problem solving. Review the features and execution of the Leadership Development Program. Analyze military mission and plan military operations. Execute squad battle drills.

Cr. 3-4.

MSL 30200 - Leadership and Ethics

# MSL 30200 - Leadership and Ethics

Probes leader responsibilities that foster an ethical command climate. Develop cadet leadership competencies. Prepare for success at National Advanced Leadership Camp. Recognize leader responsibility to accommodate subordinate spiritual needs. Apply principles and techniques of effective written and oral communication.

Cr. 3-4.

MSL 40100 - Leadership and Management

# MSL 40100 - Leadership and Management

Builds on National Advanced Leadership Camp experience to solve organizational and staff problems. Discuss staff organization, functions, and processes. Examine principles of

subordinate motivation and organizational change. Apply leadership and problem-solving principles to a complex case study/simulation.

Cr. 3-4.

MSL 40200 - Officership

# MSL 40200 - Officership

Designed to explore topics relevant to second lieutenants entering the Army. Describe legal aspects of decision making and leadership. Analyze Army organization for operations from the tactical to strategic level. Assess administrative and logistics management functions.

Cr. 3-4

MSL 49000 - Directed Study In Military Science

## MSL 49000 - Directed Study In Military Science

Individual readings, topics, or projects in military science appropriate for advanced undergraduate students.

Cr. 1-3.

MSL 49900 - Advanced Military Studies

## **MSL 49900 - Advanced Military Studies**

Advanced study of technical and professional topics related to military history, leadership, tactics, team development, management, officership, or training

Cr. 1-4.

MUSC 00200 - Piano Accompanying

# MUSC 00200 - Piano Accompanying

Study of the art and practice of accompanying singers and instrumentalists. Areas covered include sight-reading, ensemble playing, coaching techniques, style and interpretation, transposition, and score reading.

#### **Preparation for Course**

P: Consent of instructor.

Cr. 1-2.

MUSC 04000 - University Instrumental Ensembles

# **MUSC 04000 - University Instrumental Ensembles**

All instrumental ensembles may perform on and off campus. Rehearsals consist of work on musical, instrumental, and aural techniques and stylistic nuances germane to the ensemble. Admittance by audition. Jazz Ensemble: Open to all PFW students by audition. Rehearsal and performance of literature representing the various styles of the jazz ensemble repertoire. University Wind Ensemble: Open to all PFW students by audition. Rehearsal and performance of literature representing the wind ensemble and concert band. Fort Wayne Area Community Band: Open to all PFW students by audition. Personnel includes musicians from the Fort Wayne area. Rehearsal and performance of literature representing the concert band repertoire. PFW/Community Symphony Orchestra: Open to all PFW students by audition. Rehearsal and performance of orchestral literature.

Cr. 1-2.

MUSC 04100 - Symphonic Wind Ensemble

# **MUSC 04100 - Symphonic Wind Ensemble**

Open to all university students, contingent upon successful audition. Rehearsal and performance of literature representing the wind ensemble and concert band. Focus on musical, instrumental and aural techniques and stylistic nuances germane to the ensemble. Performances on and off campus. Repeatable for credit.

### MUSC 04200 - Jazz Ensemble

## MUSC 04200 - Jazz Ensemble

Open to all university students, contingent upon successful audition. Rehearsal and performance of literature representing various styles of the jazz ensemble repertoire. Focus on instrumental and aural techniques and stylistic nuances germane to the ensemble. Performances on and off campus. Repeatable for credit.

Cr. 1.

MUSC 04300 - Orchestra

## MUSC 04300 - Orchestra

Open to all university students, contingent upon successful audition. Rehearsal and performance of orchestral literature. Focus on instrumental and aural techniques and stylistic nuances germane to the ensemble. Performances on and off campus. Repeatable for credit.

Cr. 1.

MUSC 07100 - University Singers

## **MUSC 07100 - University Singers**

Open to all university students, contingent upon successful audition. Rehearsal and performance of choral literature from throughout music history. Performances on and off campus.

Cr. 1.

MUSC 07200 - Chamber Singers

## **MUSC 07200 - Chamber Singers**

Small, select choral ensemble rehearsing and performing accompanied and a Capella vocal chamber works from throughout music history. Performances on and off campus.

### **Preparation for Course**

P: consent of instructor.

Cr. 1.

Cr. 1.

MUSC 07300 - Choral Union

## MUSC 07300 - Choral Union

Open to all university students contingent upon successful audition. Rehearsal and performance of choral literature from through music history. Performances on and off campus.

MUSC 09500 - Performance Class

### **MUSC 09500 - Performance Class**

Performance laboratory. Students will attend concerts, recitals and other prescribed music events.

Cr. 0.

MUSC 10000 - Guitar

## MUSC 10000 - Guitar

MUSC 10001 - Piano

## MUSC 10001 - Piano

Cr. 2; 700 (2).

MUSC 10002 - Voice Elective/Secondary

## MUSC 10002 - Voice Elective/Secondary

Elective 100-level. Work for students will be outlined by the instructor to meet individual needs and aims, evaluation will be based upon quality and content of work covered. May be repeated for credit.

Cr. 1-4.

**MUSC 10003 - Percussion Instrument** 

## **MUSC 10003 - Percussion Instrument**

Elective (100) level: Work for students will be outlined by the instructor to meet individual needs and aims, evaluation will be based upon quality and content of work covered.

Cr. 1-2.

MUSC 10004 - Harp

## **MUSC 10004 - Harp**

Cr. 2.

MUSC 10100 - Music for the Listener - Honors

## **MUSC 10100 - Music for the Listener - Honors**

Survey course designed to introduce nonmusic major to materials, history, and literature of Western art music from the earliest times to present. Emphasis upon developing listening skills and an awareness of different musical styles through study of major works of outstanding composers of each historical period.

Cr. 3.

Notes

Honors equivalent of MUS Z101.

To register in an honors course, students must have Honors Program eligibility or instructor's permission.

MUSC 10101 - Music for the Listener

### MUSC 10101 - Music for the Listener

Introduction to the elements of music through the mode of listening and a historical survey of the way those elements have been used in various types of musical compositions. For non-music majors.

Cr. 3

Notes

Indiana Core Transfer Library course.

MUSC 10300 - Music Recording And Production I

# **MUSC 10300 - Music Recording And Production I**

An introductory course in music/audio recording and production. Topics will include a review of the physics of sound, critical/technical listening and analysis, microphones, digital audio, basic DAW operation, and basic audio signal flow. Students will be required to create basic music recording projects.

### MUSC 10400 - Recording Crew I

## **MUSC 10400 - Recording Crew I**

Students will record Department of Music concerts and recitals in a variety of performance venues under the supervision of the Director of the PFW/Sweetwater Music Techolology program.

#### **Preparation for Course**

P: MUSC 11300; C: MUSC 10300.

Hours Lab. 2-3 **Session Indicators** Typically offered Fall

MUSC 10500 - Traditions in World Music

## **MUSC 10500 - Traditions in World Music**

A survey of non-Western music concentrating on traditional Asian, Middle Eastern, and African styles. Students will learn how to listen to and understand music based on cultural context and technical characteristics. No previous musical experience required.

Cr. 3.

MUSC 10900 - Rudiments of Music I

## MUSC 10900 - Rudiments of Music I

Fundamentals of notation, ear training, music reading.

Cr. 2-4.

Notes

Grade of B or better required for admission into T113 and T115.

MUSC 10901 - Computer Skills for Musicians

# **MUSC 10901 - Computer Skills for Musicians**

Computer music notation systems and the use of word processing, graphics, database, and other computer programs in music research and teaching.

Cr. 2. Variable Title (V.T.)

MUSC 11000 - Begin Piano Class I Nonmusic Majors

# **MUSC 11000 - Begin Piano Class I Nonmusic Majors**

Class piano for beginning piano students who are not music majors.

Cr. 1-3.

#### MUSC 11001 - French Horn

## **MUSC 11001 - French Horn**

Elective (100) level: Work for students will be outlined by the instructor to meet individual needs and aims, evaluation will be based upon quality and content of work covered.

Cr. 1-2.

MUSC 11002 - Violin

## MUSC 11002 - Violin

Cr. 2; 710 (2).

MUSC 11003 - Flute and Piccolo

## **MUSC 11003 - Flute and Piccolo**

Cr. 2; 710 (2).

MUSC 11100 - Class Piano I

## **MUSC 11100 - Class Piano I**

Preparation of non-keyboard concentrations/majors for the keyboard proficiency examination (X299). Six sequential components provide sequential presentation of fundamental skills. Three performance examinations evaluate poise, facility, and general musicianship at the keyboard.

#### **Preparation for Course**

Music majors only.

Cr. 1-2.

MUSC 11300 - Music Theory I

# **MUSC 11300 - Music Theory I**

Study of the elements of basic musicianship; intervals, scales, triads, rhythm and meter, music nomenclature, rudiments of two-part writing and diatonic harmony.

### **Preparation for Course**

P: Sufficient score on music theory placement exam or MUSC 10900 with grade of B- or higher.

Cr. 3.

Required for all music majors.

MUSC 11400 - Music Theory II

# MUSC 11400 - Music Theory II

Continuation of the study of harmony in context with four-part writing, diatonic harmony, secondary functions and modulation. Examination of musical forms and structures. Emphasis on musical analysis and compositional applications.

### **Preparation for Course**

P: MUSC 11300 or placement examination.

Required for all music majors.

# **MUSC 11500 - Sightsinging and Aural Perception I**

Introduction to solfeggio. Development of basic music dictation and sight-singing skills through the use of diatonic melodic and harmonic examples.

#### **Preparation for Course**

P: Sufficient score on music theory placement exam or MUSC 10900 with grade of B- or higher.

Cr. 1.

Note

Required of all music majors.

MUSC 11600 - Sightsinging and Aural Perception II

## **MUSC 11600 - Sightsinging and Aural Perception II**

Further development of music dictation and sight-singing skills through the use of more extended melodic and harmonic examples.

#### **Preparation for Course**

P: MUSC 11500.

Cr. 1.

Notes

Required of all music majors.-

MUSC 12000 - Trumpet and Cornet

## **MUSC 12000 - Trumpet and Cornet**

Elective (100) level: Work for students will be outlined by the instructor to meet individual needs and aims, evaluation will be based upon quality and content of work covered.

Cr. 2

Session Indicators

Typically offered Fall Spring Summer.

MUSC 12001 - Viola

## MUSC 12001 - Viola

Cr. 2.

MUSC 12002 - Oboe and English Horn

# **MUSC 12002 - Oboe and English Horn**

Cr. 2.

MUSC 12100 - Class Piano II

## **MUSC 12100 - Class Piano II**

Preparation of non-keyboard concentrations/ majors for the keyboard proficiency examination (X299). Six sequential components provide sequential presentation of fundamental skills. Three performance examinations evaluate poise, facility, and general musicianship at the keyboard.

#### **Preparation for Course**

P: MUSC 11100; music majors only.

Cr. 1-2.

#### MUSC 13000 - Trombone

## MUSC 13000 - Trombone

Elective (100) level: Work for students will be outlined by the instructor to meet individual needs and aims, evaluation will be based upon quality and content of work covered.

Cr. 1-2.

MUSC 13001 - Cello

**MUSC 13001 - Cello** 

Cr. 2.

MUSC 13002 - Clarinet

**MUSC 13002 - Clarinet** 

Cr. 2; 730 (2).

MUSC 13100 - Class Piano III

## **MUSC 13100 - Class Piano III**

Continuation of preparation of keyboard proficiency with pass-off of individual components of the examination during the semester. Three performance examinations during the semester evaluate poise, facility, and general musicianship at the keyboard.

#### **Preparation for Course**

P: MUSC 12100 or departmental placement.

Cr. 1-2.

MUSC 13500 - First Year Seminar in Music Education

## **MUSC 13500 - First Year Seminar in Music Education**

Orientation for first year music education majors to the principles and practices of music education through readings, presentations, discussion, field experiences and professional growth activities.

Cr. 1.

MUSC 14000 - Introduction to Musical Expression

# **MUSC 14000 - Introduction to Musical Expression**

Introduction to the fundamentals of music and their appreciation in the process of writing and performing music. Students will learn to read musical notation and develop skills in playing folk guitar as an accompaniment instrument. Students must provide their own guitar.

Cr. 3.

**MUSC 14001 - Euphonium Elective And Secondary** 

# **MUSC 14001 - Euphonium Elective And Secondary**

Elective (100) level: Work for students will be outlined by the instructor to meet individual needs and aims, evaluation will be based upon quality and content of work covered.

Cr. 1-2.

MUSC 14002 - String Bass

## **MUSC 14002 - String Bass**

Cr. 2.

MUSC 14003 - Bassoon

## MUSC 14003 - Bassoon

Cr. 2.

MUSC 14100 - Class Piano IV

## MUSC 14100 - Class Piano IV

Directed study of remaining components of keyboard proficiency examination.

### **Preparation for Course**

P: MUSC 13100 or departmental placement; five passed components of keyboard proficiency.

Cr. 1-2.

MUSC 15000 - Tuba

## **MUSC 15000 - Tuba**

Elective (100) level: Work for students will be outlined by the instructor to meet individual needs and aims, evaluation will be based upon quality and content of work covered. Cr. 2.

MUSC 15001 - Saxophone

# MUSC 15001 - Saxophone

Cr. 2; 750 (2).

MUSC 15300 - Introduction to Music Therapy

# **MUSC 15300 - Introduction to Music Therapy**

Introduction to the influences of music on behavior, the healing properties of music, the use of music therapy with a variety of populations, and the development of the music therapy profession. Includes an introduction to the clinical process and music therapy procedures as well as participation in experiential activities. Approved general education course in artistic expression.

Cr. 3. **Session Indicators** (fall, spring, summer)

MUSC 15400 - Music Therapy Method Basics I

# **MUSC 15400 - Music Therapy Method Basics I**

An overview of the re-creative and receptive music therapy methods and their variations involving active music engagement and interactive experiences.

Cr. 1.

# **MUSC 15500 - Music Therapy Method Basics II**

An overview of the compositional and improvisatory music therapy methods and their variations involving active music engagement and interactive experiences.

Cr. 1.

MUSC 18101 - Popular Music Theory, Analysis And Application I

## MUSC 18101 - Popular Music Theory, Analysis And Application I

A study of the foundational elements of music theory with emphasis on application within popular music genres.

#### **Preparation for Course**

P: Admission into music major or minor.

Cr. 3.

MUSC 18102 - Popular Music Theory, Analysis And Application II

## MUSC 18102 - Popular Music Theory, Analysis And Application II

A continuation of Popular Music Theory, Analysis, and Application I. This course will introduce elements of more complex chords, chord function, and their notation. Introduction to modern drum transcription and notation, and a continuation of aural skills training using popular music styles and genres as the delivery vehicle.

#### **Preparation for Course**

P: MUSC 18101.

Cr.3.

MUSC 18203 - Survey Of Music Industry And Copyright

# **MUSC 18203 - Survey Of Music Industry And Copyright**

An overview and introduction to the music industry, including possible careers and copyright.

Cr. 3.

**MUSC 18241 - Introduction To Performance Techniques** 

# **MUSC 18241 - Introduction To Performance Techniques**

An instructional music ensemble experience designed to allow students to perform together on their chosen primary, secondary, (or other) instruments in various popular music genres, with emphasis on providing musical support and leadership in a group setting.

### **Preparation for Course**

P: MUSC 18101.

Cr. 2.

**MUSC 20000 - Percussion Instrument** 

## **MUSC 20000 - Percussion Instrument**

Secondary (200) level: Designed to give the student certain proficiencies so that student may use this application as a tool rather than a medium for performance.

Cr. 1-2.

#### MUSC 20001 - Guitar

## MUSC 20001 - Guitar

Secondary (200) level: Designed to give the student certain proficiencies so that student may use this application as a tool rather than a medium for performance.

Cr. 1-2.

MUSC 20002 - Piano

## MUSC 20002 - Piano

Secondary (200) level: Designed to give the student certain proficiencies so that student may use this application as a tool rather than a medium for performance.

Cr. 1-2.

MUSC 20003 - Organ

## MUSC 20003 - Organ

Secondary (200) level: Designed to give the student certain proficiencies so that student may use this application as a tool rather than a medium for performance.

Cr. 2.

MUSC 20004 - Voice

## MUSC 20004 - Voice

Secondary (200) level: Designed to give the student certain proficiencies so that the student may use this application as a tool rather than as a medium for performance.

Cr. 1-2.

MUSC 20005 - Harp

# **MUSC 20005 - Harp**

Secondary (200) level: Designed to give the student certain proficiencies so that student may use this application as a tool rather than a medium for performance.

Cr. 1-2.

MUSC 20100 - Music Literature I

## **MUSC 20100 - Music Literature I**

Survey of music from classical antiquity to 1750. Designed to develop a perspective on the evolution of music in its socio-cultural milieu, a repertoire of representative compositions, and a technique for listening analytically.

Cr. 2.

MUSC 20101 - Jazz Piano Class I

## MUSC 20101 - Jazz Piano Class I

Development of basic jazz kepboard skills and techniques for the non-piano jazz major, non-jazz piano major and non-music major. Basic voicings for common harmonic fornulae used in jazz; chord/scale relationships; simple rhythmic comping patterns.

Cr. 2

## **MUSC 20102 - Voice Class**

Class instruction on vocal production and vocal hygiene. A repertoire of patriotic, religious, folk, musical theatre, and art songs will be developed.

Cr. 1.

### MUSC 20103 - History of Rock and Roll Music

## **MUSC 20103 - History of Rock and Roll Music**

A survey of the major trends, styles, and genres of rock music from the earliest recordings to the present day, focusing on the work of the artists and groups who have proven to be of the most enduring significance. Credit given for nonmusic majors only.

Cr. 3.

MUSC 20200 - Music Literature II

## **MUSC 20200 - Music Literature II**

Survey of music from the classical era to the present. Designed to develop a perspective on the evolution of music in its socio-cultural milieu, a repertoire of representative compositions, and a technique for listening analytically.

#### **Preparation for Course**

P: MUSC 20100 with grade of C or better or consent of instructor.

Cr. 2.

### MUSC 20300 - Music Recording And Production II

## **MUSC 20300 - Music Recording And Production II**

An intermediate course in music recording and production techniques. Topics will include DAW systems operation and integration, traditional recording studio operation, and audio signal processing. Students will be required to create music recording projects.

#### **Preparation for Course**

P: MUSC 10300.

Cr. 3.

### MUSC 20400 - Recording Crew II

# **MUSC 20400 - Recording Crew II**

Student will record Department of Music concerts and recitals in a variety of performance venues under the supervision of the Director of the PFW/Sweetwater Music Technology program and advanced audio recording students.

#### **Preparation for Course**

P: MUSC 10400; C: MUSC 20300.

Cr. 1. Hours Lab. 3-4. Session Indicators

Typically offered Fall

MUSC 20500 - Music Recording And Production III

# **MUSC 20500 - Music Recording And Production III**

An advanced course in music recording and production techniques. Topics will include music mixing, advanced music recording and editing, and music technology research.

Focus on student music recording projects.

#### **Preparation for Course**

P: MUSC 20300.

Cr 3

### MUSC 20600 - Recording Crew III

## **MUSC 20600 - Recording Crew III**

Students will record Department of Music concerts and recitals in a variety of performance venues under the supervision of the Director of the PFW/Sweetwater Music Technology program and advanced audio recording students.

#### **Preparation for Course**

P: MUSC 20400; C: MUSC 20500.

Cr. 1. Hours Lab. 4-5.

**Session Indicators** 

Typically offered Spring

MUSC 20700 - Electronic Music I

## MUSC 20700 - Electronic Music I

An introductory course on electronic music focusing on sound synthesis and sound sampling.

#### **Preparation for Course**

P: PHYS 10500.

Cr. 3.

MUSC 20800 - Electronic Music II

## **MUSC 20800 - Electronic Music II**

A continuation of the Electronic Music I course focusing on sequencing and integration of synthesis and sampling into music production environments.

### **Preparation for Course**

P: MUSC 20700.

Cr. 3.

Session Indicators

Typically offered Spring.

MUSC 21000 - French Horn

## **MUSC 21000 - French Horn**

Secondary (200) level: Designed to give the student certain proficiencies so that student may use this application as a tool rather than a medium for performance.

Cr. 2.

MUSC 21001 - Violin

## MUSC 21001 - Violin

Secondary (200) level: Designed to give the student certain proficiencies so that student may use this application as a tool rather than a medium for performance.

Cr. 2.

## **MUSC 21002 - Flute And Piccolo**

Secondary (200) level: Designed to give the student certain proficiencies so that student may use this application as a tool rather than a medium for performance.

Cr. 2.

## **MUSC 21100 - Keyboard Techniques**

## **MUSC 21100 - Keyboard Techniques**

Preparation of the functional skills necessary for the completion of the keyboard proficiency exam. Keyboard concentrations and majors only.

#### **Preparation for Course**

P: MUSC 11400. C: MUSC 29900, permission of instructor.

Cr. 1-2.

MUSC 21300 - Music Theory III

## **MUSC 21300 - Music Theory III**

Historical survey of the elements, forms, and aesthetics of musical styles through written analysis, listening examples, and structured composition activities. Medieval through classical sonatas, including the entire harmonic vocabulary of the Common Practice Era.

#### **Preparation for Course**

P: MUSC 11400.

Cr. 3.

Notes

Required of all music majors.

## MUSC 21400 - Music Theory IV

# MUSC 21400 - Music Theory IV

Historical survey of the elements, forms, and aesthetics of musical styles through written analysis, listening examples, and structured composition activities. Classical through 20th century.

### **Preparation for Course**

P: MUSC 21300.

Cr. 3.

Notes

Required of all music majors.

### MUSC 21500 - Sightsinging and Aural Perception III

# **MUSC 21500 - Sightsinging and Aural Perception III**

Music dictation and sight-singing of chromatic melodic and harmonic materials and modulation.

Cr. 1

Note

Required of all music majors.

### MUSC 21600 - Music Education Lab/Field Experience

# **MUSC 21600 - Music Education Lab/Field Experience**

Field experiences and observations in vocal and instrumental music program K-12.

### **Preparation for Course**

C: MUSC 23600.

Cr = 0

### MUSC 21601 - Sightsinging and Aural Perception IV

# **MUSC 21601 - Sightsinging and Aural Perception IV**

Music dictation and sight-singing of extended examples as well as 20th century melodic and harmonic elements.

#### **Preparation for Course**

P: MUSC 21500.

Cr. 1

Notes

Required of all music majors.

### MUSC 22000 - Trumpet And Cornet

## **MUSC 22000 - Trumpet And Cornet**

Secondary (200) level: Designed to give the student certain proficiencies so that student may use this application as a tool rather than a medium for performance.

Cr. 2.

#### MUSC 22001 - Viola

## MUSC 22001 - Viola

Secondary (200) level: Designed to give the student certain proficiencies so that student may use this application as a tool rather than a medium for performance.

## MUSC 22002 - Oboe And English Horn

# **MUSC 22002 - Oboe And English Horn**

Secondary (200) level: Designed to give the student certain proficiencies so that student may use this application as a tool rather than a medium for performance.

Cr. 2.

### MUSC 22600 - English Diction for Singers

# **MUSC 22600 - English Diction for Singers**

Introduction to the International Phonetic Alphabet; study of phonetics with application to vocal literature in the English language.

Cr. 1

**Session Indicators** 

(Fall, first half of term)

### MUSC 22700 - German Diction for Singers

# **MUSC 22700 - German Diction for Singers**

Review of International Phonetic Alphabet; study of phonetics with application to vocal literature in the German language.

#### **Preparation for Course**

P: MUSC 11400 and 22600; C: MUSC 30006 or 40004.

Cr. 1.
Session Indicators
(Fall, second half of term)

### MUSC 22800 - French Diction for Singers

# **MUSC 22800 - French Diction for Singers**

Review of International Phonetic Alphabet; study of phonetics with application to vocal literature in French language.

**Preparation for Course** 

P: MUSC 11400 and 22600; C: MUSC 30006 or 40004.

Cr 1

Session Indicators

(Spring, first half of term)

MUSC 22900 - Italian Diction for Singers

## **MUSC 22900 - Italian Diction for Singers**

Review of International Phonetic Alphabet; study of phonetics with application to vocal literature int he Italian language.

**Preparation for Course** 

P: MUSC 11400 and 22600; C: MUSC 30006 or 40004.

Cr. 1.

**Session Indicators** 

(Spring, second half of term)

MUSC 23000 - Trombone

## **MUSC 23000 - Trombone**

Secondary (200) level: Designed to give the student certain proficiencies so that student may use this application as a tool rather than a medium for performance.

Cr. 2.

MUSC 23001 - Cello

## **MUSC 23001 - Cello**

Secondary (200) level: Designed to give the student certain proficiencies so that student may use this application as a tool rather than a medium for performance.

Cr. 2.

MUSC 23002 - Clarinet

## **MUSC 23002 - Clarinet**

Secondary (200) level: Designed to give the student certain proficiencies so that student may use this application as a tool rather than a medium for performance.

Cr. 2.

MUSC 23600 - Introduction to Music Education

## **MUSC 23600 - Introduction to Music Education**

An overview of the music education profession, including the study of philosophical and historical foundations of music teaching and learning. Includes examination of curriculum and current issues in music education.

Cr. 2.

### MUSC 24000 - Euphonium

## MUSC 24000 - Euphonium

Secondary (200) level: Designed to give the student certain proficiencies so that student may use this application as a tool rather than a medium for performance.

Cr. 2.

### MUSC 24001 - String Bass

## **MUSC 24001 - String Bass**

Secondary (200) level: Designed to give the student certain proficiencies so that student may use this application as a tool rather than a medium for performance.

Cr. 2.

### MUSC 24002 - Bassoon

## MUSC 24002 - Bassoon

Secondary (200) level: Designed to give the student certain proficiencies so that student may use this application as a tool rather than a medium for performance.

Cr. 2.

#### MUSC 24100 - Introduction to Music Fundamentals

## **MUSC 24100 - Introduction to Music Fundamentals**

Designed for elementary education majors. This course will introduce to the student the basic elements of music, through singing, and playing the recorder. Emphasis will be placed on acquiring musical skills through active music-making experiences. This course is a prerequisite for EDU 32300 Teaching of Music in the Elementary Schools.

Cr. 1.

#### MUSC 25000 - Tuba

## MUSC 25000 - Tuba

Secondary (200) level: Designed to give the student certain proficiencies so that student may use this application as a tool rather than a medium for performance.

Cr. 1-2.

### MUSC 25001 - Saxophone

# MUSC 25001 - Saxophone

Secondary (200) level: Designed to give the student certain proficiencies so that student may use this application as a tool rather than a medium for performance.

Cr. 2.

### MUSC 25300 - Functional Music Skills

## **MUSC 25300 - Functional Music Skills**

Overview of musical skills based on AMTA professional competencies. Areas addressed will include use of keyboard, guitar, voice, autoharp, ukulele, and Q-chord in clinical applications

**Preparation for Course** 

C: MUSC 15300.

Cr. 2. Session Indicators (spring)

#### MUSC 25301 - Music Therapy Observation Practicum

# **MUSC 25301 - Music Therapy Observation Practicum**

Observation of professional music therapy sessions in a variety of settings with client populations of varying needs.

**Preparation for Course** 

P: MUSC 15300.

Cr. 1. Session Indicators

MUSC 25400 - Music Therapy Practicum I

# **MUSC 25400 - Music Therapy Practicum I**

Students work with an MT-BC providing services to individual music therapy clients with developmental disabilities focusing on establishment of rapport and application of music experiences in clinical setting. Includes clinical hours and attendance at weekly seminar. May be repeated.

**Preparation for Course** 

P: MUSC 25301.

Cr. 1. Session Indicators (spring)

MUSC 25500 - Instrumental Rehearsal Techniques

## **MUSC 25500 - Instrumental Rehearsal Techniques**

Provides instrumental music education major with the skills necessary for rehearsal planning, score preparation, rehearsal techniques, error detection, and choice of appropriate literature for public school instrumental music programs. Significant time will be devoted to in class rehearsals with students as conductors.

Cr. 1

MUSC 25600 - Piano Techniques In The Choral Ensemble

# **MUSC 25600 - Piano Techniques In The Choral Ensemble**

Designed to further develop piano playing proficiency in the choral ensemble. Emphasis will be placed on warm-ups, playing open scores, accompanying, and transposing.

Cr. 1.

MUSC 26100 - String Techniques

# **MUSC 26100 - String Techniques**

Class instruction and teaching methods for developing proficiency on violin, viola, violoncello, and double bass.

Cr. 1-2.

MUSC 27200 - Clarinet and Saxophone Techniques

# **MUSC 27200 - Clarinet and Saxophone Techniques**

Class instruction for developing proficiency on clarinet and saxophone. Study of methods and materials for teaching these two instruments in class or private lessons.

### **MUSC 28100 - Brass Instrument Techniques**

# **MUSC 28100 - Brass Instrument Techniques**

Class instruction for developing proficiency on trumpet, French horn, trombone, euphonium, and tuba. Study of methods and materials for teaching brass instruments in class or private lessons.

Cr. 1-2.

MUSC 28201 - Popular Music Theory, Analysis And Application III

## MUSC 28201 - Popular Music Theory, Analysis And Application III

A continuation of Popular Music Theory, Analysis, and Application II. This course will introduce notation of concepts found within popular music. Also includes aural skills training and improvisation.

**Preparation for Course** 

P: MUSC 18102.

Cr. 3.

MUSC 28202 - Popular Music Theory, Analysis And Application IV

## MUSC 28202 - Popular Music Theory, Analysis And Application IV

A continuation of Popular Music Theory, Analysis, and Application III. Advanced chord structures are introduced along with the incorporation of music from other countries and cultures. Skill sets incorporated in the previous popular music theory courses will be employed to analyze and notate music in various styles.

#### **Preparation for Course**

P: MUSC 28201.

Cr. 3.

MUSC 28211 - VT-Perspectives In Music

# **MUSC 28211 - VT-Perspectives In Music**

Variable topic course designed to explore various styles, origins, influential performers, music, social, historical, and political contexts, and supportive technological advances of particular genres, styles, or time periods.

Cr. 3. Variable Title

MUSC 28341 - Popular Music Performance Ensemble

# **MUSC 28341 - Popular Music Performance Ensemble**

Open to all university students, contingent upon successful audition. Rehearsals consist of work on musical, instrumental, vocal, aural techniques, and stylistic nuances germane to the ensemble. Performances occur both on and off campus.

### **Preparation for Course**

P: Instructor permission required.

Cr. 2.

## **MUSC 28351 - Songwriting I**

A study of popular and commercial songwriting, with focus on composing music and lyrics within various popular music genres.

#### **Preparation for Course**

P: MUSC 18102.

Cr. 3

MUSC 28352 - Songwriting II

## **MUSC 28352 - Songwriting II**

A continuation of the Songwriting I course. Class sessions are able to function as "songwriting workshops" for student performances of compositions.

#### **Preparation for Course**

P: MUSC 28351.

Cr. 3.

MUSC 28361 - Music Publishing

## **MUSC 28361 - Music Publishing**

A study of the functions and operations of the music publishing industry.

#### **Preparation for Course**

P: MUSC 18203.

Cr. 3.

MUSC 28362 - Legal Aspects Of The Music Industry

# MUSC 28362 - Legal Aspects Of The Music Industry

An intermediate level study of legal problems and issues associated with the music industry, including case studies, modern/emerging business models and music licensing.

### **Preparation for Course**

P: MUSC 18203.

Cr. 3.

MUSC 29400 - Piano Pedagogy IV

# MUSC 29400 - Piano Pedagogy IV

Class meetings cover assigned readings, teaching techniques, and materials. Editions and business practices. Students assist and teach in class piano labs, and teach three private students in the preparatory program.

### **Preparation for Course**

P: Piano Pedagogy Practicum.

Cr. 2.

MUSC 29600 - Applied Music Upper Division Jury Examination

# **MUSC 29600 - Applied Music Upper Division Jury Examination**

A 15- minute performance of literature selected by the applied music instructor and presented for the applied music instructor and the resident faculty. Successful completion of 29600 is required to begin preparation for a recital. For further information and requirements, see the Department of Music Student Handbook.

#### Preparation for Course

P: Fourth semester of applied music at the 30000 or 40000- level on the same instrument or permission of applied studio instructor.

Cr 0

### MUSC 29700 - Music Education Upper Divisional Skills Examination

## **MUSC 29700 - Music Education Upper Divisional Skills Examination**

An oral examination of knowledge and professional development for the purpose of evaluating progress toward the Bachelor of Music Education.

Cr. 0.

### MUSC 29800 - Music Therapy Upper Divisional Skills Examination

## MUSC 29800 - Music Therapy Upper Divisional Skills Examination

A written application and oral examination of observation techniques, clinical music therapy skills, and functional music and accompaniment skills. This test is an evaluation of progress toward the Bachelor of Science in Music Therapy. Required of all music therapy majors and equivalency students.

#### **Preparation for Course**

P/C: MUSC 25400 with a C- or higher.

Cr. 0.

### MUSC 29900 - Piano Proficiency Examination

## **MUSC 29900 - Piano Proficiency Examination**

Requirements are passed individually: technique; sight reading of a hymn, a piano piece, and a rhythmic pattern; transposition of simple folk songs and accompaniment; sight reading of a lead sheet and a harmonized melody without cords notated; keyboard theory skills, including realization of Roman numeral progressions; improvisation; folk songs by ear with accompaniment. Complete information available in the music department office.

#### Preparation for Course

P: MUSC 13100 or 14100, permission of the instructor required, in the semester of completion of the examination

Cr. 0

MUSC 30001 - Percussion

## **MUSC 30001 - Percussion**

Concentration (300) level: Music majors only. A student concentrating in an applied music area is expected to show evidence of considerable prior study and to give a half-recital. By recital time the student is expected to have attained levels reached by applied music major at end of sophomore year.

Cr. 1-2.

MUSC 30002 - Harp

**MUSC 30002 - Harp** 

Cr. 2.

MUSC 30003 - Guitar

MUSC 30003 - Guitar

#### MUSC 30004 - Piano

## MUSC 30004 - Piano

Concentration (300) level: Music majors only. A student concentrating in an applied music area is expected to show evidence of considerable prior study and to give a half-recital. By recital time the student is expected to have attained levels reached by applied music major at end of sophomore year.

Cr. 1-2.

MUSC 30005 - Organ

# MUSC 30005 - Organ

Cr. 2; 710 (2).

MUSC 30006 - Voice

## MUSC 30006 - Voice

Concentration (300) level: Music majors only. A student concentrating in an applied music area is expected to show evidence of considerable prior study and to give a half-recital. By recital time the student is expected to have attained levels reached by applied music major at end of sophomore year.

Cr. 1-2.

MUSC 30100 - Recital: Concentration Level

## **MUSC 30100 - Recital: Concentration Level**

Public performance of 25-50 minutes of assigned literature, with a minimum of 25 minutes being post-Upper Division. Recital requires approval of faculty committee at least 14 days prior to scheduled recital date. For complete guidelines refer to department handbook.

#### Preparation for Course

P: MUSC 29600 and minimum of two completed semesters of post-Upper Division study; B.S.M.T. majors are required a minimum of one completed semester of post-Upper Division study. C: enrollment in 300-level applied study on an instrument of concentration.

Cr. 0.

MUSC 30300 - Electronic Music Production II

## **MUSC 30300 - Electronic Music Production II**

Continuation of Electronic Music Production I. Focus on audio and music sampling as well as sequencing and integration of synthesizers and samplers into audio and music production workflow. Emphasis on practical application.

### **Preparation for Course**

P: MUSC 20700.

Cr. 3

MUSC 30400 - Live Sound Reinforcement

## **MUSC 30400 - Live Sound Reinforcement**

A study of current theories, technologies and techniques involved in modern sound reinforcement. Topics include large and small systems and venues.

#### **Preparation for Course**

P: PHYS 10500 and MUSC 20300.

## **MUSC 30500 - Practicum**

An on-campus course designed to provide practical experience for advanced students in a supervised professional setting. Practicum work requires direct supervision by practicum instructor.

#### **Preparation for Course**

P: Instructor permission.

Cr. 1-4. Hours Studio 1-4.

MUSC 30600 - VT-Special Topics

# **MUSC 30600 - VT-Special Topics**

Special Topics, which may change from semester to semester, offered in order to offer instruction in subjects, techniques, or content not served in other course offerings.

### **Preparation for Course**

P: Instructor permission.

Cr. 1-4. **Hours** Studio and/or Independent Study 1-4. **Variable Title** (V.T.)

MUSC 31000 - French Horn

## MUSC 31000 - French Horn

Concentration (300) level: Music majors only. A student concentrating in an applied music area is expected to show evidence of considerable prior study and to give a half-recital. By recital time the student is expected to have attained levels reached by applied music major at end of sophomore year.

Cr. 1-2.

MUSC 31001 - Violin

## MUSC 31001 - Violin

Concentration (300) level: Music majors only. A student concentrating in an applied music area is expected to show evidence of considerable prior study and to give a half-recital. By recital time the student is expected to have attained levels reached by applied music major at end of sophomore year.

Cr. 1-2.

**MUSC 31002 - Flute And Piccolo** 

## **MUSC 31002 - Flute And Piccolo**

Concentration (300) level: Music majors only. A student concentrating in an applied music area is expected to show evidence of considerable prior study and to give a half-recital. By recital time the student is expected to have attained levels reached by applied music major at end of sophomore year.

Cr. 1-2.

MUSC 31200 - Arranging for Instrumental and Vocal Groups

# **MUSC 31200 - Arranging for Instrumental and Vocal Groups**

Fundamentals of orchestrations, arranging and scoring for orchestra, band, and chorus.

Cr. 2

### MUSC 31500 - Analysis of Musical Form

## **MUSC 31500 - Analysis of Musical Form**

Analysis of formal and harmonic structure of representative Baroque, Classical, and early Romantic compositions.

#### **Preparation for Course**

P: MUSC 21300 with a grade of C- or higher.

Cr 3

### MUSC 31700 - Music Education Lab/Field Experience

# MUSC 31700 - Music Education Lab/Field Experience

Field experiences and observations in instrumental music education.

#### **Preparation for Course**

C: MUSC 33701.

Cr. 0.

MUSC 31800 - Music Education Lab/Field Experience

# MUSC 31800 - Music Education Lab/Field Experience

Field experiences and observations in choral music education.

#### **Preparation for Course**

C: MUSC 33801.

Cr. 0.

MUSC 31900 - Music Education Lab/Field Experience

# MUSC 31900 - Music Education Lab/Field Experience

Field experiences and observations in elementary general music.

**Preparation for Course** 

C: MUSC 33900.

Cr. 0

**MUSC 32000 - Trumpet And Cornet** 

# **MUSC 32000 - Trumpet And Cornet**

Concentration (300) level: Music majors only. A student concentrating in an applied music area is expected to show evidence of considerable prior study and to give a half-recital. By recital time the student is expected to have attained levels reached by applied music major at end of the sophomore year.

Cr. 1-4.

## MUSC 32001 - Viola

Concentration (300) level: Music majors only. A student concentrating in an applied music area is expected to show evidence of considerable prior study and to give a half-recital. By recital time the student is expected to have attained levels reached by applied music major at end of sophomore year.

Cr. 1-2.

MUSC 32002 - Oboe and English Horn

## **MUSC 32002 - Oboe and English Horn**

Cr. 2.

MUSC 32100 - Jazz Improvisation

## **MUSC 32100 - Jazz Improvisation**

Theory and techniques of jazz improvisation with emphasis on functional harmony, melodic form, special scales, tune studies, ear training, and development of style.

**Preparation for Course** 

P: MUSC 11400.

Cr. 2.

MUSC 33000 - Trombone

## MUSC 33000 - Trombone

Concentration (300) level: A student concentrating in an applied music area is expected to show evidence of considerable prior study and to give a half-recital. By recital time the student is expected to have attained levels reached by applied music major at end of the sophomore year.

Cr. 1-2.

MUSC 33001 - Cello

## MUSC 33001 - Cello

Concentration (300) level: A student concentrating in an applied music area is expected to show evidence of considerable prior study and to give a half-recital. By recital time the student is expected to have attained levels reached by applied music major at end of sophomore year.

Cr. 1-2.

MUSC 33002 - Clarinet

## MUSC 33002 - Clarinet

Concentration (300) level: Music majors only. A student concentrating in an applied music area is expected to show evidence of considerable prior study and to give a half-recital. By recital time the student is expected to have attained levels reached by applied music major at end of sophomore year.

Cr. 1-2.

MUSC 33500 - Methods and Materials for Teaching General Music 6-12

# MUSC 33500 - Methods and Materials for Teaching General Music 6-12

The study of curriculum, methods and materials for teaching secondary general music. Exploration of contemporary topics and active music-making approaches outside of the performance setting.

#### MUSC 33700 - Woodwind Techniques

### **MUSC 33700 - Woodwind Techniques**

Class instruction and teaching methods for flute, oboe, and bassoon.

Cr. 1-2.

#### MUSC 33701 - The Art Of Teaching Beginner Instrumentalist

### **MUSC 33701 - The Art Of Teaching Beginner Instrumentalist**

Instrumental music as a means of developing music skills, understandings, and attitudes in elementary and secondary school students.

#### Preparation for Course

P: MUSC 21400, 21601, 29700, 29900, and three of the following: MUSC 26100, 27200, 28100, 33700, 33800; C: MUSC 31700.

Cr. 2

### MUSC 33702 - The Art Of Teaching Advanced Instrumentalist

### **MUSC 33702 - The Art Of Teaching Advanced Instrumentalist**

Instrumental music as a means of developing music skills, understandings, and attitudes in secondary school students.

Cr. 2.

### **MUSC 33800 - Percussion Techniques**

## **MUSC 33800 - Percussion Techniques**

Class instruction to learn the rudiments of snare drum, tympani, and mallet instruments. Study of methods and materials for teaching percussion instruments in class or private lessons.

Cr. 1-2.

#### MUSC 33801 - The Art Of Teaching Choral Musicians I

## **MUSC 33801 - The Art Of Teaching Choral Musicians I**

Development and organization of administration of choral music programs in the elementary and middle school. Emphasis on auditioning and placement, vocal production, rehearsal techniques, and appropriate choral literature.

Cr. 2.

#### MUSC 33802 - The Art Of Teaching Choral Musicians II

## MUSC 33802 - The Art Of Teaching Choral Musicians II

This course is intended for music education students who are preparing to work in the secondary school choral music programs. This course will provide students with philosophies, techniques, materials, and approaches appropriate for the choral music educator.

Cr. 2.

### **MUSC 33900 - General Music Methods K-8**

Must be taken concurrently with M319. The study of curriculum, methods, and materials for the elementary general music program. Includes sequential planning of lessons, introduction to important methodologies, and directing the elementary-age choir.

Cr. 2.

MUSC 34000 - Euphonium

### **MUSC 34000 - Euphonium**

Concentration (300) level: A student concentrating in a n applied music area is expected to show evidence of considerable prior study and to give a half-recital. By recital time the student is expected to have attained levels reached by applied music major at end of the sophomore year.

Cr. 1-2.

MUSC 34001 - Music Therapy in Healthcare Settings

### **MUSC 34001 - Music Therapy in Healthcare Settings**

Study of music therapy and music medicine in the assessment and treatment of children, adults and the elderly in healthcare settings. Includes stress management, pain management, illness management, terminal illness and wellness.

#### **Preparation for Course**

P: Permission of Director of Gerontology Certificate Program or Director of Music Therapy.

Cr. 3.

MUSC 34002 - String Bass

## **MUSC 34002 - String Bass**

Concentration (300) level: Music majors only. A student concentrating in an applied music area is expected to show evidence of considerable prior study and to give a half-recital. By recital time the student is expected to have attained levels reached by applied music major at end of sophomore year.

Cr. 1-2.

MUSC 34003 - Bassoon

### MUSC 34003 - Bassoon

Concentration (300) level: Music majors only. A student concentrating in an applied music area is expected to show evidence of considerable prior study and to give a half-recital. By recital time the student is expected to have attained levels reached by applied music major at end of sophomore year.

Cr. 1-2.

MUSC 34100 - Guitar Ensemble

### **MUSC 34100 - Guitar Ensemble**

Guitarists receive coaching in duet, trio, and quartet ensembles. Provides students the opportunity to perform with other guitarists as well as with other instrumentalists/vocalists.

#### **Preparation for Course**

P: Consent of instructor, for music majors only

Cr. 1.

### **MUSC 35000 - Tuba**

Concentration (300) level: Music majors only. A student concentrating in an applied music area is expected to show evidence of considerable prior study and to give a half-recital. By recital time the student is expected to have attained levels reached by applied music major at end of the sophomore year.

Cr. 1-4.

MUSC 35001 - Saxophone

### **MUSC 35001 - Saxophone**

Concentration (300) level: Music majors only. A student concentrating in an applied music area is expected to show evidence of considerable prior study and to give a half-recital. By recital time the student is expected to have attained levels reached by applied music major at end of sophomore year.

Cr. 1-2.

MUSC 35300 - Music Therapy Practicum II

## **MUSC 35300 - Music Therapy Practicum II**

Students work with an MT-BC to provide services to older adult client groups focusing on the implementation of music therapy assessment. Includes clinical hours and attendance at weekly seminary. May be repeated.

Preparation for Course

P: MUSC 25400.

Cr. 1.

MUSC 35400 - Music Therapy Practicum III

## **MUSC 35400 - Music Therapy Practicum III**

Students work with an MT-BC to provide services to physically or multiply-disabled clients with emphasis on the process of assessment, treatment and evaluation. Includes clinical hours and attendance at weekly seminar. May be repeated.

Preparation for Course

P: MUSC 35300.

Cr. 1

Session Indicators

(spring)

MUSC 35500 - Music and Exceptionality

## **MUSC 35500 - Music and Exceptionality**

Focus on designing, planning, and implementing music-based interventions for individuals with diverse abilities with an emphasis on music leadership, instructional and facilitation skills. Incorporates a wide variety of music therapy applications for children and adolescents, and covers the role of music in special education including historical and legal precedents, learning styles, and the IEP process.

#### **Preparation for Course**

P: Basic vocal and accompaniment skills on the Qchord, autoharp, guitar and piano are desirable prerequisites.

Cr. 3

Session Indicators

(fall)

### **MUSC 35700 - Music in Special Education**

Introduction to teaching music to students with special needs including those with cognitive, physical, behavioral, and emotional disabilities. Development of skills in planning and structuring experiences to facilitate appropriate participation of students in the K-12 classroom. Overview of various disabilities and historical, cultural, and ethical issues. Participation in experiential music lessons and simulations; field observations of special needs students in music education.

Cr. 2.

MUSC 35800 - Applied Music Therapy Methods

### **MUSC 35800 - Applied Music Therapy Methods**

An applied clinical music course focused on the selection and implementation of the four music therapy methods of re-creation, composition, improvisation, and receptive experience. Includes identification of contraindications for clinical use and demonstration of clinical skills for various settings and clientele.

#### **Preparation for Course**

P: MUSC 29800.

Cr 2

MUSC 37000 - Techniques for Conducting

## **MUSC 37000 - Techniques for Conducting**

Introduction to philosophy and fundamentals of conducting, score preparation, baton, and hand gestures for the right hand and use of the left hand; all standard meters and time patterns; varying dynamics, accents, musical characteristics and styles.

Cr. 2.

MUSC 37100 - Choral Conducting I

## **MUSC 37100 - Choral Conducting I**

Further development of basic conducting technique with a concentration on choral concepts. Emphasis on period style elements, analytical listening, aspects of choral tone, text analysis, score preparation, rehearsal planning, vocal techniques, and other advanced problems in choral conducting. Conduct representative works from varying style periods.

### **Preparation for Course**

P: MUSC 37000.

Cr. 2.

MUSC 37300 - Instrumental Conducting

## **MUSC 37300 - Instrumental Conducting**

Further development of score reading and conducting techniques. Emphasis on experience conducting live instrumental ensembles.

#### **Preparation for Course**

P: MUSC 37000.

Cr. 2

MUSC 38311 - Music And Audio For Video

### **MUSC 38311 - Music And Audio For Video**

A study of the processes and techniques involved with creating and producing audio for use with visual media.

#### **Preparation for Course**

P: MUSC 20300.

Cr. 3.

### MUSC 38312 - Music Mixing And Mastering

## **MUSC 38312 - Music Mixing And Mastering**

A study and project-oriented approach to multi-track music mixing and mastering.

#### **Preparation for Course**

P: MUSC 20500.

Cr. 3.

**MUSC 38363 - Concert And Event Production** 

### **MUSC 38363 - Concert And Event Production**

A study of the music concert, festival, and event production industry.

#### **Preparation for Course**

P: MUSC 18203.

Cr. 3.

MUSC 38364 - Music Products Merchandising

## **MUSC 38364 - Music Products Merchandising**

A comprehensive study of the music products industry.

#### Preparation for Course

P: MUSC 18203.

Cr. 3.

MUSC 38365 - Artist Management

## **MUSC 38365 - Artist Management**

A study of the field of music artist management.

#### **Preparation for Course**

P: MUSC 18203.

Cr. 3.

MUSC 39300 - History of Jazz

## MUSC 39300 - History of Jazz

A survey of periods, major performers and composers, trends, influences, stylistic features, and related materials in the history of jazz music.

#### MUSC 40000 - Percussion

### **MUSC 40000 - Percussion**

Major (400) level: A student majoring in applied music must show talent for solo performance before being admitted to the curriculum and must give a junior and senior recital.

Cr. 2; 700 (2).

### MUSC 40001 - Guitar Undergrad Major

## **MUSC 40001 - Guitar Undergrad Major**

See department for course details. Course is repeatable for credit.

#### **Preparation for Course**

P: Audition required.

Cr. 1-6.

**Session Indicators** 

Typically offered Fall and Spring.

MUSC 40002 - Undergraduate Readings in Musicology

## MUSC 40002 - Undergraduate Readings in Musicology

Guided readings in selected topics in music history and research.

#### **Preparation for Course**

P: Consent of instructor.

Cr. 1-4.

MUSC 40003 - Piano Undergraduate Major

## MUSC 40003 - Piano Undergraduate Major

Cr. 2.

MUSC 40004 - Voice

### MUSC 40004 - Voice

Major (400) level: Music majors only. A student majoring in applied music must show talent for solo performance before being admitted to the curriculum and must give a junior and senior recital.

Cr. 1-4.

MUSC 40007 - Harp

## **MUSC 40007 - Harp**

Applied harp instruction for music performance majors.

Cr. 2.

## **MUSC 40100 - Junior Recital: Performance Major**

Public performance of 30-50 minutes of assigned literature, with a minimum of 20 minutes being post-Upper Division. Recital requires approval of faculty committee at least 14 days prior to scheduled recital date. For complete guidelines refer to department handbook.

#### **Preparation for Course**

P: MUSC 29600; C: enrollment in 400-level study on major instrument.

Cr 0

MUSC 40200 - Senior Recital: Performance Major

## MUSC 40200 - Senior Recital: Performance Major

Public performance of 40-60 minutes of assigned literature prepared after junior recital. Recital requires approval of faculty committee at least 14 days prior to scheduled recital date. For complete guidelines refer to department handbook.

#### **Preparation for Course**

P: MUSC 40100 and one completed semester of applied study after X401; C: enrollment in 400-level applied study on major instrument.

Cr. 0

MUSC 40300 - History of Music I

### **MUSC 40300 - History of Music I**

Study of music from the beginnings of Western civilization to 1700. Analysis of representative compositions; relationship of music to the socio-cultural background of each epoch.

Cr. 3.

MUSC 40400 - Internship

## **MUSC 40400 - Internship**

An off-campus course designed to provide practical experience and apprenticeship for advanced students in a supervised professional setting. Student agrees to conference with instructor once per week during the internship. Permission of instructor required.

#### **Preparation for Course**

P: Instructor permission.

Cr. 1-4. Hours

Internship 1-4.

MUSC 40401 - History of Music II

## **MUSC 40401 - History of Music II**

Study of music from 1700 to the present. Analysis of representative compositions; relationship of music to the socio-cultural background of each epoch.

**Preparation for Course** 

P: 40300.

### **MUSC 40500 - Final Project In Music Technology**

Students will create a substantial music technology final project, in coordination with the course instructor. Possibilities include, but are not limited to, music recording, live sound reinforcement, music/audio/sound design for video, testing or research in music/audio, music or audio software design.

Cr. 1-4.

Hours

Studio and/or Independent Study 1-4.

MUSC 41000 - Horn Undergraduate Major

### MUSC 41000 - Horn Undergraduate Major

Major (400) level: A student majoring in applied music must show talent for solo performance before being admitted to the curriculum and must give a junior and senior recital.

Cr. 2.

MUSC 41001 - Administrative and Professional Issues in Music Therapy

### MUSC 41001 - Administrative and Professional Issues in Music Therapy

Study of government and professional guidelines that influence music therapy practice. Includes review of the professional organization, Standards of Practice, Code of Ethics, Levels of Practice, corresponding competencies, certification requirements, internship requirements, and other professional issues.

#### **Preparation for Course**

P: MUSC 29800.

Cr. 3.

MUSC 41002 - Violin

### MUSC 41002 - Violin

Major (400) level: Music majors only. A student majoring in applied music must show talent for solo performance before being admitted to the curriculum and must give a junior and senior recital.

Cr. 1-6.

MUSC 41003 - Creative Arts, Health, and Wellness

### MUSC 41003 - Creative Arts, Health, and Wellness

Overview of the use of creative arts and action-oriented experiences throughout the lifespan. Involves the study of creativity and applications designed to facilitate healthy living practices, wellness, and personal growth from a humanistic perspective. Students will create, design, and lead creative arts experiences by the semester's end. No artistic performances are required.

#### **Preparation for Course**

P: Sophomore standing and completion of one course in artistic expression or the equivalent.

Cr. 3.

**Session Indicators** 

Typically offered Fall of odd years.

MUSC 41004 - Flute and Piccolo Undergraduate Major

## MUSC 41004 - Flute and Piccolo Undergraduate Major

#### MUSC 41800 - Psychology of Music

### MUSC 41800 - Psychology of Music

Introduction to the physical, psychological, and physiological aspects of sound and music. Survey of the theories related to sound production, acoustics, music perception and learning, and the effects of sound and music on the behavior of humans. Overview of music psychology research, and the scientific method and research techniques.

#### **Preparation for Course**

P: junior standing or permission of instructor.

Cr. 3. Session Indicators (spring, even years)

MUSC 41900 - VT-Independent Study In Music

### MUSC 41900 - VT-Independent Study In Music

A format intended to accommodate special content not necessarily appropriate to a fixed listing. Planned to utilize unique competencies of faculty and special interests of students. Topics such as musical instrument repair, composition, music education, music therapy, music technology and advanced conducting may be elected.

#### Preparation for Course

P: junior class standing and permission of instructor.

Cr. 1-3 Variable Title (V.T.).

MUSC 41901 - Introduction to Music Therapy Research Methods

### **MUSC 41901 - Introduction to Music Therapy Research Methods**

Survey of current music therapy research including quantitative, qualitative, and historical literature with focus on underlying philosophies of research, research design, validity and reliability, and research ethics. Development of skills in defining research questions, reviewing literature, basic analysis and interpretation of data, and application of research to clinical practice.

#### **Preparation for Course**

P: MUSC 29800 or permission of instructor.

Cr. 3.

MUSC 42000 - Trumpet and Cornet Undergraduate Major

## MUSC 42000 - Trumpet and Cornet Undergraduate Major

Major (400) level: A student majoring in applied music must show talent for solo performance before being admitted to the curriculum and must give a junior and senior recital.

Cr. 2.

MUSC 42001 - Clinical Processes in Music Therapy

## **MUSC 42001 - Clinical Processes in Music Therapy**

Introduction to processes, principles, and concepts required to conduct music therapy with clients according to AMTA Standards of Clinical Practice. Includes the influence of music on behavior. Emphasis on assessment, documentation, outcomes measurement, treatment planning, and evaluation.

#### **Preparation for Course**

P: MUSC 15300.

Cr. 3. Session Indicators (spring)

#### MUSC 42002 - Viola

### MUSC 42002 - Viola

Major (400) level: Music majors only. A student majoring in applied music must show talent for solo performance before being admitted to the curriculum and must give a junior and senior recital.

Cr. 1-6.

MUSC 42003 - Oboe and English Horn

### **MUSC 42003 - Oboe and English Horn**

Cr. 2.

MUSC 42004 - Small Ensembles

### **MUSC 42004 - Small Ensembles**

The University Brass performs the best available literature for brass instruments; traditional and more diverse literature of recent decades included.

Cr. 0 to 1.

MUSC 42100 - Music Therapy Practicum IV

### **MUSC 42100 - Music Therapy Practicum IV**

Students work with an MT-BC to provide services to psychiatric/mentally ill clients focusing on the process of treatment from assessment through evaluation and the development of therapeutic self. Involves clinical hours and attendance at weekly seminar. May be repeated.

### Preparation for Course

P: MUSC 35400.

Cr. 1.

**MUSC 42200 - Theoretical Foundations in Music Therapy** 

## **MUSC 42200 - Theoretical Foundations in Music Therapy**

Study of music therapy theory, including underlying philosophies, imported and indigenous schools of thought, and related methods of clinical practice. Students will develop a personal philosophy of music therapy.

### Preparation for Course

P: MUSC 29800.

Cr. 3.

MUSC 42300 - Advanced Music Therapy Practicum

## **MUSC 42300 - Advanced Music Therapy Practicum**

An advanced, intensive field work course in clinical music therapy. May involve program planning, techniques development, and/or a research project. Development of a learning contract is required.

#### Preparation for Course

P: MUSC 34001 and permission of the Director of Music Therapy.

Cr. 1-3. Session Indicators (fall, spring)

### **MUSC 42400 - Music Therapy Internship**

Acceptance to internship program required prior to registration. A six-month internship completed under the supervision of a professional and credentialed music therapist at an AMTA approved clinical site. Course must be completed within two years of the completion of all course work. Internship must be completed before conferring of the degree. Liability insurance required.

#### **Preparation for Course**

P: All degree-required course work must be successfully completed prior to registration.

Cr. 1. **Session Indicators** (fall, spring, summer)

MUSC 43000 - Trombone Undergraduate Major

## **MUSC 43000 - Trombone Undergraduate Major**

Applied music.

Cr. 2.

MUSC 43001 - Cello Undergraduate Major

### MUSC 43001 - Cello Undergraduate Major

Cr. 2.

MUSC 43002 - Clarinet Undergraduate Major

## **MUSC 43002 - Clarinet Undergraduate Major**

Cr. 2.

MUSC 43100 - Song Literature

## **MUSC 43100 - Song Literature**

Musical, historical, and interpretive study of songs and arias from the Western art tradition. Class will consist of lectures, listening, and in-class performances.

Cr. 3.

MUSC 44000 - Euphonium Undergraduate Major

## MUSC 44000 - Euphonium Undergraduate Major

Major (400) level: A student majoring in applied music must show talent for solo performance before being admitted to the curriculum and must give a junior and senior recital.

Cr. 2.

MUSC 44001 - Double Bass Undergraduate Major

## MUSC 44001 - Double Bass Undergraduate Major

Cr. 2.

### MUSC 44002 - Bassoon

Cr. 2.

MUSC 44002 - Bassoon Undergraduate Major

### MUSC 44002 - Bassoon Undergraduate Major

Cr 2

MUSC 44300 - Survey of Keyboard Literature

### **MUSC 44300 - Survey of Keyboard Literature**

Study of keyboard literature from its beginnings to the present era including a survey of works originally composed for piano, organ harpsichord and various early instruments.

#### **Preparation for Course**

P: MUSC 20200.

Cr. 2-3.

MUSC 44500 - Instrumental Literature

### **MUSC 44500 - Instrumental Literature**

Survey of symphonic literature from the Classic Era to the present and Chamber literature from the Baroque Era to the present.

#### **Preparation for Course**

P: 20200, 40401 or concurrent enrollment.

Cr. 2-3.

MUSC 44600 - Survey of Keyboard Literature II

## MUSC 44600 - Survey of Keyboard Literature II

A study of keyboard literature from its beginnings through the 21st century. Emphasis on works originally composed for piano during the 19th and 20th centuries, with some study of works written for other keyboard instruments and transcribed for piano; references to works of earlier periods for earlier keyboard instruments.

#### **Preparation for Course**

P: MUSC 20200.

Cr. 3.

MUSC 45000 - Tuba

### **MUSC 45000 - Tuba**

Major (400) level: A student majoring in applied music must show talent for solo performance before being admitted to the curriculum and must give a junior and senior recital.

Cr. 2.

MUSC 45001 - Saxophone Undergraduate Major

## **MUSC 45001 - Saxophone Undergraduate Major**

#### MUSC 45002 - String Instrument Ensembles

### **MUSC 45002 - String Instrument Ensembles**

Students receive coaching in quartet, trio, and other string chamber groups.

#### **Preparation for Course**

P: Permission of instructor.

Cr. 1.

MUSC 45200 - Keyboard Chamber Music Ensemble

### MUSC 45200 - Keyboard Chamber Music Ensemble

Rehearsal and performance of chamber music involving piano, including but not limited to such ensembles as piano trio, quartet, quintet; or chamber ensembles involving harpsichord with various chamber ensemble instrumentations.

Cr. 1.

MUSC 45500 - Instrumental Rehearsal Techniques II

### MUSC 45500 - Instrumental Rehearsal Techniques II

Designed to prepare instrumental music education majors with the skills necessary to effectively rehearse and assess the instrumental ensemble for specific elementary, middle, and high school settings. Significant time will be devoted to in class rehearsals with students as conductors.

### **Preparation for Course**

C: MUSC 37300.

Cr. 1.

MUSC 45900 - Instrumental Pedogogy

## **MUSC 45900 - Instrumental Pedogogy**

Pedogogy classes pertaining to the individual instruments.

Cr. 1-3.

MUSC 46000 - Woodwind Ensembles

### **MUSC 46000 - Woodwind Ensembles**

Admission to the various woodwind ensembles by audition. Rehearsal and performance of literature from the appropriate chamber repertoire.

Cr. 1.

MUSC 46500 - Techniques In Show Choir

## MUSC 46500 - Techniques In Show Choir

Techniques for organizing and teaching show choir in the elementary and secondary school setting. Emphasis will be placed on teaching a variety of vocal styles, dance, staging, and rehearsal planning.

Cr. 1.

#### MUSC 46600 - Techniques in Marching Bands

### **MUSC 46600 - Techniques in Marching Bands**

For undergraduate and graduates majoring in music education. Techniques for organizing and training marching bands in public schools and at the college level. Planning and charting football shows; rehearsal problems.

#### **Preparation for Course**

P: consent of instructor.

Cr. 1-2.

MUSC 46700 - Entrepreneurship In The Arts

### **MUSC 46700 - Entrepreneurship In The Arts**

This course is intended to meet the general education requirements outlined and pertaining to the learning outcomes for a general education Capstone course and is intended to examine business and entrepreneurial practices in the arts. The course will include discussions and study of arts administration, accounting practices, grant seeking/writing, marketing and publicity, personnel relations and not-for-profit regulations/procedures. Specific attention will be given to the ideas and concepts of business entrepreneurship as they relate specifically to the arts including producing a research-based fundable grant proposal.

Cr. 3.

MUSC 47000 - Pedagogy of Jazz

## MUSC 47000 - Pedagogy of Jazz

Techniques and methods of teaching jazz studies including training of jazz bands.

Cr. 2.

MUSC 47001 - Opera Ensemble

### **MUSC 47001 - Opera Ensemble**

Musical and dramatic training for opera and musical theatre through movement improvisation, analysis of emotional and psychological components of roles, and preparation of scenes and arias for public performance.

Cr. 1-2.

MUSC 48401 - Music Marketing, Promotion And Entrepreneurship

## MUSC 48401 - Music Marketing, Promotion And Entrepreneurship

A study of traditional and on-line systems, practices, and techniques for self-marketing and promoting the "independent" musical artist or group in order to succeed in the current music industry.

### **Preparation for Course**

P: MUSC 18203.

Cr. 3.

MUSC 48403 - Independent Study

## MUSC 48403 - Independent Study

A variable credit course designed to allow the opportunity for a student to independently pursue interests related to music or music industry studies that are not served in other course offerings.

#### Preparation for Course

P: Instructor permission required.

#### MUSC 48499 - Senior Seminar

### **MUSC 48499 - Senior Seminar**

The final examination, presentation, and performance for students in the Popular Music or Music Industry Studies degree programs.

Cr. 3.

#### **MUSC 49001 - Percussion Ensembles**

### **MUSC 49001 - Percussion Ensembles**

Provides an opportunity for students to perform on all percussion instruments in a variety of musical styles.

Cr. 1

### MUSC 49300 - Piano Pedagogy

### MUSC 49300 - Piano Pedagogy

Required of senior piano majors. Methods and materials for teaching individuals and class on the intermediate and advanced levels.

#### **Preparation for Course**

P: consent of instructor.

Cr. 2-3.

### MUSC 49400 - Voice Pedagogy

## MUSC 49400 - Voice Pedagogy

Survey and analysis of various aspects of vocal pedagogy, including the physiology of the vocal mechanism, vocal terminology, teaching methods, vocal health, and the relationship of the singing process to vocal artistry. Class will include student presentations, teaching demonstrations, and lab experience.

#### Preparation for Course

P: consent of instructor.

Cr. 3.

### NELC 10000 - Elementary Arabic I

## **NELC 10000 - Elementary Arabic I**

Modern standard Arabic as in contemporary literature, newspapers, and radio. Grammar, reading, dictation, composition, penmanship, conversation, translation.

Cr. 3.

### NELC 15000 - Elementary Arabic II

## **NELC 15000 - Elementary Arabic II**

Modern standard Arabic as in contemporary literature, newspapers, and radio. Grammar, reading, dictation, composition, penmanship, conversation, translation.

#### **Preparation for Course**

P: 10000 or equivalent.

### **NELC 20000 - Intermediate Arabic I**

Intermediate Arabic is a continuation of Elementary Arabic. It will focus on the mastery of grammar, including more complex structures; acquisition and expansion of vocabulary; and the development of reading, writing, listening, and speaking skills. These objectives are achieved through intensive oral/aural practice using audio and video materials.

#### **Preparation for Course**

P: 15000 or equivalent.

Cr. 3-5.

NELC 20400 - Topics in Middle Eastern Culture and Society

### **NELC 20400 - Topics in Middle Eastern Culture and Society**

Analysis of selected Middle Eastern cultural or social issues. Topics will vary. May be repeated with different topics for a maximum of 9 credit hours.

Cr. 3. Variable Title (V.T.)

NELC 25000 - Intermediate Arabic II

### **NELC 25000 - Intermediate Arabic II**

Intermediate Arabic is a continuation of Elementary Arabic. It will focus on the mastery of grammar, including more complex structures; acquisition and expansion of vocabulary; and the development of reading, writing, listening, and speaking skills. These objectives are achieved through intensive oral/aural practice using audio and video materials.

#### **Preparation for Course**

P: 20000 or equivalent.

Cr. 3-5.

**NUTR 11000 - Introduction To Health Promotion Management** 

## **NUTR 11000 - Introduction To Health Promotion Management**

This course will present an introduction to the profession of health promotion management (HPM). It will address the basic principles of the profession and explore careers which focus on health issues including mental, physical and social health. Guests speakers will discuss successful workplace programs in varying environments. Evidence-based programs impact on business productivity and costs will be addressed.

Cr. 1.

NUTR 20400 - Food, History & Culture

## NUTR 20400 - Food, History & Culture

Food, History & Culture is designed to examine the fundamental tenets that govern human behavior around food choices and foodways. symbolic value and meaning of food will be looked at; the relationship of food cultures to consumer behavior will be scrutinized. Study in this course will explore the historical development of the current food cultures in Europe, Asia, Africa, the Middle East and the Americas. Course study will also explore the impact of foodways and food choices on nutritional status and health. Foods representing select cultures and traditions will be studied and prepared during the laboratory portion of the course.

Preparation for Course

P: HTM 10000.

### **NUTR 30200 - Nutrition Education**

Basic nutrition and its application to current trends and controversies. Emphases placed on teaching techniques and communicating sound nutritional concepts to the lay audience. For nonscience majors.

Cr. 3.

NUTR 30300 - Essentials of Nutrition

### **NUTR 30300 - Essentials of Nutrition**

Basic nutrition and its application in meeting nutritional needs of all ages.

Cr. 3.

Notes

Indiana Core Transfer Library course.

NUTR 30400 - Nutrition's Place in Hospitality

### **NUTR 30400 - Nutrition's Place in Hospitality**

This course focuses on fundamental nutrition for the student's personal and professional life. Needs for, functions of, and food sources of nutrients will be covered. Emphasis in this course will be on food habits, trends, and factors affecting selection of foods, and how this relates and can be used in menu planning and evaluation of personal use and in the food service/culinary industry. Emphasis in this course is on nutrition topics pertinent to the food service/culinary industry.

#### Preparation for Course

P: HTM 18100, HTM 19100, HTM 21400, and NUTR 20400

Cr. 3.

**NUTR 31700 - Nutrition Fitness And Health** 

### **NUTR 31700 - Nutrition Fitness And Health**

This course will focus on the connections between nutrition, physical activity and overall health. It will include an introduction to basic terminology used in health and medical care settings with emphasis on cardiovascular, respiratory, musculoskeletal and nervous systems. There will be a review and application of current, professional recommendations and guidelines for nutrition and physical activity with special attention paid to reliable resources and organizations. Students will design sample strategies to meet those guidelines. A self-reflection component will be included.

#### Preparation for Course

P: NUTR 30300.

Cr. 3

NUTR 31800 - Teaching and Learning in Health Promotion Management

## NUTR 31800 - Teaching and Learning in Health Promotion Management

This course will provide foundation knowledge on health research, advocacy and outreach while identifying networks of agencies that address health habits and health literacy. Techniques for making health habitual and the psychology of habit formation will be emphasized using the lenses of organizational change theory, health coaching and motivational interviewing. Insights from habit research for designing effective interventions will be included. Diverse interventional methodologies will be taught, practiced, compared and contrasted with the student being able to identify which health issues are best treated with each modality.

**Preparation for Course** 

P: NUTR 31700.

### **NUTR 32000 - Health Promotion Management Marketing and Communications**

This course introduces the student to corporate language and effective business communication techniques. Marketing strategies and tactics unique to health and wellness promotion will be emphasized. Study will be made of assessing market opportunities in wellness services, programs and facilities with consideration of customer wants, needs and financial perspective.

Preparation for Course

P: NUTR 31800.

Cr. 3.

NUTR 40300 - Advanced Nutrition: Food from Farm to Fork

### NUTR 40300 - Advanced Nutrition: Food from Farm to Fork

This course explores processes involved in the transformation of food as a raw commodity on the farm to a consumable item at the "table." Literally, to study food from farm to fork. This course reviews local, regional, and global food supply systems; industrial as well as non-industrial. Historical perspective is included with comparisons of current and past food supply chains. Study encompasses traceability of food and food sustainability as well as regional and seasonal factors affecting the food supply chain. Included is study of the food supply chain, food availability, and how these influence consumer behavior including food preparation and consumption. The impact of the food supply system on communities, family dynamics, nutritional status, and health is also included.

**Preparation for Course** 

P:NUTR 30300 and NUTR 30400

Cr. 3.

NUTR 40400 - Strategic Analysis and Design for Health Promotion Management

### NUTR 40400 - Strategic Analysis and Design for Health Promotion Management

This course will provide the student with skills to initiate health and wellness management programs including: needs assessment, goal development, objective formation, instructional methods, program implementation and evaluation. Individual, group and organization and community-wide strategies will be considered and contrasted. Technological program methods to be evaluated include: web portals, online health risk assessments, interactive health tools, trackers, videos/podcasts, telephone & digital health coaching, online challenges, social networking, electronic medical records and portable tracking devices. Healthcare benefits, financing, insurance, managing costs and return on investment using best practices will be considered.

**Preparation for Course** 

P: NUTR 31800 and HSRV 41700. C: NUTR 32000.

Cr 3

NUTR 40500 - Health Promotion Management Internship

## **NUTR 40500 - Health Promotion Management Internship**

An internship will afford the upperclassmen level student work experience with a practicing health promotion professional in northeast Indiana.

**Preparation for Course** 

P: jr or sr standing.

Cr. 3.

NUTR 41000 - Advanced Topics In Health Promotion Management

## **NUTR 41000 - Advanced Topics In Health Promotion Management**

Using a case study, students will create the essential components of an original strategic plan for a comprehensive corporate wellness program. Students will present their strategic plan to community health promotion specialists to gain experience in health and wellness management. They will analyze and evaluate their own and their classmate's strategic plans and presentations.

**Preparation for Course** 

P: NUTR 40400 and sr. standing.

#### OLS 21100 - Professional Practice I

### **OLS 21100 - Professional Practice I**

The participant will engage in a variety of work activities under the supervision of the employer and the Division of Organizational Leadership and Supervision. A report of the experience will be required.

#### **Preparation for Course**

P: admission to the Cooperative Education program.

Cr. 1.

#### **OLS 21200 - Professional Practice II**

### **OLS 21200 - Professional Practice II**

The participant will engage in a variety of work activities under the supervision of the employer and the Division of Organizational Leadership and Supervision. A report of the experience will be required.

#### **Preparation for Course**

P: OLS21100.

Cr. 1.

#### OLS 25200 - Human Relations in Organizations

### **OLS 25200 - Human Relations in Organizations**

A survey of the concepts that provide a foundation for the understanding of individual and group behavior in organizations of work, with special emphasis on typical interpersonal and leadership relationships.

Cr. 3.

OLS 26800 - Elements of Law

### OLS 26800 - Elements of Law

An introductory law course with a brief comparison of the American federal system and the parliamentary system of government; covering law with emphasis on judicial review, court jurisdiction and procedure generally, and basic law in particular.

Cr. 3.

#### OLS 27400 - Applied Leadership

## **OLS 27400 - Applied Leadership**

Introduction to and overview of the fundamental concepts of leadership. Emphasis is placed on the supervisor's major functions and essential areas of knowledge, relations with others, and personal development.

Cr. 3.

### OLS 28000 - Computer Applications for Supervisors

## **OLS 28000 - Computer Applications for Supervisors**

Selection and use of microcomputer software tools for business, industrial, and technical applications. Representative tools include word processors, electronic mail, spreadsheets, graphics, database managers, computer-based training, project managers, telecommunications, and others.

### **OLS 29500 - Leadership Practicum**

For sophomore-level students who have completed at least 30 credit hours. Practical work experience related to the OLS major in local industry for which the student receives compensation. May be repeated to a maximum of 2 credit hours.

#### **Preparation for Course**

P: OLS 25200.

Cr. 1.

**OLS 31100 - Professional Practice III** 

### **OLS 31100 - Professional Practice III**

The participant will engage in a variety of work activities under the supervision of the employer and the Division of Organizational Leadership and Supervision. A report of the experience will be required.

#### **Preparation for Course**

P: OLS 21200.

Cr. 1.

**OLS 31200 - Professional Practice IV** 

### **OLS 31200 - Professional Practice IV**

The participant will engage in a variety of work activities under the supervision of the employer and the Division of Organizational Leadership and Supervision. A report of the experience will be required.

#### **Preparation for Course**

P: OLS 31100.

Cr. 1.

**OLS 32000 - Customer Service and Commitment** 

### **OLS 32000 - Customer Service and Commitment**

Emphasis in this course is on developing techniques to gain customer commitment from both external (end user) and internal customers. Empowerment, quality commitment, risk-taking, customer feedback, and decentralized decision making are covered.

#### **Preparation for Course**

P: OLS 25200 and OLS 27400.

Cr. 3

OLS 32400 - Advanced Word Processing, Desktop Publishing, Presentation Graphics

# **OLS 32400 - Advanced Word Processing, Desktop Publishing, Presentation Graphics**

Emphasis on the skills and knowledge necessary to create documents for college assignments and business use through the manipulation of word processing, desktop publishing, and presentation graphics software tools. Study of document formats, design and layout fundamentals, typographic principles, principles of graphing theory, and business presentation methods.

### **Preparation for Course**

P: OLS 28000.

Cr. 3.

OLS 32600 - Comprehensive Spreadsheet Concepts,

## OLS 32600 - Comprehensive Spreadsheet Concepts,

The course covers basic to advanced concepts of spreadsheets. They will include planning, design, documentation, and purpose of the spreadsheet; the ability to create charts, do

business-related analysis, work with data lists, create and edit macros, and create pivot tables and charts; and displaying worksheets on the Web.

#### **Preparation for Course**

P: OLS 28000.

Cr 3

OLS 32900 - Comprehensive Database Management Concepts,

### OLS 32900 - Comprehensive Database Management Concepts,

The course covers basic to advanced database concepts and skills such as planning, designing, documentation, and creating a database using indexing and multiple databases; modifying and editing database structures and tables; entering data and validating the input data; creating and modifying queries and views; creating and modifying labels, reports, and forms; and using queries and views to print reports and forms. The course uses the advanced features of graphics, programming, object linking and embedding, and displaying worksheets on the Web.

#### **Preparation for Course**

P: OLS 28000.

Cr 3

OLS 33100 - Occupational Safety and Health

### OLS 33100 - Occupational Safety and Health

A presentation of those aspects of occupational safety and health that are most essential to the first-line supervisor. Emphasis is placed on developing an understanding of the economic, legal, and social factors related to providing a safe and healthful working environment.

#### **Preparation for Course**

P: OLS 25200.

Cr. 3.

OLS 34200 - Interviewing Strategies in Organizations

### OLS 34200 - Interviewing Strategies in Organizations

A study of the various interviews supervisors conduct in organizational settings. This course focuses on general interviewing principles as well as specific types of interviews including selection, information gathering, disciplinary, and performance appraisals.

#### **Preparation for Course**

P: OLS 25200 and COM 11400

Cr. 3.

OLS 35000 - Applied Creativity for Business and Industry

## OLS 35000 - Applied Creativity for Business and Industry

A study of the ways individuals can become more creative and how they can develop an environment that encourages creativity from employees.

Cr. 3.

OLS 35100 - Innovation And Entrepreneurship

## **OLS 35100 - Innovation And Entrepreneurship**

An in-depth study of innovation in existing organizations, as well as entrepreneurship in start-up businesses, franchises, family-owned firms, and other business formats.

#### **Preparation for Course**

P: OLS 26800 and 37600.

#### OLS 36100 - Safety Department Supervision

### **OLS 36100 - Safety Department Supervision**

The analysis, design, and implementation of safety programs in work settings. Will include systems safety and evaluation techniques for loss-control functions.

#### Preparation for Course

P: OLS 33100 or consent of instructor.

Cr. 3.

#### OLS 37000 - Managing Job Stress and Health

### **OLS 37000 - Managing Job Stress and Health**

This course deals with the causes of work-related stress, how individuals respond to stressors, what effects stress may have on employee health and job performance, and what may be done to prevent or neutralize stress outcomes. Both stress and stress reduction are treated on an individual and organizational basis.

#### **Preparation for Course**

P: OLS 25200.

Cr. 3.

#### **OLS 37500 - Training Methods**

## **OLS 37500 - Training Methods**

Principles, practices, and variations of basic methods of instruction as related to training situations found in the world of work. Emphasis on the role of the supervisor in on-the-job training.

#### **Preparation for Course**

P: OLS 25200.

Cr. 3.

#### OLS 37600 - Human Resources Issues

### **OLS 37600 - Human Resources Issues**

A survey of modern personnel practices including the legal environment, EEO and affirmative action, human resources planning, recruitment and selection, training and development, compensation and benefits, safety, and labor relations. Emphasis is on practice and applications.

#### Preparation for Course

P: OLS 25200 with a C- or higher.

Cr. 3

### OLS 37800 - Labor Relations

### **OLS 37800 - Labor Relations**

An introduction to labor relations and the organization of labor unions and federations. Certification, contracts, collective bargaining, grievances, and arbitration are covered. Applicable labor legislation and court decisions are also discussed.

#### **Preparation for Course**

P: OLS 37600 or instructor permission.

Cr. 3.

### OLS 38400 - Leadership Process

## **OLS 38400 - Leadership Process**

An in-depth study of a sequence of supervisory actions that influence employees to achieve desired performance results. Also covered are ways in which these supervisory actions are transformed by employees into desired performance.

#### **Preparation for Course**

P: OLS 25200 and OLS 27400.

#### OLS 39500 - Leadership Practicum

### **OLS 39500 - Leadership Practicum**

Practical work experience related to the OLS major in local industry for which the student receives compensation. May be repeated to a maximum of 2 hours credit.

#### Preparation for Course

P: OLS 25200 and junior class standing.

Cr. 1.

#### OLS 39900 - Special Topics

## **OLS 39900 - Special Topics**

Hours, credit, and subject matter to be arranged by OLS faculty.

#### **Preparation for Course**

P: determined by course offered.

Cr 3

Variable Title

(V.T.)

Notes

Prerequisite for all 400-level courses: junior or senior class standing.

#### OLS 41100 - Professional Practice V

### **OLS 41100 - Professional Practice V**

The participant will engage in a variety of work activities under the supervision of the employer and the Division of Organizational Leadership and Supervision. A report of the experience will be required.

#### **Preparation for Course**

P: OLS 31200.

Cr. 1.

#### OLS 45400 - Gender and Diversity in Management

## OLS 45400 - Gender and Diversity in Management

The workforce of the future will represent multiple differences, including gender, race, culture, ethnicity, physical abilities, and age. Following this broad-based perspective of diversity, this course will focus on using knowledge of diversity to develop the leadership potential of individuals in organizations.

#### Preparation for Course

P: OLS 25200 or instructor permission; junior or senior class standing.

Cr. 3.

### OLS 46800 - Personnel Law

### **OLS 46800 - Personnel Law**

A consideration of personnel law, including EEO, pensions, wage contracts and payments, worker's compensation and insurance, and other statutes, as well as labor laws and arbitration.

#### **Preparation for Course**

P: OLS 26800 and OLS 37600; junior or senior class standing.

Cr. 3.

#### OLS 47400 - Conference Leadership

## **OLS 47400 - Conference Leadership**

The practical application of presenting technical information and conducting problem-solving and decision-making conferences or meetings. Emphasis is placed on leading and facilitating interactive conferences as well as structuring information for effective presentations.

**Preparation for Course** 

Cr. 3.

#### OLS 47500 - Human Resource Development

### **OLS 47500 - Human Resource Development**

This course will build on the topics covered in OLS 37500. Topics will include needs analysis, advanced training and development methods, techniques of evaluation, and meeting the job-training needs of special groups. Additional topics of special interest will be covered.

#### **Preparation for Course**

P: OLS 37500; junior or senior class standing.

Cr. 3.

#### **Session Indicators**

Typically offered, fall, spring, and summer.

#### **OLS 47600 - Compensation Planning and Management**

## OLS 47600 - Compensation Planning and Management

A technical course in how to plan and implement a total compensation system, including practical experience in job analysis and description, job evaluation, salary survey and analysis, and the development of a structured pay policy. Includes environmental study of behavioral implications and legal environment.

#### **Preparation for Course**

P: OLS 37600; junior or senior class standing.

Cr. 3

#### **OLS 47700 - Conflict Management**

### **OLS 47700 - Conflict Management**

A study of the methods for dealing with interpersonal, interpersonal, and political disputes by means generally outside the traditional court system. Students will investigate the theoretical and practical aspects of conflict assessment, negotiation, problem solving, mediation, and arbitration.

#### Preparation for Course

P: OLS 37600; junior or senior class standing.

Cr. 3.

### OLS 47900 - Staffing Organizations

## **OLS 47900 - Staffing Organizations**

An applications-oriented study of key concepts in staffing organizations, including principles and issues in conducting job analysis, preparing job descriptions/specifications, and screening/selecting employees. Special emphasis on the design, validation, and operation of high-volume staffing systems.

#### **Preparation for Course**

P: OLS 37600; junior or senior class standing.

Cr. 3.

### OLS 48400 - Leadership Strategies for Quality and Productivity

## OLS 48400 - Leadership Strategies for Quality and Productivity

A study of how organizational leaders create an environment conducive to high levels of employee self-motivation, quality, and productivity. Case situations are used to illustrate the application of course content.

#### **Preparation for Course**

P: OLS 37600; junior or senior class standing.

#### OLS 48500 - Leadership for Team Development

### **OLS 48500 - Leadership for Team Development**

An in-depth study of self-directed work teams and team processes in the work setting with a view to understanding team functions under varying task conditions. Especially emphasized will be the leadership of teams for effective performance and maximum member satisfaction. This course deals extensively with maintenance and task behaviors of team members.

#### **Preparation for Course**

P: OLS 25200 and OLS 27400; junior or senior class standing.

Cr. 3

#### OLS 49500 - Leadership Practicum

### **OLS 49500 - Leadership Practicum**

Practical work experience related to the OLS major in local industry for which the student receives compensation.

#### Preparation for Course

P: OLS 25200, OLS major and senior class standing.

Cr. 1.

Notes

May be repeated to a maximum of 2 credit hours.

OLS 49600 - Leading Change: Theory and Practice

### **OLS 49600 - Leading Change: Theory and Practice**

This course is designed to assist students in integrating leadership theories and modeling change initiatives. A final synthesis project is required.

#### **Preparation for Course**

P: OLS 25200, OLS 38400, and senior class standing.

Cr. 3.

#### PACS 20000 - Introduction to Peace and Conflict Studies

### **PACS 20000 - Introduction to Peace and Conflict Studies**

An initial survey of major themes, approaches, and issues of peace and conflict studies, including: violence and nonviolence, war and peace, oppression and social justice, conflict and conflict resolution. Texts and approach are interdisciplinary.

Cr. 3.

#### PACS 49500 - Portfolio Review In Peace And Conflict Studies

### PACS 49500 - Portfolio Review In Peace And Conflict Studies

Capstone portfolio review for the Peace and Conflict Studies certificate.

#### **Preparation for Course**

P: PACS 20000 and at least nine additional credits in PACS-related courses; or instructor permission.

Cr. 1

#### PACS 49700 - Readings In Conflict Studies

### PACS 49700 - Readings In Conflict Studies

Readings and research in conflict studies.

#### Preparation for Course

P: 20000 and instructor permission required.

Cr. 1-3.

May be repeated for a maximum of 6 hours credit.

### PACS 49800 - Readings In Peace Studies

## PACS 49800 - Readings In Peace Studies

Readings and research in peace or conflict resolution studies.

#### **Preparation for Course**

P: 20000 and instructor permission required.

May be repeated for a maximum of 6 hours credit.

#### PACS 49900 - Internship In Peace And Conflict Studies

### PACS 49900 - Internship In Peace And Conflict Studies

Internship in an organization related to peace and conflict studies.

#### **Preparation for Course**

P: 20000 and consent of instructor.

Cr. 1-3.

Notes

May be repeated for a maximum of 6 hours credit.

#### PCTX 20100 - Introductory Pharmacology

### PCTX 20100 - Introductory Pharmacology

An introduction to the pharmacological basis of therapeutics. This course involves an integration of knowledge of anatomy, physiology, microbiology, and chemistry with the biological and selected chemical and physical actions and reactions of drugs. Primarily for students in nursing and other paramedical programs.

#### Preparation for Course

P: BIOL 20300 or equivalent, CHM 10400 or equivalent; C: BIOL 20400 or equivalent.

Cr. 3-4.

PHIL 10200 - Methods in the Humanities

### **PHIL 10200 - Methods in the Humanities**

Introduction to research tools and methodologies in the humanities stressing the development of skills necessary for effectively natigating reference sources, evaluating scholarly literature, working with primary texts, and understanding the norms and values of humanistic inquiry across the disciplines.

Cr. 1.

PHIL 11000 - The Big Questions: Introduction to Philosophy

## PHIL 11000 - The Big Questions: Introduction to Philosophy

An introduction to basic problems and types of philosophy, with special emphasis on the problem of knowledge and nature of reality.

Cr 3

Notes

Approved by Arts and Sciences for the Cultural Studies (Western Tradition) requirement.

Indiana Core Transfer Library course.

### PHIL 11009 - Introduction To Philosophical Topics

Introduction to basic issues in philosophy, with a certain emphasis on the problem of knowledge and the nature of reality, terms of art to frame them and (mostly) humanistic methods for tackling them.

Cr. 3 Variable Title (V.T)

PHIL 11100 - Introduction To Ethics

### PHIL 11100 - Introduction To Ethics

A study of the nature of moral value and obligation. Topics such as the following will be considered: different conceptions of the good life and standards of right conduct; the relation of nonmoral and moral goodness; determinism, free will, and the problem of moral responsibility; the political and social dimensions of ethics; the principles and methods of moral judgment. Readings will be drawn from both contemporary and classical sources.

Cr. 3.

Notes

Indiana Core Transfer Library course.

PHIL 11101 - Contemporary Moral Problems

### **PHIL 11101 - Contemporary Moral Problems**

Acquaint students with a selection of contemporary ethical problems that most people in the world have to face; use reason to analyze ethical dilemmas and common moral assumptions; challenge, enlighten, and foster the reflective moral mind.

Cr. 3.

PHIL 12000 - Critical Thinking

## PHIL 12000 - Critical Thinking

This course is designed to introduce students to the structure of successful reasoning. Topics covered will include language, definitions, vagueness and ambiguity; recognizing arguments; distinguishing between arguments and explanations; patterns for diagramming arguments; informal fallacies; nondeductive reasoning (the structure of explanations); and disciplinary reasoning (the structure of arguments as encountered in such disciplines as ethics or business). Students who have earned credit in PHIL 15000 are encouraged not to register for PHIL 12000.

Cr. 3.

PHIL 15000 - Principles of Logic

## PHIL 15000 - Principles of Logic

A study of the principles and methods employed in the logical appraisal of arguments. Topics covered will include informal fallacies; syllogistic logic and Venn diagrams; sentence logic (truth tables and rules of inference); and first-order predicate logic, up to but not including definite descriptions and identity.

Cr. 3.

PHIL 20600 - Introduction To Philosophy Of Religion

## PHIL 20600 - Introduction To Philosophy Of Religion

This course encourages critical reflection on traditional and contemporary views about God and other religious ideas. Topics include arguments for God's existence, the problem of evil, understanding the divine attributes, miracles, religious pluralism, and life after death.

Cr. 3.

Notes

Indiana Core Transfer Library course.

## PHIL 24000 - Social and Political Philosophy

A study of some major social and political philosophers from Plato to contemporary authors. Issues such as justice, rights and freedom, community, and the "globalized" future will be considered.

Cr. 3.

PHIL 25200 - Intermediate Logic

### PHIL 25200 - Intermediate Logic

An advanced introduction to formalized basic logic. The classical concept of consequence is studied from both a syntactic and semantic point of view in the areas of propositional logic, quantificational logic, and axiomatics. The main technique introduced is natural deduction style proofs, exposing students to an intuitive but rigorous concept of deductive proof.

**Preparation for Course** 

R: PHIL 15000.

Cr. 3.

PHIL 26000 - Philosophy and Law

### PHIL 26000 - Philosophy and Law

A discussion of philosophical issues in the law. Topics will include a critical examination of such basic concepts in law as property, civil liberty, punishment, right, contract, crime, and responsibility; and a survey of some main philosophical theories about the nature and justification of legal systems. Readings will be drawn from both law and

Cr. 3.

PHIL 27500 - The Philosophy of Art

## PHIL 27500 - The Philosophy of Art

A survey of the principal theories concerning the nature, function, and value of the arts from classical times to the present.

PHIL 29300 - Topics in Philosophy

## PHIL 29300 - Topics in Philosophy

A critical examination of some special topic or topics in philosophy. Sections of this course may sometimes be initiated by students upon petition to the department. May be repeated for credit up to 6 credit hours.

Variable Title (V.T.)

PHIL 30100 - History of Ancient Philosophy

## PHIL 30100 - History of Ancient Philosophy

A survey of Greek philosophy from its beginning in the Milesian school through the Presocratics to Plato and Aristotle.

Approved by Arts and Sciences for the Cultural Studies (Western Tradition) requirement.

### PHIL 30200 - History of Medieval Philosophy

A survey of the main trends and figures of medieval philosophy, with an emphasis on metaphysics, epistemology, and ethics. Readings (in English translation) may include Augustine, Boethius, Avicenna, Anselm, Abelard, Maimonides, Aquinas, Scotus, Ockham, and Suarez.

Cr. 3.

PHIL 30300 - History of Modern Philosophy

### PHIL 30300 - History of Modern Philosophy

Readings in, lectures on, and discussions about the major and minor philosophical figures from the Renaissance through Kant. This includes fairly intensive study of the works of Descartes, Spinoza, Leibnitz, Locke, Berkeley, Hume, and Kant. Contemporary nonphilosophical figures such as Newton and Calvin may also be considered.

Cr. 3.

PHIL 30400 - 19th Century Philosophy

### PHIL 30400 - 19th Century Philosophy

A study of the significant issues raised by such 19th-century philosophers as Fichte, Hegel, Schopenhauer, Comte, Mill, Marx, Nietzsche, Kierkegaard, and James.

Cr. 3.

PHIL 30500 - Philosophical Theories of Feminism

### PHIL 30500 - Philosophical Theories of Feminism

This course focuses on an analysis of ancient, medieval, and contemporary philosophical theories of gender and the role that these theories play in current political structures. In addition to classical readings, current philosophical issues such as pornography, abortion, family values ideology, body and self-image, biological determinism, and racism in the context of historical ideologies are discussed.

Cr. 3.

PHIL 31200 - Medical Ethics

### PHIL 31200 - Medical Ethics

A critical examination of various issues, such as abortion, euthanasia, the healthcare system, and experimentation on humans. Topics will be dealt with from medical, ethical, religious, and legal perspectives.

**Preparation for Course** 

R: PHIL 11100.

Cr. 3.

PHIL 32600 - Business Ethics

### PHIL 32600 - Business Ethics

Philosophic examination of such topics as morality and self-interest, freedom and coercion, distributive justice, limits of the law, moral and legal rights, fair equality of opportunity, justice between nations. These topics are seen from a new perspective when they are connected to discussions of fair wages and capitalism, legal constraints on manufacturers and advertisers, affirmative-action programs, environmentalism, and multinational corporations.

**Preparation for Course** 

R: PHIL 11100.

### **PHIL 32700 - Environmental Ethics**

A study of traditional ethical theory applied to environmental issues such as population control, conservation, human rights and pollution, nuclear energy, extinction and animal rights, our obligations to future generations, toxic waste, and issues in agriculture.

#### **Preparation for Course**

R: PHIL 11100.

Cr. 3.

PHIL 32800 - Ethics and Animals

### PHIL 32800 - Ethics and Animals

A study of traditional philosophical positions on questions of animal rights. Topics covered typically include human rights and doctrines of duty and obligation, vivisection, animals and food, extinction, the pet industry, hunting, the fur industry, and animal-rights organizations.

#### **Preparation for Course**

R: PHIL 11100.

Cr. 3.

PHIL 32900 - Foundations of Professional Ethics

### PHIL 32900 - Foundations of Professional Ethics

Investigates conceptions of professions and their relationship to society. Explores the relationship between ethics for professionals and the ethics of private citizens. Addresses such topics as privacy, confidentiality, whistle-blowing, and conflicts of interest as they exist in fiduciary relationships. Identifies the philosophical implications of Codes of Ethics of various professions.

Cr 3.

PHIL 35100 - Philosophy of Science

## PHIL 35100 - Philosophy of Science

This course examines topics at the intersection of science and philosophy. Primary topics: fundamental principles of the scientific method; the nature of scientific change; the epistemology of science and the debate over scientific realism; scientific convergence and the future of science; consilience of science with nonscience; science and pseudoscience; science and human values. Secondary topics: the strange world of contemporary physics; ethical issues in scientific research; science and religion; science and education; science and the meaning of life.

Cr. 3

PHIL 35200 - Topics in the History and Philosophy of Science

## PHIL 35200 - Topics in the History and Philosophy of Science

A study of philosophical issues raised by the history and practices of science with a focus on the history and practices of a specific scientific discipline, e.g., anthropology, biology, chemistry, geology, physics, psychology, sociology. May be repeated for up to 12 credit hours with different topics.

Cr. 3. Variable Title

PHIL 39000 - Topics In The History Of Philosophy

## PHIL 39000 - Topics In The History Of Philosophy

Either an in-depth look at a major philosopher and his or her philosophy or at a significant topic in the history of philosophy. May be repeated with different topic for up to six credit hours.

#### PHIL 41200 - Topics in Analytic Philosophy

## PHIL 41200 - Topics in Analytic Philosophy

An advanced introduction to Analytic Philosophy. In this course we try to understand, examine, and critically assess the main changes brought about by Analytic Philosophy and to gain an appreciation of its accomplishments. The course will either (1) provide an overview of the main periods of the Analytic movement; or (2) put key players in focus; or (3) make topical particular doctrines. May be repeated for up to 12 credit hours with different topics.

#### **Preparation for Course**

P: Nine credit hours in Philosophy, or consent of instructor.

Cr. 3. Variable Title

PHIL 42200 - Topics in Continental Philosophy

### PHIL 42200 - Topics in Continental Philosophy

An advanced introduction to Continental Philosophy. In this course we try to understand, examine, and critically assess major topics in Continental Philosophy and to gain an appreciation of its accomplishments. The course will either (1) put key players in focus such as Husserl, Dilthey, Heidegger, Satre, Foucault; or (2) discuss particular strands within Continental Philosophy (such as phenomelology, existentialism, post-modernism, structuralism, critical theory). May be repeated up to 12 credit hours with different topics.

#### **Preparation for Course**

P: Nine credit hours in Philosophy, or consent of instructor.

Cr. 3. Variable Title V.T.

PHIL 42500 - Metaphysics

## PHIL 42500 - Metaphysics

A concentrated investigation of some of the basic problems concerning essence, existence, time, space, substance, causality, permanence, and change. Readings and discussions will center on representative metaphysical thinkers.

### Preparation for Course

P: Nine credits in Philosophy, or consent of instructor.

Cr. 3

PHIL 43200 - Theory of Knowledge

## PHIL 43200 - Theory of Knowledge

An analysis of selected texts on knowledge and rationality. Topics such as the following will be considered: foundationalism, coherentism, internalism, externalism, skepticism, contextualism, empiricism, rationalism, analysis of epistemic concepts, and the Gettier problem.

#### **Preparation for Course**

P: Nine credits in Philosophy, or consent of instructor.

Cr. 3

PHIL 43500 - Philosophy of Mind

## PHIL 43500 - Philosophy of Mind

Authorized equivalent courses or consent of instructor may be used in satisfying course pre- and corequisites. An examination of some central issues in the philosophy of mind. Attention is given to such topics as the knowledge of other minds, the relation between mind and body, the nature of persons, and the analysis of certain relevant concepts such as

action, emotion, and perception. Readings are selected primarily from the writings of contemporary philosophers.

Cr. 3.

#### PHIL 45000 - Metalogic

### PHIL 45000 - Metalogic

An introduction to metatheoretic studies of formal axiomatic systems. Basic set theory is developed for use as a tool in studying the propositional calculus. Further topics include many-valued logics and metatheory for modal or predicate logic.

#### **Preparation for Course**

P: Instructor permission required.

Cr 3

PHIL 45100 - The Gödel Theorems: Their Logic and Applications

### PHIL 45100 - The Gödel Theorems: Their Logic and Applications

Introduction to Primitive-Recursive Arithmetic as a framework to prove Gödel's two incompleteness theorems followed by a critical discussion of their philosophical significance.

#### **Preparation for Course**

P: Instructor permission required

Cr. 3.

PHIL 46500 - Philosophy of Language

### PHIL 46500 - Philosophy of Language

An examination of some of the central issues in the philosophy of language, such as meaning, reference, truth, propositions, and speech acts.

Cr. 3.

PHIL 47100 - Aesthetics and the Philosophy of Art

## PHIL 47100 - Aesthetics and the Philosophy of Art

An intensive examination of some of the characteristic questions of contemporary aesthetic theory. Variable content may include the definition of art; the ontology of art; artist-artwork-audience relations; intentions; interpretation; evaluation; aesthetic experience; and ethics and aesthetics. A transdisciplianry approach includes consideration of works of art and artworld writings in addition to philosophical writings. May be repeated for up to 12 credit hours with consent of instructor.

#### **Preparation for Course**

P: Instructor permission required.

Cr. 3. Variable Title

PHIL 48000 - Practicum in Applied Ethics

## PHIL 48000 - Practicum in Applied Ethics

Students will be assigned a definite task relevant to their educational interests in applied ethics. Students may be placed in appropriate cooperating local social-service agencies, educational institutions, legal services offices, businesses, or medical facilities. Work will be supervised by the department and the agency. Research and written reports will be required.

### **Preparation for Course**

P: junior class standing and consent of instructor.

Cr. 3

## PHIL 49300 - Interdisciplinary Undergraduate Seminar

Subject matter will vary. May be repeated for credit.

#### **Preparation for Course**

P: Nine credits in Philosophy, or consent of instructor.

Cr. 1-3. Variable Title (V.T.)

PHIL 50400 - Human Rights Ethics

### PHIL 50400 - Human Rights Ethics

This course introduces students to both the history and the different ways of justifying, critiquing, extending, and revising the concept of universal individual human rights as it has developed since the eighteenth century out of the previous European tradition of natural law and rights.

#### **Preparation for Course**

P: Nine credit hours in Philosophy or consent of instructor.

Cr. 3

**Dual Level Course** 

Dual Level, Undergraduate-Graduate

PHIL 51000 - Phenomenology

### PHIL 51000 - Phenomenology

A detailed, critical examination of some major issue(s) in phenomenology. Attention will be given to either the historical development or contemporary relevance of phenomenological philosophy. Readings will be drawn from the works of Husserl, Heidegger, Merleau-Ponty, and others. May be repeated for credit up to six credit hours.

#### Preparation for Course

P:Nine credit hours in Philosophy or consent of instructor.

Cr. 3.

**Dual Level Course** 

Undergraduate-Graduate

PHIL 51400 - 20th Century Analytical Philosophy I

## PHIL 51400 - 20th Century Analytical Philosophy I

The origins of contemporary philosophical analysis. An examination of the most important philosophical writings of Gottlob Frege and Bertrand Russell, as well as the Tractatus Logico-Philosophicus of Ludwig Wittgenstein.

#### **Preparation for Course**

P: Nine credit hours in Philosophy or consent of instructor.

Cr.

**Dual Level Course** 

Undergraduate-Graduate

PHIL 52500 - Studies in Metaphysics

## PHIL 52500 - Studies in Metaphysics

An intensive and critical review of one or more of the basic problems of ontology and cosmology, such as substance, existence, causality, change, time, space, teleology, freedom, and universals. Variable content. May be repeated for credit with consent of instructor for a maximum of 6 credit hours.

#### **Preparation for Course**

P: Nine credit hours in Philosophy or consent of instructor.

### PHIL 53000 - Deconstructionist and Postmodernist Philosophy

## PHIL 53000 - Deconstructionist and Postmodernist Philosophy

An examination of the main currents of deconstructionist and postmodernist thought in the latter part of the 20th century. Texts to be studied will be selected from the writings of Heidegger, Derrida, Fougault, Kristeva, Irigaray, Deleuze, Guattari, Lyotard, Baudrillard, and Rorty.

#### **Preparation for Course**

P: Nine credit hours in Philosophy or consent of instructor.

Cr 3

**Dual Level Course** 

Undergraduate-Graduate

PHIL 58000 - Proseminar in Philosophy

### PHIL 58000 - Proseminar in Philosophy

Designed primarily for majors in philosophy. Other students may be admitted to the course with the special consent of the instructor. Topic to be selected by the department staff. May be repeated for a maximum of six credit hours.

#### **Preparation for Course**

P: Nine credit hours in Philosophy or consent of instructor.

Cr. 1-3.

Variable Title

(V.T.)

Notes

Instructor consent required.

**Dual Level Course** 

Undergraduate-Graduate

PHIL 59000 - Directed Readings in Philosophy

## PHIL 59000 - Directed Readings in Philosophy

A reading course directed by the instructor in whose particular field of specialization the content of the reading falls. Approval of each reading project must be secured from the department. May be repeated for credit.

#### **Preparation for Course**

P: Nine credit hours in Philosophy and consent of instructor.

Cr. 1-3.

Variable Title

v ariai (V/T)

**Dual Level Course** 

Undergraduate-Graduate

PHYS 10500 - Sound and Music

### PHYS 10500 - Sound and Music

A nonmathematical course that deals with the physical properties of sound and sound patterns, the physiological response to sound, and the psychological sensations of music. The physical principles covered include wave motion, wave properties, resonance, and analysis of tones and complex waveforms. How sound patterns are produced using musical instruments, how these sounds propagate and how they are detected and interpreted will be examined.

Cr. 3.

PHYS 11500 - Introduction to Lasers

### PHYS 11500 - Introduction to Lasers

Three hour lecture class about the theory and operation of lasers. Lectures will discuss basic optics; the operation of lasers; laser safety; and the uses of lasers in science, industry,

construction, communication, entertainment, and medical fields. Class intended for nonphysics majors.

Cr. 3. Hours Class 3.

PHYS 12000 - Physics of Sports

### PHYS 12000 - Physics of Sports

This course enables students to learn fundamental physical principles and concepts from examples of situations occurring in sports. The numerous recent applications of physics toward enhancing sports performance, both by improving techniques and equipment, will be selectively studied. Physical concepts such as velocity and acceleration, force, momentum, impulse, rotational motion, torque, pressure, fluid flow, energy, and power will be introduced and exemplified through sports. The course is intended for non-science majors.

Cr. 3.

PHYS 12500 - Light and Color

## PHYS 12500 - Light and Color

This course is an introduction to the phenomena associated with electromagnetic waves having visible wavelength, i.e., light. Topics will include characteristics of light, optical instruments such as telescopes and cameras, rainbows, human seeing, color and color mixing, lasers, Polaroid lenses, and tricks with mirrors. The course will emphasize phenomenological and conceptual consideration of these topics using many demonstrations and activities. This course is intended for non-science majors.

Cr. 3.

PHYS 12700 - Physics for Computer Graphics and Animation

### PHYS 12700 - Physics for Computer Graphics and Animation

A study of the physics of light and its interactions with objects as these topics apply to the production of computer-generated images. The course will investigate light and color through observation and the use of 3-D graphics programs. In particular how light interacts with surfaces and how we see will be explored in order to understand how to make graphic images that appear true to life.

Cr. 3. **Hours** Class 2, Lab. 2,

PHYS 12900 - Physics of War

## PHYS 12900 - Physics of War

This course examines the physics behind weapons developed throughout centuries of warfare. Weapons to be examined are the bow, the many variations of the catapult, the development of artillery from the muzzle loader to the rail-gun, rockets and missiles, directed energy weapons such as lasers, and nuclear bombs.

#### **Preparation for Course**

P: MA 15300 (or equivalent), or consent of instructor.

Cr 3

PHYS 13100 - Concepts in Physics I

## PHYS 13100 - Concepts in Physics I

A nonmathematical course that introduces students to physics through interactive investigations and discussions. Everyday life is compared to the scientific concepts of forces, motion, momentum and energy.

Cr. 3. Hours

Class 2. Lab 2.

Notes

Credit by Examination available.

### PHYS 13101 - Concepts In Physics I (Lab)

This is an optional Lab course for the PHYS 13100, Concepts in Physics I. We will experiment the concepts involved in the PHYS 13100 lectures.

#### **Preparation for Course**

C: PHYS 13100.

Cr. 1.

Hours

Lab: 2.

PHYS 13500 - The First Three Minutes

### PHYS 13500 - The First Three Minutes

This course is a descriptive introduction to the major concepts of contemporary physics and their relationship to theories of the origin of the universe. The course presents a historical survey of cosmological thought, leading to today's recent developments. Topics include stars and galaxies, the four forces, relativity, quantum physics, elementary particles, and the Big Bang. The course is intended for non-science majors. There is no need for a background in college math. However, knowledge of mathematics at high school level is required.

Cr. 3.

PHYS 13600 - Chaos and Fractals

### PHYS 13600 - Chaos and Fractals

This course explores novel ideas in geometry and dynamical systems as they appear in natural phenomena. Irregular patterns in nature can be understood in terms of a fractal geometry. Physical processes that appear to be random actually obey a deterministic law. The concepts of chaos and fractals help us to understand these processes. The course is intended for non-science majors. There is no need for a background in college math. However, knowledge of mathematics at high school level is required.

Cr. 3.

PHYS 14201 - Materials Science: Semiconductors, Conductors and Superconductors

# PHYS 14201 - Materials Science: Semiconductors, Conductors and Superconductors

Semiconductors, conductors and superconductors builds conceptual models of electrical current through different types of materials and background physics in how they work. An atomic model of solids will be used to develop how semiconductors and conductors work. The doping of semiconductors to change properties will be considered. Fundamental ideas of superconductivity will be discussed. Energy level diagrams will be introduced. Hands-on activities will be used as much as possible.

### **Preparation for Course**

P: MA 15400.

Cr. 1

PHYS 14202 - Materials Science: Optical And Magnetic Materials

## PHYS 14202 - Materials Science: Optical And Magnetic Materials

Conceptual investigation of light and magnetism and the interaction with materials. Electromagnetic and photonic models of light will be investigated. Causes of magnetism and magnetic field will be explored. The interaction of magnetic fields and electromagnetic fields on materials is examined.

### **Preparation for Course**

P: MA 15400.

Cr. 1.

## **PHYS 14203 - Materials Science: Thermal Properties**

This course develops a conceptual understanding of thermodynamic properties of materials from an atomistic view. Topics to be covered will be basic atomic structure, equipartition theory, heat capacity, thermal energy transport for gasses, liquids and solids (conductors, semiconductors, and insulators).

#### **Preparation for Course**

P: MA 15400.

Cr. 1.

PHYS 14204 - Materials Science: Materials Laboratory

## PHYS 14204 - Materials Science: Materials Laboratory

This laboratory is an introduction to scientific methodologies and developing conceptual understanding of materials. The laboratories are discovery based and will focus on major themes: Structure of materials and material properties, Conduction (electrical and thermal), Tribology (friction, wear and lubrication), and Diffraction (acoustic, optical and X-ray).

#### **Preparation for Course**

P: MA 15400.

Cr. 1.

PHYS 15200 - Mechanics

### PHYS 15200 - Mechanics

Statics, uniform, and accelerated motion; Newton's laws; circular motion; energy, momentum, and conservation principles; dynamics of rotation; gravitation and planetary motion; properties of matter; simple harmonic and wave motion; sound.

### Preparation for Course

C: MA 16600.

Cr. 5.

Class 4, Lab. 2.

Notes

Indiana Core Transfer Library course.

### PHYS 17000 - Special Topics in Physics

## **PHYS 17000 - Special Topics in Physics**

Specialized topics in introductory physics, including laboratory experiments if appropriate. May be repeated for credit.

Cr. 1-4. **Hours** Class 0-3, Lab. 0-3, **Variable Title** (V.T.)

PHYS 18300 - Professional Practice I

### PHYS 18300 - Professional Practice I

Course shall include supervised experience and/or training as a professional physicist.

### **Preparation for Course**

P: must be accepted for the program by Cooperative Education program coordinator.

Cr. 0.

### PHYS 18400 - Professional Practice II

Course shall include supervised experience and/or training as a professional physicist.

#### **Preparation for Course**

P:PHYS18300.

Cr. 0.

PHYS 20501 - Intro To Python For Computational Computing

## PHYS 20501 - Intro To Python For Computational Computing

An introduction to programming with Python3 with a focus on application to STEM fields. Students will be introduced to Python programming language and environment. Basic programming concepts will be introduced through a sequence of tasks including: mathematical computations, modeling of physical phenomenon, and data analysis.

Cr. 1.

PHYS 21000 - The Nature of Physical Science I

## PHYS 21000 - The Nature of Physical Science I

An integrated, activity-based introduction to some of the basic phenomena, concepts, principles, and reasoning in physics and chemistry. This course is designed for nonscience majors and is especially appropriate for education majors since many of the activities can be readily modified for use with younger students. Course does not count toward degrees in science, engineering, or technology

#### **Preparation for Course**

P: placement at or above ENGL 13100; MA 10900 with a grade of at least C or placement at or above MA 11300.

### Hours

Class 2, Lab. 3.

Notes

Indiana Core Transfer Library course.

PHYS 21800 - General Physics

## PHYS 21800 - General Physics

Mechanics, heat, and sound, primarily for technology students.

**Preparation for Course** 

P: MA 15300

Cr. 4.

Hours

Class 3, Lab. 2,

PHYS 21900 - General Physics II

## PHYS 21900 - General Physics II

Electricity, light, and modern physics, primarily for technology students.

### **Preparation for Course**

P: PHYS 21800 with a grade of C or better.

Cr. 4.

Hours

Class 3, Lab. 2,

### PHYS 22000 - General Physics

### PHYS 22000 - General Physics

Mechanics, heat, and sound, for students not specializing in physics.

#### **Preparation for Course**

P: MA 15300.

Cr. 4.

Hours

Class 3, Lab. 2.

Notes

Indiana Core Transfer Library course.

### PHYS 22100 - General Physics

## PHYS 22100 - General Physics

Electricity, light and modern physics, for students not specializing in physics.

#### **Preparation for Course**

P: PHYS 22000 with a grade of C or better.

Cr. 4.

Hours

Class 3, Lab. 2.

Note

Indiana Core Transfer Library course.

#### PHYS 22300 - X-Ray Physics

### PHYS 22300 - X-Ray Physics

This course provides background in physics necessary to understand the generation and usage of X-Rays. It will cover basic concepts in Physics such as Forces, Energy and Power. Concepts in Electricity and Magnetism will be explored as an introduction to Electromagnetic Radiation. Physical models of Electromagnetic Radiation and Matter will be developed. The interaction between Electromagnetic Radiation matter will be explored. Particular focus will be placed on the physical mechanism of generating X-Rays and the use of X-Rays.

### **Preparation for Course**

P: MA 15300.

Cr 3.

### PHYS 23601 - Electron Microscopy

## PHYS 23601 - Electron Microscopy

Electron microscopy is an introductory course for students in the Material science concentration. It covers the fundamental principles, operations, and the theories of image analysis for both scanning electron microscope (SEM) and transmission electron microscope (TEM). The students are also expected to understand the basic theories about the electron diffraction and the common applications of SEMs and TEMs in various field related with material science.

#### **Preparation for Course**

P: PHYS 15200 or 21800 or 22000. C: PHYS 25100, 22100 or 21900.

Cr. 1.

### PHYS 23602 - X-Ray Analysis

## PHYS 23602 - X-Ray Analysis

X-Ray Analysis is an introductory course for students in the Material science concentration. It covers the fundamental theories of X-ray physics and its application to the material sciences. Emphasis will be given to the analysis technique and how to apply the physics model of X-ray diffraction to the probe of material structures.

#### **Preparation for Course**

P or C: PHYS 25100, 22100 or 21900.

### PHYS 23603 - Scanning Probe Microscopy

### **PHYS 23603 - Scanning Probe Microscopy**

Scanning Probe Microscopy is a course that will introduce students to various types of scanning probe microscopy. We will cover techniques such as atomic force microscopy (AFM), near-field optical microscopy (NSOM) and scanning tunneling microscopy (STM). We will discuss how one uses these instruments to characterize materials and study their mechanical properties. The course will start with fundamental concepts such as simple harmonic motion and mechanical stress in materials demystify the complexities of various scanning probe microscopes. There will be various hands on activities that will allow students to investigate many of the fundamental concepts discussed.

#### **Preparation for Course**

P or C: PHYS 25100, 22100, or 21900.

Cr. 1

PHYS 25100 - Heat, Electricity, and Optics

### PHYS 25100 - Heat, Electricity, and Optics

Heat, kinetic theory, elementary thermodynamics, heat transfer. Electrostatics, current electricity, electromagnetism, magnetic properties of matter; geometrical and physical optics.

#### **Preparation for Course**

P: PHYS 15200 with a grade of C or better. P or C: MA 26100.

Cr. 5.

Hours

Class 4, Lab. 2.

Notes

Indiana Core Transfer Library course.

PHYS 27000 - Special Topics in Physics

## PHYS 27000 - Special Topics in Physics

Specialized topics in physics. May be repeated for credit.

### **Preparation for Course**

P: special permission.

Cr. 1-5. Variable Title

(V.T.)

PHYS 28400 - Professional Practice III

### PHYS 28400 - Professional Practice III

Course shall include supervised experience and/or training as a professional physicist.

**Preparation for Course** 

P:PHYS 18400.

Cr. 0.

PHYS 29500 - Outreach Assistance As Service Learning

## PHYS 29500 - Outreach Assistance As Service Learning

Physics 29500 is a service learning class available to students willing and able to deliver physics lessons to K-12 classrooms and to other public events. Students are required to prepare and rehearse labs/activities so they are able to offer professional presentations. Students are also required to maintain a reflection journal, where they record notes about their experiences. Although efforts are made to work around students' schedules, students should have at least on open morning or afternoon each week (preferably 2-3) that allows them to visit an assigned site on a regular, consistent basis. One credit is equivalent to 32 hours of involvement in preparation and/or delivery of activities, and journaling time. Prerequisites: desire, commitment, dependability responsibility. Repeatable for credit.

Cr. 1 - 3.

Hours

Exp:
Notes

Department approval required. Off campus experience.

PHYS 30200 - Puzzles, Strategy Games, and Problem solving in the Physical Sciences (Honors Course)

# PHYS 30200 - Puzzles, Strategy Games, and Problem solving in the Physical Sciences (Honors Course)

This is a course in reasoning and meta-cognition (thinking about one's own thinking). Students will learn and practice important reasoning and problem solving skills by exploring tasks requiring analytical thinking and problem solving in three domains - solving puzzles, playing abstract games and investigating the natural world. These explorations will enable the students to compare and contrast how the same reasoning skills are used in different domains and how the characteristics of a domain affect those reasoning processes. Open to all students.

#### **Preparation for Course**

P: successful completion of General Education Areas I and II.

Cr. 3.

#### Notes

Honors equivalent of PHYS 30200.

To register in an honors course, students must have Honors Program eligibility or instructor's permission.

PHYS 30500 - Intermediate Mathematics Physics

## **PHYS 30500 - Intermediate Mathematics Physics**

An introduction and review of the mathematical techniques and procedures used in intermediate and advanced physics courses. Applications involving vector calculus, linear algebra, complex analysis, Fourier series and transforms, and second order linear differential equations will be discussed. The course provides additional mathematical preparation for PHYS 31000, 31100, 32200, 33000,34200, and 51500.

### **Preparation for Course**

P: PHYS 25100.

Cr. 3.

PHYS 31000 - Intermediate Mechanics

### **PHYS 31000 - Intermediate Mechanics**

Elements of vector algebra; statics of particles and rigid bodies; theory of couples; principle of virtual work; kinematics; dynamics of particles and rigid bodies; work, power, and energy.

#### Preparation for Course

P: PHYS 15200 and 25100, and either MA 26100 or MA 26300.

Cr. 4

PHYS 31200 - Intermediate Electricity and Magnetism

## PHYS 31200 - Intermediate Electricity and Magnetism

Vector calculus, electrostatics and magnetostatics, Maxwell's equations, introduction to eletromagnetic waves, transmission lines, and radiation from antennas.

#### **Preparation for Course**

P: PHYS 25100, MA 36300.

## **PHYS 32200 - Optics**

Wave optics and properties of light including reflection, refraction interference, Fraunhofer and Fresnel diffraction dispersion, polarization, double refraction, introduction to lasers and holography.

#### **Preparation for Course**

P: PHYS 25100 (or equivalent).

Cr. 3.

### PHYS 32500 - Scientific Computing

## PHYS 32500 - Scientific Computing

Programming in FORTRAN. Numerical techniques in integration, root finding, and solution of systems of ordinary and partial differential equations occurring in physics. These techniques will be applied to problems in classical, quantum, and statistical physics, including non-linear and chaotic systems. Includes use of mathematical subroutine libraries and introduction to Monte Carlo methods.

### **Preparation for Course**

P: PHYS 25100.

Cr. 3.

### PHYS 34200 - Modern Physics

## PHYS 34200 - Modern Physics

A survey of basic concepts and phenomena in atomic, nuclear, and solid-state physics.

#### **Preparation for Course**

P: PHYS 24100 or 25100 or 26100.

Cr. 3

### PHYS 34300 - Modern Physics Laboratory

## PHYS 34300 - Modern Physics Laboratory

Laboratory experiments to accompany PHYS 342.

### Preparation for Course

C: PHYS 34200.

Cr. 1.

Hours Lab. 3,

PHYS 34500 - Optics Laboratory I

## PHYS 34500 - Optics Laboratory I

Laboratory experiments in geometrical and physical optics and spectrometry.

#### **Preparation for Course**

C: PHYS 32200.

Cr. 1.

Hours

Lab. 3,

## PHYS 34600 - Advanced Laboratory I

Experiments in atomic, molecular, solid state, and nuclear physics, electricity and magnetism, and physical optics. Students will have the opportunity to work intensively on a particular experiment.

#### **Preparation for Course**

P: PHYS 34300.

Cr. 1. **Hours** Lab. 3,

PHYS 36100 - Electronics for Scientists

### PHYS 36100 - Electronics for Scientists

DC and AC circuit theory. Fourier methods, electronic structure of crystals, semiconductor devices, common scientific instrumentation.

#### **Preparation for Course**

P: PHYS 25100 (or equivalent).

Cr. 4. Hours Class 3, Lab. 3,

PHYS 37000 - Special Topics in Physics

## **PHYS 37000 - Special Topics in Physics**

Specialized topics in intermediate physics, including laboratory experiments if appropriate.

Cr. 3. Variable Title (V.T.)

PHYS 38600 - Professional Practice IV

### PHYS 38600 - Professional Practice IV

Course shall include supervised experience and/or training as a professional physicist.

**Preparation for Course** P: PHYS 28400.

Cr. 0.

PHYS 40500 - Atomic and Molecular Physics

## PHYS 40500 - Atomic and Molecular Physics

Basic topics of atomic and molecular physics will be covered in lecture and demonstrations. The course will use fundamental quantum mechanics to describe the hydrogen atom, multi-electron atoms, and simple molecules. The course will also cover the interaction of atoms with other atoms, electrons and photons, and include discussions of various forms of atomic and molecular spectroscopy.

Preparation for Course

P: PHYS 34200 and 34300.

## PHYS 41310 - Intermediate Electricity and Magnetism II

Continued study of electrostatics and magnetostatics, electric currents, electromagnetic induction, applications of Maxwell's equations to electromagnetic waves, boundaries, dispersion, and radiation.

**Preparation for Course** 

P. PHYS 31200

Cr. 3.

PHYS 41800 - Thermal and Statistical Physics

## PHYS 41800 - Thermal and Statistical Physics

Temperature, equations of state, first and second laws of thermodynamics, entropy and applications, kinetic theory, transport processes, statistical mechanics.

#### **Preparation for Course**

P: PHYS 34200.

Cr. 3.

PHYS 42300 - Adaptive and Fourier Optics

### PHYS 42300 - Adaptive and Fourier Optics

Modern theories of diffraction and treatment of optical wave propagation using linear system techniques, including Fourier analysis, correlation and convolution and its application in imagining systems, wavefront modulation, optical signal processing and holograpic system.

Cr. 3.

PHYS 44200 - Quantum Mechanics

## **PHYS 44200 - Quantum Mechanics**

Inadequacies of classical physics; wave packets and Schrodinger equation, one-dimensional problems; operator formulation of quantum mechanics; linear harmonic oscillator; angular momentum; hydrogen atom; Pauli principle and application to helium atom.

### **Preparation for Course**

P: PHYS 34200 and MA 36300 with a minimum grade of C.

Cr. 3.

PHYS 44300 - Quantum Computing And Cryptography

## PHYS 44300 - Quantum Computing And Cryptography

Quantum computing is a fast growing area of interest in the application of quantum mechanics used for problem solving. These devices work differently than traditional computers solving a smaller group of problems that are representable by quantum mechanical systems. These problems cannot be solved by traditional computers, at least in reasonable amounts of time. This course will introduce you to the concepts in quantum mechanics necessary to understand these devices and examine in detail the many types of problems these computers will tackle.

**Preparation for Course** 

P: PHYS 34200.

### PHYS 47000 - Special Topics in Physics

## **PHYS 47000 - Special Topics in Physics**

May be repeated for credit.

#### **Preparation for Course**

P: special permission.

Cr. 1-5. Variable Title (V.T.)

PHYS 48001 - Senior Thesis I

### PHYS 48001 - Senior Thesis I

This course will consist of independent research under the supervision of a faculty adviser. Senior Thesis course is required to graduate. It must be taken in the senior year. This course is part of a two-semester course-track that is completed when PHYS 48002 is completed in the second semester.

#### Preparation for Course

P: PHYS 34200 and PHYS 34300, or PHYS 34600 and one of the following: ASTR 36400, ASTR 37000, ASTR 40100, PHYS 32200, PHYS 32500, PHYS 34500, PHYS 36100, PHYS 51500, PHYS 55000

Cr. 3.

PHYS 48002 - Senior Thesis II

### PHYS 48002 - Senior Thesis II

This course will consist of independent research under the supervision of a faculty advisor. Senior Thesis I and Senior Thesis II are required to graduate; they must be taken in the senior year. PHYS 48002 is the second part of a two-semester course-track that starts with PHYS 48001. Permission of department required

#### Preparation for Course

P: PHYS 48001; PHYS 34200 and 34300, or PHYS 34600; and one of the following: ASTR 36400, 37000, 40100, PHYS 32200, 32500, 34500, 36100, 51500, or 55000; senior class standing.

Cr. 0

PHYS 48700 - Professional Practice V

### PHYS 48700 - Professional Practice V

Course shall include supervised experience and/or training as a professional physicist.

**Preparation for Course** 

P: PHYS 38600.

Cr. 0.

PHYS 51100 - Laser Physics

## PHYS 51100 - Laser Physics

This course is about all physical aspects of lasers. In particular, the course concentrates on optical amplification, interaction of radiation with matter, and laser rate equations. Basic physical and geometrical optics and atomic physics are covered in sufficient detain to understand the design, operation, and application lasers. Topics include matrix methods in ray optics, Gaussian beams, transverse and longitudinal modes, cavity design, rate equation models of laser gain media, different types of lasers and nonlinear optics. Applications of lasers are discussed.

Preparation for Course

P: PHYS32200 and 34200.

Cr. 3.

Dual Level Course

Undergraduate-Graduate

### PHYS 51500 - Thermal and Statistical Physics

## PHYS 51500 - Thermal and Statistical Physics

Equilibrium states, the concept of heat, and the laws of thermodynamics; the existence and properties of the entropy; different thermodynamic potentials and their uses; phase diagrams; introduction to statistical mechanics and its relation to thermodynamics; treatment of ideal gases.

#### **Preparation for Course**

P: PHYS 31000, 33000 and a course in differential equations or advanced calculus.

Cr 3

#### **Dual Level Course**

Undergraduate-Graduate

### PHYS 52000 - Mathematical Physics

## **PHYS 52000 - Mathematical Physics**

Portions of selected areas of mathematics that are of particular importance in physics are covered. These are drawn from vector and tensor operators, infinite series, analytic functions, and the calculus residues, partial differential equations, and the special functions of mathematical physics.

#### **Preparation for Course**

P: PHYS 31000, 32200, 33000 or consent of instructor.

Cr 3

#### **Dual Level Course**

Undergraduate-Graduate

### PHYS 52200 - Coherent Optics and Quantum Electronics

### PHYS 52200 - Coherent Optics and Quantum Electronics

Recent experimental and theoretical developments in optics emphasizing concepts of coherence, Fourier optics, and the quantum theory of radiation. Applications to lasers and masers, nonlinear optics, holography, and quantum electronics.

### **Preparation for Course**

P: PHYS 32200, 33000, 55000.

Cr. 3.

### **Dual Level Course**

Undergraduate-Graduate

### PHYS 52400 - Physical Optics and Experimental Spectroscopy

## PHYS 52400 - Physical Optics and Experimental Spectroscopy

Theory and applications of spectroscopic instruments including Fourier spectrometer, scanning and photographic interferometer, grating and prism spectrometers, and spectrographs. Emphasis on the analysis of the instruments and their fundamental and practical limitations. Theory and structure of spectra and their regularities and the Zeeman effect.

### **Preparation for Course**

P: PHYS 32200 or equivalent.

Cr. 4.

#### **Dual Level Course**

Undergraduate-Graduate

### PHYS 53600 - Electronic Techniques for Research

## PHYS 53600 - Electronic Techniques for Research

A summary of principles of modern electronics currently used in research. The emphasis is on broad coverage of the field rather than on in-depth study of selected topics or applications.

#### **Preparation for Course**

P: PHYS 25100 or equivalent.

Cr 4. **Dual Level Course** Undergraduate-Graduate

### PHYS 54500 - Solid State Physics

## PHYS 54500 - Solid State Physics

Crystal structure; lattice vibrations, and electronic band structure of crystals; electrical, optical, and thermal properties of solids; transport and other nonequilibrium phenomena in uniform and nonuniform materials.

#### **Preparation for Course**

P: PHYS 55000 (or equivalent).

Cr. 3

**Dual Level Course** 

Undergraduate-Graduate

### PHYS 55000 - Introduction to Quantum Mechanics

### PHYS 55000 - Introduction to Quantum Mechanics

Brief historical survey of the development of quantum mechanics; waves in classical physics; wavepackets; uncertainty principle; wave functions; operators; expectation values of dynamical observables; Schrodinger equation; application of Schrodinger equation to one-dimensional problems; the hydrogen atom; electron spin; periodic table; and selected topics in perturbation theory, scattering theory, and compounding of angular moments.

#### Preparation for Course

P: PHYS 34200 and at least one other junior-level course in each of mathematics and physics (or equivalent).

Cr. 3.

**Dual Level Course** 

Undergraduate-Graduate

### PHYS 57000 - Selected Topics in Physics

## **PHYS 57000 - Selected Topics in Physics**

Specialized topics in physics selected from time to time.

Cr. 3.
Variable Title
(V.T.)
Dual Level Course
Undergraduate-Graduate

POL 10001 - American Political Controversies

### **POL 10001 - American Political Controversies**

Introduction to current or past American political controversies. The course content will present multiple sides of complex issues. Topics vary from semester to semester. Repeatable with a different topic up to 6 credit hours.

Cr. 3. Variable Title (V.T.)

### POL 10101 - Introduction to Political Science

### **POL 10101 - Introduction to Political Science**

Introductory survey of the discipline of political science: integrates basic elements of American politics, political theory, comparative politics, and international relations. Intended especially for actual or prospective majors.

Indiana Core Transfer Library Course.

### POL 10300 - Introduction to American Politics

### POL 10300 - Introduction to American Politics

Introduction to the nature of government and the dynamics of American politics. Origin and nature of the American federal system and its present political party base.

Notes

Indiana Core Transfer Library course.

Subject Area

[PSAM] American Politics

### POL 10500 - Introduction to Political Theory

## **POL 10500 - Introduction to Political Theory**

Perennial problems of political philosophy, including relationships between rulers and ruled, nature of authority, social conflict, character of political knowledge, and objectives of political action.

Notes

Approved by Arts and Sciences for the Cultural Studies (Western Tradition) requirement.

Subject Area

[PSPP] Political Philosophy

### **POL 10700 - Introduction to Comparative Politics**

## **POL 10700 - Introduction to Comparative Politics**

Examines countries around the world to investigate fundamental questions about politics. Topics include democratic development, promotion of economic prosperity, maintenance of security, and management of ethnic and religious conflict. Critical thinking skills encouraged. Cases for comparison include advanced industrialized democracies, communist and former communist countries, and developing countries.

Cr. 3.

Notes

[Credit not given for both POL 10700]

Subject Area

[PSCO] Comparative Politics

### POL 10900 - Introduction to International Relations

## **POL 10900 - Introduction to International Relations**

Causes of war, nature, and attributes of the state, imperialism, international law, national sovereignty, arbitration, adjudication, international organization, major international issues.

Cr. 3.

Notes

Indiana Core Transfer Library course. [Credit not given for both POL 10900.]

Subject Area

[PSIR] International Relations

### POL 15001 - Foundations of Community Advocacy

## POL 15001 - Foundations of Community Advocacy

This course will prepare students to learn more than the basic structure of government. It will prepare students to learn the historical and philosophical foundations of our democracy and to question long-established ideas. It is designed to prepare a person to develop the skills necessary to be a community leader.

Cr. 1-3.

### **POL 20001 - Contemporary Political Topics**

Extensive analysis of selected contemporary political problems. Topics vary from semester to semester and are listed in the Schedule of Classes. May be repeated for credit with a different topic.

Cr. 1-6, Hours Lab. 0-3. Variable Title (V.T.)

### POL 20300 - The Promise and Problems of Democracy

### **POL 20300 - The Promise and Problems of Democracy**

An examination of the promise and problems of democratic governance and civic education. The course introduces students to the fundamental issues of democratic politics through a close reading of classic texts in the history of political philosophy. Students will also engage in a discussion of the requirements for the establishment and maintenance of a democratic political order in the United States through an exploration of key arguments from the Founding to the present era.

Cr. 3. **Subject Area**[PSPP] Political Philosophy

### POL 20700 - Elements of Political Analysis

## POL 20700 - Elements of Political Analysis

This course is an introduction to the approaches and practices of political science. It provides an overview of disciplinary language, concepts, research techniques, and methodological debates. It also teaches students how good writing, strong argumentation, and sound methodological understanding can be combined to produce high-quality political science papers.

#### **Preparation for Course**

P: ENGL 13100, or placement in ENGL 14000.

Cr. 3.

Note

This course may be used to fulfill the Arts and Sciences writing requirement.

### POL 20800 - Scandals and Conspiracy Theories

## POL 20800 - Scandals and Conspiracy Theories

Examination of the history, politics and political consequences of American political scandals with an emphasis on more recent events (from Watergate to the present). Causes and effects of secret society and religious conspiracism in American and international politics are also investigated in great detail.

Cr. 3.

### POL 21100 - Introduction to Law

### POL 21100 - Introduction to Law

An introduction to law as a method for dealing with social problems and as an aspect of the social and political system. An introduction to legal reasoning, procedures, and materials. Will usually include comparison of United States and other societies and their approaches to law.

Cr. 3. **Subject Area**[PSAM] American Politics

## POL 21200 - Making Democracy Work

Nature and justifications for democratic politics and the problems confronting democracy today. demise of liberalism in America; rise of identity politics and its significance; racial inequality and the problems of deliberative democracy; problems of political alienation and participation.

Cr. 3. Subject Area [PSAM]

POL 21300 - Introduction To Public Policy

## **POL 21300 - Introduction To Public Policy**

Studies the processes and institutions involved in the formation of public policy, with particular reference to the United States. The course will identify key policy actors, analyze the process of policy-making, and critically assess selected policy issues (such as foreign, defense, economic, welfare, and environmental policy).

Cr. 3.

POL 25200 - Sports and Public Policy

## **POL 25200 - Sports and Public Policy**

Introduction to fundamental concepts of public policy analysis through prism of interscholastic, collegiate and professional sports. Subjects generally include governance structures of American sports leagues, economics of professional sports, politics of public subsidies for stadium construction, and sociological implications of American sports.

Cr. 3. Subject Area [PSAM]

POL 27500 - Politics and Film

### POL 27500 - Politics and Film

Course investigates how various political institutions, processes, problems and individuals have been portrayed on screen; also covers politics of movie industry, including film censorship and electoral interventions. Topics from all subfields of political science possible, but emphasis is on American politics and international relations.

Cr. 3.

Subject Area
[PSAM] American Politics

POL 28500 - Science and Politics

### POL 28500 - Science and Politics

Analysis of uses and misuses of natural and social scientific expertise in politics. Implications of scientific method and experimental results studied in depth. Topics include: global climate change, biotechnology, teaching evolution in public schools and epidemiological controversies.

Cr. 3. **Subject Area**[PSAM] American Politics

POL 30101 - Political Parties and Interest Groups

## **POL 30101 - Political Parties and Interest Groups**

Examination and evaluation of the behavior of political parties, voters, interest groups, and other institutions and procedures by which Americans try to control their government.

Preparation for Course

P: POL 10300 or consent of instructor.

### POL 30201 - Public Bureaucracy in Modern Society

## **POL 30201 - Public Bureaucracy in Modern Society**

Examines public bureaucracy, with special emphasis on the United States, as a political phenomenon engaging in policy making and in the definition of the terms of policy issues. Considers the role of bureaucratic instruments in promoting social change and in responding to it.

Cr. 3
Subject Area
[PSAM] American Politics

POL 30301 - Policy Making in the United States

## **POL 30301 - Policy Making in the United States**

Processes and institutions involved in formation of public policy in a democratic society, with emphasis on American experience.

**Preparation for Course** 

P: POL 10300 or consent of instructor.

Cr. 3. **Subject Area**[PSAM] American Politics

POL 30401 - Constitutional Law

### **POL 30401 - Constitutional Law**

American political powers and structures; selected Supreme Court decisions interpreting American constitutional system.

Preparation for Course

P: POL 10300 or equivalent and consent of instructor.

Cr. 3.
Notes
Dual Level Course
Eligible for graduate credit.
Subject Area
[PSAM] American Politics

### POL 30501 - Constitutional Rights and Liberties

## **POL 30501 - Constitutional Rights and Liberties**

Extent and limits of constitutional rights; selected Supreme Court decisions interpreting American constitutional system.

**Preparation for Course** 

P: POL 10300 or equivalent and consent of instructor.

Cr. 3. **Subject Area**[PSAM] American Politics

POL 30601 - State Politics in the United States

### POL 30601 - State Politics in the United States

Comparative study of politics in the American states. Special emphasis on the impact of political culture, party systems, legislatures, and bureaucracies upon public policies.

**Preparation for Course** 

P: POL 10300 or consent of instructor.

Cr. 3. **Subject Area**[PSAM] American Politics

#### POL 30701 - Indiana State Government and Politics

### POL 30701 - Indiana State Government and Politics

Constitutional foundations, political development, organizational and functional process and growth, and current problems of Indiana government as a focal point for understanding role of states as instruments of social policy. Readings, case studies, problems.

Cr. 3. **Subject Area**[PSAM] American Politics

POL 30801 - Urban Politics

### POL 30801 - Urban Politics

Political behavior in modern American communities; emphasizes the impact of municipal organization, city officials and bureaucracies, social and economic notables, political parties, interest groups, the general public, and protest organizations on urban policy outcomes.

Cr. 3.
Variable Title
(V.T.)
Subject Area
[PSAM] American Politics

#### POL 31300 - Envronmental Policy

## **POL 31300 - Envronmental Policy**

Examines the causes of environmental problems and the political, economic, social, and institutional questions raised by designing and implementing effective policy responses to these problems.

Cr. 3. **Subject Area**[PSAM] American Politics

### POL 31700 - Voting, Elections, and Public Opinion

## POL 31700 - Voting, Elections, and Public Opinion

Determinants of voting behavior in elections. The nature of public opinion on major domestic and foreign policy issues; development of political ideology; other influences on the voting choices of individuals and the outcomes of elections; relationship among public opinion, elections, and the development of public policy.

Cr. 3. **Subject Area**[PSAM] American Politics

### POL 31800 - The American Presidency

## **POL 31800 - The American Presidency**

Development of the presidency and its relationship to the political system; problems of the contemporary presidency; personality and presidential roles, with emphasis on political leadership.

#### Preparation for Course

P: POL 10300 or consent of instructor.

Cr. 3. Notes

[Credit not given for both POL 31800.]

### POL 31900 - The United States Congress

## **POL 31900 - The United States Congress**

Congress is both a policy-making institution and a body of professional politicians representing state and local interests. This course examines Congress within the frameworks created by making each of these goals paramount. The conflicts and contrasts that arise in interpretation and evaluation of Congress by the differences in these points of view are explored.

#### **Preparation for Course**

P: POL 10300 or consent of instructor.

Cr. 3. **Subject Area**[PSAM] American Politics

POL 32001 - Judicial Politics

### **POL 32001 - Judicial Politics**

Examines the American judicial system in the contemporary context. Analysis of the trial and appellate courts with a focus on the United States Supreme Court. Topics include analysis of the structure of the judicial system, the participants in the system, and the policy-making processes and capabilities of the legal system. The course concludes with an assessment of the role of courts in a majoritarian democracy.

Cr. 3. **Subject Area**[PSAM] American Politics

POL 32400 - Gender and Politics

### **POL 32400 - Gender and Politics**

Analysis of gender and sexual orientation in contemporary political systems, domestic or foreign, with emphasis on political roles, participation, and public policy. Normative or empirical examination of how political systems affect different genders and the impact of people with different genders or sexual orientations on the system(s). Topics vary by semester. May be repeated once for credit with a different topic.

Cr. 3. Variable Title (V.T.)

POL 32800 - Women and the Law

### POL 32800 - Women and the Law

Exploration of origins and underlying rationale of women's status in the American legal tradition and the role that law plays in helping to shape political climate and structure of the nation. Course will provide basic knowledge of various fields of law as they pertain to women.

Cr. 3. **Subject Area**[PSAM] American Politics

POL 33101 - British Politics

### **POL 33101 - British Politics**

Governmental structure and political behavior of contemporary Britain, with emphasis on process and policies.

### **POL 33501 - Western European Politics**

Development, structure, and functioning of political systems in Western Europe. Political dynamics of European integration.

Cr. 3. **Subject Area**[PSCO] Comparative Politics

### POL 33900 - Middle Eastern Politics

### **POL 33900 - Middle Eastern Politics**

Political culture and change in selected Middle Eastern and North African countries. Topics include political elites, traditional cultures, modern political ideology, institutions of political control, conflict management, and social reform policies.

Notes
Approved by Arts and Sciences for the Cultural Studies (Non-Western Culture) requirement.
Subject Area
[PSCO] Comparative Politics
Dual Level Course
Eligible for graduate credit.

### POL 34000 - East European Politics

### **POL 34000 - East European Politics**

Compares political change in the East European states, and emphasizes the legacies of authoritarianism and communism and the post-communist transition to democracy. Topics include the building of political institutions, the inclusion of citizens into the polity, the reform of the economy, the management of ethnic and social conflicts, and integration into the European Union.

Notes
Approved by Arts and Sciences for the Cultural Studies (Non-Western Culture) Requirement.
Subject Area
[PSCO] Comparative Politics
Dual Level Course
Eligible for graduate credit.

Cr. 3.

### POL 35001 - Politics of the Euoropean Union

## POL 35001 - Politics of the Euoropean Union

Study of the politics of the European Union (EU). Assesses past and present dynamics of economic and political integration in Europe, the structure and work of European Union institutions, and EU public policies such as the Single Market, the common currency, common foreign and security policy, and trade.

Cr. 3. Notes

Dual Level Course

Eligible for graduate credit. **Subject Area**[PSCO] Comparative Politics

### POL 35501 - Ethnic Conflict and Nationalism

### POL 35501 - Ethnic Conflict and Nationalism

Causes, dynamics, and management of contemporary ethnic conflict. Origins and political mobilization of nationalism. analyzes ethnic conflicts of varying intensity. Explores liberal management strategies including power-sharing, assimilation, integration, and partition. Based on comparative study of cases drawn from around the world.

Cr. 3. **Subject Area**[PSCO] Comparative Politics

## POL 36001 - U.S. Foreign Policy

Mechanics of the foreign-policy-making process in the United States. Analysis of competing concepts of the national interest; isolationism, the Open Door, Monroe Doctrine, national security, containment, military and political alliances, the new nations; their relation to substantive policies and to the character of American democracy.

Cr. 3. **Subject Area**[PSAM] American Politics

### POL 37101 - Workshop in International Topics

## **POL 37101 - Workshop in International Topics**

Includes such topics as development of the international system, politics of food and populations, law of the sea, human rights, trade, U.S. foreign policy, United Nations issues, etc. May be repeated for credit with a different topic.

Cr. 1-3.
Variable Title
(V.T.)
Subject Area
[PSIR] International Relations
Dual Level Course
Eligible for graduate credit.

### POL 37500 - War & International Conflict

### POL 37500 - War & International Conflict

The nature of war. Theories and evidence on the causes of war. Discussion of the ways in which war has been conceived and perceived across time and of methods employed to study the phenomenon of war.

Cr. 3. **Subject Area**[PSIR] International Relations

### POL 37600 - International Political Economy

## **POL 37600 - International Political Economy**

Theories about the interaction between the international economic and political systems are the subject of this course. Specific topics covered will include (among others) the politics of trade, aid, foreign investment, and international monetary affairs; theories of dependency and imperialism; the politics of international competition in specific industries; the stability/instability of international economic regimes.

Cr. 3.

Subject Area
[PSIR] International Relations

### POL 37800 - Problems in Public Policy

## **POL 37800 - Problems in Public Policy**

Examines various substantive problems in the formulation and conceptualization of public policy. Both the policy and its impact are considered in the context of the entire political environment in which it operates. Examples are selected from various levels of government, not always confined to the United States. May be repeated once for credit.

Cr. 3.
Variable Title
(V.T.)
Subject Area
[PSAM] American Politics

## **POL 38100 - Classical Political Thought**

An exposition and critical analysis of the major political philosophers and philosophical schools. I. From Plato to Machiavelli. II. From Machiavelli to the present.

Cr. 3.

Notes

Approved by Arts and Sciences for the Cultural Studies (Western Tradition) requirement.

Subject Area

[PSPP] Political Philosophy

**Dual Level Course** 

Eligible for graduate credit.

POL 38200 - Modern Political Thought

## POL 38200 - Modern Political Thought

An exposition and critical analysis of the major political philosophers and philosophical schools. I. From Plato to Machiavelli. II. From Machiavelli to the present.

Approved by Arts and Sciences for the Cultural Studies (Western Tradition) requirement.

Subject Area

[PSPP] Political Philosophy

**Dual Level Course** 

Eligible for graduate credit.

POL 38300 - Foundations Of American Political Thought

## POL 38300 - Foundations Of American Political Thought

American political ideas from the colonial period to the founding period.

Subject Area [PSPP] Political Philosophy **Dual Level Course** Eligible for graduate credit.

POL 38400 - Developments In American Political Thought

## **POL 38400 - Developments In American Political Thought**

American political ideas from the founding period to the present.

Subject Area [PSPP] Political Philosophy **Dual Level Course** Eligible for graduate credit.

POL 39400 - Public Policy Analysis

## **POL 39400 - Public Policy Analysis**

Place of theory and method in examining public policies in relation to programs, institutional arrangements, and constitutional problems. Particular reference to American political experience.

Cr. 3. Notes

Dual Level Course

Eligible for graduate credit. Subject Area [PSAM] American Politics

## **POL 39500 - Quantitative Political Analysis**

Introduction to methods and statistics used in political inquiry, including measures of central tendency and dispersion, probability, sampling, statistical inference and hypothesis testing, measures of association, analysis of variance, and regression.

#### **Preparation for Course**

P: MA 15300 or MA 16800 (or equivalent), or consent of instructor.

Cr. 3.

POL 39700 - Intervention, Peace, and War

### POL 39700 - Intervention, Peace, and War

Examines international intervention that is at least nominally humanitarian. Explores changing norms and laws on sovereignty and intervention, including the responsibility to protect. Topics include military intervention, UN and non-UN peace operations, economic sanctions, arms embargoes, humanitarian relief operations, and judicial investigations and prosecutions.

Cr. 3. **Subject Area**[PSIR] International Relations

POL 39800 - Internship in Urban Institutions

### **POL 39800 - Internship in Urban Institutions**

This course is designed to provide opportunities for students to observe or participate directly in the policymaking process of those urban institutions requesting the assistance of paraprofessionals. Research and written reports are required. Evaluations will be made by both the agency and the instructor. Open to sophomores, juniors, and seniors. Students working in city and county institutions may repeat the course.

### Preparation for Course

P: consent of instructor.

Cr. 1-6. **Subject Area** [PSAM] American Politics

POL 40101 - Studies in Political Science

### POL 40101 - Studies in Political Science

Topic varies with the instructor and year; consult the Schedule of Classes for current information. May be repeated for credit with a different topic

Cr. 3. Variable Title (V.T.)

POL 48000 - Undergraduate Readings in Political Science

## POL 48000 - Undergraduate Readings in Political Science

Individual readings and research.

Preparation for Course P: consent of instructor.

Cr. 1-6. Variable Title (V.T.)

### POL 48200 - Practicum

Faculty-directed study of aspects of the political process based upon field experience. Directed readings, field research, research papers. May be repeated for credit.

#### **Preparation for Course**

P: consent of instructor.

Cr. 1-6. Subject Area

[PSAM] American Politics

### POL 49001 - Senior Seminar in Political Science

### POL 49001 - Senior Seminar in Political Science

Open to senior majors and others with consent of instructor. Readings and discussion of selected problems; research paper ordinarily required. May be repeated once for credit with a different topic.

#### **Preparation for Course**

P: POL 20700 or consent of instructor.

Variable Title (V.T.)

**PPOL 10100 - The American Criminal Justice System** 

## **PPOL 10100 - The American Criminal Justice System**

Introduction to the criminal justice system of the United States and its function in contemporary society.

Cr. 3.

The American Criminal Justice System 10100 is a prerequisite for all other criminal justice courses.

Indiana Core Transfer Library course.

### PPOL 12000 - Contemporary Health Issues

## **PPOL 12000 - Contemporary Health Issues**

An examination of current public health, environmental health, and health service delivery issues in the United States. Topics include the organization and costs of health systems, access to care, and the interrelationships between risk factors and health; also environmental challenges facing our society and their impact on health.

Cr. 1-3.

### **PPOL 16200 - Environment and People**

## **PPOL 16200 - Environment and People**

An interdisciplinary examination of the problems of population, pollution, and natural resources and their implications for society.

Cr. 3.

### **PPOL 17000 - Introduction to Public Affairs**

### **PPOL 17000 - Introduction to Public Affairs**

Broad coverage of public affairs through critical and analytical inquiry into policy-making at all levels of government. Particular emphasis on intergovernmental relations as they affect policy in the federal system.

### **PPOL 20100 - Theoretical Foundations of Criminal Justice Policies**

This course examines the impact of sociological, biological, and economic theories of crime and the practice of criminal justice. Focus is upon the nature and importance of theory, context of theoretical developments, methods for the critical analysis of theoretical developments, and policy implications of the varying perspectives considered.

#### **Preparation for Course**

P: PPOL 10100.

Cr. 3.

PPOL 20200 - Criminal Justice Data, Methods, and Resources

### PPOL 20200 - Criminal Justice Data, Methods, and Resources

Course examines basic concepts of criminal justice. Students become familiar with research techniques necessary for systematic analysis of the criminal justice system, offender behavior, crime trends, and program effectiveness. Students will learn to critically evaluate existing research. Students will become familiar with existing sources of criminal justice data and will learn to assess the quality of that data.

### **Preparation for Course**

P: PPOL 10100.

Cr. 3.

PPOL 22100 - Nonprofit And Voluntary Sector

## PPOL 22100 - Nonprofit And Voluntary Sector

This course provides a broad overview of the U.S. nonprofit sector. Topics include the sector's size and scope and its religious, historical, and theoretical underpinnings. It also examines perspectives on why people organize, donate to, and volunteer for nonprofit organizations, and looks at current challenges that the sector faces.

Cr. 3.

PPOL 26300 - Public Management

## **PPOL 26300 - Public Management**

This course is an examination of the management process in public organizations in the United States. Special attention will be given to external influences on public managers, the effects of the intergovernmental environment, and in particular, problems of management in a democratic, limited government system.

Cr 3

PPOL 26400 - Urban Structure and Policy

## PPOL 26400 - Urban Structure and Policy

An introduction to urban government and public policy issues. Topics include urban government structure and policy making, the economic foundations and development of cities, demography of cities and suburbs, land-use planning, and other selected urban policy problems.

Cr. 3.

PPOL 27200 - Introduction to Environmental Sciences

### **PPOL 27200 - Introduction to Environmental Sciences**

Application of principles from the life and physical sciences to the understanding and management of the environment. Emphases will be placed on (1) the physical and biological restraints on resource availability and use, and (2) the technological and scientific options to solving environmental problems.

### **Preparation for Course**

P: a statistics course.

## **PPOL 30000 - Statistical Techniques**

An introduction to statistics. Nature of statistical data. Ordering and manipulation of data. Measures of central tendency and dispersion. Elementary probability. Concepts of statistical inference decision. Estimation and hypothesis testing. Special topics discussed may include regression and correlation, analysis of variance, nonparametric methods. Credit given for only one of the following: 30000, ECON 27000, SOC 35100, POL 39500, PSY 20100, STAT 30100.

#### **Preparation for Course**

P: MA 14000, 15300 or 22900.

Cr. 3.

**PPOL 30100 - Substantive Criminal Law** 

### **PPOL 30100 - Substantive Criminal Law**

The development, limitations, and application of substantive criminal law utilizing the casestudy method.

#### **Preparation for Course**

P: PPOL 10100; R: PPOL 20100 and 20200.

Cr. 3.

**PPOL 30200 - Procedural Criminal Law** 

### **PPOL 30200 - Procedural Criminal Law**

Criminal law application and procedure from the initiation of police activity through the correctional process utilizing the case-study method.

### **Preparation for Course**

P: PPOL 10100.

Cr. 3.

PPOL 30500 - Juvenile Justice

### **PPOL 30500 - Juvenile Justice**

This course is designed to provide an overview of the justice system's response to abused, neglected, and dependent children; juvenile misconduct; and delinquent behavior. An extensive review of the development of recent legal changes to the court, options for prevention, treatment of juvenile offenders, and possible system reforms.

### Preparation for Course

P: PPOL 10100.

Cr. 3.

**PPOL 30600 - The Criminal Courts** 

### **PPOL 30600 - The Criminal Courts**

An analysis of the criminal justice process from prosecution through appeal. The organization and operation of felony and misdemeanor courts are examined. Topics include prosecutorial decision-making; plea-bargaining; judicial selection; and the conduct of trials, sentencing, and appeal.

### **Preparation for Course**

P: PPOL 10100; R: PPOL 20100 and 20200.

### **PPOL 31600 - Environmental Health Science**

A study of human interaction with the environment and potential impacts of environmental agents on health and safety. Hazards from natural sources and human activities that contaminate our air, land, water, food, homes, neighborhoods, and workplaces are examined. Environmental control activities, including pollution control technology and policy, are also examined.

Cr 3

PPOL 32000 - Health Systems Administration

### **PPOL 32000 - Health Systems Administration**

An overview of the U.S. healthcare delivery system. Examines the organization, function, and role of the system; current system problems; and alternative systems or solutions.

Cr. 3.

**PPOL 32001 - Criminal Investigation** 

## **PPOL 32001 - Criminal Investigation**

Theory of investigation, crime-scene procedures, interviews, intervogations, surveillances, and sources of information; collection and preservation of physical evidence; investigative techniques in specific crimes.

**Preparation for Course** 

P: PPOL 10100.

Cr. 3.

PPOL 32100 - American Policing

## **PPOL 32100 - American Policing**

This course will examine the history, evolution, and organization of policing in the United States. Emphasis is placed on such major contemporary issues as the police role, discretion, use of force, corruption, accountability, and community policing.

Preparation for Course

P: PPOL 10100; R: PPOL 20100 and 20200.

Cr. 3.

PPOL 32200 - Principles of Epidemiology

## **PPOL 32200 - Principles of Epidemiology**

A basic overview of epidemiologic methodology and techniques. Both communicable and chronic disease risk factors will be discussed, along with data acquisition, analysis techniques, and current published epidemiological studies.

Preparation for Course

P: MA 14000, 15300 or 22900.

Cr. 3.

**PPOL 32201 - Introduction to Criminalistics** 

### **PPOL 32201 - Introduction to Criminalistics**

The broad range of physical evidence developed through the investigative process, and methods of identifying and establishing validity and relevance through forensic laboratory techniques.

**Preparation for Course** 

P: PPOL 10100; R: PPOL 30100.

### PPOL 33100 - Corrections

### **PPOL 33100 - Corrections**

This course examines the historical development of the American correctional system; the study of administration of local, state, and federal corrections programs, including jail, probation, community corrections, and prisons. Includes the study of punishment rationales, current correctional policies, and possibilities for reform.

#### **Preparation for Course**

P: PPOL 10100; R: PPOL 20100 and 20200.

Cr. 3.

PPOL 33900 - Legal History And Public Policy

## **PPOL 33900 - Legal History And Public Policy**

This course will cover a specific policy issue in American history (such as race relations or political protest/dissent) during specific time periods and focus on the role played by the U. S. Supreme Court in dealing with that issue.

Cr. 3.

PPOL 34800 - Management Science

## **PPOL 34800 - Management Science**

Introduction to management-science models and methods for policy analysis and public management. Methods include decision analysis, linear programming queuing analysis, and simulation. Computer-based applications are included.

#### **Preparation for Course**

P: PPOL 30000, MA 14000, 15300 or 22900. Prior familiarization with computers is recommended, though not required.

Cr. 3.

PPOL 35200 - Healthcare Finance I

### **PPOL 35200 - Healthcare Finance I**

First of a two-course sequence on the financial management of healthcare organizations; introduces financial environment of providers and concepts of financial accounting critical to decision-making. Topics include financial statement analysis (specific emphasis on unique features of healthcare financial statements), accounting and managerial control of cash, accounts receivable, inventory, and budgeting.

Cr. 3.

PPOL 36200 - Nonprofit Management And Leadership

## PPOL 36200 - Nonprofit Management And Leadership

Students in this experiential course prepare themselves for this field as well as public and private sector jobs that intersect with the nonprofit sector. This course provides an overview of nonprofit management practices, including governance, leadership, planning, performance measurement, marketing, finances, ethics, team management, and staff and volunteer relations.

Cr. 3.

PPOL 36500 - Urban Development and Planning

## PPOL 36500 - Urban Development and Planning

This course identifies the major problems associated with urban development in the United States and investigates the potential of public planning strategies and tools to deal with these problems. An emphasis is placed on the application of analytical approaches to problem definition and solution.

P: PPOL 26400 and 30000.

Cr 3

### PPOL 36600 - Managing Behavior in Public Organizations

### **PPOL 36600 - Managing Behavior in Public Organizations**

This course provides an introduction to the management of people in public organizations. Focus is on behavioral science in management and related analytical and experiential applications.

Cr. 3.

### **PPOL 37000 - Seminar in Criminal Justice**

### **PPOL 37000 - Seminar in Criminal Justice**

Selected contemporary topics in criminal justice. May be repeated for credit.

**Preparation for Course** 

P: PPOL 10100.

Cr. 3. Variable Title

(V.T.)

PPOL 37100 - Human Resource Management in Healthcare Facilities

## **PPOL 37100 - Human Resource Management in Healthcare Facilities**

This course covers the function of management, which is concerned with the acquisition, development, and use of human resources in the field of healthcare delivery. Labor relations relating to healthcare delivery are also included.

Cr. 3.

### **PPOL 37101 - Financing Public Affairs**

## **PPOL 37101 - Financing Public Affairs**

A survey of economic and political theories of market failures, public expenditure evaluation, economic stabilization, systems of redistribution and fiscal federalism. Examples and applications to contemporary government decisions.

### **Preparation for Course**

P: PPOL 17000, ECON 20101 and 20201.

Cr. 3.

### PPOL 37200 - Government Finance and Budgets

## **PPOL 37200 - Government Finance and Budgets**

Study of fiscal management in public agencies, including revenue administration, debt management, and public budgeting.

Cr. 3.

### PPOL 37300 - Human Resources Management in the Public Sector

## **PPOL 37300 - Human Resources Management in the Public Sector**

The organization and operation of public personnel-management systems, with emphasis on concepts and techniques of job analysis, position classification, training, affirmative

Cr. 3.

#### PPOL 37600 - Principles of Public Safety

## **PPOL 37600 - Principles of Public Safety**

Examination of threats to public safety and of governmental response at various levels to those threats. Treatments of such areas as transportation and highway threats, occupational safety and health, criminal threats, emergency and disaster planning, consumer protection, and fire control and suppression. Discussion of techniques to identify and measure risk, the acceptability of risk, and governmental attempts to control risk.

#### **Preparation for Course**

P: PPOL 10100.

Cr. 3.

PPOL 37601 - Law and Public Policy

## **PPOL 37601 - Law and Public Policy**

The purpose of this course is to provide a basic understanding of the origins, process, and impact of law in the making and implementing of public policy. The course's major objective is to provide students with the substantive concepts necessary to understand the judicial system and law in its various forms.

Cr. 3

PPOL 37700 - Legal Process and Contemporary Issues in America

### PPOL 37700 - Legal Process and Contemporary Issues in America

An introduction to the American legal system, including the Constitution, courts system, and administrative law in federal and state agencies. Readings and discussion center around current issues affected by the legal process.

#### **Preparation for Course**

P: PPOL 37601.

Cr. 3.

PPOL 38000 - Internship in Criminal Justice

## **PPOL 38000 - Internship in Criminal Justice**

Open to interested students who qualify upon approval of the faculty. Students may be placed with various criminal justice agencies for assignment to a defined task relevant to their educational interests. Tasks may involve staff work or research. Full-time participants may earn up to 6 credit hours.

#### **Preparation for Course**

P: PPOL 10100; permission of instructor.

Cr. 3.

Notes

May be repeated for credit. Course is graded S/U (satisfactory/ unsatisfactory).

PPOL 38001 - Internship - Public Affairs

## **PPOL 38001 - Internship - Public Affairs**

Open to interested students upon approval of the faculty. Students are placed with public agencies or governmental units for assignment to a defined task relevant to their educational interests in public affairs. Tasks may involve staff work or research. Full-time participants may earn up to 6 credits.

#### Preparation for Course

P: permission of instructor.

Cr. 1-6. Variable Title (V.T.)

#### Notes

May be repeated for credit. Course is graded S/U (satisfactory/unsatisfactory).

### PPOL 39000 - Readings in Public Affairs

## **PPOL 39000 - Readings in Public Affairs**

Independent readings and research related to a topic of special interest to the student. Written report required. May be repeated for credit.

#### **Preparation for Course**

P: permission of instructor.

Cr. 1-3.

**PPOL 40000 - Topics in Environmental Studies** 

### **PPOL 40000 - Topics in Environmental Studies**

An interdisciplinary consideration of specific environmental topics. May be repeated for credit.

**Preparation for Course** 

P: PPOL 27200.

Cr. 3.

PPOL 40200 - Hospital Administration

### **PPOL 40200 - Hospital Administration**

The study of organization, structure, function, and fiscal operations within hospitals. The role of the hospital in the community, relationship to official and voluntary health agencies, coordination of hospital departments and managerial involvement will be examined.

#### Preparation for Course

P: PPOL 32000.

Cr. 3.

PPOL 40500 - Public Law and the Legislative Process

## PPOL 40500 - Public Law and the Legislative Process

This course focuses on Congress as a policy-making body in the U.S. public law system. It covers the constitutional framework for congressional operations as well as technical aspects of the legislative process such as bill drafting and analysis, the role of leadership, and the prerogatives of individual members.

Cr. 3.

PPOL 40600 - Public Law and the Electoral Process

### **PPOL 40600 - Public Law and the Electoral Process**

The purpose of this course is to facilitate understanding of the interaction of electoral politics and policy. It covers the legal framework of the evolution of the "right" to vote, the impact of the judiciary on the structure of elections, limitations on campaign practices, and the importance of legislative districting and its control.

Cr. 3.

PPOL 40700 - Public Law and Government Relations

### **PPOL 40700 - Public Law and Government Relations**

The purpose of this course is to build understanding of government relations work as applied to careers in the field. It covers the historical evolution of the constitutional right to petition the government with an understanding of the limitations imposed on the process. The interaction of public and private sectors is included.

### PPOL 41100 - Chronic and Long-Term Care Administration

## PPOL 41100 - Chronic and Long-Term Care Administration

Administering programs across the continuum of care including nursing homes, hospice, home health, and assisted living; Medicare and Medicaid financing; quality improvement; care management; and needs of special populations, particularly, vulnerable elders.

Cr. 3.

### PPOL 41600 - Environmental Health Policy

### **PPOL 41600 - Environmental Health Policy**

Study of professional requirements and duties of the environmental health functions within health agencies; consideration of applicable laws and standards in each environmental health function; environmental evaluation, implementation, and personnel responsibilities.

Cr. 3

PPOL 42200 - The Social Epidemics: AIDS, Violence, and Substance Abuse

## PPOL 42200 - The Social Epidemics: AIDS, Violence, and Substance Abuse

This course examines HIV/AIDS, violence, and substance abuse in the context of racial, gender, sexual orientation, and class dynamics that may underlie the way these pathologies affect certain populations. Emphasized is the recognition that how we define disease and causation can influence how we attempt to find a cure.

Cr. 3.

PPOL 43900 - Crime and Public Policy

## **PPOL 43900 - Crime and Public Policy**

A detailed examination of the major efforts designed to control or reduce crime. A review of existing knowledge is followed by an investigation of current crime control theories, proposals, and programs.

#### Preparation for Course

P: PPOL 10100; senior standing or consent of instructor.

Cr. 3.

PPOL 44100 - Legal Aspects of Healthcare Administration

## PPOL 44100 - Legal Aspects of Healthcare Administration

An overview of the liability and legal responsibility, as well as legal recourse healthcare facilities may exercise. This course will discuss policies and standards relating to health facility administration. Also included is a discussion of financial aspects unique to the hospital/healthcare facility environment, such as third-party payments and federal assistance.

Cr. 3.

PPOL 44700 - Federal Budget Policy

## **PPOL 44700 - Federal Budget Policy**

Examination of the institutions and processes involved in putting together the annual federal budget, with emphasis on the role of the Appropriations and Budget committees in Congress and the White House and the Office of Management and Budget in the executive branch. Selected major policy areas will be considered.

Cr. 3

### **PPOL 45000 - Contemporary Issues in Public Affairs**

Extensive analysis of selected contemporary issues in public affairs. Topics vary from semester to semester. May be repeated for credit.

Cr. 1-3. Variable Title (V.T.)

PPOL 45500 - Topics in Public Health

### **PPOL 45500 - Topics in Public Health**

Extensive discussion of selected topics in public health. The topic may change from semester to semester with resource availability and student demand. May be repeated for credit.

Cr. 1-3. Variable Title (V.T.)

PPOL 45600 - Topics in Public Law

### **PPOL 45600 - Topics in Public Law**

Extensive analysis of selected contemporary issues in public law. Topics vary from semester to semester. May be repeated for credit.

Cr. 3.

PPOL 45800 - Fund Development For Nonprofit Organizations

## PPOL 45800 - Fund Development For Nonprofit Organizations

Course builds an understanding of the practice, philosophy, law, and theory of fundraising. Students establish an organization's value base and mission, prepare funding appeals, evaluate readiness for a campaign, assess funding sources, implement fundraising vehicles, evaluate effectiveness, and discuss stewardship of contributions.

Cr. 3.

PPOL 46000 - Police in the Community

## PPOL 46000 - Police in the Community

In-depth examination of crime as an urban policy problem, focusing on the role of police and victims in defining crime as a policy problem, and their role in seeking to reduce the incidence of crime.

**Preparation for Course** 

P: PPOL 10100.

Cr. 3.

PPOL 46500 - Geographic Information Systems for Public and Environmental Affairs

# **PPOL 46500 - Geographic Information Systems for Public and Environmental Affairs**

Students will learn the concepts, methodologies, and perspectives essential for using geographic information systems (GIS) to address critical public affairs issues. Through course projects, students will learn how to use desktop and Internet-based GIS applications and will develop complementary skills related to designing and implementing GIS applications for public-sector organizations.

**Preparation for Course** 

Cr. 3.

### PPOL 47400 - Health Administration Ethics Seminar

### **PPOL 47400 - Health Administration Ethics Seminar**

This course will examine current issues in public health and governmental and private initiatives to resolve those issues.

#### **Preparation for Course**

P: PPOL 32000 and senior class standing.

Cr. 3.

### PPOL 48000 - Research in Criminal Justice

### **PPOL 48000 - Research in Criminal Justice**

Individual research under guidance of faculty member.

#### **Preparation for Course**

P: PPOL 10100 and junior standing and consent of instructor.

Cr. 1-6.

### PPOL 49000 - Directed Research in Public and Environmental Affairs

### PPOL 49000 - Directed Research in Public and Environmental Affairs

To be arranged with the individual instructor and approved by the chairperson of the undergraduate program. May be repeated for credit up to 9 credit hours.

#### Preparation for Course

P: Instructor permission required.

Cr. 1-3.

### PSY 10000 - Introduction to the Science and Fields of Psychology

## PSY 10000 - Introduction to the Science and Fields of Psychology

An introduction to psychology as a science and as a profession.

### **Preparation for Course**

P: PSY 12000 with a grade of C- or higher.

Cr. 1.

Note

Restricted to psychology majors. Strongly recommended that course be taken within the first 13 credits in the major.

### PSY 12000 - Elementary Psychology

## PSY 12000 - Elementary Psychology

Introduction to the fundamental principles of psychology, covering particularly the topics of personality, intelligence, emotion, abnormal behavior, attention, perception, learning, memory, and thinking.

Cr. 3.

Notes

Indiana Core Transfer Library course.

## PSY 14000 - Critical Foundations for Psychology

A comprehensive introduction to psychology as a science and as a profession; methods of inquiry used in the science of psychology, critical thinking, information literacy, and basic written communication as applied to the discipline; survey of career opportunities in psychology, focusing on developing short-term and long-term academic/professional goals and effective strategies for pursuing them.

#### **Preparation for Course**

P: PSY 12000 with a grade of C- or higher. Restricted to psychology majors.

Cr. 3.

### PSY 20100 - Introduction to Statistics in Psychology

## PSY 20100 - Introduction to Statistics in Psychology

An introduction to the development and application of statistical, quantitative, and measurement techniques pertinent to the psychological sciences. Fundamental concepts of numerical assignment, sampling theory, distribution functions, experimental design, inferential procedures, and statistical control.

#### Preparation for Course

P: MA 140000, STAT 12500, MA 15300, MA 14900, or MA 15900 with a grade of C- or better, or placement at a higher level of mathematics.

Cr. 3. Hours

Class 2, Lab. 2.

### PSY 20300 - Introduction to Research Methods in Psychology

## PSY 20300 - Introduction to Research Methods in Psychology

The use of scientific method in psychology. Lecture covers principles of collecting and interpreting data, using examples of research from many areas of psychology. In the laboratory portion, the student uses many different techniques from various areas of psychology.

#### Preparation for Course

P: PSY 10000 or 14000, PSY 12000 and 20100 with grades of C- or better; R: ENGL 23301.

Cr. 3.

Hours

Class 2, Lab. 2.

### **PSY 20500 - Testing And Measurement**

## **PSY 20500 - Testing And Measurement**

Fundamental concepts of test theory, introduction to applied psychological testing, the scale of data, and the interpretation of test results. Not open to students with credit in PSY 50500.

### Preparation for Course

P: PSY 20100. R: ENGL W23301.

Cr. 3

### PSY 23500 - Child Psychology

## PSY 23500 - Child Psychology

General principles of children's behavior and development from conception to adolescence, including sensory and motor development, and the basic psychological processes such as learning, motivation, and socialization. Credit not given for both PSY 23500 and PSY 36900.

#### **Preparation for Course**

P: PSY 12000 (or equivalent)

### PSY 24000 - Introduction to Social Psychology

## PSY 24000 - Introduction to Social Psychology

A broad survey of current knowledge about human social behavior. Topics covered include aggression, attraction and love, social influence, attitudes and attitude change, nonverbal communication, leadership, prejudice and discrimination, and application of social psychology to law, medicine, and other fields.

#### **Preparation for Course**

R: PSY 12000 (or equivalent).

Cr. 3.

Notes

Indiana Core Transfer Library course.

PSY 25100 - Health Psychology

## **PSY 25100 - Health Psychology**

Health Psychology is concerned with the interaction between behavior and health and illness. It includes the psychological study of the relationship between health and lifestyle, stress and coping, and health-injurious behaviors.

#### **Preparation for Course**

P: PSY 12000 (or equivalent).

Cr. 3.

PSY 27200 - Introduction to Industrial-Organizational Psychology

## PSY 27200 - Introduction to Industrial-Organizational Psychology

Survey of psychological principles and research methods relevant to organizations and industry. Topics covered include research methodology, individual differences, personnel selection, performance measurement, training, motivation, job satisfaction, emotions, work stress, and leadership.

#### Preparation for Course

P: PSY 12000 (or equivalent).

Cr. 3.

PSY 31100 - Human Memory

## PSY 31100 - Human Memory

A survey of theories and research about how humans remember information and why they often forget. Topics include research on amnesia, forgetting, and sensory memory systems as well as on practical issues such as how to improve memory.

### **Preparation for Course**

P: PSY 12000 and 3 additional credits in psychology.

Cr. 3.

PSY 31400 - Introduction to Learning

## **PSY 31400 - Introduction to Learning**

This course attempts to make clear the theoretical and practical implications of learning principles and findings. Various theories of learning are examined and the implications of theories, and the learning approach generally, for a variety of practical problems are emphasized.

### **Preparation for Course**

P: PSY 12000 (or equivalent) or consent of instructor.

Cr. 3.

Hours

Class 3

## PSY 31700 - Addictions: Biology, Psychology and Society

It is an interdisciplinary, introductory course taught by a team from the biology and psychology departments. The course will focus on using the processes of addiction to alcohol, marijuana, nicotine, and psychomotor stimulants to teach the basics of biological and psychological science. Example topic areas include neurological/brain function, biochemistry, genetics, immunology, emotion and motivation, learning and memory, physiology and pharmacology, and the psychosocial aspects of addictions.

#### **Preparation for Course**

P: PSY 12000 (or equivalent)

Cr. 3.

PSY 32900 - Psychobiology II: Principles of Psychobiological Psychology

### PSY 32900 - Psychobiology II: Principles of Psychobiological Psychology

The relationship of physiology and basic anatomy, with special emphasis on the central nervous system, to variables fundamental to the study of psychology.

#### **Preparation for Course**

P: PSY 12000 and 20300 with grades of C- or better; R: ENGL 23301.

Cr. 3

PSY 33400 - Cross Cultural Psychology

## PSY 33400 - Cross Cultural Psychology

Examination and restructuring of the major psychological principles from a cultural perspective. A study of the diversity of development of the individual across Asian, African American, Latino/a, and American Indian/Alaskan Native cultures will be presented. The experience of self, role of the family and community, and the psychology of prejudice will be emphasized. Issues related to the workplace, religion, sexual orientation, ability status, and gender will also be discussed.

### **Preparation for Course**

R: PSY 12000 (or equivalent).

Cr. 3

PSY 33500 - Stereotyping and Prejudice

## **PSY 33500 - Stereotyping and Prejudice**

This course examines the topics of stereotyping, prejudice, and discrimination from a social psychological perspective. Relying on empirical findings and relevant theoretical approaches, the course moves beyond lay opinions to explore the social psychological foundations and forms of stereotyping and prejudice, and to examine various strategies for reducing intergroup biases.

Cr. 3.

PSY 34500 - Psychology of Women

## PSY 34500 - Psychology of Women

Theories and current research on the psychological nature of women and their roles in society, including topics such as sex differences and similarities, sex-role socialization, sex-role stereotyping, female sexuality, achievement motivation, role conflict, mental-health issues, feminist therapy, rape, menstruation, pregnancy, childbirth, motherhood, and topics of related interest.

#### **Preparation for Course**

P: PSY 12000 (or equivalent)

## PSY 35000 - Abnormal Psychology

Various forms of mental disorder from the standpoint of their origin, treatment, prevention, social significance, and relation to problems of normal human adjustment.

#### **Preparation for Course**

R: PSY 12000 (or equivalent).

Cr. 3.

Notes

Indiana Core Transfer Library course.

### PSY 35300 - Social and Personality Development in Children

### PSY 35300 - Social and Personality Development in Children

An examination of major theories and current research on the development of social behavior and personality in children. Parent-child and family relationships, peer relations, aggressive and prosocial behavior, gender typing, self-concepts, moral reasoning, social cognition, and other topics are considered.

### **Preparation for Course**

P: PSY 23500 or 36900.

Cr. 3.

### PSY 36200 - Human Development II: Adolescence

## PSY 36200 - Human Development II: Adolescence

A behavioristically oriented analysis of social, personality, and cognitive development in adolescence and youth.

#### **Preparation for Course**

P: PSY 23500 or 36900 and sophomore class standing; R: ENGL 23301.

Cr. 3

### PSY 36500 - Development of Gender Roles in Children

## PSY 36500 - Development of Gender Roles in Children

Considers basic concepts and the varying theoretical interpretations for the development of gender roles with special attention given to recent empirical findings with children. Measures used in this area will be demonstrated in class and critically evaluated.

#### **Preparation for Course**

P: PSY 23500 or 36900.

Cr. 3

### PSY 36700 - Adult Development and Aging

## **PSY 36700 - Adult Development and Aging**

Theory and research on adult development from young adulthood through the elderly years. Course covers biological, cognitive, personality, and social issues. Topics include vocational choice, marriage, parenthood, the empty nest, menopause, memory and aging, retirement, widowhood, longevity, death and dying.

#### Preparation for Course

P: PSY 23500 or 36900 and sophomore class standing; R: ENGL 23301.

## PSY 36900 - Development Across the Lifespan

Considers theoretical, empirical, and methodological issues relevant to the study of human development from conception to death. Biological, cognitive, personality, and social aspects of development are covered. Credit not given for both PSY 23500 and PSY 36900.

#### **Preparation for Course**

P: PSY 12000 (or equivalent).

Cr. 3.

Notes

Indiana Core Transfer Library course.

## PSY 37100 - Death and Dying

# PSY 37100 - Death and Dying

A multidisciplinary, empirically-based consideration of emotions, behaviors, and cognitions related to death and the process of dying. Topics include cultural and historical differences in concepts of dying, grief, and bereavement; individual differences related to preparation, adjustment, and coping, as well as discussion of special topics (e.g., hospice care, physician-assisted suicide, media coverage of death and dying).

#### Preparation for Course

P: Junior class standing; PSY 12000 (or equivalent); R: ENGL 23301.

Cr. 3.

## PSY 39200 - Special Topics in Psychology

## **PSY 39200 - Special Topics in Psychology**

Various topics, which may change from semester to semester, are presented by psychology department faculty. May be repeated for credit.

#### **Preparation for Course**

P: 6 credits in psychology.

Cr. 1-3. Variable Title

(V.T.)

**PSY 41600 - Cognitive Psychology** 

# **PSY 41600 - Cognitive Psychology**

This course is designed to be a survey course covering a variety of research and theories within the field of cognitive psychology. A number of different topics will be reviewed including attention, perception, human memory, knowledge representation, language, problem solving, reasoning, intelligence, skill acquisition, and expertise.

#### Preparation for Course

P: PSY 12000 and 20300 with grades of C- or better, and junior or higher class standing; R: ENGL 23301.

Cr. 3.

## PSY 41900 - Psychopharmacology

# PSY 41900 - Psychopharmacology

Examines the chemical substrates of behavior and the influences of various drugs (experimental, clinical, and recreational) on the nervous system and behavior, including the processes that underlie addictions. Pharmacological principles, behavioral procedures, neurophysiology, and synaptic transmission are reviewed. Major neurotransmitter systems in the brain are discussed in terms of the behaviors in which they are involved and the drugs that affect them. Emphasis is placed on using drug effects to understand the brain's control of behavior.

### **Preparation for Course**

P: PSY 20300 or consent of instructor.

## **PSY 42000 - Introduction to Personality Theory**

Personality theories selected from the traditions of psychoanalysis, behaviorism, and phenomenology-existentialism are presented and contrasted in the fundamental assumptions made by each outlook. Theorists include Freud, Adler, Jung, Dollard and Miller, Skinner, Bandura, Rogers, Bass, Benswanger, and Kelly.

#### **Preparation for Course**

P: 6 credits in psychology; R: ENGL 23301.

Cr. 3.

### PSY 42600 - Language Development

## **PSY 42600 - Language Development**

Linguistic descriptions, successive stages, and psychological explanations of typical patterns of oral language development.

#### **Preparation for Course**

P: PSY 23500 or 36900.

Cr. 3.

### PSY 43100 - Advanced Psychobiology

## **PSY 43100 - Advanced Psychobiology**

This course provides students with the opportunity to gain hands-on laboratory experience with several of the methods used to investigate neural functions. The course will begin with basic anatomy and physiology of the nervous system, and will finish with recent studies of the relation between sensory and cognitive functions.

P: PSY 20300 and 32900 with grades of C- or higher, and senior class standing or 33 credits in psychology.

## PSY 44100 - Advanced Research in Personality and Social Psychology

## PSY 44100 - Advanced Research in Personality and Social Psychology

In this course, students will have the opportunity to develop an advanced understanding of the principles, concepts, theories, and research methods used by personality and social psychologists. This course will demand a high level of student participation and responsibility in two broad ways. First, in place of standard lectures, students will be asked to actively participate in class discussions and demonstrations of central topics. Second, students will gain "hands-on" experience by conducting an empirical study pertaining to personality and social psychology, and by engaging in a variety of laboratory exercises.

## **Preparation for Course**

P: PSY 20300, and either PSY 24000 or 42000, all with grades of C- or higher; senior class standing or 33 credits in psychology.

Cr. 3

## PSY 44400 - Human Sexual Behavior

## PSY 44400 - Human Sexual Behavior

A survey of research in human sexuality with the primary focus at the social psychological level. Problems in sex research and theoretical issues will be considered.

#### Preparation for Course

P: Junior class standing and PSY 12000 (or equivalent)

Cr. 3.

## Notes

Indiana Core Transfer Library course.

## PSY 44600 - Advanced Research In Human Memory And Cognition

This course provides an overview of experimental methods and issues relevant to the area of human memory and cognition. Students will learn about decisions that researchers make during each step of designing and implementing an empirical study. Hands-on experience will be gained through examination of published studies, laboratory exercises, and development of an empirical project in the area of memory and cognition. Students will also learn to use software tools that help with collection and analysis of data.

#### **Preparation for Course**

P: PSY 20300 with grade of C- or better and senior class standing or 33 credits in psychology. Recommended but not a pre-requisite: PSY 31100-Human Memory or PSY 41600-Cognitive Psychology.

Cr. 3.

PSY 46000 - Advanced Abnormal Psychology

## PSY 46000 - Advanced Abnormal Psychology

An advanced course in abnormal psychology allowing for more thorough coverage of selected disorders that were introduced in PSY 35000. Topics covered will typically include the affective disorders, schizophrenia, anxiety and stress-related disorders, and personality disorders; but may vary somewhat with each offering of the course. Outside material related to description and diagnostic indicators of the disorders, latest research on etiology, and current treatment methods will be included.

#### **Preparation for Course**

P: PSY 35000.

Cr. 3

PSY 48000 - Field Experience in Psychology

## PSY 48000 - Field Experience in Psychology

Supervised volunteer field work experiences in a setting appropriate to students' interests and goals. Intended as an opportunity to integrate theory and practice. (May be repeated once for credit with permission of instructor.)

### Preparation for Course

P: consent of instructor.

PSY 48500 - Issues and Fieldwork in Applied Behavior Analysis

# PSY 48500 - Issues and Fieldwork in Applied Behavior Analysis

This class will introduce students to the field of Applied Behavior Analysis and will examine how behavioral theory and the experimental analysis of behavior can be applied to real-world issues. We will cover basic principles of Applied Behavior Analysis (ABA) via lecture, classroom discussion and presentation, and assigned readings and students will learn to apply ABA procedures in the context of a community practicum placement. Course topics will include measurement, assessment, skill acquisition, behavior reduction, documentation and reporting, and professional conduct and scope of practice as they relate to the practice of Applied Behavior Analysis.

### **Preparation for Course**

P: PSY 12000 and 31400 and (PSY 23500 or 36900) with a C- or higher.

PSY 49000 - Practicum in Psychotherapy

## PSY 49000 - Practicum in Psychotherapy

Students are introduced to the theories and practice of psychotherapy through seminar discussion, role-played practice, supervision, and live observation of on-going psychotherapy cases in the departmental clinic.

#### Preparation for Course

P: PSY 20300 with grade of C- or better, and senior class standing or 33 credits in psychology.

## Hours

Class 2, Clinic 2.

## PSY 49600 - Readings and Research in Psychology

Opportunity for students to study particular problems in any field of psychology and/or to initiate themselves into research techniques under the guidance of a member of the psychology faculty. May be repeated for credit.

#### **Preparation for Course**

P: consent of instructor.

Cr. 1-6. Variable Title

PSY 49800 - Senior Research

## PSY 49800 - Senior Research

Student conducts and writes a report on an individual research project under the guidance of a faculty member. May be repeated for credit.

#### **Preparation for Course**

P: Psychology major with senior class standing.

Cr. 3. Variable Title (V.T.)

PSY 49900 - Honors Thesis in Psychology

# PSY 49900 - Honors Thesis in Psychology

Individual, original research especially encouraged for students considering graduate school. May be based on either data collection or a theoretical synthesis of previous research. The topic is selected by the student with approval from a thesis advisor who, along with a thesis advisory committee, evaluates the finished paper according to departmental standards.

#### **Preparation for Course**

P: PSY 20300 with a grade of C- or better, and senior class standing or 33 credits in psychology.

Cr. 3.

PSY 52600 - Psycholinguistics

# **PSY 52600 - Psycholinguistics**

An introduction to the descriptive devices, central issues, and varying methodologies of psycholinguistics.

**Preparation for Course** 

P: PSY 12000.

Cr. 3.

**Dual Level Course** 

Undergraduate-Graduate

PSY 53200 - Psychological Disorders of Childhood

# PSY 53200 - Psychological Disorders of Childhood

A review of the nature, causes, and consequences of deviations from normal childhood development. Emphasis is placed on the two most common types of psychological problems in childhood: intellectual disability and behavior disorders.

#### **Preparation for Course**

P: PSY 23500 or 36900, and PSY 35000.

Cr 3

**Dual Level Course** 

Undergraduate-Graduate

### PSY 54000 - History of Psychology

## **PSY 54000 - History of Psychology**

A review of the philosophical, theoretical, and methodological issues that entered into the development of modern psychology. Emphasis is placed on historical themes that continue to be active in the science and profession of psychology.

#### **Preparation for Course**

P: PSY 20300 with a grade of C- or higher, and senior class standing or 33 credits in psychology.

Cr 3

## **Dual Level Course**

Undergraduate-Graduate

## PSY 55000 - Introduction to Clinical Psychology

# PSY 55000 - Introduction to Clinical Psychology

The case-study method, including a discussion of the importance of historical information, the contribution of clinical tests to diagnosis, and a general survey of prevention and treatment techniques.

#### **Preparation for Course**

P: 12 credits in psychology.

Cr 3

### **Dual Level Course**

Undergraduate-Graduate

### PSY 59000 - Individual Research Problems

## PSY 59000 - Individual Research Problems

Opportunity for students to study particular problems in any field of psychology or initiate themselves into research techniques under the guidance of a member of the staff. May be repeated for credit.

### **Preparation for Course**

P: 12 credits in psychology and consent of instructor.

Cr. 1-3.

Variable Title

(V.T.)

## **Dual Level Course**

Undergraduate-Graduate

## **PSY 59200 - Advanced Special Topics**

# **PSY 59200 - Advanced Special Topics**

Various topics that may change from semester to semester are presented by psychology faculty. May be repeated for credit.

### **Preparation for Course**

P: junior class standing and 12 credits in psychology.

Cr. 1-3.

Hours

Class 1-3.

Variable Title

(V.T.) Dual Level Course

Undergraduate-Graduate

**REL 11200 - Religion and Culture** 

# **REL 11200 - Religion and Culture**

An introduction to modern academic theories regarding the origin, form, and function of religion in human life supported by case studies drawn from various world religious

traditions.

Cr. 3.

Notes

Approved by Arts & Sciences for the Cultural Studies (Western Tradition) requirement.

[Credit not given for both REL 11200 and PHIL 11200.]

### REL 23000 - Religions of the East

## **REL 23000 - Religions of the East**

A study of the history, teaching, and present institutions of the religions of India, Southeast Asia, China, and Japan. This will include Hinduism, Jainism, Sikhism, Buddhism, Confucianism, Taoism, Shintoism, and Zoroastrianism.

Cr. 3

Notes

Approved by Arts & Sciences for the Cultural Studies (Non-Western Tradition) requirement.

### REL 23100 - Religions of the West

## **REL 23100 - Religions of the West**

A comparative study of the origins, institutions, and theologies of the three major Western religions, Judaism, Christianity, and Islam.

Cr. 3.

Notes

Approved by Arts & Sciences for the Cultural Studies (Western Tradition) requirement.

### **REL 29300 - Topics in Religious Studies**

## **REL 29300 - Topics in Religious Studies**

Selected topics and issues in the academic study of religion. May be repeated with a different topic for a maximum of 9 credit hours.

Cr. 3. Variable Title

(V.T.)

### REL 30000 - Religions of the Ancient World

# **REL 30000 - Religions of the Ancient World**

Historical survey of the religious life of the peoples inhabiting the wider Mediterranean world from the Early Bronze Age through the end of the classical antiquity, especially as expressed in Egyptian, Mesopotamian, Syro-Canaanite, Israelite, Hittite, Iranian, Greek, Roman, and early Christian traditions. Topics addressed include myths and ritual, deities and the afterlife, ethics and law codes, divination and prophecy, concepts of pollution and purity, literary and artistic expression, theological and philosophic discourse, and the nature of borrowing and syncretism.

Cr. 3.

Notes

Approved by Arts & Sciences for the Cultural Studies (Western Tradition) requirement.

### **REL 30100 - Islam**

## **REL 30100 - Islam**

A historically-oriented examination of the unfolding of the Islamic tradition from its origins in seventh-century Arabia to the present day, paying particular attention to the key moments, institutions, and actors which exemplify its historical diversity as both a world religion and transnational civilization.

Cr. 3

#### Notes

Approved by Arts & Sciences for the Cultural Studies (Non-Western Tradition) requirement.

## **REL 30200 - Christianity**

This course is designed to provide extensive background to the historical development of Christianity. Students will explore the complexity of Christian belief systems and demonstrate the various ways belief is applied to the politics of everyday life. We will survey the rituals and practices of Christian communities, with a focus on the varieties of scriptural interpretation, historical experience, doctrine, and behavior.

Cr. 3

REL 30600 - Hinduism

## REL 30600 - Hinduism

An exploration of the central components of the wider Hindu worldview through a thematic and historical study of the tradition's major texts, myths, beliefs, rituals, institutions, and forms of religious and philosophical expression from the Vedic period to the present. Special attention will be given to understanding the wider implications of foundational religious concepts such as dharma and caste. Atman and Brahman, karma and samsara, avatara and divine descent, rebirth and liberation, as well as the role of women within and across Hindu traditions.

Cr. 3.

Note

Approved by Arts & Sciences for the Cultural Studies (Non-Western Tradition) requirement.

REL 30700 - Buddhism

## REL 30700 - Buddhism

Examination of the history of Buddhism from its beginnings in India through its diffusion across Central, East, and Southeast Asia, and eventually the West. Topics covered include the historical diversity of Buddhist belief and practice, literary production, philosophical discourse, and the varied articulations of the tradition in different social and cultural settings, including contemporary Europe and North America.

Cr. 3

Notes

Approved by Arts & Sciences for the Cultural Studies (Non-Western Tradition) requirement.

## REL 31100 - African Traditional Philosophy and Religion

# **REL 31100 - African Traditional Philosophy and Religion**

This course offers a general survey of aspects of African traditional philosophy and religious beliefs and practices. Emphasis will be on themes rather than on individual national tribal religions. Case studies will be limited to West Africa with a focus on the Akan of Ghana, the Yoruba of Nigeria, and the Mendes and Creoles of Sierra Leone.

Cr. 3

Note

Approved by Arts & Sciences for the Cultural Studies (Non-Western Tradition) requirement.

### REL 31200 - The Black Religious Experience

# **REL 31200 - The Black Religious Experience**

This course is designed to help students gain an appreciation for the ways African Americans have used religion as resistance to oppression. We begin with an exploration of religions in West Africa prior to the trans-Atlantic slave trade, including the role of Muslim slaves in the formation of slave religion in the Americas. We will also look at syncretism and the development of new religions in slave communities (Voodoo, Santeria, Shango, Candomble, etc.). We will also discuss the role of Christianity in the lives of African Americans, particularly in the segregated South.

Cr. 3

## REL 31400 - Religion and Violence

# **REL 31400 - Religion and Violence**

A comparative study of religiously-motivated violence across the world's religious traditions with special attention given to the social, political, psychological, and philosophical

dimensions of contemporary global religious conflict

Cr. 3.

#### **REL 31500 - Religion and Women**

## **REL 31500 - Religion and Women**

A comparative study of the position of women across the world's religious traditions with special attention given to the impact of the women's movement and feminist thought on the religious life of women in contemporary societies and the development of woman-oriented spiritual movements and religious practices.

Cr. 3.

### REL 32100 - Religion and the Civil Rights Movement

## **REL 32100 - Religion and the Civil Rights Movement**

This course explores the religious dimensions of the Civil Rights Movement in America from the Second World War through the Vietnam War. We will examine the interracial, interdenominational, and interfaith aspects of the movement as they took shape in three areas: American streets (civil disobedience and non-violent direct action), American churches (denominational conflict over race), and American courts (civil rights litigation and legislation).

Cr 3

### **REL 32300 - Religion and Popular Culture**

## **REL 32300 - Religion and Popular Culture**

This course will focus on the portrayal and treatment of religion in popular culture and will examine some of the ways in which religious and mythic themes are expressed in such pop culture forums as television shows, films, mass-market fiction, and music. Students will be asked to think about the various ways in which traditional religious themes, symbols and images, and texts make their way into our cultural consciousness through mass media, as well as how popular religious ideas are reflected in mainstream cultural outlets.

Cr. 3.

### **REL 37500 - Islamic Thought**

# **REL 37500 - Islamic Thought**

Organized as an exploration of intellectual history, this course is devoted to the critical examination of major themes, ideas, issues and domains of discourse in the Islamic tradition as reflected in the writings of important Muslim thinkers past and present.

### **Preparation for Course**

P: junior or senior standing or permission of instructor.

Cr. 3.

### REL 37800 - The Qur'an In Muslim Life

# REL 37800 - The Qur'an In Muslim Life

Scholarly investigation of the Qur'an and the manifold ways in which it has been received, understood, interpreted, and contested by Muslims throughout the ages. Topics include the history of the text, its structure, literary features, and major themes, as well as its aural, devotional, social, and material dimensions, the issue of translation and debates over matters of interpretation.

#### Preparation for Course

P: junior or senior standing or permission of instructor.

# **REL 38100 - Islam And Modernity**

An examination of the ways in which Muslim societies have responded to the challenges of modernity in varied social, cultural, political, and embodied contexts. Special attention will be paid to issues of social change, the nation state, globalization, emigration, and reform, revivalist, and other modern movements.

#### **Preparation for Course**

P: Junior or Senior class standing or consent of instructor.

#### **REL 40100 - Studies in Sacred Texts**

## **REL 40100 - Studies in Sacred Texts**

In-depth scholarly study of a selected scripture or classic text or texts from one of the major world religious traditions alongside relevant secondary literature. May be repeated with a different topic for a maximum of 9 credit hours.

#### **Preparation for Course**

P: consent of instructor.

Cr. 3

Variable Title

V.T.

Notes

May be repeated for up to 9 credit hours.

### REL 40200 - Mysticism

## REL 40200 - Mysticism

In-depth examination of the religious, literary, cultural, and social dimensions of mysticism within and across the major world religious traditions with particular attention paid to modern academic theories regarding mystical experience and its interpretation.

## Preparation for Course

P: consent of instructor.

Cr. 3

### REL 49300 - Undergraduate Seminar

# **REL 49300 - Undergraduate Seminar**

Intensive examination of selected topics in religious studies. Topic varies. May be repeated with a different topic for a maximum of 9 credit hours.

#### **Preparation for Course**

P: consent of instructor

Cr. 3

Variable Title

V.T.

Notes

May be repeated up to 9 credits.

## REL 49500 - Individual Readings in Religious Studies

# **REL 49500 - Individual Readings in Religious Studies**

Individual readings under the guidance of a faculty member. May be repeated for up to six credits with different topics.

#### **Preparation for Course**

P: consent of instructor.

Cr. 3. Variable Title (V.T.)

### SE 51000 - Systems Engineering

## SE 51000 - Systems Engineering

Systems Engineering (SE) is a structured approach to developing interdisciplinary and complex products. This course introduces SE methodologies spanning the product development life cycle from initial scope definition through delivery of the prototype or first production article. SE techniques are used to define and manage requirements, analyze and optimize product architectures, develop comprehensive designs, plan and supervise manufacturing, test and evaluation, and implement the production line. SE also provides techniques for ensuring that system-level requirements (i.e., reliability, maintainability, safety, etc.) are incorporated into the final product. Spanning all these activities are a set of SE analysis and control functions that continuously assess and manage the product scope, quality, configuration, interfaces, and performance.

#### Preparation for Course

P: senior or graduate standing.

Cr 3

**Dual Level Course** 

Undergraduate-Graduate

### SE 52000 - Engineering Economics

## **SE 52000 - Engineering Economics**

Provides an overview of financial accounting principles and basic economic concepts that drive project selection, design, and development. Topics include the time-value of money, investment return, depreciation, budgeting, cash flow, risk, and cost management. The course will emphasize the linkage between project scope and cost management with special attention to cost estimation and earned-value cost management techniques.

#### **Preparation for Course**

P: senior or graduate standing in an engineering or science degree program or consent of instructor.

Cr. 3

**Dual Level Course** 

Dual Level: Undergraduate-Graduate

## SE 53000 - Systems Engineering Management

# SE 53000 - Systems Engineering Management

The systems engineering (SE) management team is responsible for planning and managing all systems engineering activities that are required to successfully develop complex products and systems. It is in charge of ensuring that all system elements are compatible, available on-schedule and on budget, must work together seamlessly, and satisfy customer requirements. This course addresses the role and activities of the systems engineering team in managing and coordinating product development. Topics include systems engineering planning, management of scope, risk and cost configuration, interfaces and human resources, project control, reviews, performance measures, standards, and documentation.

#### Preparation for Course

P: senior or graduate standing in an engineering or science degree program or consent of instructor.

Cr. 3

**Dual Level Course** 

Dual Level: Undergraduate-Graduate

## SE 54000 - Systems Architecture

# SE 54000 - Systems Architecture

Systems engineering best practices prescribe a set of methodologies for architecting and designing complex systems. This course covers requirements analysis, functional analysis and allocation, and synthesis and their interaction with systems analysis and control functions, including system trades, management of risk, configuration, interfaces and data, and development of performance measures. The lectures are complemented by a class design project to architect a complex system leading to development of a functional and physical architecture and associated functional and allocated baselines.

#### Preparation for Course

P: senior or graduate class standing in engineering or science degree program or consent of instructor.

Cr. 3.

**Dual Level Course** 

Undergraduate-Graduate

## SE 55000 - Advanced Manufacturing Systems And Processes

Planning, analysis, and design of manufacturing processes in the context of a manufacturing system that meets customer quality, cost and delivery requirements; an integrated project will cover major aspects of manufacturing systems engineering and process design. Emphasis will be placed on the design of manufacturing processes (including assembly systems) in terms of physics and design parameters to meet system cost, quality, product variety and delivery objectives. When to use lean and six-sigma techniques in the context of the manufacturing enterprise design will be evaluated analytically and through computer simulation and physical modeling.

#### **Preparation for Course**

P: senior or graduate class standing in engineering or science degree program or consent of instructor.

**Session Indicators** 

Typically offered Fall Spring.

### SE 59500 - Selected Topics in Systems Engineering

## SE 59500 - Selected Topics in Systems Engineering

Specialty topics in systems engineering, such as requirements, management, specialty engineering (i.e., reliability, manufacturability, survivability, etc.), risk management, and system integration and verification.

Cr. 1-3. Variable Title (V.T.) **Dual Level Course** Undergraduate-Graduate

SOC 16101 - Principles of Sociology

## **SOC 16101 - Principles of Sociology**

Nature of interpersonal relationships, societies, groups, communities, and institutional areas such as the family, politics, education, the economy, and religion. Includes social process operating within these areas; significance for problems of social change, and social stratification.

Notes

Indiana Core Transfer Library course

SOC 16300 - Social Problems

## **SOC 16300 - Social Problems**

Major social problems in areas such as the family, religion, economic order, crime, mental disorders, civil rights; racial, ethnic, and international tensions. Relation to structure and values of larger society. Although no prerequisite is required, it is strongly recommended that students have some previous social science course work and/or familiarity with basic sociological concepts and methodology.

Cr. 3.

Indiana Core Transfer Library course.

SOC 20900 - Community and the Built Environment

# **SOC 20900 - Community and the Built Environment**

This course examines the built environment as both an expression, and shaper, of human culture. The course explores sustainability both historically and in contemporary society. The course identifies criteria for an organized community and examines how the built environment contributes to, or inhibits, community development. The course explores social and environmental sustainability as it relates to community development.

## **SOC 21100 - Topics in Social Organization**

Specific topics to be announced, e.g., social stratification, formal organizations, urban social organization, education, religion, politics, demography, social power, social conflict, social change, comparative social systems, race and ethnic relations, rural sociology, urban sociology, and work reorganization. May be repeated; however, only six hours may be applied to the requirements of the sociology major or minor.

Cr. 3. Variable Title (V.T.)

SOC 22100 - Topics in Deviance

## **SOC 22100 - Topics in Deviance**

Specific topics to be announce, e.g., crime, juvenile delinquency, law enforcement, corrections, mental illness, sexual deviance, drug use, and violence. May be repeated; however, only six hours may be applied to the requirements of the sociology major or minor.

Cr. 3. Variable Title (V.T.)

SOC 22500 - Violence

## SOC 22500 - Violence

Considers violence in society: its origins, forms, and consequences. Emphasis on describing the social forces that create patterns of violence in societies throughout the world. Forms examined include interpersonal, institutional and structural violence. Purpose of the course is to help the student better understand the role played by violence in modern society.

Cr. 3.

SOC 23000 - Society and the Individual

# SOC 23000 - Society and the Individual

Personality and its development; relationship to culture and communication and to social settings; deviant types.

Cr. 3.

SOC 26000 - Intermediate Sociological Writing

# SOC 26000 - Intermediate Sociological Writing

Restricted to sociology majors. Introduction to the analysis of social issues. Emphasis on the development of writing skills appropriate to the discipline. Approved by Arts and Sciences for use in fulfilling the sophomore level English writing requirement.

#### **Preparation for Course**

P: SOC 16101 and ENGL 13100 (or equivalent).

Cr. 3.

SOC 29500 - Selected Topics in Sociology

# **SOC 29500 - Selected Topics in Sociology**

Specific topics to be announced, e.g., Conflict Resolution and Mediation, Sociological Practice in the Community. May be repeated; however, only six hours may be applied to the requirements of the sociology major or minor.

## SOC 30000 - Race and Ethnic Relations

## **SOC 30000 - Race and Ethnic Relations**

Detailed examination of relations between and among racial and ethic groups; sociological theories of prejudice and discrimination; comparative analysis of diverse systems of intergroup relations.

#### **Preparation for Course**

P: SOC 16101; either SOC 26000 or ENGL 23301 (or equivalent), or consent of instructor

Cr. 3.

### SOC 30500 - Population

## **SOC 30500 - Population**

Population composition, fertility, morality, natural increase, migrations; historical growth and change of populations; population theories and policies; techniques in manipulation and use of population data; and the spatial organization of populations.

#### Preparation for Course

P: SOC 16101, ENGL 23301 or SOC 26000 (or equivalent); or consent of instructor.

Cr. 3.

## SOC 31201 - Education and Society

## **SOC 31201 - Education and Society**

The role of educational institutions in modern industrialized societies, with emphasis on the functions of such institutions for the selection, socialization, and certification of individuals for adult social roles. Also covers recent educational reform movements and the implications of current social policies on education.

#### Preparation for Course

P: SOC 16101; either ENGL 23301 or SOC 26000.

Cr. 3.

### SOC 31300 - Religion and Society

# SOC 31300 - Religion and Society

Consider the functions and dysfunctions of religion generally, its economic and cultural patterns, religious group evolutions (cults, churches, sects, denominations), leadership deviance, and conversion/faith maintenance.

### **Preparation for Course**

P: SOC 16101; either ENGL 23301 or SOC 26000 (or equivalent); or consent of instructor.

Cr. 3.

### SOC 31401 - Social Aspects of Health and Medicine

# **SOC 31401 - Social Aspects of Health and Medicine**

Group characteristics in the causation, amelioration, and prevention of mental and physical illness, and the social influences in medical education, medical practice, and hospital administration.

### **Preparation for Course**

P: SOC 16101; either ENGL 23301 or SOC 26000 (or equivalent); or consent of instructor.

# SOC 31601 - The Family

Cross-cultural perspectives on family systems; structure and process of the conjugal family in modern and emerging societies. Focus on relationships of the family to other subsystems of the larger society and on interaction within the family in connection with these interrelationships. Emphasis on development of systematic theory.

#### **Preparation for Course**

P: SOC 16101; either ENGL 23301 or SOC 26000 (or equivalent); or consent of instructor.

Cr 3

### SOC 31701 - Social Stratification

## **SOC 31701 - Social Stratification**

Nature, functioning, and maintenance of systems of social stratification in local communities and societies. Correlates and consequences of social class position and vertical mobility.

#### **Preparation for Course**

P: SOC 16101; either ENGL 23301 or SOC 26000 (or equivalent); or consent of instructor.

Cr. 3

### SOC 32001 - Deviant Behavior and Social Control

## SOC 32001 - Deviant Behavior and Social Control

Analysis of deviance in relation to formal and informal social processes. Emphasis on deviance and respectability as functions of social reactions, characteristics of rules, and power and conflict.

#### **Preparation for Course**

P: SOC 16101; either ENGL 23301 or SOC 26000 (or equivalent); or consent of instructor.

Cr. 3

## SOC 32501 - Criminology

# **SOC 32501 - Criminology**

A study of the patterns of crime, strategies for control, and theories of crime causation.

## Preparation for Course

P: SOC 16101; either ENGL 23301 or SOC 26000 (or equivalent); or consent of instructor.

Cr. 3.

## SOC 33001 - Sociological Social Psychology

# SOC 33001 - Sociological Social Psychology

Examines the reciprocal link between the individual and the larger society. Topics covered include self-concept and its development, deviant types, status, power, exchange, justice issues, human motivation, attribution, equity.

## **Preparation for Course**

P: SOC 16101; either ENGL 23301 or SOC 26000 (or equivalent); or consent of instructor.

## **SOC 33300 - Collective Behavior and Social Movements**

Considers various types of non-institutionalized collective behaviors (such as rumors, urban legends, panics, riots) in past and modern American history as well as theories and cases of the "why" and "how" of social movements, counter-movements, and revolutions.

#### **Preparation for Course**

P: SOC 16101; either ENGL 23301 or SOC 26000 (or equivalent); or consent of instructor.

Cr 3

SOC 34001 - Social Theory

## **SOC 34001 - Social Theory**

Sociological theory, with focus on content, form, and historical development. Relationships among theories, data, and sociological explanation.

#### **Preparation for Course**

P: SOC 16101; either ENGL 23301 or SOC 26000 (or equivalent); or consent of instructor.

Cr. 3.

SOC 35100 - Social Statistics

## **SOC 35100 - Social Statistics**

Introduction to statistics including measures of central tendency and dispersion, probability, statistical inference, hypothesis testing, regression, correlation, analysis of variance, and cross tabulation.

#### **Preparation for Course**

P: SOC 16101; either STAT 12500, MA 14900, MA 15100, or MA 15300 or placement at a higher level of mathematics; and either ENGL 23301 or SOC 26000 (or equivalent); or consent of instructor.

Cr. 3

### **Session Indicators**

Typically offered Spring

SOC 35202 - Methods of Social Research

## SOC 35202 - Methods of Social Research

Introduction to methods of sociological research. Topics covered include qualitative and quantitative research methods, research design and implementation, experiments, survey research techniques, field research techniques, data collection, data analysis, and the ethical concerns of social research.

#### **Preparation for Course**

P: SOC 16101; either ENGL 23301 or SOC 26000 (or equivalent); or consent of instructor.

Cr. 3.

## SOC 36000 - Topics in Social Policy

# **SOC 36000 - Topics in Social Policy**

Specific topics to be announced, e.g., environmental affairs, urban problems, poverty, population problems. May be repeated; however, only six hours may be applied to the requirements of the sociology major or minor.

#### **Preparation for Course**

P: SOC 16101; either ENGL 23301 or SOC 26000 (or equivalent); or consent of instructor.

Cr. 3. Variab

Variable Title (V.T.)

## **SOC 39800 - Internship in Sociology**

Students are placed in an organization or agency to receive experience in an applied sociology setting. Work is supervised by a sociology faculty member and the organization/agency. Research and written reports are required. Evaluations by the organization/agency and faculty member.

### **Preparation for Course**

P: SOC 16101; either ENGL 23301 or SOC 26000; or consent of instructor.

Cr 3

### SOC 40201 - The Empire of the United States of America

## **SOC 40201 - The Empire of the United States of America**

The course focuses on the history of the Empire of the United States of America from its founding with the second republic to modern times. The course also describes the nature of the economic, military, political, and cultural linkages within the empire. The course also focuses on the impact of empire on class and ethnic relations in the imperial center and periphery.

#### **Preparation for Course**

P: SOC 16101; SOCS 26000 (or equivalent) or permission of instructor.

Cr. 3.

### SOC 41000 - Advanced Topics in Social Organization

## **SOC 41000 - Advanced Topics in Social Organization**

An advanced course in social organizations, allowing for a more thorough coverage of selected topics, e.g. social stratification, formal organizations, urban social organization, education, religion, politics, demographics, social power, social conflict, social change, comparative social systems, race and ethnic relations, rural sociology, and work reorganization. May be repeated; however, only six hours may be applied to the requirements of the sociology major or minor.

#### Preparation for Course

P: SOC 16101; either ENGL 23301 or SOC 26000 (or equivalent); or consent of instructor.

Cr 3

Variable Title

(V.T.) Notes

Approved by Arts and Sciences for use in fulfilling the Cultural Studies (Non-Western Culture) requirement only when the topic is Culture of China.

## SOC 41300 - Sex Inequality in Society

# SOC 41300 - Sex Inequality in Society

Major theories of gender inequality; historical and cross-cultural variations in systems of gender inequality; social economic, political and cultural processes perpetuating gender inequality in U.S. society; interrelationships between racial, class and sex inequality; strategies for social change.

### **Preparation for Course**

P: SOC 16101; ENGL 23301 or consent of instructor.

Cr. 3.

## SOC 42001 - Advanced Topics in Deviance

# **SOC 42001 - Advanced Topics in Deviance**

An advanced course in deviance, allowing for a more thorough coverage of selected topics, e.g., crime, juvenile delinquency, law enforcement, corrections, mental illness, sexual deviance, drug use, and violence. May be repeated; however, only six hours may be applied to the requirements of the sociology major or minor.

#### Preparation for Course

P: SOC 16101; either ENGL 23301 or SOC 26000 (or equivalent); or consent of instructor.

### SOC 42100 - Juvenile Delinquency

## **SOC 42100 - Juvenile Delinquency**

Cr. 3. A study of social and psychological factors influencing individual delinquent behavior patterns. Emphasis on preventative programs and the role of community agencies such as social service agencies, juvenile courts, and youth authorities. Visits to selected organizations and institutions. Typically offered Fall, Spring.

Cr. 3.

## SOC 43001 - Environmental Sociology

## **SOC 43001 - Environmental Sociology**

This course introduces students to diverse sociological understandings of how social organizations impact environments, and how environments impact social environments. Topics covered include how interest groups mobilize resources to pursue an agenda of societal protection or restoration, how demographics, belief systems and patterns of social organization break down or pollute the environment, environmental racism, North South tensions over population and consumption, development and limits to growth. Globalization and social change toward sustainability will be explored in relation to planetary boundaries.

#### Preparation for Course

P: SOC 16101 or 10900 and ENGL 23301 or permission of instructor.

### SOC 44100 - Topics in Social Theory

## **SOC 44100 - Topics in Social Theory**

Specific topics to be announced, e.g., structuralism, evolutionary theory, symbolic interaction theory, symbolic interaction theory, functionalism, social action theory, exchange theory, history and development of social theory, sociology of knowledge. May be repeated; however, only six hours may be applied to the requirements of the sociology major or minor.

#### **Preparation for Course**

P:SOC 16101; either ENGL 23301 or SOC 26000 (or equivalent); or consent of instructor.

Cr. 3. Variable Title (V.T.)

## SOC 45001 - Topics in Methods and Measurement

# **SOC 45001 - Topics in Methods and Measurement**

Specific topics to be announced, e.g., scaling, logic of inquiry, model construction and formalization, research design, data collection, sampling, measurement, statistical analysis. May be repeated; however, only six hours may be applied to the requirements of the sociology major or minor.

#### Preparation for Course

P: SOC 16101; either ENGL 23301 or SOC 26000 (or equivalent); or consent of instructor.

Cr. 3. Variable Title (V.T.)

SOC 47000 - Senior Seminar

## **SOC 47000 - Senior Seminar**

Capstone seminar in sociology; integrates knowledge on theory and practice from previous sociology courses, with emphasis on historical, contemporary, and future issues in sociology.

#### **Preparation for Course**

P: SOC 16101, 26000, and nine credit hours of upper-division sociology coursework; or consent of instructor.

Cr. 3

### SOC 49400 - Field Experience In Sociology

# SOC 49400 - Field Experience In Sociology

Faculty-directed study of aspects of sociology based on field experience in conjunction with directed readings and report writings. Students are trained in using their sociology understanding and skills in working at diagnosing and developing research projects and/or social change interventions for social organizations in the community.

#### **Preparation for Course**

P: SOC 16101, 26000, and nine credit hours of upper-division sociology coursework; or permission of instructor.

Cr. 1-6.

## SOC 49500 - Individual Readings in Sociology

## SOC 49500 - Individual Readings in Sociology

Individualized approach to selected topics through the use of guided readings, research and critical evaluation. Prior arrangement required; conducted under the supervision of a member of the sociology faculty. May be repeated; however, only six hours may be applied to the requirements of the sociology major or minor.

#### **Preparation for Course**

P: SOC 16101; either ENGL 23301 or SOC 26000 (or Equivalent); or consent of instructor.

Cr. 1-3. Variable Title (V.T.)

SPAN 11101 - Elementary Spanish I

## SPAN 11101 - Elementary Spanish I

Introduction to Spanish language as well as to Hispanic cultures. Emphasis on development of communicative competence in speaking, listening, reading, and writing. Weekly attendance at lab required. SPAN 11101 is a course for beginners. Students with two years of high school Spanish must take 11300.

Cr. 3. Hours

Class 3, Lab. 0.

Notes

Indiana Core Transfer Library course.

## SPAN 11201 - Elementary Spanish II

# SPAN 11201 - Elementary Spanish II

Introduction to Spanish language as well as to Hispanic cultures. Emphasis on development of communicative competence in speaking, listening, reading, and writing. Weekly attendance at lab required.

#### Preparation for Course

P: SPAN 11101.

Cr. 3.

Class 3, Lab. 0.

Notes

Indiana Core Transfer Library course.

## SPAN 11300 - Accelerated First Year Spanish

# SPAN 11300 - Accelerated First Year Spanish

Required beginning course for students with at least two years of high school Spanish who did not place into SPAN 20301 or higher. Review of selected material from 11101 before proceeding to 11201 material. Credit will not be given for both 11201 and 11300.

**Preparation for Course** 

P: two years of high school Spanish (grades 9-12).

Cr. 3.

Hours Class 3.

### SPAN 20301 - Second-Year Spanish I

## SPAN 20301 - Second-Year Spanish I

Meets three hours a week. Continuation of 11101-11201/11300 with grammar review and increased emphasis on communication skills. Reading and discussion in Spanish of contemporary literature, essays, and/or cultural readings. Practice in composition.

#### **Preparation for Course**

P: SPAN 11201 or 11300.

Cr. 3.

Notes

Indiana Core Transfer Library course.

SPAN 20401 - Second-Year Spanish II

## SPAN 20401 - Second-Year Spanish II

Meets three hours a week. Continuation of 11101-11201/11300 with grammar review and increased emphasis on communication skills. Reading and discussion in Spanish of contemporary literature, essays, and/or cultural readings. Practice in composition.

#### **Preparation for Course**

P: 20301

Cr. 3.

Notes

Indiana Core Transfer Library course.

### SPAN 27500 - Hispanic Culture and Conversation

# SPAN 27500 - Hispanic Culture and Conversation

Practice of language skills through reading, writing, and discussion of Hispanic culture. Treats facets of popular culture, diversity of the Spanish-speaking world, and themes of social and political importance. Conducted in Spanish.

### **Preparation for Course**

P: SPAN 20301 (and strongly advised to take SPAN 20401 concurrently with 27500)

Cr. 3.

SPAN 30101 - The Hispanic World I

# SPAN 30101 - The Hispanic World I

Introduction to Hispanic culture through literature. Study of representative literary works of both Spain and Spanish America in the context of Hispanic history, art, philosophy, folklore, etc.

### Preparation for Course

P: SPAN 27500.

Cr. 3.

SPAN 30201 - The Hispanic World II

# SPAN 30201 - The Hispanic World II

Introduction to Hispanic culture through literature. Study of representative literary works of both Spain and Spanish America in the context of Hispanic history, art, philosophy, folklore, etc.

**Preparation for Course** 

Cr. 3.

#### SPAN 31100 - Spanish Grammar

## SPAN 31100 - Spanish Grammar

This course is designed to integrate the four basic language skills into a review of the major points of Spanish grammar. Course work will combine grammar exercises with brief controlled compositions based on a reading assignment and class discussion in Spanish. Sentence exercises will be corrected and discussed in class.

#### **Preparation for Course**

P: SPAN 20301.

Cr 3

SPAN 31201 - Written Composition in Spanish

## SPAN 31201 - Written Composition in Spanish

This course integrates the four basic language skills into a structured approach to composition. Some review of selected points of Spanish grammar will be included. Each student will write a weekly composition, increasing in length as the semester progresses. Emphasis will be on correct usage, vocabulary building, and stylistic control.

#### **Preparation for Course**

P: SPAN 31100.

Cr. 3.

SPAN 31500 - Spanish in the Business World

## SPAN 31500 - Spanish in the Business World

Introduction to the technical language of the business world with emphasis on problems of style, composition, and translation in the context of Hispanic morés .

#### Preparation for Course

P: SPAN 27500.

Cr. 2-3.

SPAN 31700 - Spanish Conversation and Diction

# SPAN 31700 - Spanish Conversation and Diction

Intensive controlled conversation correlated with readings, reports, debates, and group discussions, with emphasis on vocabulary usage, word order, tense interrelationships, and discourse skills. May be repeated once for credit.

#### Preparation for Course

P: SPAN 27500.

Cr. 3.

Class 4

SPAN 40700 - Survey of Spanish Literature I

# SPAN 40700 - Survey of Spanish Literature I

A historical survey that covers major authors, genres, periods, and movements from the Spanish Middle Ages through the baroque period of the 17th century. Readings include prose works, poetry, and drama.

#### **Preparation for Course**

P: SPAN 30101.

Cr. 3.

## **Dual Level Course**

Eligible for graduate credit.

## SPAN 40801 - Survey of Spanish Literature II

A historical survey of Spanish literature that covers the main current of Spain's literary history in the 18th, 19th, and 20th centuries. Readings in prose, poetry, and drama by Larra, Perez Galdós, Unamuno, García Lorca, and other representative writers.

#### **Preparation for Course**

P: SPAN 30101.

Cr 3

### **Dual Level Course**

Eligible for graduate credit.

SPAN 41100 - Spain: The Cultural Context

# SPAN 41100 - Spain: The Cultural Context

A course to integrate historical, social, political, and cultural information about Spain. Readings and discussions in Spanish.

### **Preparation for Course**

P: SPAN 30101.

Cr. 3

Note

Study Abroad PFW students with an appropriate command of Spanish may apply for a year's study, with full credit, in the IU programs at Madrid, Spain. Participation is not limited to Spanish majors. There are also semester programs in Spain (Alicante, Madrid, and Seville) and Chile (Santiago) and summer programs in Spain (Salamanca) and Mexico (Cuernavaca, Guanajuato, and Mexico City). For further information, consult the coordinator of overseas study programs, Office of International Programs.

Dual Level Course

Eligible for graduate credit.

SPAN 41200 - Spanish America: The Cultural Context

## SPAN 41200 - Spanish America: The Cultural Context

A course to integrate historical, social, political, and cultural information about Spanish America.

## **Preparation for Course**

P: SPAN 30101.

Cr. 3

Notes

Approved by Arts and Sciences for the Cultural Studies (Non-Western Culture) requirement.

**Dual Level Course** 

Eligible for graduate credit.

SPAN 41301 - Hispanic Culture in the U.S.

# SPAN 41301 - Hispanic Culture in the U.S.

Integrates historical, racial, political and cultural information about Hispanics in the United States. Eligible for graduate credit.

Cr. 3.

**Dual Level Course** 

Dual Level: Undergraduate-Graduate

SPAN 41800 - Hispanic Drama

# SPAN 41800 - Hispanic Drama

Forms, traditions, themes, and periods of Hispanic drama from the Renaissance to the present. Topic may vary. May be repeated with different topic.

### **Preparation for Course**

P: SPAN 30101 or departmental permission.

#### **Dual Level Course**

Eligible for graduate credit.

## SPAN 42300 - The Craft of Translation

## SPAN 42300 - The Craft of Translation

**Preparation for Course** 

P: SPAN 31100.

Cr. 3.

SPAN 42500 - Spanish Phonetics

## **SPAN 42500 - Spanish Phonetics**

Introduction to basic linguistics and phonology. Intensive patterned pronunciation drills and exercises in sound discrimination and transcription based on articulatory description of standard Spanish of Spain and Latin America. Attendance in audio laboratory required.

#### Preparation for Course

P: LING 10300 or other course work in linguistics and 30101 and 30201 or instructor permission.

Cr. 3

**Dual Level Course** 

Eligible for graduate credit.

## SPAN 42601 - Introduction to Spanish Linguistics

## **SPAN 42601 - Introduction to Spanish Linguistics**

General aspects of Spanish linguistics: traditional, descriptive, historical, and dialectal.

## **Preparation for Course**

P: LING 10300 or other course work in linguistics and SPAN 30101 and 30201 or instructor permission.

Cr. 3.

**Dual Level Course** 

Eligible for graduate credit.

### SPAN 42800 - Applied Spanish Linguistics

# **SPAN 42800 - Applied Spanish Linguistics**

Analysis of linguistics and cultural elements of Spanish phonology, morphology, syntax, and semantics as they bear on teaching.

#### **Preparation for Course**

P: LING 10300 or other course work in linguistics and SPAN 30101 and 30201. or instructor permission.

Cr 3

**Dual Level Course** 

Eligible for graduate credit.

## SPAN 47101 - Spanish-American Literature I

# SPAN 47101 - Spanish-American Literature I

Introduction to Spanish-American literature from the colonial period to the beginning of the twentieth century.

### **Preparation for Course**

P: SPAN 30101 and 30201 or departmental permission.

Cr. 3.

Note

Approved by Arts and Sciences for the Cultural Studies (Non-Western Culture) requirement.

### **Dual Level Course**

Eligible for graduate credit.

## SPAN 47200 - Spanish-American Literature II

Introduction to Spanish-American literature from the colonial period to the present.

#### **Preparation for Course**

P: SPAN 30101 and 30201 or departmental permission.

Cr. 3.

Notes

Approved by Arts and Sciences for the Cultural Studies (Non-Western Culture) requirement.

**Dual Level Course** 

Eligible for graduate credit.

## SPAN 47900 - Mexican Literature

## SPAN 47900 - Mexican Literature

Mexican literature from Independence to present.

#### **Preparation for Course**

P: SPAN 30101 and 30201 or departmental permission.

Cr 3

### **Dual Level Course**

Eligible for graduate credit.

### SPAN 48001 - Argentine Literature

# SPAN 48001 - Argentine Literature

Argentine literature from Independence to present.

## **Preparation for Course**

P: SPAN 30101 and 30201, or departmental permission.

Cr. 3.

Notes

Approved by Arts and Sciences for the Cultural Studies (Non-Western Culture) requirement.

**Dual Level Course** 

Eligible for graduate credit.

## SPAN 48800 - Spanish for Teachers

## SPAN 48800 - Spanish for Teachers

Open only to students completing teaching certification requirements. Focuses on major problem areas of teaching Spanish. Includes review, exercises, and information on current pedagogical trends.

### **Preparation for Course**

P: SPAN 31100 and 31201 or instructor permission.

Cr. 3.

## SPAN 49500 - Hispanic Colloquium

# SPAN 49500 - Hispanic Colloquium

Topic and credit may vary. May be repeated for credit with a different topic.

#### Preparation for Course

P: SPAN 30101 or consent of instructor.

Cr. 1-3.

Variable Title

#### STAT 12500 - Communicating with Statistics

## STAT 12500 - Communicating with Statistics

An introduction to the basic concepts and methods in statistical reasoning that are commonly referenced in the print media. Topics include data collection methods, descriptive statistics, basic techniques of estimation, and theory testing. Students will analyze and interpret statistics relating to contemporary problems in politics, business, science and social issues.

### **Preparation for Course**

P: MA 12401 with a grade of C- or higher, or MA 10900 with a grade of C or higher, or by placement exam.

Cr. 3

## STAT 24000 - Statistical Methods for Biology

## STAT 24000 - Statistical Methods for Biology

An introduction to the basic concepts and methods in a statistical analysis, with emphasis on applications in the life sciences. Descriptive statistics, discrete and continuous distributions, confidence interval estimation, hypothesis testing, and contingency tables.

#### Preparation for Course

P: MA 14900 or MA 15300 with a grade of C or higher.

Cr. 3.

### STAT 30100 - Elementary Statistical Methods I

## STAT 30100 - Elementary Statistical Methods I

Not open to majors in mathematics or engineering. Credit should be allowed in no more than one of STAT 30100 or 51100. Introduction to statistical methods with applications to diverse fields. Emphasis on understanding and interpreting standard techniques. Data analysis for one and several variables, design of samples and experiments, basic probability, sampling distributions, confidence intervals and significance tests for means and proportions, correlation and regression. Software is used throughout.

#### Preparation for Course

P: MA 14900 or MA 15300 or MA 16800 with a grade of C or higher.

Cr. 3.

## STAT 34000 - Elementary Statistical Methods II

# STAT 34000 - Elementary Statistical Methods II

Statistical methods of simple linear regression, multiple linear regression, experimental design, analysis of variance, and nonparametric analysis. One or more statistical computer programs will be used. Student projects required, typically using data from the student's major.

### Preparation for Course

P: STAT 24000, 30100, ECON 27000, PSY 20100 (or equivalent), one semester statistics course with a grade of C or higher.

Cr. 3.

## STAT 47301 - Introduction To Arbitrage-Free Pricing Of Financial Derivatives

# STAT 47301 - Introduction To Arbitrage-Free Pricing Of Financial Derivatives

This course exposes students to a number of financial economics concepts related to arbitrage-free option pricing in the binomial market model and the Black-Scholes model. Specific models include: (1) Options and parity relationship between options (2) Option Pricing under the Binomial model (3) Option Pricing under the Black-Scholes model (4) Option hedging and the market maker's overnight profit (5) Black Scholes theory with Brownian motion and Ito calculus (6) Risk-neutral option pricing and Monte Carlo valuation (7) Stochastic interest rates and Stochastic Volatility. This course provides the background for Course MFE of the Society of Actuaries and Course 3F of the Casualty Actuarial Society.

#### **Preparation for Course**

P: MA 27300; STAT 51100 or ECON 27000

## STAT 49000 - Topics in Statistics for Undergraduates

## STAT 49000 - Topics in Statistics for Undergraduates

Directed study for students who wish to undertake individual reading on approved topics.

Cr. 1-5. Variable Title (V.T.)

STAT 51100 - Statistical Methods

## STAT 51100 - Statistical Methods

Descriptive statistics; elementary probability; sampling distributions; inference, testing hypotheses, and estimation; normal, binomial, Poisson, hypergeometric distributions; one-way analysis of variance; contingency tables; regression.

#### **Preparation for Course**

P: two semesters of calculus with a grade of C or higher.

Cr. 3

### **Dual Level Course**

Undergraduate-Graduate

## STAT 51200 - Applied Regression Analysis

## STAT 51200 - Applied Regression Analysis

Inference in simple and multiple linear regression, residual analysis, transformations, polynomial regression, model building with real data, nonlinear regression. One-way and two-way analysis of variance, multiple comparisons, fixed and random factors, analysis of covariance. Use of existing statistical computer programs.

#### Preparation for Course

P: STAT 51100 or 51700 or 52800 with a grade of C or higher.

Cr. 3

### **Dual Level Course**

Undergraduate-Graduate

### STAT 51400 - Design of Experiments

## STAT 51400 - Design of Experiments

Fundamentals, completely randomized design; randomized complete blocks; latin square; multi-classification; factorial; nested factorial; incomplete block and fractional replications for 2n, 3n, 2m x 3n; confounding; lattice designs; general mixed factorials; split plot; analysis of variance in regression models; optimum design. Use of existing statistical programs.

#### Preparation for Course

P: STAT 51200 with a grade of C or higher.

Cr. 3.

## Dual Level Course

Undergraduate-Graduate

## STAT 51600 - Basic Probability and Applications

# STAT 51600 - Basic Probability and Applications

A first course in probability intended to serve as a background for statistics and other applications. Sample spaces and axioms of probability, discrete and continuous random variables, conditional probability and Bayes' theorem, joint and conditional probability distributions, expectations, moments and moment generating functions, law of large numbers and central limit theorem. (The probability material in Course 1 of the Society of Actuaries and the Casualty Actuarial Society is covered by this course.)

#### **Preparation for Course**

C: MA 26100 or MA 26300.

Cr. 3. **Dual Level Course**Undergraduate-Graduate

### STAT 51700 - Statistical Inference

## STAT 51700 - Statistical Inference

A basic course in statistical theory covering standard statistical methods and their application. Estimation including unbiased, maximum likelihood and moment estimation; testing hypotheses for standard distributions and contingency tables; confidence intervals and regions; introduction to nonparametric tests and linear regression.

#### **Preparation for Course**

P: STAT 51600 with a grade of C or higher.

Cr. 3

**Dual Level Course** 

Undergraduate-Graduate

## STAT 51800 - Introduction To Statistical Learning

## STAT 51800 - Introduction To Statistical Learning

Credit Hours: 3.00. This course provides an introduction to supervised learning with focus on regression and classification methods. Both theory and application of learning methods are emphasized. Some unsupervised learning methods are also discussed, such as principal component analysis and clustering methods. Permission of department required.

#### **Preparation for Course**

STAT 51600, STAT 51200, and Programming using R is expected. (Students should have plenty of experience of R programming in STAT 51200)

Cr. 3

#### STAT 51900 - Introduction to Probability

# STAT 51900 - Introduction to Probability

Algebra of sets, sample spaces, combinatorial problems, independence, random variables, distribution functions, moment generating functions, special continuous and discrete distributions, distribution of a function of a random variable, limit theorems.

### Preparation for Course

P: MA 26100 or MA 26300 with a grade of C or higher.

Cr. 3.

**Dual Level Course** 

Undergraduate-Graduate

## STAT 52000 - Time Series And Applications

# **STAT 52000 - Time Series And Applications**

A first course in stationary time series with applications in engineering, economics, and physical sciences. Stationarity, autocovariance function and spectrum; integral representation of a stationary time series and interpretation; linear filtering, transfer functions; estimation of spectrum; multivariate time series. Use of computer programs for covariance and spectral estimation.

## Preparation for Course

P: STAT 51200 or consent of instructor.

Cr. 3. Notes

Department permission required.

**Dual Level Course** 

Undergraduate - Graduate

## STAT 52800 - Introduction to Mathematical Statistics

Distribution of mean and variance in normal samples, sampling distributions derived from the normal distribution, Chi square, t and F. Distribution of statistics based on ordered samples. Asymptotic sampling distributions. Introduction to multivariate normal distribution and linear models. Sufficient statistics, maximum likelihood, least squares, linear estimation, other methods of point estimation, and discussion of their properties. Cramer-Rao inequality and Rao-Blackwell theorem. Tests of statistical hypotheses, simple and composite hypotheses, likelihood ratio tests, power of tests.

#### **Preparation for Course**

P: STAT 51900 with a grade of C or higher.

Cr 3

**Dual Level Course** 

Undergraduate-Graduate

### **TECH 54000 - Reliability and Maintenance**

## **TECH 54000 - Reliability and Maintenance**

Study of maintainability, maintenance, and reliability methods during product and systems design phase for mechanical and electronic devices.

#### Preparation for Course

P: an introductory course in statistics, senior or graduate standing, and consent of instructor.

Cr. 3

**Dual Level Course** 

Undergraduate-Graduate

## **TECH 56100 - Industrial Projects Management and Control**

## **TECH 56100 - Industrial Projects Management and Control**

An exposition of planning, scheduling, and controlling of a project during its life cycle. Topics include the use of project-management techniques, such as PERT (Project Evaluation and Review Technique) and Gantt charts and other techniques of selecting, planning, scheduling, and controlling projects. Covers resources optimization and risk management techniques. Involves computer applications and software tools in project management.

## **Preparation for Course**

P: senior or graduate standing.

Cr. 3

**Dual Level Course** 

Undergraduate-Graduate

## **TECH 56900 - Simulation Modeling**

# **TECH 56900 - Simulation Modeling**

An introduction to computer simulation of waiting lines (queues), especially those that pertain to manufacturing. Topics include elementary queuing systems modeling and analysis, the effects of variability, notation, queue behavior, and load balancing.

### Preparation for Course

P: an undergraduate statistics or probability course, senior or graduate standing, and consent of instructor.

Cr. 3

**Dual Level Course** 

Undergraduate-Graduate

#### Tech 57400 - Advanced Quality Engineering Methods

# **Tech 57400 - Advanced Quality Engineering Methods**

Quality engineering methods for quality planning, improvement and control with applications in manufacturing and service, emphasizing both on-line and off-line methods. Topics include modern quality philosophies and methods, control charts, process capability studies, loss functions and robust engineering, and application of multiple regression models in quality engineering.

#### **Preparation for Course**

P: IET 45400 or consent of instructor and senior or graduate service.

Cr. 3

#### **Dual Level Course**

Undergraduate-Graduate

## THTR 11400 - Interpretation for Performance and Presentation

## THTR 11400 - Interpretation for Performance and Presentation

Students will enhance their communication skills by analyzing selections from prose, poetry, and drama and exploring them through oral presentation. In addition to leaning methods of creating a variety of specific texts, a mixture of vocal and physical techniques will be examined, adapted and practiced in order to better present material to a diverse population.

Cr. 3.

## THTR 13400 - Fundamentals of Performance

## **THTR 13400 - Fundamentals of Performance**

An introduction to the art of acting as practiced in the world today.

Cr. 3

Notes

Indiana Core Transfer Library course.

## THTR 13600 - Rehearsal and Performance I

## THTR 13600 - Rehearsal and Performance I

Study and practice of rehearsal techniques and stage performance. Students will be assigned to acting and stage management duties in stage productions. May be repeated for credit.

### **Preparation for Course**

P: consent of instructor.

Cr. 1-2.

Hours

Lab. 3 or 6,

### THTR 13800 - Acting I

# THTR 13800 - Acting I

Student experientially learns basic acting skills through a structured series of exercises. Emphasis is on developing and controlling concentration, creation of basic realities, improvisation. May not be taken concurrently with THTR 16800, 33600, or 36800.

### **Preparation for Course**

Instructor Permission Required, or a Theatre major.

Cr. 3.

Hours

Class 3, Lab. 1,

### THTR 15800 - Stagecraft

# THTR 15800 - Stagecraft

Theory and application of current and traditional technical theatre practices. Training in stage carpentry, painting, and preproduction organization.

Cr. 3.

Hours

Class 3, Lab. 2,

## **THTR 16800 - Theatre Production I**

Application of technical-theatre practice in scenic construction, painting, lighting, sound, costuming, and stage management. Students will be assigned to work on experimental and major stage productions. May be repeated for credit.

Cr. 1. Hours Lab. 6.

THTR 20100 - Theatre Appreciation

## **THTR 20100 - Theatre Appreciation**

Understanding and appreciation of the theatre's role in the modern world. Includes a seminar approach in discussion of the nature of theatre, critical analysis of drama, the actor, the director, design, and careers in the theatre. Also deals with professional, regional, community, and educational theatre. All discussions and work are related to current stage productions that students are required to attend.

Cr. 3. Notes

Indiana Core Transfer Library course.

THTR 20201 - Introduction To Theatre

## THTR 20201 - Introduction To Theatre

Students will develop understanding of the theatre's role in today's society by reading, writing, and discussion of: the nature of theatre, critical analysis of drama, the role of various theatre artists and various aspects of theatrical activity. Exploration of Department of Theatre's expectation, procedures, and opportunities will also be covered.

Cr. 3.

THTR 21300 - Voice for the Actor

## THTR 21300 - Voice for the Actor

Designed to heighten the actor's awareness of the vocal instrument. Elementary vocal techniques will be practiced to expand the student's vocal flexibility and range. Emphasis on freeing habitual vocal tensions and teaching the student the fundamentals of vocal health.

Cr. 2.

THTR 23800 - Acting II

# THTR 23800 - Acting II

Emphasis is on developing a character within a truthful reality based on the given circumstances of the script. Students will be challenged through scene-work, monologue preparation, and script analysis that connect the actor's internal choices to the external needs of the character. May be repeated for credit with consent of instructor.

#### **Preparation for Course**

P: THTR 13800 or consent of instructor.

Cr. 3. Hours

Class 3, Lab. 1,

THTR 23900 - Musical Theatre Performance I

## THTR 23900 - Musical Theatre Performance I

This course is designed to provide the student with an introduction and basic understanding of the various techniques and practices of performance in musical theatre and the specific demands of the audition process, with focus on character development, script/score analysis, and repertoire building. The course will consist of discussions, exercises, and performance projects designed to address the major requirements of acting through singing in a musical.

### **Preparation for Course**

P or C: THTR 23800 or permission of instructor.

### THTR 25600 - Stage Makeup

## THTR 25600 - Stage Makeup

Study of facial anatomy, the aging process, the principles of light and shadow, and character analysis. Theory and practice in the basic techniques of applying stage makeup.

Hours

Class 1, Lab. 3,

### THTR 26100 - Introduction to Theatrical Design

## **THTR 26100 - Introduction to Theatrical Design**

An introduction to the principles and practices of contemporary theatrical design. Emphasis on the study and development of unified production theory and its practical application to the areas of theatrical design.

Hours

Class 3, Lab. 2,

Notes

Restricted to theatre majors/minors or consent of instructor.

### THTR 26200 - Lighting Technology I

# THTR 26200 - Lighting Technology I

Lighting Technology I develops understanding and skills centered around lighting technology and the implementation of lighting for the theatre. Class activities include reading, writing, drawing and drafting, lighting instrument hanging and focusing, lighting console operation, lighting accessory implementation, and discussions that surround various topics in lighting technology.

Cr. 3.

### THTR 26400 - Rendering Techniques

# **THTR 26400 - Rendering Techniques**

A project approach to the development of the student's ability to pictorially represent ideas through drawing, drafting, painting, etc. Emphasis on clarity of intention and effective presentation of ideas through various media and techniques.

#### Preparation for Course

P: theatre major.

Cr. 3

### THTR 26500 - Introduction to Stage Management

# THTR 26500 - Introduction to Stage Management

This is an introductory course in the craft of theatre stage management. This course will introduce the student to the procedures, responsibilities, rules and professional opportunities in theatre stage management.

Cr 3

Notes

Credit by Examination available.

### THTR 28400 - Textual Analysis

## **THTR 28400 - Textual Analysis**

A study of dramatic structure: theme, form, style, genre, and characterization as applied to selected plays.

Cr. 3.

THTR 32300 - Acting: Movement for the Actor

## THTR 32300 - Acting: Movement for the Actor

Designed to heighten body awareness in movement and stillness. Characterization techniques will be practiced that expand the student's flexibility, agility, and range of self-expression. Emphasis on freeing habitual tension patterns through the exploration of expressive movement.

Cr. 3.

Hours

Class 2, Lab. 3,

THTR 32510 - History of Modern Drama

# THTR 32510 - History of Modern Drama

Students will explore a wide variety of theatrical styles developed since 1879 comprising modern drama including realism and the breaks from realism to discover their origins in society, culture and historical events and their effects on contemporary drams. Students will develop skills in script analysis and interpretation and apply them to various theatrical texts, recorded media and live production.

Cr. 3.

THTR 33600 - Rehearsal and Performance II

## THTR 33600 - Rehearsal and Performance II

The study and practice of rehearsal techniques and stage performance. Students will be assigned to acting and stage-management duties in major stage productions. May be repeated for credit.

#### **Preparation for Course**

Instructor permission (signature) required: arrange time with the instructor.

Cr. 1-2. Hours Lab. 3 to 6. Variable Title

THTR 33800 - Acting III

# THTR 33800 - Acting III

Professional acting studio. Advanced character development focusing on the demands of period styles work. Possible styles to be covered include: Greek Theatre, Restoration/Comedy of Manners, Elizabethan, and Contemporary Realism.

## Preparation for Course

P: THTR 23800

Cr. 3.

Hours Class 3, Lab. 1,

## THTR 33900 - Musical Theatre Performance II

This course is a continuation of Musical Theatre Performance I and is designed to provide the student with further understanding of and experience with the various techniques and practices of performance in musical theatre, the specific demands of the audition process, and the cannon of musical theatre literature. The course will consist of a series of discussions, in class exercises and student performance projects designed to address the major requirements of singing and acting in a musical.

#### **Preparation for Course**

P or C: THTR 23800 or permission of instructor.

Cr. 3.

THTR 35100 - Costume Techniques I

## **THTR 35100 - Costume Techniques I**

A project approach to the basic practices used in the construction of the theatrical costume and its accessories.

Cr. 3.

Hours

Class 2, Lab. 2,

THTR 35500 - American Musical Theatre

## **THTR 35500 - American Musical Theatre**

A study of the origin, artistry, history, and unique qualities of the American musical theatre.

Cr. 3.

THTR 36000 - Scenic Design

# THTR 36000 - Scenic Design

A study of the application of scenographic theory to the art of scenic design. Emphasis on the development of unified production theory as specifically applied to the physical theatrical environment.

#### **Preparation for Course**

P: THTR 26100 or consent of instructor.

Cr. 3.

Hours

Class 2, Lab. 2,

THTR 36100 - Costume Design

# THTR 36100 - Costume Design

Theory and principles of design specifically applied to stage costume design. Emphasis on the interrelationship of all aspects of production and how the costume becomes a building block toward total picturization.

## Preparation for Course

P: THTR 26100.

Cr. 3.

Hours

Class 2, Lab. 2,

# THTR 36200 - Light Design

A project course in utilizing the principles of design as they can convey an environment and its qualities to further dramatic action. Emphasis on the interrelationship among all aspects of production and how light becomes a building block toward total picturization.

#### **Preparation for Course**

p: THTR 26100

Cr. 3. Hours

Class 2, Lab. 2,

Notes

Restricted to Theatre majors.

THTR 36500 - Period Style for the Theatre I

## THTR 36500 - Period Style for the Theatre I

The study of developments in the history of dress, decor, and architecture from the primitive through the 17th century. Emphasis on interpretation of said developments in contemporary theatre practice.

Cr. 3.

THTR 36600 - Period Style for the Theatre II

## THTR 36600 - Period Style for the Theatre II

The study of developments in the history of dress, decor, and architecture from the 18th century through the present. Emphasis on interpretation of said developments in contemporary theatre practice.

Cr. 3.

THTR 36800 - Theatre Production II

## **THTR 36800 - Theatre Production II**

The study and application of technical theatre practice in scene construction, painting, lighting, costuming, and stage management. Students will be assigned to experimental and major stage productions. May be repeated for credit.

### **Preparation for Course**

P: THTR 16800.

Cr. 1-2. **Hours** Lab. 3 or 6.

**THTR 37500 - Theatrical Composition** 

# **THTR 37500 - Theatrical Composition**

This course will explore various contemporaty techniques to inspire the creation of theatre.

Cr. 3.
Subject Area
Theatre

# **THTR 37600 - Introduction to Playwriting**

An introductory survey of the principles of dramatic construction, with emphasis on the practice of writing for the stage. Each student's process and writing style are carefully examined. Workshop productions of works-in-progress of each student are expected.

#### **Preparation for Course**

P: THTR 28400.

Cr. 3.

## THTR 39000 - Directed Study of Special Theatre Problems

## **THTR 39000 - Directed Study of Special Theatre Problems**

An undergraduate-level individualized and intensive study of any aspect of theatre required by the student's plan of study. May be repeated.

#### **Preparation for Course**

P: consent of instructor.

Cr. 1-3. Variable Title (V.T.)

### THTR 41300 - Advanced Voice for the Stage

## THTR 41300 - Advanced Voice for the Stage

Advanced work in vocal production for performance. Emphasis on development of the full resonant voice, vocal power and range, and standard American speech. Special attention paid to application of knowledge to various performance situations and environments.

## Preparation for Course

P: THTR 21300 or consent of instructor.

Cr. 3. **Hours**Class 2, Lab. 2,

THTR 43800 - Acting IV

# THTR 43800 - Acting IV

Professional acting studio. Professional issues class preparing the advanced acting student for the rigors of the professional and graduate level theatre arenas. Students will explore the skills of monologue auditions, cold readings, improvisational auditions, musical theatre auditions, acting for the camera, and interviews as well as headshot and resume development.

#### **Preparation for Course**

P: THTR 13800 and THTR 2380; Or Instructor Permission Required.

Cr. 3. Hours Class 3, Lab. 1,

THTR 44000 - Directing: Page to Stage

# THTR 44000 - Directing: Page to Stage

Focuses on a theoretical and practical understanding of the essential principals and fundamentals of directing for the stage. Students will learn a proven directorial methodology and engage in essential research and written and practical presentations throughout.

## Preparation for Course

P: THTR 13800.

## THTR 46700 - Entrepreneurship In The Arts

This course is intended to meet the general education requirements outlined and pertaining to the learning outcomes for a general education Capstone course and is intended to examine business and entrepreneurial practices in the arts. The course will include discussions and study of arts administration, accounting practices, grant seeking/writing, marketing and publicity, personnel relations and not-for-profit regulations/procedures. Specific attention will be given to the ideas and concepts of business entrepreneurship as they relate specifically to the arts including producing a research-based fundable grant proposal.

Cr. 3.

### THTR 47000 - Theatre and Society I

# THTR 47000 - Theatre and Society I

The study of theatre history, performance, and dramatic literature from the primitive eras through the Renaissance. Emphasis on the relationship of theatre to its society.

#### **Preparation for Course**

P: THTR 28400 or consent of instructor.

Cr. 3.

## THTR 47100 - Theatre And Society II

## THTR 47100 - Theatre And Society II

The study of theatre history, performance, and dramatic literature from 1660 to the present. Emphasis on the relationship of theatre to its society.

#### **Preparation for Course**

P: THTR 28400

Cr. 3.

## THTR 54000 - Advanced Directing

# THTR 54000 - Advanced Directing

Application of principles of directing to the various types of drama; laboratory practice in directing plays for experimental production.

## Preparation for Course

P: THTR 44000.

Cr. 3.
Hours
Class 2, Lab. 2.
Dual Level Course
Undergraduate-Graduate

## THTR 56000 - Advanced Scenic Design

# THTR 56000 - Advanced Scenic Design

Advanced study of the principles of design and their application to specific staging problems.

## Preparation for Course

P: THTR 36000 or consent of instructor.

Cr. 3.
Hours
Class 1, Lab. 4,
Dual Level Course
Undergraduate-Graduate

### THTR 56100 - Advanced Costume Design

## THTR 56100 - Advanced Costume Design

Advanced study of the principles of costume design and their application to specific problems. May be repeated for up to 6 credit hours.

#### **Preparation for Course**

P: THTR 36100 or consent of instructor.

Cr. 3.
Hours
Class 2, Lab. 3,
Dual Level Course
Undergraduate-Graduate

## THTR 56200 - Advanced Light Design

# THTR 56200 - Advanced Light Design

Advanced study of the principles of light design and their application to specific lighting problems.

#### **Preparation for Course**

P: THTR 36200 or consent of instructor.

Cr. 3.
Hours
Class 3, Lab. 1 (with 2 hours experiential).
Dual Level Course
Undergraduate-Graduate

## THTR 57600 - Playwriting

# THTR 57600 - Playwriting

Principles of dramatic construction and practice in the writing of one-act and three-act plays. Experimental production or laboratory testing of the written product when possible. May be repeated for credit.

## **Preparation for Course**

P: THTR 37600.

Cr. 3.

## **Dual Level Course**

Undergraduate-Graduate

## THTR 59000 - Directed Study of Special Theatre Problems

# **THTR 59000 - Directed Study of Special Theatre Problems**

An individualized and intensive study of any aspect of theatre required by the student's plan of study. May be repeated for credit.

### **Preparation for Course**

P: consent of instructor.

Cr. 1-3. Variable Title (V.T.) Dual Level Course Undergraduate-Graduate

## VM 10200 - Careers in Veterinary

# VM 10200 - Careers in Veterinary

Overview of the field of veterinary medicine presently and as anticipated for the future. Presentations will include descriptions and discussions of the nature of the professional activity, organization of veterinary medicine, career opportunities, issues confronting the profession, and the admission requirements of the profession.

WOST 21000 - Introduction To Women's And Gender Studies

## **WOST 21000 - Introduction To Women's And Gender Studies**

An interdisciplinary introduction to women's and gender studies via readings from core discipline areas and presentation of methodological/bibliographical tools for research in women's studies. Includes an examination of women's historic and contemporary status legally, politically, and economically, as well as women's struggles in identity, expression, sexuality, and lifestyle.

Cr. 3.

**Session Indicators** 

Typically offered Fall and Summer.

Mataa

Approved by Arts and Sciences for the social and behavioral sciences distribution requirement.

WOST 22500 - Gender, Sexuality, and Popular Culture

# WOST 22500 - Gender, Sexuality, and Popular Culture

Examination of popular cultural "makings" of masculinity, femininity, and sexuality through typical representation of gender within fiction, theatre, cinema, radio, music, television, journalism, and other secular mass media. Analysis of developing international telecommunications "superhighway" and struggles to secure increased representation of women and of feminist perspectives within existing culture industries.

Cr. 3.

Notes

Approved by Arts and Sciences for the humaities distribution requirement.

WOST 23000 - Writing for Social Change

## **WOST 23000 - Writing for Social Change**

Study of writing as an instrument to advance social justice and practice in producing researched writing projects that support community and institutional transformation. Emphasis on research methods and documentation, rhetorical and cultural analysis, and writing for a variety of contexts. May involve direct work with communities outside the university. Prerequisite: ENG 13100.

Cr. 3.

WOST 24000 - Topics in Feminism

# **WOST 24000 - Topics in Feminism**

Exploration of feminist scholarship on a specific topic of current interest, e.g., women and social activism, pornography, reproductive rights, lesbian and gay studies, gender in early education, contemporary women's movement. Specific topics announced in the Schedule of Classes. Suitable for students without previous women's studies courses. May be repeated with different topic for a maximum of 6 credits.

Cr. 3.

Variable Title

(V.T.)

Notes

Approved by Arts and Sciences for the social and behavioral sciences distribution requirement.

WOST 30100 - International Perspectives on Women

# **WOST 30100 - International Perspectives on Women**

Feminist analysis of women's legal, social, and economic status in two or more cultures other than those of the United States, Canada, Australia, New Zealand, and Europe. Interdisciplinary approach. May be repeated once with a different topic.

### **Preparation for Course**

P: Sophomore, junior, or senior standing or consent of instructor.

Cr. 3.

Variable Title

(V.T.)

#### Note

Approved by Arts and Sciences for the cultural studies (non-western culture) requirement.

#### **WOST 30200 - Topics in Gender Studies**

## **WOST 30200 - Topics in Gender Studies**

Interdisciplinary approach to selected ideas, trends, and problems in women's studies. Specific topics to be announced in the Schedule of Classes. May be repeated three times when topic varies for a maximum of 9 credit hours.

Cr 3

Variable Title

(V.T.)

Notes

Approved by Arts and Sciences for the humanities distribution requirement.

### **WOST 30400 - Feminist Theories**

## **WOST 30400 - Feminist Theories**

Overview, in historical context, of feminist texts that analyze gender asymmetry in society; intersections of gender with other differences; and unequal distribution of power. Indepth study of key debates in Western feminism; selected readings by influential non-Western feminists. Required for WOST major.

### **Preparation for Course**

P: WOST 21000 and ENGL 23301 or equivalent, or department permission.

Cr. 3.

Notes

Approved by Arts and Sciences for the humanities distribution requirement.

### WOST 34001 - Topics In LGBTQ Studies

## **WOST 34001 - Topics In LGBTQ Studies**

This course will take an interdisciplinary approach to a particular topic of interest in the field of Lesbian, Gay, Bisexual, Transgender, and Queer Studies. Students will approach LGBTQ culture and identity through literary, cultural, historical and/or social texts, with a particular focus on feminist approaches to the study of sexual and gender identity. May be repeated once when topic varies for a maximum of 6 credit hours.

Cr. 3. Variable Title (V.T.)

### WOST 40000 - Topics in Women's Studies

# **WOST 40000 - Topics in Women's Studies**

An interdisciplinary approach to selected ideas, trends, and problems in women's studies. The capstone course focuses on issues and controversies in the new scholarship on women. Specific topics announced in Schedule of Classes

#### **Preparation for Course**

P: junior or senior standing, 12 credits of womens studies course work or department permission.

Cr. 3. Variable Title

### WOST 48001 - Practicum in Women's Studies

## **WOST 48001 - Practicum in Women's Studies**

Directed study of aspects of policy related to women's issues based upon field experience. Directed readings, practicum in social agency, papers, and analytical journal required.

#### **Preparation for Course**

P: junior or senior class standing, 12 credits of womens studies course work, and project approved with department permission; R: WOST 21000.

## WOST 49500 - Readings and Research in Gender Studies

# **WOST 49500 - Readings and Research in Gender Studies**

Individual readings and research. May be repeated twice for credit with a different topic.

Preparation for Course P: Department permission.

Cr. 1-3. (6 Cr. max.)
Hours
Class 0-3.
Session Indicators
(fall, spring)

# **Overlapping Course Content**

Courses below are considered to have overlapping course content. Only one overlapping content course will apply toward graduation requirements. Courses listed in the individual blocks by group are representative of the overlapping relationship. Check your online degree audit or consult an advisor for further questions.

College	Department	Subject	Courses	Former Purdue University Fort Wayne Course Offerings (for reference purpose)
AS	BIOL	Medical Terminology	BIOL 10500	AHSP M195*
AS	BIOL	Addiction: BIOL/PSY	BIOL 31700, PSY 31700	
AS	BIOL	Anatomy and Physiology I	BIOL 20300, 21500	
AS	BIOL	Anatomy and Physiology II	BIOL 20400, 21600	
AS	BIOL	Biology I	BIOL 10000, 10001, 11700	BIOL 25000, 10800*
AS	BIOL	Biology II	BIOL 11900	BIOL 10900*
AS	BIOL	Microbiology	BIOL 22000, 43700	BIOL 22100*, 43800*, 43900*
AS	СНМ	Analytical Chemistry I	CHM 32100	CHM 22400*
AS	CHM	Chemistry I	CHM 10400, 11100, 11500	CHM 12900*, 15100*
AS	CHM	Chemistry II	CHM 10200, 11600	
AS	СНМ	Organic Chemistry I	CHM 25100, 25500, 26100	
AS	CHM	Organic Chemistry I Lab	CHM 25200, 25400, 26500	
AS	СНМ	Organic Chemistry II	CHM 25600, 26200	
AS	CHM	Organic Chemistry II Lab	CHM 25800, 26600	
AS	СНМ	Physical Chemistry I	CHM 37100, 37200, 38300	CHM 37300*
AS	CHM	Physical Chemistry II	CHM 37100, 37200, 38400	CHM 37400*
AS	COM	Mass Commun & Society	COM 25000	JOUR C200*
AS	COM	Mass Communication Law	COM 30002, 35200	JOUR J300*
AS	COM	Public Relations, Intro To	COM 25300	COM 21900*, JOUR J219*
AS	ENGL	American Ethnic And Minority Literature	ENGL 37901	ENG L379*, L374*
AS	ENGL	Ethics	REL 11200	PHIL 11200*
AS	ENGL	Religions of the East	REL 23000	PHIL 33000*
AS	ENGL	Religions of the West	REL 23100	PHIL 33100*
AS	ENGL	Shakespeare, Intro to/Major Plays of	ENGL 22001, 31501	ENG L220*, L315*
AS	ENGL	Writing, Intermediate Expos/Read, Writ & Inq I Honors	ENGL 23301, 14000	ENG W233*, W140*
AS	HIST	African History Ancient Times to Empires & City States	HIST 33101	HIST E331*, E431*
AS	HIST	African History from Colonial Rule to Independence	HIST 33201	HIST E332*, E432*
AS	HIST	Russian Revolutions and Soviet Regime	HIST 31002	HIST D310*, D410*
AS	HIST	American Diplomatic History	HIST 34501	HIST A316*, HIST A345* or A346*
AS	IDS	Freshman Success	IDIS 11000	IDIS G102*, G103*, G104*, 10301*, 10401*
AS	IDS	Rock and Roll/History of Rock and Roll	FOLK 25400, MUSC 20103	MUS Z201*
AS	MA	Calculus I	MA 16300, 16500, 22700, 22900	
AS	MA	Calculus II	MA 16400, 16600, 22800, 23000	
AS	MA	College Algebra I/Basic and College Algebra	MA 15300, 14900	
AS	MA	College Algebra II/Precalculus	MA 15400, 15900	
AS	MA	Differential Equations/Applied Differential Equations	MA 32100, 36300	MA 26200*
AS	MA	Multivariate Calculus/Multivariate and Vector Calculus	MA 26100, 26300	
AS	MA	Practical Quantitative Reasoning	MA 14000	MA 16800*

AS	MA	Probability & Applications, Basic	STAT 51600	STAT 311*, EE 302*, ECe 30200
AS	MA	Statistics	ECON 27000, POL 39500, PPOL 30000, PSY 20100, SOC 35100, STAT 24000, 30100, 51100	ECON E270*, POL Y395*, PPOL K300* SOC S351*, SPEA K300*
AS	MA	Statistics II	STAT 34000, 51200	
AS	PHYS	Astronomy - Stars And Galaxies	ASTR 10500, 26400	AST A105*
AS	PHYS	Astronomy - The Solar System	ASTR 10000	AST A100*, GEOL G121*
AS	PHYS	Geology/Earth Science: Mat & Proc/Geology Honors	EAPS 10001, 10300, 10003	GEOL G100*, G103*, S100*
AS	PHYS	Physics I	PHYS 13100, PHYS 15200, PHYS 20100, PHYS 21800, PHYS 22000	
AS	PHYS	Physics II	PHYS 20200, 21900, 22100	PHYS 24100*, 26100*
AS	POL	Statistics I	ECON 27000, POL 39500, PPOL 30000, PSY 20100, SOC 35100, STAT 24000, 30100, 51100	ECON E270*, POLS Y395*, PPOL K300*, SOC S351*, SPEA K300*
AS	POL	Women's & Gender Studies, Intro To	WOST 21000	WOST W210*, W200*
AS	PSY	Addiction: Biol/Psy	BIOL 31700, PSY 31700	
AS	PSY	Child Psychology/Life Span Development	PSY 23500, 36900	
AS	PSY	Critical Foundations	PSY 14000	PSY 10000*
AS	PSY	Testing and Measurement	PSY 20500	PSY 20200*
AS	PSY	Statistics	ECON 27000, POL 39500, PPOL 30000, PSY 20100, SOC 35100, STAT 24000, 30100, 51100	ECON E270*, POLS Y395*, PPOL K300*, SOC S351*, SPEA K300*
AS	PSY	Stereotyping and Prejudice	PSY 33500	PSY 22500*
AS	SOCA	Statistics	ECON 27000, POL 39500, PPOL 30000, PSY 20100, SOC 35100, STAT 24000, 30100 51100	ECON E270*, POLS Y395*, PPOL K300*, SOC S351*, SPEA K300*
AS	SPAN	Elementary Spanish II & Accel First Year Spanish	SPAN 11201, 11300	SPAN S112, SPAN S113
BN	ACCT	Accounting	BUS 20000, 20100 or 20200	BUS A200*, A201* or A202*
BN	BUS	Commercial Law I/Elements of Law	BUS 20300, OLS 26800	BUS L203*
BN	BUS	Intro to Computers/Computer in Business, Spreadsheets for Business, Intro to Database Management	ETCS 10600	CS 10600*, K200* or K211* or K212*, 20002* or 21100* or 21200*
BN	BUS	The Computer in Business/Spreadsheets for Business, Intro to Database Management, Internet Literacy for Business	BUS 20100	BUS K201*, K211* or K212* or K213*, 21100* or 21200* or 21300*
BN	ECON	Statistics	ECON 27000, POL 39500, PPOL 30000, PSY 20100, SOC 35100, STAT 24000, 30100, 51100	ECON E270*, POLS Y395*, PPOL K300*, SOC S351*, SPEA K300*
EE	HTM	Essential of Nutrition	FNN 30300	
EE	OL	Commercial Law I/Elements of Law	BUS 20300, OLS 26800	BUS L203*
EE	PPOL	Environment and People	PPOL 16200	SPEA E100*, E262*
EE	PPOL	Statistics	ECON 27000, POL 39500, PPOL 30000, PSY 20100, SOC 35100, STAT 24000, 30100, 51100	ECON E270*, POLS Y395*, PPOL K300*, SOC S351*, SPEA K300*
ET	POLY	Computer Oper Syst Basics	CPET 18100, ITC 23000	
ET	POLY	Data & Information Management/Databases	IST 27000, ITC 35000	
ET	POLY	Foundations & Role of IS/Information Technology Fund	IST 16000, ITC 11000	
ET	POLY	Human Computer Interaction	CS 36800, IST 44000, ITC 37000	
ET	POLY	Intro to Computers/Computer in Business, Spreadsheets for Business, Intro to Database Management	ETCS 10600	CS 10600*, K200* or K211* or K212*, 20002* or 21100* or 21200*
ET	POLY	Networking Security/Computer Security/IT Security & Risk Mang/Information Assurance & Security	CPET 36400, CS 44500, IST 43000, ITC 41000	
ET	POLY	Probability & Applications, Basic	STAT 51600	STAT 311*, EE 302*
ET	POLY	Systems Analysis & Design/Proj Analysis Design & Implement	IST 37000, ITC 38000	
ET	POLY	Tech Proj Mang/IS Proj Mang/IT Proj Mang	CPET 47000, IST 46700, ECET 47000, ITC 31000	
ET	POLY	Web App Development/Web Systems	CS 37200, ITC 42000	ITC 25000
VP	MUS	Rock and Roll/History of Rock and Roll Music	FOLK 25400, MUSC 20103	MUS Z201*

<sup>\*</sup>Courses no longer offered at Purdue University Fort Wayne.

# **TransferIN.net Indiana Core Transfer Library**

# TransferIN.net: Indiana Core Transfer Library

## What is the CTL?

Indiana is working to help you transfer college credits more easily. To enable students to connect college credits, Indiana has developed the Core Transfer Library (CTL) - a list of courses that will transfer among all Indiana public college and university campuses, assuming adequate grades.

Core Transfer Library courses will meet the general education or free elective requirements of undergraduate degree programs, and most CTL courses will also count toward degree program requirements - if an equivalent course is taught at your new campus.

At the time of publication, the Purdue University Fort Wayne courses listed below have been approved as part of the CTL. Additional courses are being added. For complete and up-to-date information, visit <a href="https://www.transferIN.net">www.transferIN.net</a>.

### Course List:

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• AD 10101 - Art Appreciation Cr. 3.
• AD 10801 - Introduction To Drawing for Non-Majors Cr. 3.
  AD 11100 - History Of Art I: Prehistoric To Medieval Cr. 3
 AD 11201 - History Of Art II: Renaissance To Contemporary Cr. 3.
  ASTR 10000 - The Solar System Cr. 3.
• BIOL 10000 - Introduction To The Biological World Cr. 3.
  {\rm BIOL}~10001 - Introduction To The Biological World Laboratory Cr. 1.

    BIOL 11700 - Principles Of Ecology And Evolution Cr. 4.

  BIOL 11900 - Principles Of Structure And Function Cr. 4.

    BIOL 22000 - Microbiology For Allied Health Professionals Cr. 4.

  BUS 20100 - Principles Of Financial Accounting Cr. 3.
• BUS 20200 - Principles Of Managerial Accounting Cr. 3.
  BUS 26000 - Personal Finance Cr. 3.
• BUS 10001 - Principles Of Business Administration Cr. 3.
  CHM 11100 - General Chemistry Cr. 3.
 CHM 11200 - General Chemistry Cr. 3.
• CHM 11500 - General Chemistry Cr. 4.
• CHM 11600 - General Chemistry Cr. 4.
  COM 11400 - Fundamentals Of Speech Communication Cr. 3.
  COM 21200 - Approaches To The Study Of Interpersonal Communication Cr. 3.
  COM 25000 - Mass Communication And Society Cr. 3.
• EAPS 10001 - General Geology Cr. 3-5.
  ECON 20000 - Fundamentals of Economics Cr. 3.
· ECON 20101 - Introduction to Microeconomics Cr. 3.
· ECON 20201 - Introduction to Macroeconomics Cr. 3.
• ENGL 10101 - Ancient And Medieval World Literature Cr. 3.
  ENGL 10201 - Modern World Literature Cr. 3.
  ENGL 20201 - Literary Interpretation Cr. 3.
• ENGL 25001 - American Literature Before 1865 Cr. 3.
• ENGL 25100 - American Literature Since 1865 Cr. 3.
  ENGL 10302 - Introductory Creative Writing Cr. 3.
· ENGL 13100 - Reading, Writing, and Inquiry I Cr. 3.
• ENGL 23301 - Intermediate Expository Writing Cr. 3.

    ENGL 23401 - Technical Report Writing Cr. 3.

• ETCS 10600 - Introduction to Computers Cr. 3.
• FR 11100 - Elementary French I Cr. 3.
• FR 11201 - Elementary French II Cr. 3.
• FR 20301 - Second-Year French I Cr. 3.
• FR 20401 - Second-Year French II Cr. 3.
· GEOG 10700 - Physical Systems of the Environment Cr. 3.
• GER 11100 - Elementary German I Cr. 3.
• GER 11201 - Elementary German II Cr. 3.
• GER 20301 - Second-Year German I Cr. 3.
  GER 20401 - Second-Year German II Cr. 3.
• HIST 10501 - American History I Cr. 3.
• HIST 10601 - American History II Cr. 3.

    HPER 16000 - First Aid Cr. 1-2.

  LING 10300 - Introduction to the Study of Language Cr. 3.
  MA 14000 - Practical Quantitative Reasoning Cr. 3.
 MA 15300 - College Algebra Cr. 3.
 MA 15400 - Trigonometry Cr. 3.
  MA 16500 - Analytic Geometry and Calculus I Cr. 4.
  MA 16600 - Analytic Geometry and Calculus II Cr. 4.
  MA 21300 - Finite Mathematics I Cr. 3.
  MA 22700 - Calculus for Technology I Cr. 4.
  MA 22800 - Calculus for Technology II Cr. 3.
  MA 22900 - Calculus for the Managerial, Social, and Biological Sciences I Cr. 3.
 MA 23000 - Calculus for the Managerial, Social, and Biological Sciences II Cr. 3. MUSC 10101 - Music for the Listener Cr. 3.
  NUTR 30300 - Essentials of Nutrition Cr. 3.
  PHIL 11000 - The Big Questions: Introduction to Philosophy Cr. 3.
  PHIL 11100 - Introduction To Ethics Cr. 3.
• PHIL 20600 - Introduction To Philosophy Of Religion Cr. 3.
  PHYS 15200 - Mechanics Cr. 5.
• PHYS 22000 - General Physics Cr. 4.
• PHYS 22100 - General Physics Cr. 4.
• PHYS 25100 - Heat, Electricity, and Optics Cr. 5.
  POL 10101 - Introduction to Political Science Cr. 3.
• POL 10300 - Introduction to American Politics Cr. 3.
• POL 10900 - Introduction to International Relations Cr. 3.
· PPOL 10100 - The American Criminal Justice System Cr. 3.
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PSY 12000 - Elementary Psychology Cr. 3.
PSY 24000 - Introduction to Social Psychology Cr. 3.

- PSY 35000 Abnormal Psychology Cr. 3.
- PSY 36900 Development Across the Lifespan Cr. 3.
- PSY 44400 Human Sexual Behavior Cr. 3.
- SOC 16101 Principles of Sociology Cr. 3.
- SOC 16300 Social Problems Cr. 3.
- SPAN 11101 Elementary Spanish I Cr. 3.
- SPAN 11201 Elementary Spanish II Cr. 3.
- SPAN 20301 Second-Year Spanish I Cr. 3.
- SPAN 20401 Second-Year Spanish II Cr. 3.
- THTR 13400 Fundamentals of Performance Cr. 3.
- THTR 20100 Theatre Appreciation Cr. 3.

# **Indiana Transfer Single Articulation Pathway - TSAP**

## **TSAP -Indiana Transfer Single Articulation Pathway**

Since 2013, the Commission for Higher Education has worked with state institutions in Indiana to create single articulation pathways (known as the Transfer Single Articulation Pathway or TSAP) in specific content areas. The courses mapped for a TSAP associate's degree are based upon a set of competencies agreed upon across all of the public institutions and are the minimum competencies for transfer in this major. For more information about the majors the state has selected for this program, view "Single Articulation Pathways" on this ICHE web page.

It is important that individual students review the published TSAP admission criteria at the specific university/campus to which they wish to transfer. Understanding admission and degree requirements will facilitate student success. Purdue Fort Wayne is committed to the success of TSAP students, and student success is a three-way partnership among students and the academic advisors at both institutions. A lack of communication after students enroll in a TSAP could result in a misunderstanding of the admission requirements to a specific four-year institution and/or TSAP program, such as minimum grades, specific course sequences, etc., and such misunderstanding could affect the time to graduation. Thus, successfully completing a public 2-year TSAP degree track is neither a guarantee of admission to a public 4-year institution nor a guarantee of admission to an aligned degree program at the public 4-year institution, since Purdue Fort Wayne program-specific requirements are not covered by the TSAP agreements.

To take advantage of this program at Purdue Fort Wayne, students must meet established admission criteria for the university and the respective major. For information about the implementation of this program at Purdue Fort Wayne and the related Purdue Fort Wayne majors, use the links below:

## **Programs:**

- · 20-21 TSAP BSB Accounting
- 20-21 TSAP BS Biology
- 20-21 TSAP BS Chemistry
- 20-21 TSAP BS Chemistry BSC
- · 20-21 TSAP BS Computer Science
- · 20-21 TSAP BSPA Criminal Justice
- 20-21 TSAP BSEd Early Childhood EDU P-3
- 20-21 TSAP BSB Business Economics
- 20-21 TSAP BS Electrical Engin Tech20-21 TSAP BS ED Elementary
- 20-21 TSAP BSB Finance
- 20-21 TSAP BSB Finance • 20-21 TSAP BS Human Services
- 20-21 TSAP BS Information Tech
- 20-21 TSAP BSB Management
- 20-21 TSAP BSB Marketing
- 20-21 TSAP BSME Mechanical Engin Ivy Tech
- 20-21 TSAP BSME Mechanical Engin VU
- 20-21 TSAP BS Mechanical Engin Tech
- 20-21 TSAP BA Psychology Ivy Tech
  20-21 TSAP BA Psychology VU
- · 20-21 TSAP BS Psychology Ivy Tech
- 20-21 TSAP BS Psychology VU
- 20-21 TSAP BA Sociology VU

## **Academic Calendar**

## 2020-2021 Academic Calendar

Fall Semester 2020	
Classes Begin	Monday, August 24, 2020
Classes Suspended at 4:30 p.m. (Labor Day Recess)	Friday, September 4, 2020
Classes Resume	Tuesday, September 8, 2020
Fall Recess	Monday-Tuesday, October 19-20, 2020
Classes Resume	Wednesday, October 21, 2020
Thanksgiving Recess Begins After Last Class	Tuesday, November 24, 2020
Classes Resume	Monday, November 30, 2020
Final Exam Week / Last Week of Classes	Monday-Sunday, December 14-20, 2020

Winter Inter-session 2020-2021	
Classes Begin	Monday, December 21, 2020
Classes Suspended (Holiday Break)	Thursday-Friday, December 24-25, 2020

Classes Resume	Monday, December 28, 2020
Classes Suspended (Presidents' Designated Holiday)	Thursday, December 31, 2020
Classes Suspended (New Year Holiday)	Friday, January 1, 2021
Classes Resume	Monday, January 4, 2021
Last Day of Classes	Sunday, January 10, 2021

Spring Semester 2021	
Spring Semester 2021	
Classes Begin	Monday, January, 11, 2021
Martin Luther King Jr. Holiday	Monday, January 18, 2021
Spring Recess	Monday-Sunday, March 8-14, 2021
Classes Resume	Monday, March 15, 2021
Classes Suspended at 4:30 p.m.	Friday, April 2, 2021
Classes Resume	Monday, April 5, 2021
Final Exam Week / Last week of Classes	Monday-Sunday, May 3-9, 2021
Tentative Date of Commencement	Wednesday, May 12, 2021

Summer Semester I 2021	
Summer Semester Begins	Monday, May 10, 2021
Summer Session 1 Classes Begin	Monday, May 17, 2021
Classes Suspended at 4:30 p.m. (Memorial Day Recess)	Friday, May 28, 2021
Classes Resume	Tuesday, June 1, 2021
Summer Session 1 Classes End at 4:30 p.m.	Friday, June 25, 2021

Summer Semester II 2021	
Summer Session 2 Classes Begin	Monday, June 28, 2021
Classes Suspended at 4:30p.m. (Independence Day Weekend Recess)	Friday, July 2, 2021
Independence Day Holiday Observed	Monday, July 5, 2021
Classes Resume	Tuesday, July 6, 2021
Summer Session 2 Classes End at 4:30 p.m.	Friday, August 6, 2021

Summer Semester Ends	Sunday, August 22, 2021	