

# Catalog Home

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

**Office of the Graduate Studies | Kettler Hall, Room 258 | 260-481-6145**

## What's New

Listed below are academic changes that have been made after the 2018-2019 Purdue University Fort Wayne catalog was published due to legislation or accreditation. Please see your advisor if you have any questions.

## Programs

## Policies

## General Information

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

- [Office of Graduate Studies](#)
- [Graduate Director's Welcome](#)
- [Graduation Degree and Certificate Programs](#)
- [Graduate Admission at Purdue University Fort Wayne](#)

Welcome to graduate studies at Purdue University Fort Wayne. You have chosen to attend the premier center for academic excellence in northeast Indiana. Purdue Fort Wayne offers more academic and extracurricular opportunities than any other higher education institution in the region.

Purdue Fort Wayne offers several challenging and exciting graduate programs for those seeking to further their education. The Purdue commitments to excellence in teaching, research, and service are reflected in all of our graduate programs. The university takes advantage of the latest technologies in order to enhance information exchange, classroom instruction, research, and communications. Purdue University carries traditions of distinction in the humanities, fine arts, social sciences, business, education, engineering, technology, and computer science.

Purdue Fort Wayne provides access to an excellent education through academic diversity, flexibility, and affordability. Purdue Fort Wayne students have access to superior research, academic, and extracurricular pursuits. The University is committed to the continued educational, economic, and cultural development of its 11-county service area.

More than 8,100 degree-seeking students are enrolled in more than 200 academic programs. The University offers undergraduate and graduate degrees as well as certificate options. Some 19,000 additional students pursue non-credit continuing education courses. A majority of the growing alumni network of 60,000 live and work in northeast Indiana, contributing to the region's economy, vitality, and intellectual strength.

Purdue Fort Wayne's graduate programs and courses are delivered through four colleges, or schools:

**College of Arts and Sciences**

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

**College of Professional Studies**

**Doermer School of Business**

The University is accredited by The Higher Learning Commission. Various colleges, schools, divisions, and programs have earned additional accreditation through professional societies.

Purdue Fort Wayne is a member of the Council of Graduate Schools and the Midwestern Association of Graduate Schools.

## **Office of Graduate Studies**

**Mission.** The mission of the Purdue Fort Wayne Office of Graduate Studies is to facilitate offering a range of distinctive graduate programs, especially targeted professional master's degree programs, important to the social, economic, cultural, and intellectual life of northeast Indiana.

**Vision.** Purdue Fort Wayne will fulfill its roles as a comprehensive, public university and the largest provider of higher education in northeast Indiana through strategic visioning and accountability for graduate education services. Through collaborations with other campuses and organizations, including civic and corporate, Purdue Fort Wayne will assess and respond to the graduate education needs of vital social, economic, cultural, and intellectual institutions and communities throughout the region.

Its programs will be of demonstrated quality and recognized nationally for the marriage of practical and liberal education, especially education that develops professional expertise based upon the cultivation of the skills of discovery and synthesis that support problem solving and innovation. To achieve this status, graduate programs at Purdue Fort Wayne will be known for challenging, active-learning curricula that are based in research and field experience; a community of creative, motivated students and faculty; student and faculty involvement in research supported by grants and contracts; and rigorous program evaluation that includes professional placement and success of graduates.

Graduates will be prepared to fulfill individual and collective responsibilities and goals and will model advancements in production, services, and professional practice in the industrial, corporate, social service, civic, education, and other sectors of society.

**Contact:**

Carol S. Sternberger  
Director of Graduate Studies  
Kettler Hall, Room 174  
260-481-5798  
Fax: 260-481-5773  
Web: [pfw.edu/graduate-studies](http://pfw.edu/graduate-studies)  
E-mail: [graduate@pfw.edu](mailto:graduate@pfw.edu)

## **Graduate Director's Welcome**

The Office of Graduate Studies at Purdue Fort Wayne provides an ever-growing array of programs ideally suited to serve the educational needs of northeast Indiana. Graduate education serves three vital functions for our community.

First, graduate education is an important component of workforce development, providing the high-level skills and abilities required in the marketplace. Secondly, graduate education supports the development of the education infrastructure, providing teachers, professors, and administrators with the knowledge and skills they require to shape the future of education in the region and the country. And finally, graduate education offers the opportunity for discovery and re-discovery, creating new knowledge to help us understand our rapidly changing world.

Through the Office of Graduate Studies, Purdue University Fort Wayne addresses all of these vital functions. The MBA provides the advanced study required in the corporate community, while our programs in education serve teachers, administrators, and professional staff in K-12 schools across the region. The public administration program prepare graduates to work in the public sector, while professional communication graduates work as communication specialists in both public and private organizations. Advanced scientific and technical education is available in biology, computer science, engineering, technology, and mathematical sciences.

A professionally oriented program is also available in English in which they acquire skills in critical and analytical thinking. The program in Organizational Leadership offers specialties in leadership and human resources. Advanced certificate programs are available in a number of areas including statistics, public management, teaching English as a second language, and organizational leadership. Additional programs are always under development to meet the ever-growing and ever-changing needs of the community.

The Purdue Fort Wayne Office of Graduate Studies is here to serve its students and its community.

Sincerely,

Carol S. Sternberger, Ph.D.  
Director of Graduate Studies

## Graduate Degree and Certificate Programs

Graduate degree and certificate programs appear below and are fully described in Programs. Additional programs are under development. Contact the Office of Graduate Studies for the most recent information.

<b>Program</b>	<b>Degree/Certificate</b>
<b>Applied Computer Science</b>	Master of Science
<b>Applied Statistics</b>	Graduate Certificate in Applied Statistics
<b>Biology</b>	Master of Science
<b>Business</b>	Master of Business Administration
<b>Education</b>	Master of Science in Education <i>Counseling</i> <i>Educational Leadership</i> <i>Special Education</i>
<b>Engineering</b>	Master of Science in Engineering <i>Civil Engineering</i> <i>Computer Engineering</i> <i>Electrical Engineering</i>

*Mechanical Engineering*  
*Systems Engineering*

Graduate Certificate in Systems Engineering

**English**

Master of Arts

Master of Arts for Teachers

Graduate Certificate in Teaching English as a New Language

**Mathematical Sciences**

Master of Science

Graduate Certificate in Applied Statistics

Master of Arts in Teaching

**Organizational Leadership**

Master of Science

*Human Resources*  
*Leadership*

Graduate Certificate in Leadership

**Professional Communication**

Master of Arts

Master of Science

**Public Administration**

Master of Public Administration

*Health Systems Administration and Policy*  
*Public Administration and Policy*  
*Nonprofit Management*

**Technology**

Master of Science

*Information Technology/Advanced*  
*Computer Applications*  
*Industrial Technology/Manufacturing*

**Accreditation.** Purdue Fort Wayne is accredited by The Higher Learning Commission. Information about accreditation is available from the Office of the Vice Chancellor for Academic Affairs (Kettler Hall, Room 169, 260- 481-6116).

**Graduation and persistence rates.** Graduation and persistence rate information for Purdue Fort Wayne is available in Admissions and the Registrar's office.

**Affiliation with Purdue University.** Purdue University Fort Wayne is a campus of Purdue University.

## **Graduate Admission at Purdue University Fort Wayne**

To be formally accepted as a graduate student at Purdue University Fort Wayne students are eligible to register for graduate classes. For admission to programs offered through Purdue University, apply online at <https://gradapply.purdue.edu/apply>. Admission applications may be obtained from the Purdue University Fort Wayne Office of Graduate Studies, Graduate Admissions Coordinator, KT 258, 260-418-6145, or from the Purdue University Fort Wayne college, school, division, or department that offers the program you wish to enter.

**Classification of applicants.** We have only two classifications:

- Regular which includes degree seeking and re-entry
- Non-degree seeking which includes non-degree seeking, temporary and visiting applicants

**Regular admission.** Individuals are classified as an applicant for regular admission if they are seeking admission into an Purdue University Fort Wayne graduate degree program.

Successful candidates for regular graduate admission include promising applicants who: 1) have earned baccalaureate degrees from colleges or universities of recognized standing; 2) have completed studies equivalent to those required of Indiana University or Purdue University baccalaureate recipients; and 3) have earned a B or better average in their undergraduate major. Regular admission, with specific conditions, may be available if you do not meet the above criteria. Some graduate programs at Purdue University Fort Wayne may impose higher or more specific criteria and may require you to provide additional evidence of previous academic performance (Colleges).

After students furnish all required information and related documents, applications will be considered by the academic unit that offers the program. For some graduate programs at Purdue University Fort Wayne, the application will also be considered by the Purdue University Graduate School, or another office responsible for admission to the selected program.

**Completed applications for regular admission and all required supporting materials have deadlines that vary. Contact your program office for deadline information.**

Students must reapply for admission if they do not enroll within two years of their admission semester/session.

**Graduate Record Examination.** Degree-seeking applicants should take the Graduate Record Examination (GRE) if they: (1) are seeking admission to a program that requires it (Colleges); (2) wish to be considered for certain fellowship opportunities; (3) believe their previous academic record does not adequately reflect your abilities; (4) received a baccalaureate degree from a non-accredited institution; or (5) elect to use the GRE Aptitude Test as a means to document proficiency in English.

**English language proficiency.** The language of instruction at Purdue University Fort Wayne is English. Therefore, proficiency in reading, writing, speaking, and understanding English is vital to a student's academic success. If the native language is not English, students must provide evidence of their English language ability at the time of application for admission. Normally this is done by taking the Test of English as a Foreign Language (TOEFL) and submitting the results as part of the admission application. Additional requirements for demonstrating English language proficiency after admission is stated in Regulations of this *Graduate catalog* ("Academic Regulations for Graduate Students").

**Non-degree admission.** Students are considered an applicant for non-degree (temporary) admission if they: 1) have earned a baccalaureate or advanced degree; 2) do not intend to pursue another degree; and 3) are seeking only personal or professional enrichment. Students must be prepared to demonstrate that they have the necessary preparation for any course(s) in which you wish to enroll and may be required to obtain approval from the course instructors.

Students may later seek regular admission and request that courses completed while in non-degree admission status be considered for application toward a degree. The applicability of these courses will be determined by the college, school, division, or department that offers the program you are seeking, and typically no more than 12 credits will be considered.

**Visiting students.** An individual who is a graduate student in good standing at another accredited graduate school, may apply for one semester's admission as a visiting non-degree student. Graduate students from institutional members of

the CIC consortium may be visiting students for up to one year. Under the above circumstances, the Purdue University Fort Wayne Graduate Admissions office will assist with the application.

**Re-entry.** Individuals are considered an applicant for re-entry if: 1) they previously were regularly admitted to an Purdue University Fort Wayne graduate program, have not registered for classes at Purdue University Fort Wayne for more than one year or at a Purdue University campus for more than one semester, and wish to resume their studies in the program in which they were last enrolled; or 2) previously were admitted to an Purdue University Fort Wayne graduate program in a non-degree classification, have not attended Purdue University Fort Wayne for more than one year, still meet the criteria for non-degree graduate admission status, and wish to resume their studies under this classification.

An individual must file a re-entry application at the Purdue University Fort Wayne Graduate Admissions office. The re-entry application will be subject to approval under applicable admission and academic policies of the Purdue University Fort Wayne graduate program in which they were last enrolled.

## Regulations and Policies

Changes in the following policies and regulations go into effect periodically and are published in the *Purdue University Fort Wayne Student Handbook and Planner* and the catalogs of the graduate schools. The catalogs of the Purdue University graduate schools also contain more detailed explanations of some policies and regulations.

Specific graduate programs may impose additional regulations or exceptions. These appear within the program descriptions in Colleges.

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

- [Academic Honesty](#)
- [Academic Standing](#)
- [Admission](#)
- [Advisory Committee](#)
- [Affirmative Action, Nondiscrimination, and Anti-harassment](#)
- [Credit by Examination](#)
- [Degrees](#)
- [Drug and Alcohol Abuse Prevention](#)
- [Encumbrances](#)
- [English Language Proficiency](#)
- [Ethical Guidelines for PFW Information Technology Users](#)
- [Grades](#)
- [Grade Appeals](#)
- [Grade-Point Average](#)
- [Learning Assessment](#)
- [Parking and Traffic Regulations](#)
- [Registration, Course Assignment, Course Load, Enrollment Limits](#)
- [Release of Student Information](#)
- [Residency Classification](#)
- [Resident Study Requirement](#)
- [Senior Citizen Fee Remission](#)
- [Smoking](#)
- [Student Identification \(Social Security\) Number \(SIDN\)](#)
- [Thesis and Non-Thesis Options](#)
- [Time Limits Transcripts](#)
- [Transfer Credits and "Excess" Undergraduate Credit](#)
- [Purdue University Fort Wayne Code of Student Rights, Responsibilities, and Conduct](#)
  - 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 Honesty

Students are expected to adhere to the highest ethical standards in all course work and research. If a student violates that code of conduct, the student will be subject to disciplinary action, including expulsion and rescission of a degree already granted. See the *Purdue University Fort Wayne Code of Student Rights, Responsibilities, and Conduct* later in this section.

## Academic Standing

Only grades of A, B, or C are acceptable in fulfilling requirements. All grades, however, are used in the calculation of the student's GPA, and students are expected to maintain a graduation index representing a B average or better. Some programs impose more stringent grade and GPA requirements.

**Purdue University. Students are** considered to be underperforming whenever their cumulative GPA is less than 3.0, and indices below this level are marked "low" on the grade reports. Should a student fail to perform on a level satisfactory to the advisory committee or department, the student may be asked to discontinue study in a Purdue graduate program.

## Admission

General requirements for admission to Purdue Fort Wayne graduate programs are established by the Purdue University trustees and appear in General Information. Additional program-specific admission requirements may be imposed by the program into which students are seeking admission. Any such requirements become effective when published in the *catalog* (Programs) or its supplements. Applicants should be aware that certain criminal convictions may result in ineligibility for admission to certain programs of study.

## Advisory Committee

Each candidate for a Purdue University master's degree is assigned an advisory committee consisting of three members. The chair of the committee is the major professor and is chosen by mutual consent among the student, the professor designated by the student, and the chair of the department offering the program. The major professor is the principal advisor in designing and conducting research. Following the selection of the major professor, the student and that individual define the related areas from which they will select one additional professor to serve on the advisory committee; other members of the department may also be added. Appointment of the advisory committee is subject to approval by the chair of the department offering the program and the dean of the Graduate School, who may appoint additional members. This committee will help prepare the plan of study (described below), furnish academic advising throughout the graduate studies, and where applicable, advise on the research and writing of the thesis.

**Plan of study.** Students pursuing a Purdue master's degree should have a preliminary plan of study on file prior to their first registration. Your plan of study identifies a primary area and related area(s) chosen on the basis of your interests and needs, and lists specific courses and all other requirements of the degree you are seeking. The formal plan of study should be approved by your advisory committee and the chair of the department offering the program, and must be submitted to the Office of Graduate Studies the Friday before your final semester of enrollment is to start.

## 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.

If you have a question or complaint, or want advice, you may talk with 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).

## Credit by Examination

Under special circumstances, a student may be permitted to establish credit in a specific graduate course by satisfactorily completing a comprehensive examination authorized by the division/department through which the course is offered.

## Degrees

**Application and registration for degree.** Policies apply to candidates for Purdue degrees.

**Purdue University.** You must be registered in courses or "for degree only" during the session in which you expect to receive the degree. If you are completing a thesis-option master's program, you must be registered for at least 3 credits of research unless you have been specifically permitted by your department to register "for degree only."

**Study toward the Ph.D.** Qualified students in Purdue University master's degree programs may be authorized by their respective university to pursue initial work toward a Ph.D. at PFW in areas where programs equivalent to those at West Lafayette can be arranged.

# Drug and Alcohol Abuse Prevention

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

## Encumbrances

If students are in arrears to Purdue Fort Wayne, they are not eligible to receive transcripts or diplomas. The clearance of all financial obligations by the Friday before Commencement will be essential for graduation. If the obligation is cleared later, the diploma will be released.

## English Language Proficiency

Preliminary evidence of your ability in the English language is required as part of your admission application (General Information).

The following additional English proficiency requirements apply to candidates for Purdue University degrees:

Non-native speakers of English who are U.S. citizens or who hold permanent visas are not required to submit TOEFL/IELTS scores.

The Graduate School will routinely waive the TOEFL/IELTS for applicants who have received a baccalaureate degree or graduate or professional degree, within the last 24 months, from a school where English is the primary language of instruction and in a country where English is the native language. Official English-speaking countries, in addition to the United States, include: Anguilla, Antigua and Barbuda, Australia, Bahamas, Barbados, Belize, Bermuda, Botswana, British Virgin Islands, Canada, Cayman Islands, Christmas Islands, Cook Islands, Dominica, Fiji, , Ghana, Gibraltar, Grenada, Guyana, Jamaica, Kenya, Lesotho, Liberia, Micronesia, Montserrat, , New Zealand, Nigeria, , Norfolk Island, Papua New Guinea, Philippines, Pitcairn Islands, Republic of Ireland, Sierra Leone, Singapore, South Sudan, St. Helena, St. Kitts and Nevis, St. Lucia, St. Trinidad and Tobago, St. Vincent and Grenadines, Swaziland, Tanzania, The Gambia, , Turks and Caicos Islands, Uganda, United Kingdom, Zambia, and Zimbabwe

## 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 IDs 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.

## Grades

**Basis of grades.** Your instructor is responsible for explaining to you, preferably in writing at the beginning of an academic session, the course requirements and grading system to be used. You will be assigned a grade in each course at the close of the session.

**Purdue based graduate programs will follow the PU grading policy:**

Graduate courses taken while registered as a graduate student at Purdue University may be considered for fulfilling the plan of study requirements only if the student has received grades of C- or better. These course grades must meet departmental requirements, such as limits on the number of C-, C, or C+ grades permitted, grades of A, A-, B, or B- in certain courses, and/or minimum GPA for courses on the plan of study.

You 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 you have officially withdrawn from the class, or unless you and the instructor have agreed that a grade of Incomplete (I) is warranted. To earn credit in a graduate course, you must receive a C or better. Most programs have additional grade policies.

**Semester Grades.** The following grades may be assigned:

Grade	Grade Points
A+, A	4.0 x Semester Hours

A-	3.7 x Semester Hours
B+	3.3 x Semester Hours
B	3.0 x Semester Hours
B-	2.7 x Semester Hours
C+	2.3 x Semester Hours
C	2.0 x Semester Hours
C-	1.7 x Semester Hours
D+	1.3 x Semester Hours
D	1.0 x Semester Hours
D-	0.7 x Semester Hours

#### Grade

- F - Failure, or unauthorized discontinuance of class attendance; no credit.
- I Incomplete; a temporary record of passing work that (1) was interrupted by circumstances beyond your control or (2) represents satisfactory work-in progress in an independent-study or self-paced course.
- IF Unremoved Incomplete, Failing. Recorded for failure to achieve a permanent grade by the deadline stated in these regulations. Indiana University students who receive this grade will have a grade of F recorded on official transcripts.
- 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, B, or C.
- S Satisfactory, credit; awarded 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 you officially withdrew from (dropped) a course or were administratively withdrawn from a course for nonpayment of fees after the end of the first week.

**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 grade of I will not be considered as an alternative to an anticipated low grade in a

course. Certain Purdue Fort Wayne colleges/schools/divisions 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 (1) the reason for the incomplete, (2) the requirements for completing the course, (3) the grade earned for the course to date, and (4) the specific time limit, not to exceed one calendar year, allowed for completing the course. 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/division director, 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 you graduate or remove the incomplete within the time allowed. If you are enrolled at Purdue Fort Wayne as an Indiana University student and receive an IF grade, a grade of F is recorded on your official transcript. If you re-enroll in the same course while the I is still on your record, and the course is not repeatable for credit, the original grade of I remains on your official transcript. If you transfer resident credit for a course in which you received an incomplete, you will have the grade of I recorded on your academic record for up to one calendar year from the date of admission to Purdue Fort Wayne. At the end of this period, if you have 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.** Your complete record for the session and your cumulative GPA are reported to you, your major department, and your college/school/division.

**Changes of grade.** An instructor who discovers within 30 days of the grade-processing deadline that a grade reported for you was in error, he or she must promptly submit to the registrar a statement, countersigned by the instructor's department chair or division director, 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/director.

The registrar will inform you, the department chair/division director, and the dean of the change of grade.

## 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 filing 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 or director of the student's school or division; the dean of students; and (in the case of a panel decision) the chair of the grade appeals subcommittee.

## Grade-Point Average

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 you are assigned a GPA-related grade for the specified semester.

**Cumulative GPA** is computed using all credits for which you 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 for which a grade of A, B, C, D, F, or IF was assigned are applicable.

**Program GPA** is computed using credits for which you 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. If you are pursuing more than one degree program, your cumulative GPA will be determined by the academic unit through which you register.

All applicable credits earned at Purdue Fort Wayne 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) rather than the four-point scale (A = 4.00) used by PFW. Since June 1993, all Purdue, which includes PFW GPAs are computed using the same scale (A = 4.00).

## Learning Assessment

Purdue University Fort Wayne is committed to providing quality education for its students. We use a variety of learning assessment and evaluation processes to determine the effectiveness of our academic programs and service units as a whole. These processes are also important to you because they provide an opportunity for you to tell us how well we are meeting your needs. Learning is assessed by measuring your satisfaction with Purdue Fort Wayne and by reviewing products of your work that demonstrate what you know and can do as a consequence of your graduate education. For example, you may be asked periodically to give us feedback about the quality of academic services via a questionnaire. You may also be asked to submit anonymous samples of your course work and to participate in focus groups. We use the information collected to refine the curriculum, ensuring that your learning objectives, and those of the academic units, are met.

## Parking and Traffic Regulations

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

**Traffic regulations.** The operation of motor vehicles on the Purdue 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 and Planner*, with complete information about Purdue Fort Wayne parking and traffic regulations appearing in the Vehicle Regulations and Emergency Information brochure, which is available from University Police and other campus locations.

If you have questions about learning assessment, please contact your department.

## Registration, Course Assignment, Course Load, Enrollment Limits

**Registration.** Your initial registration for each term must occur according to the timetables for registration established for each semester. In most cases, you will register for classes at your school/division or department office, the registrar's office, or online.

**Schedule revisions and late registration.** After your initial registration, you may revise your schedule in accordance with the policies listed below. All schedules and deadlines are prorated for courses not meeting for an entire fall or spring semester or summer session. An academic advisor's approval may be required to process a course addition or withdrawal at the registrar's office.

**Addition of a course.** You may add a course after your initial registration by submitting a completed schedule revision (drop/add) form with appropriate signatures to your division/department, the registrar's office, or online.

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

**Withdrawal from a course.** Subject to the time limits below, and in the absence of any allegation that you are guilty of academic dishonesty in the course, you may officially withdraw from a course by presenting a schedule-revision (drop/add) form to your department, the registrar's office, or online.

<b>Weeks</b>	<b>Restrictions</b>
Week 1 of classes	College/school/division policies determine whether an academic advisor's approval is required; the course is not recorded on your record.
Weeks 2-9	College/school/division policies determine whether an academic advisor's approval is required; a grade of W is recorded on your record.
Weeks 10-16	Courses cannot normally be dropped during this period. You may withdraw from a course and receive a grade of W only if you are authorized to do so by an academic advisor and your dean/division director after they have consulted with the instructor. Such drops will not be approved if sought because of your poor performance in the course.

After the end of Week 16, a course may be dropped only by following the change of grade procedure.

**Pass/not-pass option.**

You may not take courses under a pass/not-pass option.

A. All work done by students at Purdue University beyond the baccalaureate degree is administered by the Graduate School. The registration of a graduate student should reflect the nature and amount of the student's study and research activities as accurately as possible.

### 1. *Full-time Study*

Full-time study is based on the number of credit hours carried in a given session. Eight (six during the summer session) credit hours is the full-time certification standard for graduate students. Students pay the fee set for full-time study if they are registered for eight (six during the summer session) or more credit hours. Various fellowships and sponsoring agencies may have differing definitions of full-time status.

### 2. *Part-time and Intermittent Study*

Some students find it necessary to pursue graduate study on a part-time basis or to discontinue their graduate studies for a period of time. Part-time students must, like full-time students, register appropriately any time they use University facilities or receive faculty supervision.

Students who interrupt their registration should pay particular attention to the "five-year rule" that prohibits the use of out-of-date coursework on plans of study and invalidates outdated examinations. (See Section III-B-5 .)

### 3. *Responsibility for Registering*

The registration of a graduate student is the responsibility of the student and the student's department. Registration must be accomplished according to schedules and procedures established by the Graduate School, bursar, registrar, and, in addition, for international students, the Office of International Students and Scholars.

**Purdue University.** You may not take more than 18 credits in a semester

#### 1. *Registration in the Session of Graduation*

- a. All students must be registered in the session of graduation. If registering as a candidate using:
  - CAND 99100 - the student must register for course or research credits. CAND 99100 is not a registration.
  - CAND 99200 - degree only is a stand-alone registration. Students should not register for any additional credits with this registration.
  - CAND 99300 - examination only is a stand-alone registration. Students should not register for any additional credits with this registration.
- b. Students with outstanding incomplete grades for courses listed on the plan of study will not be eligible to graduate. Students must complete the course requirements and register for a future session to receive the degree.

#### *Privileged Registration*

The privileged registration, either examination only or degree only, is a onetime registration.

Federal regulations for international students in a nonthesis master's degree program states: *If the student is not required to take any additional courses to satisfy the requirements for completion, but continues to be enrolled for administrative purposes, the student is considered to have completed the course of study and must take action to maintain status.* As a result, international students who are in a nonthesis master's degree program and are registered for a privileged registration in their final session should contact the Office of International Students and Scholars to discuss their options.

## Release of Student Information

The Purdue Fort Wayne policy governing access to student records, which complies with the *Family Educational Rights and Privacy Act of 1974*, 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"). Your educational records are located and maintained by administrators in one or more of the following offices: Academic Counseling and Career Services; Admissions; Alumni Relations; Athletics, Recreation, and Intramural Sports; Bursar; Center for Academic Support and Advancement; Continuing Studies; Financial Aid; Honors Program; Registrar; and University Police, as well as the student affairs administration and academic units.

**Note:** The registrar's office is the *only* university office authorized to issue official transcripts and certify students' enrollment status. All requests for such documentation must be directed to that office.

*Public information* consists of your name, class standing, college/school/division, major field of study, dates of attendance, degrees and awards, recognized student activities, sports, athletics information, and current enrollment status; your address and telephone number are also public information unless you have 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.

**Note:** If you wish to restrict the release of your address and telephone number, you 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.** Your records are available to you with the following exceptions: confidential letters of recommendation submitted prior to 1975; records of your parents' financial status; records related to your 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 you; and, if you 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.

You may see any of your 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. You will receive an interpretation of the record upon request, at or after the time that access is granted.

If you object to any part of your record and the responsible office will not revise the record as requested, you 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 Fort Wayne faculty and staff.** Your 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, your records will be released only upon completion of a consent form or letter you have signed. 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 you will be released without your consent to your parents if you are 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, American Campus Communities, and Educational Computer Systems Incorporated (ECSI).

**Retention of records.** Purdue 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 Classification

**Resident student status for fee purposes.** When you are admitted to Purdue Fort Wayne, you are classified by Admissions as a resident or nonresident of Indiana. This classification is determined by rules established for all Purdue Fort Wayne students by the trustees of Purdue University. If you are classified as a nonresident student, you 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. If you think you are classified incorrectly, you may apply for resident student status. To appeal your residency classification, go to the following Web site and print off the application and instructions:

[www.pfw.edu/offices/registrar/policies/residency.html](http://www.pfw.edu/offices/registrar/policies/residency.html)

When complete, return the form to Purdue Fort Wayne Registrar, 2101 E. Coliseum Blvd., Fort Wayne, IN 46805-1499.

## Resident Study Requirement

Rules apply to candidates for Purdue degrees.

**Purdue University.** All candidates for Purdue University master's degrees at Purdue Fort Wayne must complete at least one-half of the total credits used to satisfy degree requirements while enrolled at Purdue Fort Wayne.

## Senior Citizen Fee Remission

A waiver equal to one-half the resident credit-hour fees (to a maximum of 9 credits per semester) is available to residents of Indiana who are age 60 or older, retired and not employed full-time, and are high school graduates or GED recipients. The waiver does not apply to fees. Participants in this program are limited to registering during the week before classes begin and during late registration. Additional information and applications are available at the Purdue Fort Wayne Financial Aid office (Kettler Hall 103, 260-481-6820 or online at <http://www.pfw.edu/offices/financial-aid/forms-resources>).

## 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.

## **Student Identification Number (SIDN)**

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

## **Thesis and Non-Thesis Options**

*If you are enrolled in a program that requires a thesis*, your advisor will provide information about research, formatting, and related requirements. Typically, the master's thesis is the equivalent to no less than 3 or more than 9 hours of graduate credit. After the research has been completed and the thesis written, your examining committee comprised of no fewer than three faculty members will be appointed. The committee will conduct a final examination in which you will be asked to defend your thesis and otherwise demonstrate to the committee that you have attained all of the capabilities for which the master's degree is awarded. Additional information may be found in the Purdue University Graduate School catalogs and from your division/department. Purdue Fort Wayne policy stipulates that the results obtained and the thesis prepared for an advanced degree are the property of Purdue University. The rights owned by the university include all economic and property rights, as well as the right to patent inventions and to copyright materials. Net proceeds normally will be shared with the inventor. Patents, inventions, and copyrights are supervised by the Purdue Research Foundation's Division of Research and Scholarly Activities in accordance with "Executive Memorandum No. B-10," statement of University Policy, Principles, and Administrative Procedures Relating to the Ownership of Patents, Copyrights, and Other Rights in Inventions and in Written and Recorded Materials. This policy includes procedures for you to gain ownership of patents and copyrights.

*If you are enrolled in a program that does not require a thesis*, and depending on the academic regulations of the academic unit that offers the degree you seek, an examination committee comprised of no fewer than three faculty members may be appointed to participate in certifying that you have fulfilled the requirements for a master's degree. The committee's participation may take any of several forms, such as the administration of a final comprehensive examination; evaluation of a creative, exploratory, or experimental project; or review of your academic record.

## **Time Limits**

Candidates for Purdue University master's degrees must complete all requirements within five consecutive years. You may normally count toward a master's degree only those courses (including transfer courses) and other requirements fulfilled within five years prior to the awarding of the degree. At the recommendation of your department and approval of the Graduate School, this requirement may be waived if it is clearly demonstrated that the knowledge contained in courses taken earlier is current.

## **Transcripts**

If your record is not encumbered for any reasons described herein, you will (upon application to the registrar and payment of any prescribed fee) be entitled to receive an official transcript of your complete record, including any major(s) and minor(s).

**Note:** The registrar's office is the only university office authorized to issue official transcripts. All requests for these documents must be directed to that office.

## Transfer Credits and "Excess" Undergraduate Credit

As determined by the division/department that offers your degree, credits you earned for graduate study at other universities may be applied to a master's degree at Purdue Fort Wayne. Only credits associated with graduate courses in which you earned grades of B or better are eligible for consideration. Additional conditions and limitations may be imposed by the Purdue Fort Wayne academic unit that offers the degree you seek (Programs).

**Purdue University** Under conditions established by, and with the approval of, your department, you may apply to a Purdue master's degree up to 12 undergraduate credits you earned at Purdue University or another accredited college or university while you held senior class standing if (1) these credits were not applied to your undergraduate degree, (2) the credits were earned in designated graduate courses, and (3) you earned a grade of B or better in the courses.

**Graduate Courses Taken as a Non-degree Undergraduate Student after Receipt of the Baccalaureate Degree** Graduate courses taken as an undergraduate student, even if completed after receipt of the baccalaureate degree and with the intent to use the credits toward a graduate degree program, are not eligible to satisfy requirements for a graduate degree.

### **Combined Degree Program Credits**

If students are admitted to an approved combined degree program, they are permitted to use a certain number of credits to apply toward both undergraduate and graduate degrees (as outlined in the approved program proposal). Such courses must be listed on the graduate plan of study, and a supplemental note must be added to the plan of study indicating those courses that are to be used for both degrees.

## 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](http://www.purdue.edu/purdue/ea_eou_statement.html))

4. 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.
5. 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.
10. 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](http://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.
18. Violation of any rules 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 other rule 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.
2. 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**

### **Preamble**

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, Section A.

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](http://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 member or 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 The 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 & Departments**

# **Purdue University Fort Wayne**

## **College of Arts and Sciences**

**Purdue Fort Wayne**

**College of Arts and Sciences**

**Liberal Arts Building 153**  
**260-481-6160**

*Ronald S. Friedman, Interim Dean*  
*Bruce A. Kingsbury, Associate Dean*

## **Communication Sciences and Disorders**

**Purdue Fort Wayne**  
**Department of Communication Sciences and Disorders**  
**College of Arts and Sciences**

*Modular Clinic & Classroom Bldg 111 ~ 260-481-6410*

*Stacy Betz, Chair and Graduate Program Director*

The M.S. degree in Speech-Language Pathology is a two year, full-time program that includes graduate level coursework focusing on assessment and treatment of speech, language, and swallowing disorders across the lifespan. Throughout the program, coursework and clinical experiences are integrated so that students develop the knowledge and skills needed to successfully engage in evidence-based practice as a speech-language pathologist. During the first year of the program, students gain clinical experiences in the department's on-campus Communication Disorders Clinic. In the second year, students also complete clinical experiences in off-campus placement sites including schools, inpatient and outpatient medical settings, and skilled nursing facilities.

An undergraduate degree in Communication Sciences and Disorders is not required for admission, however, students are required to have the prerequisite knowledge needed to be successful in the graduate courses. This knowledge should be demonstrated through formal coursework in phonetics, child language development, speech and hearing anatomy and physiology, acoustics, audiology, and at least one course on speech-language disorders. In addition, students are required to have completed undergraduate coursework in human or animal biology, physical sciences (i.e., chemistry or physics), social/behavioral sciences, and statistics.

As of the publication of this catalog, the M.S. degree in Speech-Language Pathology at Purdue University Fort Wayne is an Applicant for Candidacy by the Council on Academic Accreditation in Audiology and Speech-Language Pathology (CAA) of the American Speech-Language-Hearing Association, 2200 Research Boulevard, #310, Rockville, MD 20850, 800-498-2071 or 301-296-5700. Updates to the program's accreditation status that occur after the publication of this catalog will be posted in the "What's New" section of the catalog.

## **Biology**

**Purdue Fort Wayne**  
**Department of Biology**  
**College of Arts and Sciences**

*Science Building 330 ~ 260-481-6305*

*Elliott Blumenthal, Chair*  
*Jordan M. Marshall, Graduate Program Director*

## **Special Resources**

The department has 15 full-time faculty members, several associate faculty, and two technicians. Faculty members at the Indiana University School of Medicine-Fort Wayne are also available to direct graduate research. Fourteen research laboratories are available in the Science Building. A 9,000-square-foot animal care facility provides housing for different species of experimental animals and also contains an animal surgical suite and five research laboratories. A 1,500-square-foot greenhouse with a head house is attached to the Science Building. Environmental plant growth chambers are also available. Faculty research laboratories are equipped with up-to-date equipment and facilities.

## **Admission**

In addition to fulfilling the Purdue University Graduate School requirements, you must submit Graduate Record Examination (GRE) aptitude scores for the quantitative, analytical, and verbal aptitude tests, Medical College Admission Test (MCAT), or Dental Admission Test (DAT).

## **Graduate Assistantships**

The department offers a limited number of graduate teaching assistantships to qualified students in the thesis option. These assistantships are available on a competitive basis and provide tuition reduction and a stipend. Students receiving a teaching assistantship are expected to teach an average of 6 contact hours and must register for a minimum of 3 credit hours of graduate-level course and/or research work each semester of the appointment period. Graduate staff on appointment during the summer must register for a minimum of 3 graduate hours during at least one of the summer sessions. With satisfactory performance in the classroom and in the research project, a student awarded a teaching assistantship will normally be supported for four semesters (two academic years). Further support must be explicitly agreed upon by the Graduate Director. A limited number of research assistantships are also available from faculty receiving external support. Students should contact individual faculty members regarding the availability of research assistantships.

## **Academic Regulations**

The following academic regulations supplement those that apply to all Purdue University graduate students:

### **Course Load**

In order to be considered a full-time graduate student, one must take at least 8 credit hours per semester during the fall and spring. Students must be registered in at least 6 credit hours to be considered full time in the summer. Half-time graduate student enrollment status requires 4-7 credit hours in the fall or spring semester and 3-5 credit hours in the summer session.

### **Grades and Index Requirement**

Grades for courses used to satisfy a plan of study requirement must be C or better. A cumulative GPA of 3.0 on a scale of 4.0 (a B average) is expected. Students in the thesis option are expected to earn S (satisfactory) grades in BIOL 698 Research M.S. Thesis.

### **Time Limitation**

Full-time graduate students should complete the program within six semesters (three years) of admission. Part-time students should complete their degree in no more than 10 semesters (five years). Course and research credits greater than five years old will be dropped from the student's plan of study. Similarly, course and research credits earned by a student whose enrollment has been inactive for five years cannot be used on a new plan of study.

# Communication

## Purdue Fort Wayne Department of Communication College of Arts and Sciences

*Neff Hall 230 ~ 260-481-6825*

*Michelle Kelsey, Chair  
Steven Carr, Graduate Program Director*

The Master's program in Professional Communication serves students seeking career management and staff positions as communication specialists in industrial, service, governmental, and media-related sectors of the economy. The curriculum may also be used as preparation for doctoral programs.

Students prepare plans of study in one of two broad areas: communication management or media specialist. Students who pursue this program benefit from four distinctive features: (1) the curricular fusion of two respected academic traditions: rhetorical and communication theory; (2) a functionally proportioned study of rhetorical and communication theory and practice; (3) the complementary relation of the required core, which provides a coherent theoretical base, and the selections offered by the applied specialization and cognate options, which facilitate development of a plan of study tailored to personal career goals; and (4) the scheduling of offerings to accommodate part-time students, including employed professionals, and to expedite completion of the program in as little as two academic years.

### Degree Requirements

The curriculum consists of 33 credits in approved courses, a synthesis paper, and a written comprehensive examination. Comprehensive examinations will be routine. Under exceptional circumstances, you may be exempted from taking your comprehensive examination by the advising committee. The circumstances will include: (1) achieving A's in all graduate courses (if you meet the following two criteria regarding synthesis paper and conference paper/publication and have all A's in courses up to your last semester, you are exempt from comprehensive exams even if you are taking courses that semester); (2) having the synthesis paper approved by the deadline for that semester; and (3) either having a single-authored competitive paper presented at a regional or national scholarly meeting or having a single-authored competitive paper published in a regional or national scholarly journal.

### Teaching Assistantships

A limited number of teaching assistantships are available and provide tuition reduction and a stipend. The assistantship normally requires teaching two Fundamentals of Speech Communication courses or other duties as assigned; they receive a tuition reduction and a stipend. All recipients must be enrolled in two graduate courses during each of the regular semesters of the academic year. See [ipfw.edu/comm/grad](http://ipfw.edu/comm/grad) for details.

# English and Linguistics

## Purdue Fort Wayne Department of English and Linguistics

## **College of Arts and Sciences**

*Liberal Arts Building 145 ~ 260-481-6841*

*Hardin Aasand, Chair*

*Lewis C. Roberts, Graduate Program Director*

The graduate programs of the Department of English and Linguistics help you prepare to teach, write professionally, or enter a doctoral program in English. They help in-service teachers enhance their understanding of British and American literature, the English language, and the teaching of writing. They provide a structured curriculum for students pursuing humanistic studies beyond the baccalaureate degree.

### **Admission**

To be regularly admitted to a master's program in English, you must have completed an undergraduate major or minor in English with a cumulative GPA of at least 3.0 (4.0=A) or better and a GPA of at least 3.0 or better in all English courses. In addition, you must earn a satisfactory score on the general aptitude section of the GRE. If you do not meet these requirements, you may be admitted conditionally. Conditions might, for example, require you to complete prerequisite courses without credit toward the graduate degree, or to maintain a given GPA during your first 6-12 credits in the program.

To receive the M.A.T., you must have at least provisional public-school certification in English. If you lack such certification when you enter the program, you must fulfill certification requirements while you complete the M.A.T. requirements.

### **Degree Requirements**

Separate requirements apply to the M.A. and the M.A.T. degrees. You must complete all degree requirements within five years of your admission to the program.

## **Mathematical Sciences**

### **Purdue Fort Wayne**

### **Department of Mathematical Sciences**

### **College of Arts and Sciences**

*Kettler Hall 200 ~ 260-481-6233*

*Peter D. Dragnev, Chair*

*W. Douglas Weakley, Graduate Program Director*

The M.S. degree in Mathematics is the appropriate program if:

1. You are, or plan to be, employed in a position in business or industry that requires significant proficiency in mathematics or statistics, or

2. You wish to earn HLC certification as a secondary school teacher, or
3. You wish to enter a doctoral program in mathematics or statistics.

To qualify for admission, you should have a background in mathematics that includes multivariate calculus and linear algebra; coursework in analysis, differential equations, discrete mathematics, or abstract algebra will be helpful.

# College of Engineering, Technology, and Computer Science

## Computer Science

*Department of Computer Science*

*College of Engineering, Technology, and Computer Science*

*Peter A. Ng, Chair*

*260-481-6237*

*Jin Yoo, Graduate Program Director*

*260-481-0182 ~ Engineering, Technology, and Computer Science Building 125*

The Master of Science with a major in applied computer science (ACS) is designed to meet the objectives of students with a professional interest in computer-related fields and to help meet the computing expertise needs of their employers. As the name implies, the philosophy of the program is applied. Courses of the program stress a hands-on approach, applying theory to the practical problems of developing engineering and information systems with large software content. To meet the needs of working professionals, courses are primarily offered in the evening.

Graduates of the program will be in a position to assume leadership roles to:

- Providing technological and managerial perspectives on information management and the development of information systems;
- Formulating and assessing requirements for complex software-based systems;
- Using the principles of systems analysis and software engineering to design, implement, and test complex software-based systems; and
- Keeping abreast of the content and implications of technological advancements in applied computer sciences

## Financial Aid

There are a limited number of graduate teaching assistantships available that include a stipend and substantial fee remission. Generally these are not available to first-term students.

## Electrical and Computer Engineering

*Department of Electrical and Computer Engineering*

*College of Engineering, Technology, and Computer Science*

*260-481-6362 ~ Engineering, Technology, and Computer Science Building 327*

The Master of Science in Engineering (M.S.E.) is designed to meet the needs of students and motivated professionals seeking to deepen their knowledge of the principles and practice of engineering. The curriculum and course offerings will prepare graduates for leadership positions in their field. The program will offer three areas of concentration:

- Computer Engineering

- Electrical Engineering
- Systems Engineering

Course offerings will be flexible to meet the needs of both full-time students and working adults.

## Mechanical Engineering

*Department of Mechanical Engineering*

*College of Engineering, Technology, and Computer Science*

*Nashwan T. Younis, Chair*

*Hosni Abu-Mulaweh, Graduate Program Director*

*260-481-6357 ~ Engineering, Technology, and Computer Science Building 321*

The Master of Science in Engineering (M.S.E.) in Mechanical Engineering is designed to meet the needs of students and motivated professionals seeking to deepen their knowledge of the principles and practice of engineering. The curriculum and course offerings will prepare graduates for leadership positions in their field.

Course offerings will be flexible to meet the needs of both full-time students and working adults.

## Organizational Leadership

*Department of Organizational Leadership*

*Gordon Schmidt, Chair*

*Max U. Montesino, Graduate Program Director*

*260-481-6420 ~ Neff Hall 288*

Graduate study in Organizational Leadership provides a theoretical foundation to connect key concepts in leadership and human resources research with best practice. The master's and graduate certificate programs offer in-depth learning and career-oriented study with comprehensive and professionally relevant course work.

The M.S. in Organizational Leadership offers students a foundation in the key principles of organizational leadership through core courses and the opportunity to choose a concentration, in either leadership or human resource management, that will provide in-depth knowledge and skills. OLS programs focus on understanding and working with people within organizations and the practical application of leadership concepts and theories. Graduates of the program will be prepared for leadership or human resources roles in a wide variety of **settings** including industrial, medical, service, and other profit and nonprofit organizations. The Graduate Certificate in Organizational Leadership is based on the core of the Organizational Leadership master's degree program. The courses combine theory and practice to yield a combination that is immediately applicable to the work **place and builds** a foundation for more specialized study for those interested in advanced work.

### Admission

The OLS graduate committee considers several factors to be important for academic success at the graduate level and uses a balanced perspective in evaluating candidates based on those factors. Candidates for the OLS master's degree are required to have earned an undergraduate degree from an appropriately accredited institution, preferably with a B or better average. In addition, candidates are expected to show leadership potential through strong interpersonal, analytical, and communication skills, as well as a high standard of equitable and ethical behavior.

The admissions process will require: (1) completion of an application including an essay that demonstrates writing skills, ability to articulate a leadership perspective, and clarity of career objectives; (2) official transcripts of all previous college and university work; (3) a recent resume; and (4) two recent letters of recommendation that reflect on professional and/or academic skills. If applicants are within five years of completing academic work, at least one of the letters should be from a former faculty member.

Applicants with undergraduate GPAs below 3.0 (4.0 scale) must present recent scores from either the GRE or the GMAT. Applicants for whom English is not a native language must present evidence of their proficiency in English by presenting appropriate TOEFL scores or equivalent results on a similar instrument (for example, the Michigan Test of English Language Proficiency).

## **Degree Requirements**

The M.S. in OLS is a 33-credit-hour program composed of 18 credit hours of core and applied research requirements, and 15 credit hours in either the leadership or the human resources options.

## **Transfer Credit**

No more than 6 graduate transfer credits earned at other accredited institutions may be considered for application to the plan of study. Requests for transferring credits into the program must be approved by the graduate admissions committee. No more than 12 graduate credits earned in non-degree status will be counted toward the degree.

## **Academic Requirements**

A cumulative GPA of 3.0 (4.0 scale) or better is required through completion of the program. Students must earn a C (2.0) or better in all OLS courses applied to the degree. Any course grade below C (2.0) is not counted towards degree requirements, although all grades are used in computing the cumulative GPA.

# **School of Polytechnic**

## *School of Polytechnic*

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

#### *Iskandar Hack, Chair*

#### *Alireza Alavizadeh, Graduate Program Director*

*260-481-6338 ~ Engineering, Technology, and Computer Science Building 229*

The Master of Science in Technology prepares qualified students and working professionals to assume leadership positions facing the challenges of global technical competition. Faculty mentored creative projects are developed specifically to apply to individual career needs. A selection of graduate electives allows for the choice of additional degree specialization in:

- Information Technology/Advanced Computer Applications
- Industrial Technology/Manufacturing
- Facilities/Construction Management

The graduate will have advanced knowledge and skills that are required to function effectively in a modern, international, technical environment and to accept increasing responsibility in industrial and business positions. Elective choices will enable students to increase their technical knowledge within a chosen area of modern technology, as well as their knowledge in a related area such as leadership or communication.

## **Admission Requirements**

Applicants may have technical or non-technical backgrounds with a four-year undergraduate degree required from a recognized institution. Candidates are sought with creative abilities, leadership, interpersonal skills, and personal

motivation indicating strong potential to advance in a technology-related career. For regular admission, a cumulative GPA of 3.0 or better is required; however, the Graduate Committee evaluates candidates for admission based upon a number of characteristics essential for success in the program. These characteristics include the candidate's intellectual capacity and individual factors such as motivation, leadership, communication, and interpersonal skills.

## **Teaching Assistantships**

The Master of Science in Technology program may have graduate teaching assistantships available in one or more academic program areas. Teaching assistantships usually include a stipend and substantial tuition reduction. Teaching assistants typically teach one or two undergraduate introductory-level courses. Generally these are not available to first-term students. Check with the program director for availability.

# **College of Professional Studies**

College of Professional Studies  
260-481-6861 ~ Neff Hall 250

The College of Professional Studies contains two graduate studies departments: Public Policy and the School of Education. The vision of the members of this college is transforming lives, organizations, and communities.

Below is a list of the departments along with the programs associated with them:

### **Public Policy**

- Public Administration, M.P.A.

### **School of Education**

- Elementary Education, M.S.Ed.
- Secondary Education, M.S.Ed.
- Counselor Education, M.S.Ed. (School Counseling track and Clinical Mental Health Counseling track)
- Educational Leadership, M.S.Ed. (Building Level Administrator)
- Special Education, M.S.Ed (Concentration in Mild Intervention)

### **Academic Regulations**

The following academic regulations supplement those that apply to all Purdue University graduate students.

#### **Second Master's Degree**

Credits applied to one master's degree may not be applied toward another master's degree.

#### **Transfer Credit**

As determined by the department that offers your degree, credits you earned for graduate study at other universities may be applied to a master's degree at Purdue University Fort Wayne. Only credits associated with graduate courses in which you earned grades of B or better are eligible for consideration. Additional conditions and limitations may be imposed by the academic unit that offers the degree you seek. The department in which you are seeking admission will determine whether credits earned at other institutions will apply toward your degree. Please refer to each individual program for detailed information.

#### **Application Deadlines**

Application deadlines differ per academic program. Please refer to each individual program for detailed information.

**Graduation Requirements**

You must have satisfied any conditions on your admission to the graduate education program before you will be considered as a candidate for graduation. In addition, you must have: (1) earned a cumulative GPA of 3.0 or better in courses applicable to the degree, and (2) fulfilled all additional degree requirements and complied with all academic regulations.

**Application for Degree**

You must complete an online application for your desired degree.

## Public Policy

*College of Professional Studies*

*Department of Public Policy*

*Jane A. Grant, Chair*

*Brian L. Fife, Director of Graduate Studies*

*260-481-6351 ~ Neff Hall 260*

The Department of Public Policy is a multidisciplinary department. Organized as a professional school, Public Policy faculty members are dedicated to applied, interdisciplinary learning in the study of public affairs and are committed to teaching, research, and service. The interests of the faculty and professional staff typically fall into one or more of the following areas: policy and administration; finance and economics; urban affairs; environmental science and policy; criminal justice, law, and public safety; and health science administration and policy. The department's faculty, staff, and students work individually and jointly to solve problems that require Public Policy's unique combination of in-depth knowledge in the natural, behavioral, social, and administrative sciences.

The Public Policy faculty at Purdue University Fort Wayne come from a variety of backgrounds, including criminal justice, political science, economics, health, law, public policy, and sociology. In addition, the department is able to call upon experienced government managers, healthcare administrators, law enforcement officials, practicing attorneys, and judges to teach specialized topics from its curriculum. The organizational design of the department reinforces a wide network of continuing relations with a large number of public agencies at all levels of government.

### Admission to Department of Public Policy Graduate Programs

Regular admission to the M.P.M. program requires a bachelor's degree from an accredited institution, with an undergraduate GPA of 3.0 or better. Any major is acceptable. Applications to either program must include official transcripts of all college and university work, references from three people familiar with your academic or professional abilities or potential, scores on the GRE general test, the GMAT, or the LSAT, and a nonrefundable university application fee.

**Provisional admission** may be granted if you are nearing completion of an undergraduate degree or if you fail to meet some criteria for regular admission.

**Non-degree admission** may be granted to visiting students who wish to take classes for one semester without being formally admitted to the M.P.A. program.

### Accelerated Master's Program

Undergraduate Public Policy students with a GPA of 3.5 or above may apply for admission to the AMP program as early as their junior year. If admitted, they are eligible to apply up to 24 approved graduate credits to the M.P.A., or up to 18 approved graduate credits to the M.P.M., that have been earned toward the undergraduate degree during their senior year.

Prior to starting the program you must have satisfied all general education and core requirements and completed a minimum of 96 credit hours toward the bachelor's degree.

## School of Education

*School of Education*

*260-481-4146 ~ Neff Hall 240*

Graduate programs in the School of Education are designed to prepare candidates to be master teachers, administrative leaders, or professional counselors. These programs have earned professional accreditation from the Indiana Department of Education, the Council for the Accreditation of Educator Preparation, and the Council for the Accreditation of Counseling and Related Programs.

The mission of the School of Education is to prepare professionals in teaching, counseling, and leadership who demonstrate the capacity and willingness to continuously improve schools and related entities so that they become more effective with their clients by:

- becoming more caring, humane, and functional citizens in a global, multicultural, democratic society;
- improving the human condition by creating positive learning environments;
- becoming change agents by demonstrating reflective professional practice;
- solving client problems through clear, creative analysis;
- assessing client performance, creating and executing effective learning experiences, providing guidance and counseling, and leading in educational context, by utilizing a variety of methodologies reflecting current related research; and
- utilizing interdisciplinary scholarship, demonstrating technological and critical literacies, and effectively communicating with all stakeholders.

### 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 programs 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 School of Education supports 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 School of Education fosters 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 School of Education facilitates transformative scholar-practitioners' development as professional and community advocates.**

## Major Areas of Study

- Elementary Education (30 credits)
- Secondary Education (30 credits)
- Counselor Education (60 credits) (School Counseling track and Clinical Mental Health Counseling track)
- Educational Leadership (30 credits)
- Special Education (30 credits)

## Admission

Applications are available online; each program may have a different set of admission requirements.

## Temporary Graduate Admission

Students wishing to take graduate courses but not (initially) planning to complete degree or certification requirements may choose to enroll as a temporary graduate student. Temporary graduate students may complete no more than six credits every five years.

## Master of Science in Education (M.S.Ed.)

**Unconditional Admission** You may be admitted unconditionally if you (1) have earned a bachelor's degree, representing the equivalent of not less than four years of undergraduate work from an institution having regional or national accreditation, and (2) have earned a cumulative GPA of 3.0 or better (4.0=A) with all undergraduate courses taken before you received the bachelor's degree.

### Academic Regulations

The following academic regulations supplement those that apply to all Purdue University graduate students.

**Second Master's Degree** Credits applied to one master's degree may not be applied toward another master's degree in any of the School of Education programs.

### **Transfer Credit**

Different rules apply prior to and after admission to the program:

**Before You Are Admitted to a Graduate Program** The School of Education will determine whether credits earned at other institutions will apply toward your degree.

**After You Have Been Admitted to a Graduate Program** Pending their availability, it is expected that courses required for your degree will be completed at Purdue Fort Wayne. Applicability of credit for a course taken elsewhere should be confirmed by the school prior to your enrollment in that course. As a general rule, the School of Education may accept between six and fifteen transfer credits provided that such work is appropriate to the student's degree objective. All transfer coursework must be taken for a letter grade of at least a B (3.0).

**International Students** International students desiring to complete a program in the School of Education must comply with all university requirements for international admissions, including demonstration of English language proficiency. The course work in the Masters of Education program with a Major in Educational Leadership or Special Education will not satisfy the United States Department of Homeland Security and Purdue University Graduate School requirement that you take six credit hours of face to face classes per semester. As such, Purdue Fort Wayne is unable to issue a Form I-20, Certificate of Eligibility, for these programs.

**Retention** You must maintain a GPA of 3.0 (4.0=A) or better for all work (including undergraduate courses) taken after completing your bachelor's degree. If your GPA falls below 3.0, you must raise the GPA to at least 3.0 within the next nine credits of graduate course work. Failure to do so will result in your dismissal from the program.

**Time Limit** You must fulfill all degree requirements within six years and one semester from the date on which you receive a grade for the first credits (including transfer credits) that apply to your degree.

**Graduation Requirements** You must have satisfied any conditions on your admission to the graduate education program before you will be considered as a candidate for graduation. In addition, you must have: (1) earned a cumulative GPA of 3.0 or better in courses applicable to the degree, and (2) fulfilled all additional degree requirements and complied with all academic regulations.

**Application for Degree** You must complete an online application for your degree.

## **Doermer School of Business**

### **Business**

*Richard T. Doermer School of Business*

*Melissa Gruys, Ph.D. - Dean*

*Carrie Fabian Stumph, Ph.D., Director of MBA Program and Clinical Assistant Professor in Economics*

*260-481-6495 ~ Fax: 260-481-6879*

*Neff Hall 360D - 260-481-6498*

*e-mail: [stumphc@pfw.edu](mailto:stumphc@pfw.edu)*

### **Admission**

The Doermer School of Business seeks candidates whose analytical abilities, leadership, interpersonal skills, and personal motivation indicate a strong potential to excel in a business career. Candidates are required to hold a four-year undergraduate degree in any discipline from a recognized institution.

The MBA Policy Committee considers a number of characteristics essential for success in the program and evaluates a candidate for admission based on these characteristics. An ability to excel in the MBA+ program is indicated by a high GMAT score (GMAT is not required for the Accelerated MBA Program), past academic achievements (undergraduate

GPA), and recommendations that speak to the candidate's intellectual capacity. In addition, the committee considers several individual factors to be of equal importance. Motivation and leadership, as well as excellent communication and interpersonal skills, are highly valued in a professional manager. Successful candidates have these proven characteristics, which are revealed in past work experience, a self-evaluation essay, and recommendation letters. The committee carefully weighs all of these factors in making an admission recommendation to the Doermer School of Business.

Admission decisions are valid for twelve months from the semester of acceptance indicated in the applicant's admission letter. Successful applicants who have not completed any degree-applicable courses within that period must reapply for admission.

## **Educational Objective Statement (Essay)**

Applicants must provide an essay of 400-500 words indicating their experiences and achievements that reflect management, leadership, organization, creativity, maturity, initiative, and administrative skills. In addition, you should specify educational objectives as you contemplate beginning studies for the MBA program

## **Transcripts**

Applicants must have official transcripts sent directly to the MBA office from every college or university they have attended. Unofficial records or transcripts that have been issued to applicants cannot be accepted.

## **Recommendations**

Applicants are required to submit two letters of recommendation. Recommendation forms are included in the application packet. Recommendations should be obtained only from individuals qualified to evaluate an applicant's academic or on-the-job performance and attest to his or her ability to pursue a graduate degree. Suggested recommenders are employee supervisors or college professors.

## **Language Competency**

All international student applicants, whose native language is not English, must submit proof of English proficiency with their admission application. The most common way of demonstrating English proficiency is through taking a standardized exam. If the Test of English as a Foreign Language (TOEFL) is taken, a minimum score of 79 on the Internet-based test, 213 on the computer based or 550 on the paper-based test is required. Applicants taking the International English Language Testing System test (IELTS) must achieve a minimum score of 6.5. If the applicant resides in the United States, a Michigan test score of 80 is required for admission consideration.

## **Conditional Admission**

Applicants may be granted conditional admission at the discretion of the director and/or MBA Policy Committee. Specific requirements of conditional admission will be addressed in the applicant's letter of admission. Conditional admission for prospective international students whose native language is other than English may be offered based on successfully completing ELS program level 112. Purdue University Fort Wayne will accept requisite score results on the TOEFL or IELTS examinations, or the ELS Level 112 Certificate of Completion as proof of English proficiency. Upon completion of English proficiency requirements, students must pass a program interview for admission into the program.

## **Deadlines \*\***

Completed applications for the MBA+ or the Accelerated MBA Programs and all required supporting materials should be received by the admissions deadline dates to assure timely admission decisions.

**\*\*All MBA+ or Accelerated MBA application deadlines are listed on the MBA Program website at: <http://pfw.edu/mba>.**

## **Program Descriptions**

### **5 Year BS/MSE Combined Degree Program**

**Program: 5 Year Combined BS/MSE Degree  
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 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 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**

1. Complete and submit the Five Year BS/MSE Program Application :  
[http://www.pfw.edu/departments/etcs/depts/ece/5-year-bsmse-program/PreliminaryApplication\\_5Y\\_BS-MSE.pdf](http://www.pfw.edu/departments/etcs/depts/ece/5-year-bsmse-program/PreliminaryApplication_5Y_BS-MSE.pdf)
2. Update their Undergraduate Student One Year Plan of Study accordingly
3. Complete and submit Form GS-27 : <https://www.purdue.edu/gradschool/faculty/forms.html>
4. Complete the regular application to graduate school of Purdue University :  
<https://gradapply.purdue.edu/apply>

## General Requirements

### Graduate Catalog Links

1. General Information
2. Regulations and Policies
3. Purdue University Graduate School

## 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 the 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 can count up to 12 credit hours among which ECE400 level courses (beyond BS degree requirements), graduate 500 or higher level course with grade B- or above.

**Among the 500 or higher level courses, only those listed below can be counted toward the 5-year BS/MSE 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 Instrumentation 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 Designs 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 Instrumentation 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 Designs For Signal Processing Applications Cr. 3.
  
- SE 52000 - Engineering Economics Cr. 3. OR
- 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.

## 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: 5 Year BSME/MSE Combined Degree**  
**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.

#### **Program Delivery:**

- The BSME/MSE program is delivered primarily through on-campus; however, the opportunity to take some courses on-line through the West Lafayette campus of Purdue University does exist. Students are strongly encouraged to discuss this option with their advisor beforehand. In order to meet the needs of both our full-time students and working adults, most of the graduate level courses are offered in the evenings.

#### **Declaring this Major:**

**Admission to the combined five-year BSME/MSE program may be granted under the following conditions:**

- Students must be enrolled in BSME program at Purdue University Fort Wayne and have not yet received an undergraduate BSME degree.

- Students must have finished at least 60 credit hours in the respective BSME bingo sheet.
- Students must have achieved an undergraduate grade point average (GPA) of at least 3.0 at the time of application.
- 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), and MA 36300 (Differential Equations).
- Have completed the physics sequence of courses equivalent to PHYS 15200 (Mechanics) and PHYS 25100 (Heat, Electricity, and Optics).
- Acceptance into the program is conditional upon admission to the Purdue University Fort Wayne Graduate program.
- 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](https://www.pfw.edu/departments/etcs/depts/cme/5-year-program/F2018_Five%20Year%20BSME-MSE%20Application.pdf))
2. 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/>)

## Program Requirements

The requirements for BSME degree and MSE degree stay the same for students pursuing the degrees separately. For BSME degree requirement, please refer to the corresponding Bingo Sheet for BSME degree. All students must complete a total of 30 credit hours as described in the MSE Graduate Guidelines of PFW. The BS 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 list of graduate courses approved as technical elective courses in the combined BSME/MSE program. See a five-year example plan of study. It should be noted that only classes with grade "C" or better will be counted. Once accepted to the combined BSME/MSE program, students must follow the following rules:

- It is required that an undergraduate GPA of at least 3.0 is maintained in the five-year BSME/MSE program.
- During the 6th semester of undergraduate coursework, students must officially file the Graduate School Admission Application before the deadline specified by the Graduate Program.
- After satisfactory completion of the BSME degree requirements the undergraduate degree will be awarded.
- During the application of the 5 Year BSME/MSE combined degree program, students must consult with the graduate advisor and complete the Graduate Plan of Study form (Form 6). Registration for subsequent semesters will be restricted until a draft of the plan of study has been filed. Graduate plan of study may be modified with approval of the student's graduate committee.
- Students, who leave the program, whether for failure to meet the program requirements or by withdrawal, will cease to be graduate students but may continue as undergraduate students if they have not been awarded the BS degree. Such students may apply for regular admission to graduate study; but they will not be permitted to use any graduate courses used to fulfill BS requirements.

## Major and Supporting Courses Required for the BSME/MSE

--

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 is maintained while enrolled in the five-year BSME/MSE program.

## Program Transfer Credit Limits

No more than 12 credit hours can be transferred to PFW from the following:

- Credits earned from another university
- Credits earned as undergraduate excess
- Credits earned as a post-baccalaureate student
- Credits earned for a graduate certificate

## Teaching Assistantships

A limited number of graduate teaching assistantships are available to qualified students. Teaching assistantships usually include a stipend and substantial fee remission. Teaching assistants typically teach one or two undergraduate courses per semester.

Interested students will need to speak with the program director for availability.

## 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 Graduate Director.

## **5-Year BS/MS Combined Degree Program In Computer Science**

**Program: 5 Year BS/MS Combined Degree**  
**Department of Computer Science**  
**College of Engineering, Technology, and Computer Science**

*Engineering, Technology, and Computer Science Building 125*

*Beomjin Kim, Chair*  
*260-481-6180 or 481-6803*

*Jin Soung Yoo, Graduate Program Director*  
*260-481-6946*

The Department of Computer Science offers a five-year program through which students can obtain a Bachelor of Science (BS) degree and a Master of Science (MS) in Computer Science (CS). The BS and MS degrees offered through this program are identical to the individual BS and MS degrees offered by the CS 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 separately.

Students accepted into this dual-degree program can use nine (9) credits of graduate 500-level or higher courses for both degrees, BS and MS in CS. These courses must satisfy both degree requirements and appropriate advising is needed. This reduces the total number of required credits by the MS degree to 21 instead of 30.

### **Admission Requirements:**

- Students must be enrolled in the BS program in the Department of Computer Science at PFW and have not yet received the BS degree in CS.
- Students must have finished at least 60 credit hours (as marked on their respective BS bingo sheet).
- Students must have achieved an undergraduate cumulative grade point average (GPA) of at least 3.0 at the time of application.
- Students must have completed MA175 (Introductory Discrete Mathematics) and a sequence of fundamental computer science courses, CS160 (Introduction to CS I), CS161 (Introduction to CS II) and CS260 (Data Structures).
- No Graduate Record Examination (GRE) score is required for the admission.

Eligible students need to consult with their academic advisor/the CS graduate program director in their 5th or 6th undergraduate semester.

### **Application Process:**

The process for admission to the combined BS/MS program is as follows:

1. Students should submit the 5-Year Combined BS/MS Program Application and Combined-Degree Program Request (Purdue GS Form 27) to the CS department (the CS graduate program director) within 3-4 semesters

- of when they expect to fulfill the requirements for the BS in computer science (i.e., in their 5th or 6th undergraduate semester, approximately Junior year).
2. Students also need to submit Purdue Graduate School Admission Application (<https://www.purdue.edu/gradschool/admissions>) for the admission of the program of MS in Computer Science at PFW.
  3. Students need to update their Undergraduate Plan of Study accordingly.

**GPA Requirement:**

Acceptance into the combined program is conditional upon admission to the PFW graduate program. It is required that an Undergraduate GPA of at least 3.0 be maintained while enrolled in the 5-Year BS/MS Combined Program.

**Degree Requirements:**

The degree requirements of the combined BS/MS program are the same as for students pursuing the degrees separately, except that nine credits of approved graduate level CS courses can be used for both degrees.

1. Students can count up to nine (9) credit hours (three 500-level or 600-level graduate courses in Computer Science) as elective courses for the BS degree and also as courses for the MS degree.
2. The BS degree must be awarded prior to the MS degree. The student's primary degree objective will remain the BS until the BS is awarded. After satisfactory completion of the BS degree requirements, the undergraduate degree will be awarded. For the BS degree requirements, refer to the current bingo sheet for BS in Computer Science.
3. The MS will be the student's secondary degree objective from the time the student is accepted as an MS student by the Graduate School until the award of the BS.
4. For the MS degree, students must complete a total of 30 credit hours including 6 credits from core courses as described in the current degree requirements of MS in Computer Science.

## **Applied Statistics, Graduate Certificate**

**Purdue University**  
**Graduate Certificate in Applied Statistics**  
**Department of Mathematical Sciences**  
**College of Arts and Sciences**

*Kettler Hall ~ 260-481-6233*

*Peter D. Dragnev, Chair*  
*W. Douglas Weakley, Graduate Program Director*

The Graduate Certificate in Applied Statistics is designed to give engineers and technical managers the statistical knowledge and experience needed for good planning and quality control.

### **Admission**

You must have completed a calculus and a statistics course to be admitted. To apply, visit the Web site [gradschool.purdue.edu/admissions](https://gradschool.purdue.edu/admissions). If you have questions, please call Doug Weakley at 260-481-6233 or e-mail [weakley@pfw.edu](mailto:weakley@pfw.edu).

### **Program Restrictions**

All of the courses are offered starting at 4:30 p.m. or later, two days a week; the certificate requires a grade of B- or better in each course. At most one course may be transferred from another institution. Courses applied toward the certificate may also be applied toward the PFW master's program in mathematics.

## Certificate Required Courses: Credits 6

- STAT 51900 - Introduction to Probability Cr. 3.
- STAT 52800 - Introduction to Mathematical Statistics Cr. 3.

## Two of the following courses: Credits 6

- STAT 51200 - Applied Regression Analysis Cr. 3.
- STAT 51400 - Design of Experiments Cr. 3.
- STAT 51800 - Introduction To Statistical Learning Cr. 3.
- STAT 52000 - Time Series And Applications Cr. 3.

**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.

## **Biology (M.S.)**

**Purdue University**  
**Master of Science (M.S.)**  
**Department of Biology**  
**College of Arts and Sciences**

*Science Building ~ 260-481-6305*

*Elliott Blumenthal, Chair*

*Jordan M. Marshall, Graduate Program Director*

The graduate program in Biology helps you prepare to become a research scientist in academia, industry, or government, to obtain advanced education as a high-school teacher, or to pursue further study in a professional or Ph.D. program.

Courses and faculty research cover a wide range of specific disciplines within biology: behavior, cancer biology, developmental biology, ecology, forestry, genetics, herpetology, immunology, microbiology, molecular biology, physiology, toxicology, and virology.

## Degree Requirements

This program includes Nonthesis and Thesis degree options. Each option is described below:

## Nonthesis Option

If you select this option, at least 30 credit hours of graduate course work are required. Fifteen of the credit hours must be at the 500-level within the Department of Biology. The remaining 15 hours can be fulfilled by some combination of the following: additional BIOL courses at the 500-level; up to 9 credit hours of BIOL 59500 Special Assignments; up to 6 credit hours of undergraduate courses at the 300- or 400-level taken from other departments (B- or better grade is required) or 400-level BIOL courses (B- or better grade is required); or up to 15 credits of 500-level courses in other departments. Students also must satisfactorily complete a written examination prepared by each committee member during the student's last semester. A passing grade of B must be earned on the final exam. Students will have two attempts to pass the exam.

## Thesis Option

This option requires a minimum of 30 credit hours of formal course work and research credits combined. A minimum of 18 credit hours of formal course work approved by the student's committee is required, 15 of these credit hours must be at the 500-level within the Department of Biology (3 credit hours may be fulfilled by an additional BIOL course at the 500-level; undergraduate course at the 300- or 400-level taken from another department (B- or better grade is required); or undergraduate course at the 400-level BIOL course (B- or better grade is required). The remaining 12 credits can be exclusively BIOL 69800 Research M.S. Thesis or a combination of no less than 9 credits BIOL 69800 and a maximum of 3 credits of BIOL 59500 Special Assignments. BIOL 59500 Special Assignments credits cannot be included in the 18 hours of formal course work. Students must present their research to the department in a seminar and pass a final oral defense of their thesis work after they have submitted their thesis to the examining committee.

## Graduate Program Courses:

- BIOL 50100 - Field Botany Cr. 4.
- BIOL 50200 - Conservation Biology Cr. 3.
- BIOL 50500 - Biology of Invertebrate Animals Cr. 3.
- 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 53700 - Immunobiology Cr. 3.
- BIOL 54000 - Biotechnology Cr. 3
- BIOL 54110 - Invasion Biology Cr. 3.
- BIOL 54300 - Population Ecology Cr. 4.
- BIOL 54400 - Principles of Virology Cr. 3.
- BIOL 55110 - Proteins: Structure And Function Cr.3.
- BIOL 55600 - Physiology I Cr. 3.
- BIOL 55900 - Endocrinology Cr. 3.
- BIOL 56500 - Immunobiology Laboratory Cr. 1.
- BIOL 56600 - Developmental Biology Cr. 3.
- BIOL 56700 - Laboratory in Developmental Biology Cr. 1.
- BIOL 57710 - Emerging Infectious Diseases Cr. 3.

- BIOL 57810 - Biology Of Disease Vectors Cr. 3.
- BIOL 58000 - Evolution Cr. 3.
- BIOL 58200 - Ecotoxicology Cr. 3.
- BIOL 58400 - Molecular Biology and Applications Laboratory Cr. 1.
- BIOL 58600 - Topics in Behavior and Ecology Cr. 3.
- BIOL 59500 - Special Assignments Cr. 1-4.
- FNR 50500 - Molecular Ecology and Evolution Cr. 3
- FNR 52300 - Aquaculture Cr. 3

Total Minimum Credits: 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.

## Business (MBA)

### Purdue University Fort Wayne Master of Business Administration (MBA) *Richard T. Doermer School of Business*

*Melissa L. Gruys, Ph.D. - Dean*  
*Carolyn Fabian Stumph, Ph.D., Director of MBA Program and Clinical Assistant Professor in Economics*  
260-481-6495 ~ Fax: 260-481-6879  
Neff Hall 360D - 260-481-6498  
e-mail: [stumphc@pfw.edu](mailto:stumphc@pfw.edu)

### Introduction

Information about MBA programs can be found at: <https://www.pfw.edu/mba/>

The Master of Business Administration (MBA) program is designed to prepare qualified students and working professionals for positions of responsibility as managers and leaders who are capable of making effective and ethical business decisions in an ever-changing global environment. Upon completion of the MBA degree, students will:

- Conduct innovative problem solving
- Transcend functional boundaries
- Make complex, short-term decisions
- Engage in strategic decision making
- Solve managerial problems
- Effectively utilize information technology
- Build organizational environments
- Develop a sense of professional and social responsibility

The Doermer School of Business and the MBA programs are accredited by the Association to Advance Collegiate Schools of Business-International or AACSB. It is the longest serving global association dedicated to advancing management education worldwide. It provides internationally-recognized, specialized accreditation for business and accounting programs at the bachelor, master and doctoral levels. Currently, it accredits 740 of the best business schools across 50 countries and territories; that is less than 10 percent of the world's business schools. The Doermer School of Business at Purdue University Fort Wayne is the only AACSB accredited business school in northeast Indiana.

The faculty who teach in the graduate program have earned doctoral degrees from a broad range of distinguished universities and bring a wealth of experience through their scholarly research and consulting in the business community.

### **Program Delivery**

During regular semesters, the MBA+ graduate business classes are offered Monday through Thursday evenings and occasionally on Friday evenings. This provides MBA+ students with an opportunity to earn a nationally accredited professional business degree with minimal disruption to their careers. Classes typically meet one evening per week (6-8:45 p.m.) on weekdays. Courses may be offered in one of three formats: face-to-face, hybrid, or online. Each summer, a selection of core classes will be offered in either a hybrid or online format. These courses are offered to add flexibility to the program.

During regular quarters, Professional MBA (PMBA) graduate business classes are offered on Saturday. This provides MBA students with an opportunity to earn a nationally accredited professional business degree with minimal disruption to their careers. During the quarters, classes typically meet Saturday, 8:00 am to 12:30 pm. Courses in the Professional MBA program will be offered either as hybrid or online.

### **General Requirements to complete an MBA Degree**

The MBA+ requires 36 credit hours with a cumulative graduate GPA of 3.0 or better.

The PMBA requires 36 credit hours with a cumulative graduate GPA of 3.0 or better.

In the MBA+ program, six credit hours in electives may be taken in other graduate studies programs on campus. These courses must contain significant business content and be approved by the MBA Director.

All students have four years from the start of their program to complete their degree.

### **Program Requirements**

#### **Admissions Qualifications for the Purdue Fort Wayne Doermer School of Business MBA**

As the only AACSB-accredited business school in the region, Purdue Fort Wayne seeks to recruit top applicants. The Doermer School strives to enroll a student body with a variety of skills and backgrounds that will work together to foster personal and professional growth in a dynamic learning environment.

We conduct a holistic review of each application. Our admissions office considers an applicant's academic record, employment experience, recommendations, and test scores. We are especially interested in evidence of strong academic performance and a brief, clear statement of purpose.

For our Professional MBA program, we require the following:

- Bachelor's degree from an accredited college or university

- Two letters of recommendation
- All official transcripts from universities or colleges attended
- Statement of Purpose
- GMAT, GRE or approved GMAT waiver
- Interview with MBA Director

For our MBA+ program, we require the following:

- Bachelor's degree from an accredited college or university
- Two letters of recommendation
- All official transcripts from universities or colleges attended
- Statement of Purpose
- GMAT, GRE or approved GMAT waiver
- Interview with MBA Director

Admission requirements are the same for both programs so students may switch back and forth, at the discretion of the MBA Director, in order to complete degree requirements.

For international applicants, in addition to the above, we require proof of English proficiency through one of the following:

Test of English as a Foreign Language

1. TOEFL iBT Overall Score Required: 80

With the following minimum section requirements:

Reading: 19

Listening: 14

Speaking: 18

Writing: 18

2. TOEFL Paper-Delivered Test - no overall score reported

With the following minimum section requirements:

Reading: 19

Listening: 14

Writing: 18

3. International English Language Testing System (IELTS)

Minimum overall score required (Academic Module): 6.5

With the following section requirements:

Reading: 6.5

Listening: 6.0

Speaking: 6.0

Writing: 5.5

4. The Graduate School will consider applicants who have (a) enrolled at one of the following intensive English programs and (b) satisfied the exit requirements established for the program as having met the Graduate School's English proficiency requirement:

- Purdue University Calumet English Language Program (ELP) Exit Requirement: achieve a minimum 80% (Level 4 examination) and pass an Exit Test (consisting of speaking and writing components). Indiana University-Purdue University Indianapolis (IUPUI) Program for Intensive English (PIE) Exit Requirement: pass all classes with grades of at least B (82%), and pass the PIE Proficiency Exit Test at the Level 7 level.
- For Purdue Fort Wayne applicants only, the Graduate School will consider applicants who have enrolled in ELS Language Center's English for Academic Purposes program and who have passed ELS Level 112 as having met the Graduate School's weeks of intensive study using curricular materials written at the native speaker level (approximately 360 hours of classroom instruction in speaking, listening, reading, writing); completion of an extensive research paper using standard research protocols in a monitored setting; Passing of the Michigan English Language Institute College English Test (MELICET) and Listening Comprehension Test (LCT) standards; passing of speaking evaluations; passing of writing evaluation. These results must be certified, in writing, by ELS Language Center to the Fort Wayne graduate office before applicants using this method of establishing English proficiency may be admitted to the Graduate School.

These results must be certified, in writing, by the intensive English program faculty to the Office of Graduate Admissions at West Lafayette or the equivalent office at the regional campuses before the applicants using this method of establishing English

proficiency may be admitted to the Graduate School.

Note: ELS is available at the Fort Wayne campus only)

### **Conditions of Continued Enrollment**

Applicants may be enrolled with conditions specified for continued enrollment at the discretion of the director and/or MBA Graduate Policy Committee. Specific requirements of continued enrollment will be addressed in the applicant's letter of admission. To remain in good standing, all MBA students (PMBA or MBA+) must maintain a 3.0 cumulative GPA or above as a condition of continued enrollment.

## **Program of Study**

The MBA+ program requires the completion of a minimum of 36 credit hours. There are four classifications of courses in the program:

### **Group 1-Orientation**

Orientation is mandatory. It provides an avenue for students to begin to get to know their classmates. It also provides information about campus resources.

### **Group 2-Business Essentials: (Credits 4)**

**Business Foundations Courses** consist of short introductory business modules. These courses may be waived if the student has had current undergraduate classes in the subject area. These are primarily for those who have non-business undergraduate majors.

- Must Be Admitted To The MBA Program To Enroll
- BUS 50100 - Essentials of Accounting Cr. 1.
  - BUS 50200 - Basic Finance Cr. 1.
  - BUS 50300 - Introduction to Economics Cr. 1.
  - BUS 50400 - Ethics and Regulatory Environment Cr. 1.

## Group 3-Professional Core: (Credits 30)

MBA candidates are required to complete a minimum of 36 credits in approved graduate courses.

- BUS 52400 - Decision Making and Economic Environment in a Global Economy Cr. 3.
- BUS 54001 - Data Analysis and Management Science Cr. 3.
- BUS 54202 - Leadership and Management of People in Organizations Cr. 3.
- BUS 54200 - Strategic Cost Management Cr. 3.
- BUS 54201 - Financial Analysis and Decision Making Cr. 3.
- BUS 57000 - Operations and Supply Chain Management Cr. 3.
- BUS 56000 - Marketing and Customer Relationship Management Cr. 3.
- BUS 55200 - Management of Information Technology Cr. 3.
- BUS 59000 - Strategic Management Cr. 3.
- BUS 60001 - Experiential Learning Cr. 3.0  
BUS 60001 may be waived at the discretion of the MBA Director if the student has five or more years of professional experience post-baccalaureate.

## Group 4-Concentration/General Track (6 credit hours)

- BUS 57500 - Topics in Finance Cr. 3.
  - BUS 57501 - Topics in Operations Management Cr. 3.
- Concentrations are available in Finance and Business Analytics. Students may also select a general track.  
F575 - Topics in Finance - Finance Concentration - 6 credits in finance electives  
M575 - Topics in Operations Management - Business Analytics Concentration - 6 credits in business analytics electives

General Track - 6 credits in any graduate business electives

Any MBA graduate electives

Students have the option of selecting one or both concentrations, or the general track.

**Total MBA+ Credits: 36 credits**

## Professional MBA - Saturday Cohort Program

The Professional MBA program requires the completion of 36 credit hours. There will be four components of three courses each. Each component will run for eleven weeks with the exception of the final component which will run for 10 weeks.

## Orientation

Orientation is mandatory. It provides an avenue for students to begin to get to know their classmates. It also provides information about campus resources.

## Professional Core - 36 credit hours - 12 courses

- BUS 52400 - Decision Making and Economic Environment in a Global Economy Cr. 3.
- BUS 54001 - Data Analysis and Management Science Cr. 3.
- BUS 54202 - Leadership and Management of People in Organizations Cr. 3.
- BUS 57000 - Operations and Supply Chain Management Cr. 3.
- BUS 54200 - Strategic Cost Management Cr. 3.
- BUS 54201 - Financial Analysis and Decision Making Cr. 3.
- BUS 55200 - Management of Information Technology Cr. 3.
- BUS 56000 - Marketing and Customer Relationship Management Cr. 3.
- BUS 59000 - Strategic Management Cr. 3.
- BUS 60001 - Experiential Learning Cr. 3.0  
BUS 60001 may be waived at the discretion of the MBA Director if the student has five or more years of professional experience post-baccalaureate.
- BUS 58000 - Topics in Accounting Cr. 3.  
  
Or BUFW F575 Topics in Finance Cr. 3
- BUS 58900 - Topics in Law Cr. 3.

Total Professional MBA Credits: 36 Credits

## 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 Graduate Director.

## Computer Science (M.S.)

**Purdue University**

**Master of Science (M.S.)**

**Department of Computer Science**

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

*Engineering, Technology, and Computer Science Building 125*

*Beomjin Kim, Chair*

*260-481-6180 or 481-6803*

*Jin Soung Yoo, Graduate Program Director*  
260-481-6946

The Master of Science with a major in computer science (CS) is designed to meet the objectives of students with a professional interest in computer-related fields and to help meet the computing expertise needs of their employers. Courses of the program stress a hands-on approach, applying theory to the practical problems of developing computing and information systems with large software content. To meet the needs of working professionals, courses are primarily offered in the evening.

Graduates of the program will be in a position to assume leadership roles in:

- Formulating and assessing requirements for complex software-based systems;
- Using the principles of systems analysis and software engineering to design, implement, and test complex software-based systems
- Providing technological and managerial perspectives on information management and the development of data analysis and information systems; and
- Keeping abreast of the content and implications of technological advancements in computer sciences.

#### **Financial Aid**

- There are a limited number of graduate teaching assistantships available that include a stipend and substantial fee remission. Generally these are not available to first-term students.

#### **Program Delivery**

- On-campus

#### **Declaring This Major**

- Procedure to declare major

#### **General Requirements**

- Degree Requirements
- College Graduation Requirements
- Academic Regulations

## **Admission Requirements**

Applicants to the program should have an undergraduate degree in computer science, information systems, technology, engineering, mathematics, or another undergraduate degree in relevant areas such as business, and significant experience in professional computer practice. Program entrance requirements include a bachelor's degree with a cumulative GPA of 3.0 or better, proficiency in a high-level computer language equivalent to a two-semester college course, a course in data structures, a course in statistics or probability based on two semesters of calculus, and a course in finite or discrete mathematics.

As an example, the following PFW courses satisfy the admissions requirements for the computer science graduate program:

- CS 26000 - Data Structures Cr. 3.
- MA 17500 - Discrete Mathematics Cr. 3.
- STAT 51100 - Statistical Methods Cr. 3.

The admission process is selective and meeting the above minimum admission requirements does not guarantee admission into the program. No Graduate Record Exam (GRE) score is required for the admission.

These requirements are in addition to the standard admission requirements of the Purdue Graduate School.

## Degree Requirements

### Curriculum Requirements

The curriculum requires 30 credit hours of approved graduate credit chosen with the guidance of a graduate advisor. Six of the 30 credit hours will be chosen from the following courses:

- ACS 56000 - Software Engineering Cr. 3.
- CS 58000 - Algorithm Design Analysis and Implementation Cr. 3.
  
- CS 50300 - Operating Systems Cr. 3 **or**
- ACS 57400 - Advanced Computer Networks Cr. 3.

### Remaining Requirements

- **Non-thesis Option**  
The remaining 24 credit hour minimum will be chosen from the CS courses listed in the Graduate Catalog. All of these courses have CS 26000 and STAT 51100 or equivalents as prerequisites unless stated otherwise. Many have additional undergraduate prerequisites. A limited number of other graduate courses in mathematics, engineering, and occasionally business may be approved on an individual basis.
  
- **Thesis Option**  
ACS 69800 - Research M.S. Thesis (6 credits) is requested. The remaining 18 credit hours will be chosen from the CS courses listed in the Graduate Catalog. All of these courses have CS 26000 and STAT 51100 or equivalents as prerequisites unless stated otherwise. Many have additional undergraduate prerequisites. A limited number of other graduate courses in mathematics, engineering, and occasionally business may be approved on an individual basis.

**Total Credits Required: 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 Graduate Director.

## **Counselor Education (M.S.Ed.)**

### **Master of Science in Education (M.S.Ed.)**

#### **School of Education**

#### **College of Professional Studies**

*Neff Hall 240 ~ 260-481-6861*

#### **Student Learning Outcomes:**

The counselor education program provides the following options:

- Clinical Mental Health Counseling consists of 60 credits and can be completed in three years.
- School Counseling consists of 60 credits and can be completed in three years.

Each of the above options emphasizes:

- Theory, skills, and strategies of counseling
- Research on counseling issues
- Supervised counseling experience (on-campus practicums and off-campus internship)
- Multicultural and social justice.

Completion of the school counseling option is designed to lead to a School Counselor educator license for the state of Indiana. Completion of the clinical mental health counseling option is designed to lead to subsequent licensure as a Licensed Mental Health Counselor (LMHC) in the state of Indiana.

### **The Degree:**

To earn the master's degree with a major in counseling, you must satisfactorily complete either the Clinical Mental Health Counseling option or the School Counseling option curricula. You also must satisfactorily complete supervised off-campus internships and two (School Counseling) or three (Clinical Mental Health Counseling) on-campus practica. You must satisfy the requirements of Purdue University Fort Wayne (Regulations) and the College.

Subject to approval by the Director of Counselor Education, you may substitute up to 6 credits of graduate-level counseling courses you have successfully completed at Purdue Fort Wayne, or earned at another comparably accredited institution.

### **Accreditation:**

- The School Counseling program is accredited by the Council for the Accreditation of Educator Preparation (CAEP) and is recognized as a high-quality program through the Indiana Department of Education. This program is currently seeking national accreditation through the Council for Accreditation of Counseling and Related Educational Programs (CACREP). Students who meet specified requirements are eligible for a K-12 School Counselor license in the state of Indiana. Indiana holds reciprocal licensing agreements with other states.

### **Acceptance to the Counselor Education Program:**

Acceptance to the program is available only for the Summer II Semester. Preference is given to applications received on or before February 15th. Candidates with diverse backgrounds and those from underrepresented groups are encouraged to apply! To be considered, you must provide the following materials with your application for admission to graduate study in education:

- A completed Counselor Education program application form, official transcripts from all colleges you have attended, two professional recommendation letters, and copies of all applicable licenses
- A current résumé or curriculum vitae
- A statement, approximately two pages in length, that summarizes your
  - Professional goals, including preferred professional setting(s), examples of typical employment activities, and any specialized interests
  - Past experiences contributing to the development of your cited professional goals

- Unique skills and characteristics aiding your pursuit of your cited goals

After the Director of Counselor Education has determined that you qualify for admission to graduate study in education, your application to the Counselor Education program and the additional material you have provided will be referred to the Dean of the School of Education. The Dean and appropriate faculty will evaluate your demonstrated academic ability and evidence of your aptitude for working with people. You will also be required to participate in an interview process. Applicants are accepted to the program with the stipulation they adhere to the curriculum of their elected option.

## Program Requirements

You are required to follow the curriculum plan for your elected counseling track. Any variation from specified elements of these curricula can be granted only by written permission of the director of counselor education and may delay your anticipated graduation date.

### **Supervised Experience**

The Counselor Education program requires the following supervised counseling experience with clients:

### **On-Campus Practica**

You must enroll in and satisfactorily complete two practica for School Counseling and three practica for Clinical Mental Health Counseling in the PFW Community Counseling Center. Your work in these courses will be closely supervised by selected faculty.

### **Counseling Internship**

For the school counseling option, all students must complete a 600-hour counseling internship in an accredited K - 12 school. Students pursuing the clinical mental health counseling option must complete 1000 combined on-site hours for practicum and internship (900 hours must occur after the practicum), with 240 of those hours being in direct service to clients. Before you are permitted to work with clients, you must:

- Earn a minimum grade of B- in each practicum course; and
- Comply with the Ethical Standards of the American Counseling Association and/or the American School Counseling Association.

Your specific responsibilities in the client/counselor relationship are detailed in the following school publications: *Graduate Student Orientation Handbook* and *The Counselor Education Program Handbook*. You are expected to conduct yourself professionally, uphold confidentiality, avoid dual relationships with clients, and refrain from any unsupervised counseling activities. Your failure to meet these expectations will result in your censure or dismissal from the program.

## Clinical Mental Health Counseling Courses (60 credits)

- EDU 50200 - Professional Orientation and Ethics Cr. 3.
- EDU 58000 - Counseling Skills and Techniques Cr. 3.
- EDU 51400 - Life Span Development: Birth to Death Cr. 3.
- EDU 50300 - Counseling Theories and Techniques I: Humanistic and Existential Cr. 3.
- EDU 50400 - Counseling Theories and Techniques II: Behavior and Family Systems Cr. 3.
- EDU 56300 - Foundations of Mental Health Counseling Cr. 3.
- EDU 58000 - Child and Adolescent Counseling Cr. 3.
- EDU 50500 - Individual Appraisal: Principles and Procedures Cr. 3.

- EDU 52400 - Practicum in Counseling Cr. 3.
- EDU 56700 - Introduction to Marriage and Family Counseling Cr. 3.
- EDU 52501 - Advanced Counseling Practicum Cr. 3.
- EDU 59001 - Research in Counseling and Guidance Cr. 1-3.
- EDU 57500 - Multicultural Counseling Cr. 3.
- EDU 55000 - Internship in Counseling and Guidance Cr. 3-5.
- EDU 58000 - Trauma and Addictions Counseling Cr. 3.
- EDU 53200 - Introduction to Group Counseling Cr. 3.
- EDU 55100 - Advanced Internship in Counseling Cr. 3.
- EDU 58000 - Career Counseling Cr. 3.
- EDU 55100 - Advanced Internship in Counseling Cr. 3.
- EDU 58000 - Diagnosis and Treatment Planning Cr. 3.

## School Counseling (60 credits)

- EDU 50200 - Professional Orientation and Ethics Cr. 3.
- EDU 58000 - Counseling Skills and Techniques Cr. 3.
- EDU 51400 - Life Span Development: Birth to Death Cr. 3.
- EDU 50300 - Counseling Theories and Techniques I: Humanistic and Existential Cr. 3.
- EDU 50400 - Counseling Theories and Techniques II: Behavior and Family Systems Cr. 3.
- EDU 54200 - Organization and Development of Counseling Programs Cr. 3.
- EDU 58000 - Child and Adolescent Counseling Cr. 3.
- EDU 50500 - Individual Appraisal: Principles and Procedures Cr. 3.
- EDU 52400 - Practicum in Counseling Cr. 3.
- EDU 56200 - School Counseling: Intervention Consultation and Program Development Cr. 3.
- EDU 52501 - Advanced Counseling Practicum Cr. 3.
- EDU 59001 - Research in Counseling and Guidance Cr. 1-3.
- EDU 57500 - Multicultural Counseling Cr. 3.
- EDU 53200 - Introduction to Group Counseling Cr. 3.
- EDU 55000 - Internship in Counseling and Guidance Cr. 3-5.
- EDU 55100 - Advanced Internship in Counseling Cr. 3.
- EDU 55200 - Career Counseling: Theory and Practice Cr. 3.
- EDU 50501 - Introduction to Special Education for Graduate Students Cr. 3.
- Education Elective Cr. 3.
- Education Elective 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 program director.

## Educational Leadership (M.S.Ed.)

**Master of Science in Education (M.S.Ed.)  
School of Education  
College of Professional Studies**

*Neff Hall 240 ~ 260-481-6861*

**Student Learning Outcomes:**

Upon completion of this degree, students will:

- demonstrate an understanding as a school building leader to develop a school wide culture of achievement aligned to the school's vision.
- apply knowledge as a school building leader to create a positive school culture and instructional program using effective practices that contribute to the academic success of all learners.
- apply knowledge as a school building leader to leverage organizational, operational, and resource management skills to support school improvement and contribute to the academic success of all learners.
- demonstrate an understanding as a school building leader to build relationships that ensure all key stakeholders work collaboratively and effectively together, responding to diverse community interests and needs, mobilizing community resources and cultivating community partners in order to achieve transformative results.
- apply knowledge as a school building leader by acting with integrity, fairness, and in an ethical manner to support school policies and assurance of equitable practices, while supporting and communicating democratic values, equity, and diversity in order to ensure the success of all learners.
- apply knowledge as a school building leader by using laws, policies and leadership platform to advocate for all students and families and act to influence policy makers in order to ensure the success of all learners.

**The Degree:**

The M.S.Ed. in Educational Leadership is a professional graduate degree program intended to prepare students for an Indiana license as a Building Level Administrator who can create an environment in which all students can meet rigorous academic requirements and discover their unique capabilities.

Educational Leadership students may choose to complete the accelerated 30 credit M.S.Ed. program cohort option or the self-paced pathway. Students in this program may select a fall or spring start date. The focus of this program is preparation for an Indiana Building Level Administrator license for the State of Indiana.

To earn the master's degree with a major in educational leadership and acquire the academic preparation for an Indiana Building Level Administrator License; you must satisfactorily complete the required 30 credit hour program, and you must satisfy the requirements of Purdue University Fort Wayne (Regulations) and the College.

**To qualify for the Indiana Building Level Administrator license, you must also complete the following:**

- Pass the Indiana Teacher Licensing Test-(039) School Administrator-Building Level;
- Provide a letter from your superintendent stating that you have at least two years of full-time teaching experience under a valid license;
- Proof of approved certification in CPR/AED;
- Proof of suicide prevention training;
- Complete an exit interview and receive recommendation from Educational Leadership faculty.

**Accreditation:**

- The Educational Leadership program is accredited by the National Council for Accreditation of Teacher Education, Council for the Accreditation of Educator Preparation (CAEP), the Indiana Department of Education (IDOE), and nationally recognized as a high-quality program through the National Educational Leadership Preparation (NELP). Because of these statuses, candidates who meet specific requirements are

eligible for a Building Level Administrator license in the State of Indiana. Indiana holds reciprocal licensing agreements with other states.

**Admission Requirement:** Admission to the Purdue Fort Wayne Educational Leadership program requires an official transcript reflecting 3.0 or higher on a 4.0 Grade Point Average Scale.

## Administrative Courses:

- EDU 50001 - Introduction to Educational Leadership Cr. 3. (Must be taken first)
- EDU 51000 - School-Community Relations Cr. 2-3.
- EDU 51500 - Educational Leadership: Teacher Development and Evaluation Cr. 3.
- EDU 60800 - Legal Perspectives on Education Cr. 3.
- EDU 62400 - Educational Leadership: The Principalship K-12 Cr. 3.
- EDU 63000 - Economic Dimensions of Education Cr. 3.
- EDU 63800 - Public School Personnel Management Cr. 3.
- EDU 69500 - Practicum in Educational Leadership Cr. 3.
- EDU 62000 - Workshop on Selected Problems in School Administration Cr. 1-6. (Workshop/School Leadership)
- EDU 50002 - Instruction in the Context of Curriculum Cr. 3.

## Total (30 Credits)

- At least 18 of the 30 total credits toward the M.S.Ed. must be completed at Purdue Fort Wayne.

## 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 Graduate Director.

## Elementary Education (M.S.Ed.)

**Program: Master of Science in Education (M.S.Ed.)**

**School of Education**

**College of Professional Studies**

*Neff Hall ~ 260-481-6861*

### **Student Learning Outcomes:**

Developed for practicing teachers, this 30-credit graduate M.S.Ed. program will allow the educator candidate to strengthen their teaching practice and professional expertise through both core courses and self-designed specializations. Elective courses can be individually selected based on interest, or they can lead to a certificate or additional licensure area.

### **The Degree:**

To earn the Master of Science in Education with a major in Elementary Education, you must satisfactorily complete the required minimum of 30 graduate credit hours, and you must satisfy the requirements of Purdue University Fort Wayne (Regulations) and the College.

- It is recommended that students take the five core courses in the first year of their program followed by the five elective courses.
- At least 15 of the 30 total credits toward the M.S.Ed. must be completed at Purdue University Fort Wayne.

Admission Requirement: Please note: Admission to the Purdue Fort Wayne Elementary Education graduate program requires an official transcript reflecting 3.0 or higher on a 4.0 Grade Point Average Scale.

To earn the master's degree with a major in elementary education, you must satisfactorily complete the following program:

## Elementary Core (15 credits)

- EDU 52000 - Education and Social Issues Cr. 3.
- EDU 57001 - Building Classroom Communities Cr. 3.
- EDU 50301 - Introduction to Research Cr. 3.
- EDU 50700 - Assessment Theory And Practice Cr. 3.
- EDU 50501 - Introduction to Special Education for Graduate Students Cr. 3.

## Elective Courses (15 Credits)

**School of Education or other education-focused electives (choose 5)**

### **Recommended Educational Leadership Electives**

- EDU 50001 - Introduction to Educational Leadership Cr. 3.
- EDU 50002 - Instruction in the Context of Curriculum Cr. 3.
- EDU 60800 - Legal Perspectives on Education Cr. 3.

### **Recommended Special Education Electives**

- EDU 56500 - Collaboration & Service Delivery Cr. 3.
- EDU 52502 - Survey of Mild Handicaps Cr. 3.
- EDU 55300 - Classroom Management & Behavior Support Cr. 3.

### **Recommended Counselor Education Electives**

- EDU 51400 - Life Span Development: Birth to Death Cr. 3.
- EDU 57500 - Multicultural Counseling Cr. 3.
- EDU 58000 - Topical Seminar in Counseling and Guidance Cr. 1-3.

*With program director approval, other graduate-level education-focused courses may fulfill this requirement.*

**Certificates and additional licensure (first 15 credits count toward Master's, final three needed for certificate)**

- **Teaching English as a New Language**
- **Computer Science Education**

## Total (30 Credits)

## 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 Graduate Director.

## **Engineering (M.S.E.) - Electrical, Computer and Systems**

### **Master of Science in Engineering (MSE)**

#### **Purdue University Fort Wayne**

#### **Department of Electrical and Computer Engineering**

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

*Engineering, Technology, and Computer Science Building 327 ~ 260-481-6362*

The Master of Science in Engineering (MSE) is designed to meet the needs of motivated engineers seeking to advance their careers. The following concentrations are currently offered:

- Computer Engineering
- Electrical Engineering
- Systems Engineering

#### **Program Delivery:**

- The MSE program is delivered primarily through on-campus courses; however, the opportunity to take some courses on-line through the West Lafayette campus of Purdue University does exist. Students are strongly encouraged to discuss this option with their advisor beforehand. In order to meet the needs of both our full-time students and working adults, most of the graduate level courses are offered in late afternoon or evenings.

#### **Declaring this Major:**

Applicants to the MSE program should have ideally graduated from an approved, accredited engineering program with a Bachelor of Science degree in their selected area of specialization with a minimum undergraduate GPA of 3.0.

Graduates with a Bachelor of Science degree in the physical sciences, computer science, mathematics or technology will also be considered for admission.

Formal admission to the MSE program requires a Bachelor of Science degree as well as:

- Completion of the engineering mathematics sequence which includes calculus, multivariate calculus, linear algebra, and differential equations
- Completion of at least two semesters of calculus-based physics
- Completion of all undergraduate engineering courses that are the prerequisites to the graduate courses on the student's Plan of Study (GS-Form 6)

These requirements are in addition to the standard admission requirements of the Purdue Graduate School.

#### **Application Process:**

- Students interested in pursuing a Master of Science in Engineering need to apply through the Purdue University Graduate Application Website at: <https://www.purdue.edu/gradschool/admissions/how-to-apply/index.html>.

## **General Requirements**

1. ETCS Graduate Programs
2. Office of Graduate Studies
3. Purdue University Office of Graduate Studies
4. Graduate Catalog Regulations & Policies

## Program Requirements

Students are required to complete 30 credits of course work to earn an M.S.E. Course requirements are flexible allowing students to tailor their program to specific career goals.

The students must complete a Plan of Study (Form GS-6) before the end of their second semester to document their intended curriculum.

## Major and Supporting Courses Required for the MSE

### Engineering Electives

Students must take six (6) credits of engineering graduate-level courses that are consistent with their educational objectives.

### Math, Statistics or Computer Science Electives

Students are required to take six (6) credits of graduate-level course work in mathematics, statistics or computer science that are consistent with their educational objectives.

**Note:** Some statistics and computer science courses are not appropriate for certain concentration areas. Please make sure to discuss this with your advisor before enrolling in a statistics course.

### General Graduate Electives

Students are required to choose six (6) credits of other graduate-level courses in consultation with their advisor.

Appropriate areas for coursework include:

- Engineering
- Physics
- Math
- Computer Science
- Business
- Organizational Leadership

### Thesis Option (6 credits)

A student can opt to replace 6 elective credits with thesis research. To take advantage of this option, the student must prepare a thesis proposal and gain departmental approval prior to signing up for thesis credits in ECE 69800.

- ECE 69800 - Research MS Thesis Cr. 1 to 18.

## Core and Concentration Courses Required for the MSE

Students are required to earn 12 credit hours of coursework in their concentration area.

### Computer Engineering Concentration

- ECE 53800 - Digital Signal Processing I Cr. 3.
- ECE 54700 - Introduction to Computer Communication Networks Cr. 3.
- ECE 56700 - FPGA Designs For Signal Processing Applications Cr. 3.
- ECE 60000 - Random Variables and Signals Cr. 3.
- ECE 66100 - Computer Vision Cr. 3.

### Electrical Engineering Concentration

- ECE 53800 - Digital Signal Processing I Cr. 3.
- ECE 54300 - Wireless Communication 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.

### Systems Engineering Concentration

- SE 51000 - Systems Engineering 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.

## Program Transfer Credit Limits

No more than 12 credit hours can be transferred to Purdue University Fort Wayne from the following:

- Credits earned from another university
- Credits earned as undergraduate excess
- Credits earned as a post-baccalaureate student
- Credits earned for a graduate certificate

## Teaching Assistantships

A limited number of graduate teaching assistantships are available to qualified students. Teaching assistantships usually include a stipend and substantial fee remission. Teaching assistants typically teach one or two undergraduate courses per semester.

Interested students will need to speak with the program director for availability.

## 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 Graduate Director.

## **Engineering (M.S.E.) - Mechanical**

### **Purdue University**

### **Master of Science in Engineering (M.S.E.)**

*Department of Civil and Mechanical Engineering*

*College of Engineering, Technology, and Computer Science*

*Engineering, Technology, and Computer Science Building, Rm. 321 ~ 260-481-6357*

*Hosni Abu-Mulaweh, Graduate Program Director*

The Master of Science in Engineering (M.S.E.) with Mechanical Engineering specialization is designed to help students sharpen their engineering skills, grow professionally, and stay on top of recent developments in the field. Our MSE degree prepares students for the future by broadening and deepening their understanding of engineering principals, state-of-the-art technology, and technical management. Our MSE degree equips students to succeed in our rapidly-changing world and positions them to become senior engineering professionals or technical managers.

Our graduate program is designed for working engineers taking one or two courses each semester. However, full-time students can also be accommodated, as they can take additional classes in systems engineering, organizational leadership, math & statistics, and engineering technology. In addition, on-line classes from Purdue WL can be taken at a reduced tuition rate. All students are encouraged to conduct research and write a thesis. Research is a high-impact, transformational activity that benefits industry, students, and our program. Industry-sponsored research projects are ideal. A non-thesis MSE option is also available.

#### **Program Delivery:**

- The MSE program is delivered primarily through on-campus courses; however, the opportunity to take some courses on-line through the West Lafayette campus of Purdue University does exist. Students are strongly encouraged to discuss this option with their advisor beforehand. In order to meet the needs of both our full-time students and working adults, most of the graduate level courses are offered in the evenings.

#### **Admissions Criteria:**

Applicants to the M.S.E. program ideally should have graduated from an approved, accredited engineering program with a Bachelor of Science degree in their selected area of specialization with a GPA of 3.0.

Graduates with Bachelor of Science degrees from programs in the physical sciences, computer science, mathematics or technology will be considered for admission. Formal admission to the M.S.E. program requires a Bachelor of Science degree as well as:

- Completion of the engineering mathematics sequence which includes calculus, multivariate calculus, linear algebra, and differential equations
- Completion of at least two semesters of calculus-based physics

- Completion of all undergraduate engineering courses that are the prerequisites to the graduate courses on the student's plan of study

## Major and Supporting Courses Required for the MSE

The course of study requires completion of 30 credit hours in the following components:

- Four 500-level, graduate mechanical engineering core courses
- Two additional 500-level, engineering course
- Two thesis research courses (ENGR 698) or two approved elective courses (graduate level)
- Two math (or closely related) approved courses

### **Mechanical Engineering Core Requirements (12 credit hours)**

- ME 50500 Intermediate Heat Transfer
- ME 50900 Intermediate Fluid Mechanics Intermediate Fluid Mechanics
- ME 54400 Modeling And Simulation Of Mechanical Engineering Systems
- ME 54500 Finite Element Analysis: Advanced Theory and Applications
- ME 54600 CAD/CAM Theory And Advanced Applications
- ME 54700 Mechatronics, Robotics And Automation
- ME 55000 Adv Stress Analysis

### **Course Electives:**

Students have the opportunity to take courses from the following departments:

#### Systems Engineering (SE)

- SE 52000 Engineering Economics
- SE 53000 Systems Engineering Management
- SE 54000 Systems Architecture
- SE 55000 Advanced Manufacturing Systems and Processes

#### Organizational Leadership (OL)

- OLS 51000 Foundations of Behavior and Leadership in Organizations
- OLS 52000 Foundations of Organizational Context
- OLS 53000 System Change and Organization Development

#### Math (MA) and Statistics (STAT)

- STAT 51100 Statistical Methods
- STAT 51400 Design of Experiments
- MA 51100 Linear Algebra with Applications

#### Distance Learning Courses through Purdue West Lafayette

- ME 55300 Product and Process Design
- ME 55700 Design for Manufacturability
- MSE 69700 Materials Engineering Fundamentals

### **Transfer Credit:**

With the approval of the Director of Graduate Studies, students may transfer up to 12 graduate credit hours of appropriate course work with grades of a B (3.00) or better earned at other accredited institutions. No more than 12 graduate credits completed as a non-degree student will be counted toward the MPM.

**Total: Credits 30**

## **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 Graduate Director.

## **English (M.A.)**

**Purdue University**

**Master of Arts (M.A.)**

**Department of English and Linguistics**

**College of Arts and Sciences**

*Liberal Arts Building 145 ~ 260-481-6841*

*Hardin Aasand, Chair*

*Lewis C. Roberts, Graduate Program Director*

To earn this degree, you must complete at least 36 credits in courses administered by the department (courses are generally 3 credits each). You must maintain a GPA of at least 3.0 or better in courses taken to fulfill degree requirements; no course with a grade below B will count toward the degree.

Your program must include one course in professional scholarship in your area of concentration, one course in critical theory, and three 6000-level seminars offered by the Department of English. Courses in Liberal Studies will not fulfill this requirement. It must include at least five courses in one of three available concentrations: (1) Literature; (2) Writing Studies; (3) English language and linguistics.

You must complete all M. A. degree requirements within five years of your admission to the program.

## **Teaching Assistantships**

Graduate students may qualify for appointment as a teaching assistant (TA). To qualify, the student must have completed 50501, Teaching Composition, with a final grade of B or better, be recommended by the instructor of that course, the Associate Director of Writing, and be approved by the Director of Writing. Also (effective Fall 2011) newly appointed TAs must complete the one-credit-hour course 50601, Practicum in Teaching Composition, with a final grade of P(Passing) in one of the first two semesters of their teaching. To become and remain a graduate TA, students must be in good academic standing.

Limited spaces are available for teaching. New TAs will typically be assigned one or two sections of 13100, Introductory Composition. Subsequent assignments may include the assignment of 12900, Basic Writing, with the approval of that course's Coordinator. TA appointments carry a stipend and partial remission of fees.

## Master of Arts in English Requirements

- At least 9 hours of the concentration or electives must be 6000-level seminars offered by the Department of English. Courses in Liberal Studies will not fulfill this requirement.
- It is recommended that a student who plans to pursue a doctorate in literary study demonstrate reading proficiency in an approved international language under the auspices of the Department of International Language and Culture Studies by passing:
  - A 3000+ level literature course in an international language with a grade of A or B, or
  - A written examination that demonstrates a student's proficiency in reading and translating an international language.
- It is also recommended that a student who plans to pursue a doctorate in literary study elect to write a Master's Thesis (3 Credit Hours).

### Core Courses: Credits 6

- ENGL 60501 - Critical Theory Cr. 3.

### Professional Scholarship Course: Credits 3

One professional scholarship course in the student's area of concentration:

- ENGL 50101 - Professional Scholarship in Literature Cr. 3.
- ENGL 51700 - Professional Scholarship in Writing Studies Cr. 3.
- LING 50500 - Professional Scholarship in Language Study and Linguistics Cr. 3.

### Concentration: Credits 15

Five courses from one of the following three areas of concentration:

- Literature
- Writing Studies
- Language and Linguistics

### Elective Courses

- Sufficient additional credits applicable to the degree to bring the program to a total of at least 36 credit hours.

### Total Minimum Credit Hours: 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 Graduate Director.

# English Teaching (M.A.T.)

## Purdue University Master of Arts for Teachers (M.A.T.) Department of English and Linguistics College of Arts and Sciences

*Liberal Arts Building 145 ~ 260-481-6841*

*Hardin Aasand, Chair  
Lewis C. Roberts, Graduate Program Director*

To earn this degree, you must complete at least 36 credits (courses are generally 3 credits each). You must maintain a GPA of at least 3.0 or better in courses taken to fulfill degree requirements; no course with a grade below B will count toward the degree.

At least eight of your courses (normally 24 credits) must be graduate-level courses administered by the Department of English and Linguistics. These must include: (1) a course in the English language or linguistics; (2) a course in rhetorical or composition theory, and; (3) a course in ethnic or minority literature. At least five more courses must be elected from among the graduate offerings of the Department of English and Linguistics. Up to 12 of the 36 required credits may be elected from courses approved by the director of graduate studies, but administered by a department other than English and Linguistics. For example, if you are working toward certification, you may be able to count some of your education courses as electives for the M.A.T.

You may elect to write a master's thesis (3 - 6 credits). If you do not write a thesis, you must complete a 6000-level seminar offered by the Department of English. Courses in Liberal Studies will not fulfill this requirement. The M.A.T. program does not require you to demonstrate foreign language proficiency or to sit for a comprehensive examination.

In addition to completing these requirements, you must hold a teaching license in English, and provide a copy of your Indiana State Teacher's License. You must complete all M.A.T. degree requirements within five years of your admission to the program.

## Teaching Assistantships

Graduate students may qualify for appointment as a teaching assistant (TA). To qualify, the student must have completed 50501, Teaching Composition, with a final grade of B or better, be recommended by the instructor of that course, the Associate Director of Writing, and be approved by the Director of Writing. Also (effective Fall 2011) newly appointed TAs must complete the one-credit-hour course 50601, Practicum in Teaching Composition, with a final grade of P(assing) in one of the first two semesters of their teaching. To become and remain a graduate TA, students must be in good academic standing.

Limited spaces are available for teaching. New TAs will typically be assigned one or two sections of 13100, Introductory Composition. Subsequent assignments may include the assignment of 12900, Basic Writing, with the approval of that course's Coordinator. TA appointments carry a stipend and partial remission of fees.

## Program Requirements

### Core: Credits 9

- One course in the English Language or Linguistics

- One course in Rhetorical or Composition Theory
- One course in Ethnic or Minority Literature

## Electives Administered by the Department of English and Linguistics: Credits 15-27

### Approved Electives: Credits 0-12

Electives must be from appropriate departments.

## Total Minimum Credit Hours: 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 Graduate Director.

## Health Communication, Graduate Certificate

### **Purdue University** **Graduate Certificate in Health Communication** **Department of Communication** **College of Arts and Sciences**

*Neff Hall 230 ~ 260-481-6825*

*Michelle Kelsey, Chair*  
*Steven Carr, Graduate Program Director*

The graduate certificate in Health Communication is designed to educate students to become better communicators with the healthcare sector. Students will learn about epidemiology, health communication, and organizational leadership. Students will have the opportunity to focus their education in family health, public health, health policy and health organizations. This certificate prepares students to work in various sectors of health care and will enhance current health care employees' communication skills.

### **Student Learning Outcomes:**

1. Work with individuals of various cultural backgrounds to maintain a climate of mutual respect and shared values.
2. Use the knowledge of one's own role to aid medical professionals in appropriate assessing and addressing the health care needs of patients and promoting and advancing the health of populations.
3. Communicate with patients, families, communities, and professionals in health and other fields in a responsive and responsible manner that supports a team approach to the promotion and maintenance of health and the prevention and treatment of disease.
4. Apply relationship-building values and the principles of team dynamics to perform effectively in different team roles to plan, deliver, and evaluate patient/population-centered care, and population health programs.

5. Understand, develop, and effectively communicate policies that are safe, timely, efficient, effective, and equitable.

**Declaring this Certificate:**

- Declare this certificate within the Department of Communication

## Program Requirements:

- A minimum overall GPA of 3.0 or higher is required for successful completion
- A grade of B- or higher in each course is required
- At least 9 credit hours must be earned as resident credit
- Only 9 hours from a Master of Arts (MA) or a Master of Science (MS) degree can overlap with credits taken for this certificate

## Required Courses: Credits 12

- COM 58200 - Descriptive/Experimental Research in Communication Cr. 3. **or**
- COM 58500 - Qualitative Methods in Communication Research Cr. 3. \*  
\* (or another approved research methods course)
  
- COM 57600 - Health Communication Cr. 3.
- PPOL 51700 - Managerial Epidemiology Cr. 3.
  
- COM 69800 - Research MA or MS Thesis Cr. 1-18. **or**
- PPOL 60000 - Capstone in Public and Environmental Affairs Cr. 3.

## Elective Courses: Credits 6

An additional 6 hours taken from the following list:

- COM 51200 - Theories of Interpersonal Communication Cr. 3.
- COM 51800 - Theories of Persuasion Cr. 3.
- COM 52000 - Small Group Communication Cr. 3.
- COM 52100 - Theories of Rhetoric Cr. 3.
- COM 57400 - Organizational Communication Cr. 3.
- PPOL 54300 - Health Services Management Cr. 3.
- PPOL 54500 - The U.S. Healthcare System Cr. 3.
- PPOL 54600 - Health Services Utilization Cr. 3.
- PPOL 55000 - Topics in Public Affairs 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.

## **Mathematics (M.S.)**

**Purdue University**

**Master of Science (M.S.)**

**Department of Mathematical Sciences**

**College of Arts and Sciences**

*Kettler Hall 200 ~ 260-481-6233*

*Peter D. Dragnev, Chair*

*W. Douglas Weakley, Graduate Program Director*

The M.S. degree in Mathematics is the appropriate program if:

1. You are, or plan to be, employed in a position in business or industry that requires significant proficiency in mathematics or statistics, or
2. You wish to earn HLC certification as a secondary school teacher, or
3. You wish to enter a doctoral program in mathematics or statistics.

To qualify for admission, you should have a background in mathematics that includes multivariate calculus and linear algebra; coursework in analysis, differential equations, discrete mathematics, or abstract algebra will be helpful.

### **Academic Regulations**

In addition to satisfying regulations that apply to all Purdue University graduate students, you must earn at least a grade of B- in each course used to satisfy degree requirements. However, your advisory committee may agree to accept up to two courses in which you earn grades of C.

### **Teaching Assistantships**

A limited number of half-time teaching assistantships (with the title graduate aide) are available and provide tuition reduction and a stipend. Contact the department chair for details.

### **Program Requirements:**

#### **Core Courses: Credits 12**

- MA 51100 - Linear Algebra with Applications Cr. 3.
- MA 54000 - Analysis I Cr. 3.
- STAT 51900 - Introduction to Probability Cr. 3.

Choose at least one additional course from the following list:

- MA 52100 - Introduction to Optimization Problems Cr. 3.
- MA 52500 - Introduction to Complex Analysis Cr. 3.

- STAT 52800 - Introduction to Mathematical Statistics Cr. 3.

## Additional Courses: Credits 18

Credits in additional courses are approved by your advisory committee. The courses are to be selected from graduate-level courses in mathematics or statistics, but may include courses from computer science, engineering, physics or business appropriate for your emphasis.

## Total Minimum Credits: 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 Graduate Director.

## Mathematics Teaching (M.A.T.)

### Purdue University

### Mathematics Teaching (M.A.T.)

### Department of Mathematical Sciences

### College of Arts and Sciences

*Kettler Hall 200 ~ 260-481-6225*

*Peter Dragnev, Chair*

*Douglas Weakley, Graduate Program Director*

The master's program in Mathematics Education is a 33 credit hour cohort program, carefully designed to provide professional growth for middle and secondary school mathematics teachers by scaffolding and intertwining theory and practice in mathematics education across four academic-year semesters and two summer sessions. The cohort begins in the spring semester (January of each academic year) and concludes formal course work in the summer session, three semesters later. During the fourth semester, you will complete an original research project and write a final report with the timeline for completion determined by your work and your advisors' approval.

Please include a copy (not the original) of your current license with your application packet.

## Academic Regulations

In addition to satisfying regulations that apply to all Purdue University graduate students, you must earn at least a grade of B in each course used to satisfy degree requirements. However, your advisory committee may agree to accept up to two courses in which you earn grades of C.

## Teaching Assistantships

A limited number of half-time teaching assistantships (with the title graduate aide) are available, and provide tuition reduction and a stipend. Contact the department chair for details.

## Program Requirements

Your plan of study must contain at least 33 credits, and normally will include the following courses:

- MA 57500 - Graph Theory Cr. 3.
- MA 59800 - Topics in Mathematics Cr. 1-5.
- EDU 53800 - Critical Thinking and Education Cr. 3.  
Nine weeks in the first summer.
- MA 55600 - Introduction to the Theory of Numbers Cr. 3.  
Summer Session II.
- STAT 51600 - Basic Probability and Applications Cr. 3.
- EDU 50301 - Introduction to Research Cr. 3.
- EDU 51700 - Advanced Study in the Teaching of Secondary School Mathematics Cr. 3.
- MA 56000 - Fundamental Concepts of Geometry Cr. 3.
- EDU 59002 - Research in Secondary Education Cr. 1-3.  
Nine weeks in the second summer.
- MA 58000 - History of Mathematics Cr. 3.  
Summer Session II.

## Original Research Project

Students conduct an original research project and write a final report in their fourth semester.

**Total Minimum Credits: 33**

## 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 Graduate Director.

## **Organizational Leadership (M.S.)**

**Purdue University**

**Master of Science (M.S.) or Graduate-Level Certificate in Organizational Leadership**

**Department of Organizational Leadership**

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

*Neff Hall 288 ~ 260-481-6496*

*Gordon Schmidt, Chair*

*Kimberly O'Connor, Graduate Program Director*

Graduate study in Organizational Leadership provides a theoretical foundation to connect key concepts in leadership and human resources research with best practice. The master's and graduate certificate programs offer in-depth learning and career-oriented study with comprehensive and professionally relevant course work.

The M.S. in Organizational Leadership offers students a foundation in the key principles of organizational leadership through core courses and the opportunity to choose a concentration, in either leadership or human resource management, that will provide in-depth knowledge and skills. OL programs focus on understanding and working with people within organizations and the practical application of leadership concepts and theories. Graduates of the program will be prepared for leadership or human resources roles in a wide variety of settings including industrial, medical, service, and other profit and nonprofit organizations. The Graduate Certificate in Organizational Leadership is based on the core of the Organizational Leadership master's degree program. The courses combine theory and practice to yield a combination that is immediately applicable to the work place and builds a foundation for more specialized study for those interested in advanced work.

## **Admission**

The OL graduate committee considers several factors to be important for academic success at the graduate level and uses a balanced perspective in evaluating candidates based on those factors. Candidates for OL graduate study are required to have earned an undergraduate degree from an appropriately accredited institution, preferably with a B or better average. In addition, candidates are expected to show leadership potential through strong interpersonal, analytical, and communication skills as well as high standard of equitable and ethical behavior.

The admission process will require:

- Completion of an application including an essay that demonstrates writing skills, ability to articulate a leadership perspective and clarity of career objectives;
- Official transcripts of all previous college and university work;
- A recent resume; and
- Two recent letters of recommendation that reflect on professional and/or academic skills. If applicants are within five years of completing academic work, at least one of the letters should be from a former faculty member.

Applicants with undergraduate GPA's below 3.0 (4.0 scale) must present recent scores from either the GRE or the GMAT. Applicants for whom English is not a native language must present evidence of their proficiency in English by presenting appropriate TOFEL scores or equivalent results on a similar instrument (for example, the Michigan Test of English Language Proficiency).

## **Degree Requirements**

The M.S. in OL is a 33-credit-hour program composed of 18 credit hours of core and applied research requirements, and 15 credit hours in either the leadership or the human resources concentrations. The graduate certificate in organizational leadership is a 15-credit hour program, with 9 required and 6 elective credits. Up to 12-credit hours earned in the certificate program may be transferred to the OL master's program, but students enrolled in the master's degree program are not eligible for admission to the certificate program.

## **Core Requirements (18 credits)**

All students complete the core courses to build a foundation in the key principles of organizational leadership. In these courses, students will learn how to assess and enhance organizational climates and cultures. In addition, they will use human resource practices, budgeting, and cost control methods to promote unit effectiveness.

- OLS 51000 - Foundations of Behavior and Leadership in Organizations Cr. 3.
- OLS 51500 - Foundations of Human Resources Cr. 3.

- OLS 52000 - Foundations of Organizational Context Cr. 3.
- OLS 52500 - Organizational Analysis and Action Cr. 3.

## Research Courses

All students will complete two research courses: a research skills course to increase knowledge and understanding of research principles and a capstone applied research project course. (Prerequisites may be required for some of these courses.)

### Select One Research Skills Option:

- COM 58200 - Descriptive/Experimental Research in Communication Cr. 3.
- EDU 50301 - Introduction to Research Cr. 3.
- OLS 53010 - Mixed Methods Research Cr. 3.

### Select one research capstone:

Research in OL may be taken for 3-6 credit hours. The OL Capstone is 3 credit hours.

- OLS 59000 - Individual Research Problems in Supervision and Personnel Cr. 1-6.  
Title: OL Capstone
- OLS 68000 - Research in OLS Cr. 3-6.

## Human Resources Option (15 credits)

The human resources option prepares students to understand the theory as well as the practice of HR. This option ties specific skills in HR practice to a broad-based perspective that will prepare graduates for the challenges of a changing workplace.

Two electives approved by advisor Cr. 6.

- OLS 54500 - Compensation and Benefits Cr. 3.
- OLS 55500 - Workforce Planning and Employment Cr. 3.
- OLS 56500 - Employee Relations Cr. 3. **or**
- OLS 57500 - Contemporary Employment Practices and the Law Cr. 3.

## Leadership Option (15 credits)

Organizations need leaders at all levels as they face a global marketplace and a more diverse and rapidly changing society. This program prepares individuals with the theory, skills, and action-oriented perspective required of them as they live and work in a changing society.

Two electives approved by advisor Cr. 6.

- OLS 53000 - System Change and Organization Development Cr. 3. **or**
- OLS 57000 - Leadership Across Cultural Boundaries Cr. 3.
- OLS 54000 - Leading Collaborative Projects and Work Teams Cr. 3. **or**

- OLS 56000 - Leadership of Virtual Teams Cr. 3.
- OLS 58700 - Developing a Leadership Philosophy 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 Graduate Director.

## Organizational Leadership, Graduate Certificate

### Purdue University

### Organizational Leadership, Graduate-Level Certificate

### Department of Organizational Leadership

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

*Neff Hall 288 ~ 260-481-6496*

Gordon Schmidt, Chair

*Kimberly O'Connor, Graduate Program Director*

The Graduate Certificate in Organizational Leadership is based on the core of the Organizational Leadership master's degree program. The courses combine theory and practice to yield a combination that is immediately applicable to the workplace and builds a foundation for more specialized study for those interested in advanced work.

The organizational leadership graduate certificate is designed for:

- those with advanced degrees in other fields or students currently enrolled in other graduate programs seeking to augment their studies in the theory and practice of leadership and/or human resources.
- working adults with bachelor's degrees who want advanced knowledge and skills in leadership and human resources, but are not prepared to commit to a master's degree program.

The certificate allows students to begin graduate level study with a specific goal without requiring the commitment of time and financial resources necessary to pursue master's level study. It includes much of the foundational coursework required for the master's degree in OL, and provides the option to continue for a master's, using up to 12 credit hours earned as a graduate certificate student.

Through the required courses, students in the OL graduate certificate program will develop their abilities to:

- identify ways to assess and enhance organizational climate and culture
- understand the complexity and interrelated nature of organizational phenomena
- identify practices that promote teamwork as well as personal and organizational effectiveness

## Admission Requirements

In addition to admission requirements for OL graduate study, these guidelines apply for the Organizational Leadership certificate:

- Students who are currently admitted to any Purdue University graduate degree program at PFW are eligible to earn the certificate if they are approved for admission to the program through the Department of Organizational Leadership.
- Students who are not currently admitted to the Purdue Graduate School must apply for admission in the Department of Organizational Leadership.
- Students already enrolled in the OL master's degree program are not eligible for the certificate. Students who initially enroll in the certificate program may apply for the OL master's near completion of the certificate requirements or after the certificate has been granted. A maximum of 12 credit hours earned in the certificate may be applied to a master's degree.
- Students may take a maximum of six OL graduate credit hours prior to admission to the certificate program that may be counted toward completion of the certificate.
- If approved by the OL Graduate Admissions Committee, a maximum of three graduate-level transfer credits may be applied to the requirements for the certificate.

For further information, contact Kimberly O'Connor, Organizational Leadership Graduate Program Director, phone: 260-481-6496.

## Certificate Requirements (15 credit hours)

- OLS 51000 - Foundations of Behavior and Leadership in Organizations Cr. 3.
- OLS 51500 - Foundations of Human Resources Cr. 3.
- OLS 52000 - Foundations of Organizational Context Cr. 3. **or**
- OLS 52500 - Organizational Analysis and Action Cr. 3.
- Elective graduate-level courses in leadership or human resources Cr. 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 Graduate Director.

## Professional Communication (M.A.)

**Purdue University**  
**Master of Arts (M.A.)**  
**Department of Communication**  
*College of Arts and Sciences*

*Neff Hall 230 ~ 260-481-6825*

*Michelle Kelsey, Chair*  
*Steven Carr, Graduate Program Director*

The master's program in Professional Communication serves students seeking to advance their education beyond an undergraduate degree. The master's program can help you achieve your goals, whether you are looking to enhance your career in broadcasting, business, education, new media, or social services; or if you are preparing to enter a Ph.D. program.

Our program emphasizes three areas of specialization:

- Interpersonal and Organizational Communication Theory
- Media Criticism, History, and Theory
- Rhetorical Criticism and Theory

The program meets the needs of students who work full time. During fall and spring, most graduate courses are scheduled once a week in the evening. During summer, an additional course is offered. Students can take one class a semester, or go full-time and complete the program in less than two years.

## **Degree Requirements:**

The curriculum consists of 36 credits in approved courses and one of the following: a comprehensive examination, a professional project, or a thesis.

## **Comprehensive Examination (Non-Thesis) Option:**

Graduate students who select the comprehensive examination option must complete a minimum of 36 credits of course work and pass the examination administered by an Advisory Committee. Election of the comprehensive examination option must be made and approved by the Advisory Committee created by the student prior to the completion of 15-21 credits of course work. The comprehensive examination consists of a take-home written examination and a one-hour oral examination. The examination will test the candidate's knowledge and understanding of one area of competency/specialization claimed by the student including (1) the theoretical foundations of the student's area of communication inquiry, (2) relevant methodological approaches, and (3) the research literature in the candidate's area of specialization. The written examination is expected to be approximately 30 pages in length (10 pages or so for each question). The oral examination is meant for the student's defense of his/her perspectives put forth in the written work. The Committee will determine whether some or all of the answers passed, failed, or required a revision. The student must pass all of the questions.

## **Professional Project (Non-Thesis) Option:**

The professional project option offers students the six (6) credit option of completing a professional/creative project to meet the requirements for their degree. The purpose of a creative/professional project is to demonstrate professional competence in an applied setting. The professional project has two parts: The analysis component and the professional skills/creative component. Students will conduct research, synthesize and analyze information, and present information to an audience. The project may be developed and disseminated in print, still photography, audio, video, documentary film, online or a combination of media and must demonstrate a student's mastery of the chosen medium. Examples include an investigative news article series; a handbook, manual or video training module for professionals; a news or feature series with photographs or video; an original radio or television program; a short documentary film; or a Web-based project. The professional project is designed for students pursuing the MA or MS as a terminal degree. Students considering doctoral work should discuss the alternative thesis plan with their advisor.

## **Thesis Option:**

The thesis option offers students the six (6) credit option of completing a master's thesis to meet the requirements for their degree. A M.A. thesis is a completed research project that applies the theories and methods of a given approach to communication research. Students will conduct this research under the supervision of their advisor and their work will

ultimately need the approval of their advisory committee. This project allows students to leave the program with a proven track record in research. We advise students who are looking forward to a career in research or planning on pursuing a PhD in Communication or a related field to select this option in hopes that completing a thesis will enhance their chances being able to move forward with their academic and career aspirations.

In certain specialized situations, the Graduate Program Director may designate an M.S. instead of an M.A. degree. Unless approved by the Graduate Program Director, all students will earn an M.A. in Professional Communication. Contact the Director for further details.

### **Non-Degree Seeking Post-Baccalaureate:**

If you have already earned an undergraduate degree, you can apply to take up to twelve (12) credits as a non-degree seeking post-baccalaureate student. If you are a non-degree-seeking post-baccalaureate student, you are **not admitted** to the graduate program. You will not be eligible for financial aid, nor for assistantships. However, you can re-apply to the program as a degree-seeking candidate within the same semester that you begin as a non-degree seeking student. If you are admitted as a degree-seeking student, you can apply up to twelve (12) credits taken as a non-degree-seeking student to your graduate degree.

### **Teaching Assistantships:**

A limited number of teaching assistantships are available and provide tuition reduction and a stipend. The assistantship normally requires teaching two lower-level sections. All recipients must be enrolled in two graduate courses during each of the regular semesters of the academic year. See [www.ipfw.edu/comm/grad](http://www.ipfw.edu/comm/grad) for details.

## Program Requirements

### Introductory Course: Credits 3

- COM 50000 - Introduction To Graduate Studies In Communication Cr. 3.

### Communication Methods: Credits 3

Choose at least one course from the following list:

- COM 58200 - Descriptive/Experimental Research in Communication Cr. 3.
- COM 58400 - Historical/Critical Research in Communication Cr. 3.
- COM 58500 - Qualitative Methods in Communication Research Cr. 3.

### Theory Core: Credits 9

Choose at least three courses from the following list:

- COM 51200 - Theories of Interpersonal Communication Cr. 3.
- COM 51800 - Theories of Persuasion Cr. 3.
- COM 52000 - Small Group Communication Cr. 3.
- COM 52100 - Theories of Rhetoric Cr. 3.
- COM 52700 - Introduction to Cultural Studies Cr. 3.
- COM 55900 - Current Trends in Mass Communication Research Cr. 3.
- COM 57400 - Organizational Communication Cr. 3.

## Specialization Courses: Credits 9-21

Choose at least three and up to seven of the following courses:

- COM 50200 - Classroom Communication Cr. 3.
- COM 50700 - Introduction to Semiotics Cr. 3.
- COM 50800 - Nonverbal Communication in Human Interaction Cr. 3.
- COM 51500 - Persuasion in Social Movements Cr. 3.
- COM 51700 - Communication in Politics Cr. 3.
- COM 52200 - History and Criticism of Public Communication Cr. 3.
- COM 52300 - Communication in Personal Relationships Cr. 3.
- COM 53100 - Special Topics in Mass Communication Cr. 3.
- COM 55700 - Legal Dimensions of Communication Cr. 3.
- COM 56000 - Rhetorical Dimensions of Mass Media Cr. 3.
- COM 57600 - Health Communication Cr. 3.
- COM 59000 - Directed Study of Special Problems Cr. 1-3.
- COM 59700 - Special Topics in Communication Cr. 3.
- COM 69800 - Research MA or MS Thesis Cr. 1-18.

## Cognate Studies: Credits 3-12

- You may apply to count up to four courses for 12 credits toward your specialization area.
- Courses are to be selected with the approval of your advisor or advising committee from graduate-level courses in communication or other disciplines.
- Undergraduate-level coursework will not count toward cognate studies, even if you completed this coursework while seeking another graduate degree.

## Total Minimum 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 Graduate Director.

## Public Administration

### **Program: Master of Public Administration**

### **Department of Public Policy**

### **College of Professional Studies**

*Neff Hall Bldg. Rm. 260*

The MPA is an interdisciplinary professional program structured around concepts and skills essential to management, policy and planning activities within governmental, quasi-governmental and not-for-profit organizations.

The course of study requires completion of 39 credit hours with four components:

- (1) core requirements; (2) concentration requirements; (3) the experiential requirement; and (4) one elective.
- The MPA core requirements (21 credits) include courses that are designed to provide foundation-level knowledge that is applicable to general public management and therefore function as an appropriate context for all concentrations.
- The two concentrations require 12 credit hours and include Health Systems Administration and Policy, and Public Administration and Policy.

## MPA Core Requirements: Credits 21

- PPOL 50200 - Public Management Cr. 1-3.
- PPOL 50600 - Statistical Analysis for Effective Decision Making Cr. 3.
- PPOL 50900 - Administrative Ethics in the Public Sector Cr. 3.
- PPOL 56000 - Public Finance and Budgeting Cr. 1-3.
- PPOL 56200 - Public Program Evaluation Cr. 1-3.
- PPOL 56600 - Executive Leadership Cr. 3.
- PPOL 60000 - Capstone in Public and Environmental Affairs Cr. 3.

## Health Systems Administration and Policy: Credits 12

Policies and programs in the health field are examined in this concentration. Particular emphasis is placed on organizational and economic analysis.

- PPOL 51700 - Managerial Epidemiology Cr. 3.
- PPOL 54300 - Health Services Management Cr. 3.
- PPOL 54500 - The U.S. Healthcare System Cr. 3.
- PPOL 54600 - Health Services Utilization Cr. 3.

## Public Administration and Policy: Credits 12

Quantitative and qualitative skills are developed in the context of this concentration that are necessary for public and not-for-profit management. Particular emphasis is placed on political, organizational, and economic analysis.

- PPOL 50400 - Public Organizations Cr. 1-3.
- PPOL 51200 - Public Policy Process Cr. 3.
- PPOL 53900 - Management Science for Public Affairs Cr. 3.
- PPOL 54000 - Law and Public Affairs Cr. 1-3.

## Experiential Component: Credit 3

Each MPA student must complete the 3 credit hour experiential component. Students with at least one year of full-time management and/or policy experience can apply for an exemption. Students who do not meet this criterion must take PPOL 58500 Practicum in Public Affairs for 3 credit hours.

## Elective: Credit 3

Public Administration courses may be completed to satisfy the elective requirement. The director of graduate studies must approve other Purdue Fort Wayne graduate courses.

## Total Credits: 39

## 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 Graduate Director.

## Secondary Education (M.S.Ed.)

**Program: Master of Science in Education (M.S.Ed.)**

**School of Education**

**College of Professional Studies**

*Neff Hall ~ 260-481-6861*

### Student Learning Outcomes:

Developed for practicing teachers, this 30-credit graduate M.S.Ed. program will allow the educator candidate to strengthen their teaching practice and professional expertise through both core courses and self-designed specializations. Elective courses can be individually selected based on interest, lead to a certificate or additional licensure area, or qualify the candidate to teach dual-credit classes in their content area.

### The Degree:

To earn the Master of Science in Education with a major in Secondary Education, you must satisfactorily complete the required minimum of 30 graduate credit hours, and you must satisfy the requirements of Purdue University Fort Wayne (Regulations) and the College.

- It is recommended that students take the five core courses in the first year of their program followed by the five elective courses.
- At least 15 of the 30 total credits toward the M.S.Ed. must be completed at Purdue University Fort Wayne.

**Admission Requirement:** Please note: Admission to the Purdue Fort Wayne Secondary Education graduate program requires an official transcript reflecting 3.0 or higher on a 4.0 Grade Point Average Scale.

## Secondary Core (15 credits)

- EDU 52000 - Education and Social Issues Cr. 3.
- EDU 57001 - Building Classroom Communities Cr. 3.
- EDU 50301 - Introduction to Research Cr. 3.
- EDU 50700 - Assessment Theory And Practice Cr. 3.
- EDU 50501 - Introduction to Special Education for Graduate Students Cr. 3.

## Electives Courses (15 credits)

## School of Education or other education-focused electives (choose 5)

### Recommended Educational Leadership electives

- EDU 50001 - Introduction to Educational Leadership Cr. 3.
- EDU 50002 - Instruction in the Context of Curriculum Cr. 3.
- EDU 60800 - Legal Perspectives on Education Cr. 3.

#### **Recommended Special Education electives**

- EDU 56500 - Collaboration & Service Delivery Cr. 3.
- EDU 52502 - Survey of Mild Handicaps Cr. 3.
- EDU 55300 - Classroom Management & Behavior Support Cr. 3.

#### **Recommended Counselor Education electives**

- EDU 51400 - Life Span Development: Birth to Death Cr. 3.
- EDU 57500 - Multicultural Counseling Cr. 3.
- EDU 58000 - Topical Seminar in Counseling and Guidance Cr. 1-3.

*With program director approval, other graduate-level education-focused courses may fulfill this requirement.*

**Certificates and additional licensure (first 15 credits count toward Master's, final three needed for certificate)**

- Teaching English as a New Language
- Computer Science Education

**Content-area coursework (first 15 credits count toward Master's, three more earn qualification to teach dual-credit classes in that subject)**

- Biology
- English
- Mathematics

Total (30 Credits)

## 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 Graduate Director.

## Special Education (M.S.Ed.)

### **Program: Master of Science in Education (M.S.Ed.)**

#### **School of Education**

#### **College of Professional Studies**

*Neff Hall ~ 260-481-6861*

#### **Student Learning Outcomes:**

This 30-credit graduate MS program will allow the teacher candidate, who has a current teaching license, to obtain an Indiana Exceptional Needs-Mild Intervention teaching license. This license qualifies a teacher to teach students as

having Mild Intellectual Disability, Moderate Intellectual Disability, Learning Disabilities, Autism Spectrum Disorder, and Emotional Disabilities.

### **The Degree:**

The Master of Science in Education with a major in Special Education will lead to a Mild Intervention Teaching Certification. To earn this degree you must satisfactorily complete the required minimum of 30 graduate credit hours, and you must satisfy the requirements of Purdue University Fort Wayne (Regulations) and the College. There is also a 60-hour field experience requirement. Arrangements may be made for the 60 hours to be incorporated into the duties of the classroom or school for students currently employed by a school system.

- It is recommended that students take EDU 50501 as the first course in their program. The last course will be EDU 59901 Master's Thesis in Special Education (Part II) or EDU 50003 Special Projects in Special Education (Part II).
- At least 21 of the 30 total credits toward the M.S.Ed. must be completed at Purdue Fort Wayne.

### **Accreditation:**

- The Special Education 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.

**Teacher candidates wishing to add a Mild Intervention teaching license to their current 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](http://www.in.nesinc.com)

**Admission Requirement:** Please note: Admission to the Purdue Fort Wayne Special Education graduate program requires an official transcript reflecting 3.0 or higher on a 4.0 Grade Point Average Scale.

## **Program Requirements**

- EDU 50501 - Introduction to Special Education for Graduate Students Cr. 3.
- EDU 52502 - Survey of Mild Handicaps Cr. 3.
- EDU 53501 - Assessment and Remediation of the Mildly Handicapped Cr. 3.  
EDU 50100 - Field Experience/Service Learning for Diversity Cr. 0
- EDU 53600 - Assessment and Remediation of the Mildly Handicapped II Cr. 3.  
EDU 50100 - Field Experience/Service Learning for Diversity Cr. 0
- EDU 55300 - Classroom Management & Behavior Support Cr. 3.
- EDU 56500 - Collaboration & Service Delivery Cr. 3.
- EDU 59501 - Practicum in Special Education Cr. 1-6.
- EDU 50003 - Thesis and Special Projects (Part I) Cr. 3
- EDU 50301 - Introduction to Research Cr. 3.
- EDU 59901 - Master's Thesis in Special Education Cr. 3. (Part II) (Last Course)  
OR  
EDU 50003 - Special Projects in Special Education Cr. 3. (Part II) (Last Course)

## Total (30 Credits)

## 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 Graduate Director.

## Special Education Graduate Certification in Mild Intervention

### Program: Graduate Certification

### School of Education

### College of Professional Studies

*Neff Hall ~ 260-481-6861*

#### Student Learning Outcomes:

This 18 credit hour graduate certification program will allow the teacher candidate to obtain an Exceptional Needs-Mild Intervention teaching license. Teacher candidates are eligible to complete the coursework if they hold a current teaching license.

This program qualifies a teacher to teach students as having Mild Intellectual Impairment, Moderate Intellectual Disability, Learning Disabilities, Autism Spectrum Disorder, and Emotional Disabilities. Completers of this program will become eligible for Indiana Certification in Mild Intervention.

#### Certification (Mild Intervention) :

All 18 credit hours in this program may be applicable toward a master's degree in Special Education at Purdue University Fort Wayne.

Teacher candidates will be eligible to apply for an Exceptional Needs-Mild Intervention license in P-12 (if appropriate experience).

#### Accreditation:

- The Special Education 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.

**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](http://www.in.nesinc.com)

To earn a certification in special education, you must satisfy the requirements of Purdue Fort Wayne (Regulations) and the College.

**Admission Requirement:** Please note: Admission to the Purdue Fort Wayne Special Education graduate program requires an official transcript reflecting 3.0 or higher on a 4.0 Grade Point Average Scale.

## Program Requirements

- EDU 50501 - Introduction to Special Education for Graduate Students Cr. 3. **or**
- EDU 52502 - Survey of Mild Handicaps Cr. 3.
- EDU 53501 - Assessment and Remediation of the Mildly Handicapped Cr. 3.  
EDU 50100 - Field Experience/Service Learning for Diversity Cr. 0.
- EDU 53600 - Assessment and Remediation of the Mildly Handicapped II Cr. 3.  
EDU 50100 - Field Experience/Service Learning for Diversity Cr. 0.
- EDU 55300 - Classroom Management & Behavior Support Cr. 3.
- EDU 56500 - Collaboration & Service Delivery Cr. 3.
- EDU 59501 - Practicum in Special Education Cr. 1-6. (Last Course)

## Total (18 Credits)

## 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 Graduate Director.

## Speech Language Pathology

### Purdue University

### Master of Science (M.S.)

### College of Arts and Sciences

*Modular Clinic Classroom Bldg 111 ~ 260-481-6410*

*Stacy Betz, Chair and Graduate Program Director*

The M.S. degree in Speech-Language Pathology is a two year, full-time program that includes graduate level coursework focusing on assessment and treatment of speech, language, and swallowing disorders across the lifespan. Throughout the program, coursework and clinical experiences are integrated so that students develop the knowledge and skills needed to successfully engage in evidence-based practice as a speech-language pathologist. During the first year of the program, students gain clinical experiences in the department's on-campus Communication Disorders Clinic. In the second year, students also complete clinical experiences in off-campus placement sites including schools, inpatient and outpatient medical settings, and skilled nursing facilities.

An undergraduate degree in Communication Sciences and Disorders is not required for admission, however, students are required to have the prerequisite knowledge needed to be successful in the graduate courses. This knowledge should be demonstrated through formal coursework in phonetics, child language development, speech and hearing anatomy

and physiology, acoustics, audiology, and at least one course on speech-language disorders. In addition, students are required to have completed undergraduate coursework in human or animal biology, physical sciences (i.e., chemistry or physics), social/behavioral sciences, and statistics.

As of the publication of this catalog, the M.S. degree in Speech-Language Pathology at Purdue University Fort Wayne is an Applicant for Candidacy by the Council on Academic Accreditation in Audiology and Speech-Language Pathology (CAA) of the American Speech-Language-Hearing Association, 2200 Research Boulevard, #310, Rockville, MD 20850, 800-498-2071 or 301-296-5700. Updates to the program's accreditation status that occur after the publication of this catalog will be posted in the "What's New" section of the catalog.

## Program Requirements

Students must complete all of the following program requirements. A thesis option is available but does not replace any other program requirements.

### Courses Required: Credits 57

- CSD 50500 - Evidence-Based Practice In Speech-Language Pathology Cr. 2.
- CSD 51200 - Critical Thinking In Clinical Practice I Cr. 4.
- CSD 51300 - Critical Thinking In Clinical Practice II Cr. 4.
- CSD 51400 - Critical Thinking In Clinical Practice III Cr. 2.
- CSD 51500 - Critical Thinking in Clinical Practice IV Cr. 2.
- CSD 52100 - Speech Sound Disorders In Children Cr. 2.
- CSD 52300 - Language Disorders In Children Cr. 2.
- CSD 52600 - Language & Literacy Disorders Cr. 2.
- CSD 52900 - Stuttering: Nature, Diagnosis, and Treatment Cr. 2.
- CSD 53100 - Language & Cognitive Communication Disorders In Adults Cr. 2.
- CSD 53200 - Voice Disorders Cr. 2.
- CSD 53300 - Medical Speech-Language Pathology Cr. 2.
- CSD 53800 - Motor Disorders Of Speech Cr. 2.
- CSD 53900 - Deglutition & Dysphagia Cr. 2.
- CSD 54000 - Augmentative & Alternative Communication Cr. 2.
- CSD 54300 - Clinical Methods In Speech-Language Pathology Cr. 2.
- CSD 54400 - School Based Speech-Language Pathology Cr. 2.
- CSD 54500 - Licensure Cr. 0.
- CSD 54900 - Clinical Practice in Speech Language Pathology I Cr. 1-8.  
Note: CSD 54900 is a repeatable course and students will take it for a total of 10 credits across multiple semesters.
- CSD 64800 - Speech-Language Pathology Education Externship Cr. 4 or 5.
- CSD 64900 - Speech-Language Pathology Healthcare Externship Cr. 4 or 5.

## Foundational Knowledge Examination

No later than the end of the first fall semester of the program, students must pass a written examination assessing knowledge of the undergraduate communication sciences and disorders content required for admission to the program. This examination includes content related to: phonetics, child language development, speech and neural anatomy/physiology, acoustics, audiology, and foundational content regarding speech-language disorders.

## Comprehensive Examinations

Students must pass a written comprehensive exam during the first year of the program and an oral comprehensive exam during the second year of the program.

## Optional Thesis

Students may complete an optional research based thesis. Students who choose to complete a thesis will be required to complete 3 to 9 thesis credits (CSD 69800: Research M.S. Thesis). The exact number of credits needed to successfully complete the thesis project will be determined by the faculty mentor. Students will also need to successfully pass the written and oral examination of their thesis according to all rules established by Purdue University. Completing a thesis does not replace any other program requirements.

## Total Minimum Credit Hours: 57

## 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 Graduate Director.

## Systems Engineering, Graduate Certificate

### Systems Engineering

### Graduate Certificate, Purdue University

### Department of Electrical and Computer Engineering

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

*Engineering, Technology, and Computer Science Building 327 ~ 260-481-6362*

The Graduate Certificate in Systems Engineering is designed to recognize students who have completed a four-course sequence in systems engineering. The curriculum provides students with a background in system engineering fundamentals, systems architecture, economics and engineering management. The systems engineering body of knowledge prescribes techniques and "best practices" for developing complex or interdisciplinary products. Professional engineers may find the program beneficial in helping them understand modern product development principles and best practices.

#### **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.

#### **Admission Criteria:**

Admission to the certificate program requires that students meet the requirements of the Purdue University Graduate School.

It is expected that candidates to this graduate certificate program have earned a bachelor's degree in an engineering discipline.

Graduates with a Bachelor of Science degree in physical sciences, computer science, mathematics or technology will also be considered for admission.

Applicants should have achieved a minimum undergraduate GPA of 3.0, or have demonstrated an appropriate level of preparation for the certificate program.

**Application Process:**

Interested students should apply on-line through the Purdue University Graduate Application Website.

## General Requirements

1. ETCS Graduate Programs
2. Office of Graduate Studies
3. Purdue University Graduate School
4. Graduate Catalog Regulations & Policies

## Program Requirements

Students are required to earn a grade of "B" or better in any four of the five courses listed below:

- SE 51000 - Systems Engineering 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.

**Total Credits Required: 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 Graduate Director.

## Teaching English as a New Language, Graduate Certificate

**Purdue University**

**Graduate Certificate in Teaching English as a New Language**

**Department of English and Linguistics**

**College of Arts and Sciences**

*Liberal Arts Building 145 ~ 260-481-6752*

*Hardin Aasand, Chair*

*Lewis C. Roberts, Graduate Program Director*

*Shannon Bischoff, TENL Program Coordinator*

The graduate certificate in Teaching English as a New Language (TENL) prepares students for teaching English to speakers of other languages in a variety of learning venues world-wide. It is intended for students who are working toward a graduate degree in English as well as for individuals who plan to live and teach abroad, and wish to obtain credentials and professional training in teaching English to speakers of other languages. The certificate will significantly enhance one's career opportunities overseas for English language teaching.

Our TENL program matches most other such academic programs nationwide. The required courses will familiarize students with major theoretical perspectives, pedagogies and resources of English language teaching. The capstone Practicum provides students with real-world experience through teaching English language learners in classroom settings. There is also a summer practicum in China as an option for those students interested in the program, but this option is not available every year. The TENL certificate can stand alone as a separate credential or be integrated with the requirements of the M.A. or M.A.T. program in English.

In addition, an add-on license in the content area of "Teachers of English Learners" 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.

## Applications and Admission

To be eligible for admission to the graduate certificate in TENL, you must have completed:

- A Bachelor's degree, from an accredited college or university, with a minimum of 3.0 GPA.
- At least 3 credit hours of coursework in linguistics, with a minimum 3.0 GPA (of 4.0) (e.g. LING 10300, 30300, 57500, or other approved course).
- At least 3 credit hours of coursework in college-level writing (or the equivalent), with a minimum 3.0 GPA (of 4.0).

Students who do not meet these requirements may be admitted conditionally.

Students who seek to integrate the graduate TENL Certificate Program with an M.A. or M.A.T. in English must have completed the following to meet the program requirements in addition to the TENL requirements:

- A Bachelor's degree, from an accredited college or university, with at least a 3.0 of 4.0 GPA.
- A satisfactory score on the general aptitude section of the GRE (Graduate Record Examination).
- To receive the M.A.T., students must have a teaching license in English by the time they graduate.

Students who do not meet these requirements may be admitted conditionally to the M.A. or M.A.T. Program in English.

**Note:** Admission to the TENL Program does not guarantee admission to the master's program in English & Linguistics. Students who wish to pursue a master's will be asked to submit a separate application. If admitted to the master's degree program in English and Linguistics, you will be able to apply all 18 credits of this certificate to the degree provided that the degree is completed within 5 years of your admission to the program.

## Certificate Requirements

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.

No course with a grade below 2.3 (effective Fall 2014) may be applied toward the TENL certificate. Students must maintain a minimum overall 3.0 GPA or better in all graduate courses. Failure to do so will result in automatic dismissal from the program.

Transfer of credit hours from other accredited institutions may be considered based on evaluations of materials presented by students including transcripts, course syllabi and completed assignments.

## Program Requirements

### Prerequisite

One of the following linguistics courses, or an equivalent, is a prerequisite for all TENL courses at the 500-level or higher:

- LING 10300: Introduction to the Study of Language
- LING 30300: Introduction to Linguistic Analysis
- LING 57500: Introduction to Linguistic Theory

### Grammar: Credits 3

- ENGL 50000 - Introduction to the English Language Cr. 3-4.  
Course taken for 3 Credits.

### Methods: Credits 6

- LING 51101 - Methods and Materials for TESOL 1 Cr. 3.
- LING 51201 - Methods and Materials for TESOL 2 Cr. 3.

### Language Acquisition: Credits 3

- LING 53201 - Second Language Acquisition Cr. 3.

### Sociolinguistics: Credits 3

- LING 61901 - Language and Society Cr. 3.

### Practicum: Credits 3

- LING 53500 - TESOL Practicum Cr. 3.

## Teachers of English Learners License (Add-On)

The Department of English and Linguistics, in conjunction with the College of Education and Public Policy, offers courses in Teaching English as a New Language to 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.

## License Requirements

The Teachers of English Learners License (add-on) will require satisfactory completion of eighteen credit hours of course work in the areas of ENL pedagogy and materials preparation, second language acquisition theories, sociolinguistics and cultural issues, English grammar and practical classroom experiences.

In addition to the requirements listed above for the TENL Certificate, applicants will be required to submit a copy of their teaching license. Those seeking the Teachers of English Learners License (add-on) must apply to the State of Indiana. Applicants must also pass the Praxis II exam: English to Speakers of other Languages (0361), or the Pearson English Learners (019) exam, effective February 10, 2014. Students will be assisted with applications through the department of English and Linguistics and the School of Education.

**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 Graduate Director.

## **Technology (M.S.)**

**Purdue University**

**Master of Science (M.S.)**

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

*Engineering, Technology, and Computer Science Building ~ 260-481-5732*

*Dr. Manoochehr Zoghi, Dean*

*Dr. Hongli Luo, Graduate Program Director, ET 205H*

The Master of Science in Technology prepares qualified students and working professionals to assume leadership positions facing the challenges of global technical competition. Faculty mentored creative projects are developed specifically to apply to individual career needs. A selection of graduate electives allows for the choice of additional degree specialization in:

- Information Technology/Advanced Computer Applications
- Industrial Technology/Manufacturing

The graduate will have advanced knowledge and skills that are required to function effectively in a modern, international, technical environment and to accept increasing responsibility in industrial and business positions. Elective choices will enable students to increase their technical knowledge within a chosen area of modern technology, as well as their knowledge in a related area such as leadership or communication.

## **Admission Requirements**

Applicants may have technical or non-technical backgrounds with a four-year undergraduate degree required from a recognized institution. Candidates are sought with creative abilities, leadership, interpersonal skills, and personal motivation indicating strong potential to advance in a technology-related career. For regular admission, a cumulative GPA of 3.0 or better is required; however, the Graduate Committee evaluates candidates for admission based upon a number of characteristics essential for success in the program. These characteristics include the candidate's intellectual capacity and individual factors such as motivation, leadership, communication, and interpersonal skills.

Special Requirements: Applicants for the Information/Technology/Advanced Computer Applications technical specialization should have a minimum of 15-18 undergraduate credits of computing and network course work or equivalent experience or credentials.

## **Teaching Assistantships**

The Master of Science in Technology program may have graduate teaching assistantships available in one or more academic program areas. Teaching assistantships usually include a stipend and substantial fee remission. Teaching assistants typically teach one or two undergraduate introductory-level courses. Generally these are not available to first-term students. Check with the program director for availability.

## **Degree Requirements**

### **Technology Core (9 credits)**

- IT 50700 - Measurement and Evaluation in Industry and Technology Cr. 3.
- IT 50800 - Quality and Productivity in Industry and Technology Cr. 3.
- TECH 64600 - Analysis of Research in Industry and Technology Cr. 3.

### **Technology Specialization (12 credits) Choose one specialization area:**

#### **Information Technology/Advanced Computer Applications**

- CPET 56500 - Mobile Computing Systems Cr. 3.
- CPET 57500 - Management of Technology Cr. 3.
- CPET 58100 - Workshop In Computer Engineering Technology Cr. 3.
- CPET 59000 - Special Problems in IT and Advanced Computer Applications Cr. 1-6.
- ECET 59000 - Special Problems in Electrical and Computer Engineering Technology Cr. 1-6.
- TECH 56100 - Industrial Projects Management and Control Cr. 3.

#### **Industrial Technology/Manufacturing**

- TECH 54000 - Reliability and Maintenance Cr. 3.
- TECH 56100 - Industrial Projects Management and Control Cr. 3.
- TECH 59500 - Workshop in Advanced Technology Cr. 0-8.  
See advisor for additional requirements.
- IT 59000 - Special Problems in Industrial Technology Cr. 1-6.
- CPET 57500 - Management of Technology Cr. 3.

### **Technical/Leadership Electives (9 credits)**

Choose courses with advice from your faculty mentor in order to create an individual plan of study.

## Directed Project (3 credits)

- CPET 59800 - Directed MS Project Cr. 1-3.
- IT 59800 - Directed MS Project Cr. 1-3.

## Total (33 Credits)

## 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 Graduate Director.

## Course Descriptions

This area consists of course descriptions in an alphabetical order that parallels the order used in the *Schedule of Classes*. Because of certain groupings of courses by sponsoring departments, you will find some cross-references, such as **Statistics (STAT)-See Mathematical Sciences**.

**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 about the hours of laboratory or studio for which the course is scheduled during 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.

**V.T. (Variable Title)** is shown for courses approved for variable titles. The title used for the course may be changed to specify the topic or other special focus of each offering of the course.

**The course numbering system** generally suggests levels of difficulty and appropriateness. Undergraduate courses eligible for graduate credit have numbers below 500. Courses at the 500 level in Purdue University departments are open to both advanced undergraduate and graduate students; other courses numbered 500 and above are generally open only to 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, or other conditions.

**C:** Indicates a corequisite that must be taken no later than the same semester 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, you may seek the instructor's consent to enroll in the course.

**Session indicators (fall, spring, summer)** suggest the times at which courses are generally offered. However, scheduling patterns may vary.

IPFW reserves the right to add, withdraw, or change courses without notice.

## **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 some research content.

### **Preparation for Course**

P: CS 32100 or consent of instructor.

Cr. 3.

### **Dual Level Course**

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**

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 consent of instructor.

Cr. 3.

### **Dual Level Course**

Undergraduate-Graduate

## **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: CS 36800 or consent of instructor.

Cr. 3.

**Dual Level Course**

Undergraduate-Graduate

## **ACS 56700 - Software Project Management**

Consideration of managing the software development process and implementing 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: CS 36000 or consent of instructor.

Cr. 3.

**Dual Level Course**

Undergraduate-Graduate

## **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 protocols stack, reliable delivery over unreliable channels, transport protocols, datagrams, virtual circuits, Internet working as a fundamental design concept. Network management concepts, client-server principles and paradigms, addressing and address resolution algorithms, and remote procedure calls.

**Preparation for Course**

P: CS 27400.

Cr. 3.

**Dual Level Course**

Undergraduate-Graduate

## **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**

Undergraduate-Graduate

## **ACS 57600 - Distributed Database Systems**

This course covers topics in distributed databases. Topics include data replication and synchronization, scalability issues, fault tolerance, distributed transaction control, distributed physical design selection, information integration, and

distributed query optimization.

**Preparation for Course**

P: ACS 57500 or consent of instructor.

Cr. 3.

**Dual Level Course**

Undergraduate-Graduate

## **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 real-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

## **ACS 69800 - Research M.S. Thesis**

This course is designed for a student to conduct intensive individual research under the direction of a Thesis Advisor, leading to a Master's Thesis in ACS. The course is taken twice in successive semesters, which are graded independently.

**Preparation for Course**

P: Permission of the Thesis Advisor and Director of the Graduate Program.

Cr. 1-18.

## **AD 42101 - Advanced Drawing III**

Continuation of 32201. May be repeated for up to 18 credits.

**Preparation for Course**

P: AD 32201 .

Cr. 3.

**Hours**

Class 3; Studio 3;

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

## **AD 42201 - Advanced Drawing IV**

Continuation of 32201. May be repeated for up to 18 credits.

**Preparation for Course**

P: AD 32201.

Cr. 3.

**Hours**

Class 3; Studio 3;

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

**AD 42501 - Advanced Painting III**

Continuation of 32601. May be repeated for up to 18 credits.

**Preparation for Course**

P: AD 32601.

Cr. 3.

**Hours**

Class 3; Studio 3;

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

**AD 42601 - Advanced Painting IV**

Continuation of 32601. May be repeated for up to 18 credits.

**Preparation for Course**

P: AD 32601.

Cr. 3.

**Hours**

Class 3; Studio 3;

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

**AD 43101 - Research Seminar In Medieval Art**

A seminar in which students conduct individual, semester-long research projects on medieval works of art.

Cr. 3.

**Dual Level Course**

Undergraduate-Graduate

**AD 43102 - Advanced Sculpture III**

Continuation of 33202 with advanced problems determined in relation to the major objectives and interests of the student. May be repeated for up to 18 credits.

**Preparation for Course**

P: AD 33202 and senior standing.

Cr. 3.

**Hours**

Class 3; Studio 3;

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

**AD 43202 - Advanced Sculpture IV**

Continuation of 33202 with advanced problems determined in relation to the major objectives and interests of the student. May be repeated for up to 18 credits.

**Preparation for Course**

P: AD 33202 and senior standing.

Cr. 3.

**Hours**

Class 3; Studio 3;

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

**AD 43300 - Advanced Metalsmithing III**

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 33302 , 33401.

Cr. 3.

**Hours**

Class 3; Studio 3;

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

**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 33302, 33401.

Cr. 3.

**Hours**

Class 3; Studio 3;

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

**AD 43501 - Advanced Ceramics III**

Advanced problems in ceramics determined by the skills, interests, and major objectives of the student. May be repeated for up to 18 credits.

**Preparation for Course**

P: AD 33501, 33601.

Cr. 3.

**Hours**

Class 3; Studio 3;

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

**AD 43600 - Advanced Ceramics IV**

Advanced problems in ceramics determined by the skills, interests, and major objectives of the student. May be repeated for up to 18 credits.

**Preparation for Course**

P: AD 33501, 33601.

Cr. 3.

**Hours**

Class 3; Studio 3;

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

**AD 44100 - Advanced Printmaking III**

Continuation of 34202. Advanced problems in printmaking determined in relation to the major objectives and interests of the student. May be repeated for up to 18 credits.

**Preparation for Course**

P: AD 34202 and senior standing.

Cr. 3.

**Hours**

Class 3; Studio 3;

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

**AD 44201 - Advanced Printmaking IV**

Continuation of 34202. Advanced problems in printmaking determined in relation to the major objectives and interests of the student. May be repeated for up to 18 credits.

**Preparation for Course**

P: AD 34202 and senior standing.

Cr. 3.

**Hours**

Class 3; Studio 3;

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

**AD 44300 - Advanced Photography III**

**Preparation for Course**

P: Advanced Photography II. Individual problems in photography.

Cr. 3.

**Hours**

Class 3, Studio 3,

**Notes**

May be repeated for up to 18 credits.

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

**AD 45300 - Graphic Design III**

An advanced course dealing with a singular multifaceted design campaign. This senior project will involve all phases of a promotional campaign from logotype development to final packaging. Emphasizing portfolio preparation. The faculty advises the student in the development of an artist's statement and the design campaign for the senior review, culminating in the B.F.A. thesis exhibit.

**Preparation for Course**

P: AD 25400 .

Cr. 3.

**Hours**

Class 3, Studio 3,

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

**AD 47501 - Computer Art and Design III**

Continuation of 37400. Focus is on advanced problems in computer graphics.

**Preparation for Course**

P: AD 37400.

Cr. 3.

**Hours**

Class 3, Studio 3,

**Notes**

May be repeated up to 18 credits.

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

**AD 47601 - Three Dimensional Computer Modeling**

Final concentration in major reinforcing senior status and to support senior project.

**Preparation for Course**

P: Senior standing.

Cr. 3.

**Hours**

Class 3, Studio 3,

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

**AD 49500 - Readings and Research in Art History****Preparation for Course**

P: consent of instructor.

Cr. 1-4.

**Variable Title**

(V.T.)

**Notes**

May be repeated for a total of 12 credits at the graduate level.

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

**AD 49501 - Independent Study in Fine Arts**

Senior standing and permission of chair. 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.

Cr. 3.

**Hours**

Class 3, Studio 3,

**Notes**

May be repeated.

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

**AD 49502 - Readings and Research in Art History****Preparation for Course**

P: consent of instructor.

Cr. 1-4.

**Variable Title**

(V.T.)

**Notes**

May be repeated for a total of 12 credits at the graduate level.

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

**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: consent of instructor.

Cr. 2-4.

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

**ANTH 40501 - Fieldwork in Archaeology**

Archaeological work directed toward field techniques: excavation and preservation of materials, surveying, photography, and cataloguing. One credit hour per full week of field-work.

Cr. 1-8.

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

**ANTH 44500 - 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.

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

**ANTH 44500 - 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.

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

**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.

**Preparation for Course**

P: 10501.

Cr. 3.

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

**ANTH 49500 - Individual Readings in Anthropology****Preparation for Course**

P: consent of instructor.

Cr. 1-4.

**Variable Title**

(V.T.)

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

**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 rerecstoration. The course includes two required Saturday field trips.

**Preparation for Course**

P: BIOL 21700 or consent of instructor.

Cr. 4.

**Dual Level Course**

Undergraduate-Graduate

**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**

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**

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 and one semester of organic chemistry or biochemistry, or consent of instructor.

Cr. 3.

**Dual Level Course**

Undergraduate-Graduate

## **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 consent of instructor.

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 and 38100, or graduate student standing.

Cr. 3.

**Dual Level Course**

Undergraduate-Graduate

## **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 preclinical 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**

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**

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 consent of instructor.

Cr. 3.

**Dual Level Course**

Undergraduate - Graduate

**BIOL 53300 - Medical Microbiology**

Host-parasite relationships. Immunology. Bacteria and viruses associated with infectious diseases.

**Preparation for Course**

C: BIOL 43700.

Cr. 3.

**Dual Level Course**

Undergraduate-Graduate

**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**

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 aquatic ecosystems.

**Preparation for Course**

P: BIOL 21700 or consent of instructor.

Cr. 3.

## **BIOL 54300 - Population Ecology**

A statistics course is recommended. Interactions that determine the dynamics, abundance, and persistence of natural populations. Topics include competition, predation and disease, metapopulations, computer simulation and data analysis, and discussions of classical and current literature.

### **Preparation for Course**

P: BIOL 21700, 21800, and 21900.

Cr. 4.

### **Hours**

Class 3, Lab. 2.

### **Dual Level Course**

Undergraduate-Graduate

## **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 Function**

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**

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**

Undergraduate-Graduate

## **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 Laboratory**

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 53700 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**

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**

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 consent of instructor.

Cr. 1.

**Hours**

Lab. 2.

**Dual Level Course**

Undergraduate-Graduate

## **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**

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.

**Dual Level Course**

Undergraduate-Graduate

## **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**

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**

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.

Cr. 1.

**Hours**

Lab. 3.

**Dual Level Course**

Undergraduate-Graduate

**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 consent of instructor.

Cr. 3.

**Notes**

May be repeated for credit with a different topic.

**Dual Level Course**

Undergraduate-Graduate

**BIOL 59500 - Special Assignments**

Independent study or research; supervised laboratory or field research; or presentation of material not available in established courses of the department. The field in which work is offered will be indicated on the student's record. Research projects must be agreed on by the student and a faculty member and approved by the chair.

Cr. 1-4.

**Variable Title**

(V.T.)

**Notes**

May be repeated for credit.

**Dual Level Course**

Undergraduate-Graduate

**BIOL 69800 - Research M.S. Thesis**

Cr. 1-18.

**BUS 50100 - Essentials of Accounting**

Upon completing this course, students should be knowledgeable in the basic procedures inherent in analyzing, recording, classifying, and reporting the economic transactions that occur in the firm.

Cr. 1.

**Notes**

You must be admitted to the MBA program or secure approval from the department before enrolling in any graduate-level business or economics course.

**BUS 50200 - Basic Finance**

The course is designed to provide basic information regarding corporate finance and will prepare students for higher-level courses in finance. Topics covered include time value of money, capital budgeting, capital structure, dividend policy, basics of financial markets, and short-term financial management.

Cr. 1.

**Notes**

You must be admitted to the MBA program or secure approval from the department before enrolling in any graduate-level business or economics course.

**BUS 50300 - Introduction to Economics**

Brief overview of microeconomic topics including comparative advantage, diminishing returns, supply, and demand. Market price determination is examined with emphasis on elasticity in the determination of total revenue changes as price changes. Measurement of economy's aggregate output, price level, and employment are macroeconomic topics covered.

Cr. 1.

**Notes**

You must be admitted to the MBA program or secure approval from the department before enrolling in any graduate-level business or economics course.

**BUS 50400 - Ethics and Regulatory Environment**

This course is a study of how organizations include ethics and regulatory environment in their decision making. It focuses on the development of effective strategies which include long-term ethical, socially responsible behavior. Topics include organizational culture and ethical values, legal and business ethics, and government regulation.

Cr. 1.

**Notes**

You must be admitted to the MBA program or secure approval from the department before enrolling in any graduate-level business or economics course.

**BUS 51100 - Master's Thesis**

Arranged. In-depth research in any business discipline. Formal defense of thesis proposal and thesis required.

Cr. 6.

**Notes**

You must be admitted to the MBA program or secure approval from the department before enrolling in any graduate-level business or economics course.

**BUS 52400 - Decision Making and Economic Environment in a Global Economy**

The theory of consumer behavior, theory of production, and factor markets are examined in microeconomics. National income accounts, inflation, unemployment, and macroeconomic policy are examined in macroeconomics. Emphasis

will be on global economic and trade issues.

**Preparation for Course**

P: BUS 50300 or equivalent.

Cr. 3.

**Notes**

You must be admitted to the MBA program or secure approval from the department before enrolling in any graduate-level business or economics course.

**BUS 52600 - Opportunity Recognition**

This course is intended to provide the core skills needed for the identification of opportunities that can lead to successful entrepreneurial high technology ventures. Emphasis is placed on the special requirements for creating and executing strategy in a setting of rapid technological change and limited resources.

Cr. 3.

**Notes**

You must be admitted to the MBA program or secure approval from the department before enrolling in any graduate-level business or economics course.

**BUS 52700 - New Venture Management and Business Plan Development**

This course will introduce students to theories and practices of entrepreneurship. It will concentrate in starting, financing and managing of a new enterprise. There will be a focus, in this hands-on seminar, on developing an actual business plan for the student's vision of a potential venture.

Cr. 3.

**BUS 52800 - Corporate Entrepreneurship**

This course will review the role of corporate entrepreneurship in building and sustaining innovation and competitive strategies within organizations, the role of corporate culture in driving internal entrepreneurial activities and the impact of leadership styles towards successful, intrapreneurial-driven companies.

Cr. 3.

**Notes**

You must be admitted to the MBA program or secure approval from the department before enrolling in any graduate-level business or economics course.

**BUS 52900 - New Venture Financing**

This course will teach students how to prepare for the Venture Capital world of equity investment and growth. Students will be required to work on a real world Intellectual Property (IP), Develop market ready documentation and present their product in a national or international venture capital competition.

Cr. 3.

**Notes**

You must be admitted to the MBA program or secure approval from the department before enrolling in any graduate-level business or economics course.

## **BUS 54000 - Microeconomic Analysis and Decision-Making**

Application of microeconomic theory to managerial decision making. Topics include pricing decisions, product mix, location decisions, input mix, decisions under uncertainty, and the impact of government policy on business decisions.

Cr. 3.

### **Notes**

You must be admitted to the MBA program or secure approval from the department before enrolling in any graduate-level business or economics course.

## **BUS 54001 - Data Analysis and Management Science**

Examine the design of formal mathematical model-building in support of business decision making. Develop deterministic models and stochastic models (e.g., inferential statistics) to assist management improve both the efficiency and effectiveness of decision making. An independent project (experiential exercise) encompassing conceptual modeling through formal solution and implementation is required.

Cr. 3.

### **Notes**

You must be admitted to the MBA program or secure approval from the department before enrolling in any graduate-level business or economics course.

## **BUS 54200 - Strategic Cost Management**

The course focuses on "strategic" cost management practices including capital budgeting, activity-based management, target costing, the just-in-time philosophy, quality costs, theory of constraints, and performance measures for automated factories.

### **Preparation for Course**

P: BUS 50100 or equivalent.

Cr. 3.

### **Notes**

You must be admitted to the MBA program or secure approval from the department before enrolling in any graduate-level business or economics course.

## **BUS 54201 - Financial Analysis and Decision Making**

The course covers topics in corporate finance. The primary focus of the course is on the use of financial concepts to develop strategies that maximize firm value. The course examines topics that help students understand how firm value is determined. It also provides students with an understanding of global finance environment.

### **Preparation for Course**

P: BUS 50200 or equivalent.

Cr. 3.

### **Notes**

You must be admitted to the MBA program or secure approval from the department before enrolling in any graduate-level business or economics course.

## **BUS 54202 - Leadership and Management of People in Organizations**

The course builds on the concepts and methods of psychology, sociology, and business management to give students an appreciation of behavior and management within complex organizations. Topics include globalization, ethical issues, diversity, problem solving, communication, motivation, leadership, organizational culture, personal growth, individual and group behavior, managing conflict and change, and team management.

Cr. 3.

**Notes**

You must be admitted to the MBA program or secure approval from the department before enrolling in any graduate-level business or economics course.

### **BUS 54500 - Collective Bargaining**

Emphasis on the negotiating process, the structure of bargaining, and the issues involved in the bargaining process.

Cr. 3.

**Notes**

You must be admitted to the MBA program or secure approval from the department before enrolling in any graduate-level business or economics course.

### **BUS 55000 - Business Conditions Analysis**

Theory of income, employment, money, and interest rates. Analysis of the impact of current and alternative fiscal and monetary policies on business. Students will prepare a forecast of macroeconomic conditions for the 12-month period following the end of the semester. Research papers on macroeconomic issues will usually be required.

Cr. 3.

**Notes**

You must be admitted to the MBA program or secure approval from the department before enrolling in any graduate-level business or economics course.

### **BUS 55200 - Management of Information Technology**

This is a comprehensive study of the strategic role of information technology (IT) in contemporary organizations and society. Topics include structures, issues and trends in IT, impact of IT on corporate environment, and IT management strategies to achieve competitive advantage in an increasingly dynamic global business environment.

**Preparation for Course**

P: BUS 54202.

Cr. 3.

**Notes**

You must be admitted to the MBA program or secure approval from the department before enrolling in any graduate-level business or economics course.

### **BUS 55300 - Topics in Information Systems**

In-depth study of current and emerging issues.

Cr. 3.

**Notes**

You must be admitted to the MBA program or secure approval from the department before enrolling in any graduate-level business or economics course.

## **BUS 56000 - Marketing and Customer Relationship Management**

The course is a study of how market-driven organizations strengthen their competitive advantage by creating value for customers. It focuses on the role of marketing and its relationship to other business functions; marketing analysis, planning, and implementation in changing domestic and global markets; building customer relationships, and ethical decision making.

### **Preparation for Course**

P: BUS 54202.

Cr. 3.

### **Notes**

You must be admitted to the MBA program or secure approval from the department before enrolling in any graduate-level business or economics course.

## **BUS 56500 - Topics in Marketing**

In-depth study of current and emerging issues.

Cr. 3.

### **Notes**

You must be admitted to the MBA program or secure approval from the department before enrolling in any graduate-level business or economics course.

## **BUS 56600 - Independent Study in Marketing**

For students engaged in special research projects in marketing. Arrangements for project supervision must be made prior to registration. Credits are determined by the extent of project undertaken.

Cr. 1-6.

### **Notes**

You must be admitted to the MBA program or secure approval from the department before enrolling in any graduate-level business or economics course.

## **BUS 57000 - Operations and Supply Chain Management**

This course is a study of how best to design, supply, and run organizational processes to create goods and services in a dynamic and competitive global environment. Topics covered include the use of contemporary tools and techniques in product and process design; facility location and layout; scheduling; project, supply chain, quality, inventory, and materials management.

### **Preparation for Course**

P: BUS 54001.

Cr. 3.

### **Notes**

You must be admitted to the MBA program or secure approval from the department before enrolling in any graduate-level business or economics course.

## **BUS 57500 - Topics in Finance**

In-depth analysis of topics of interest.

Cr. 3.

**Notes**

You must be admitted to the MBA program or secure approval from the department before enrolling in any graduate-level business or economics course.

### **BUS 57501 - Topics in Operations Management**

In-depth study of current and emerging issues.

**Preparation for Course**

P: BUS 57000.

Cr. 3.

**Notes**

You must be admitted to the MBA program or secure approval from the department before enrolling in any graduate-level business or economics course.

### **BUS 57600 - Independent Study in Finance**

For students engaged in special research projects in finance. Arrangements for project supervision must be made prior to registration. Credits are determined by the extent of project undertaken.

Cr. 1-6.

**Notes**

You must be admitted to the MBA program or secure approval from the department before enrolling in any graduate-level business or economics course.

### **BUS 57601 - Independent Study in Operations Management**

For students engaged in special research projects involving use and/or application of quantitative methods to managerial problems. Arrangements for project supervision must be made prior to registration. Credits are determined by the extent of project undertaken.

Cr. 1-6.

**Notes**

You must be admitted to the MBA program or secure approval from the department before enrolling in any graduate-level business or economics course.

### **BUS 58000 - Topics in Accounting**

In-depth study of current and emerging issues.

Cr. 3.

**Notes**

You must be admitted to the MBA program or secure approval from the department before enrolling in any graduate-level business or economics course.

### **BUS 58001 - Topics in Economics**

In-depth study of current and emerging issues.

Cr. 3.

**Notes**

You must be admitted to the MBA program or secure approval from the department before enrolling in any graduate-level business or economics course.

### **BUS 58600 - Independent Study in Economics**

For students engaged in special research projects in economics. Arrangements for project supervision must be made prior to registration. Credits determined by the extent of project undertaken.

Cr. 1-6.

**Notes**

You must be admitted to the MBA program or secure approval from the department before enrolling in any graduate-level business or economics course.

### **BUS 58900 - Topics in Law**

In-depth analysis of topics of interest.

Cr. 3.

**Notes**

You must be admitted to the MBA program or secure approval from the department before enrolling in any graduate-level business or economics course.

### **BUS 59000 - Strategic Management**

A comprehensive, integrated approach to the analysis and understanding of strategic management and competitiveness in the global economy. It focuses on the development of effective organizational strategies. Topics include external and internal environments of business, strategy implementation, strategic leadership, corporate entrepreneurship, and governance.

**Preparation for Course**

C: BUS 60001, 60101, 54200, 54201, 54001, 54202, 55200, 56000 and 57000 .

Cr. 3.

**Notes**

You must be admitted to the MBA program or secure approval from the department before enrolling in any graduate-level business or economics course.

### **BUS 59100 - Independent Study in Behavioral Studies**

For students engaged in special research projects in behavioral studies. Arrangements for project supervision must be made prior to registration. Credits are determined by the extent of project undertaken.

Cr. 1-6.

**Notes**

You must be admitted to the MBA program or secure approval from the department before enrolling in any graduate-level business or economics course.

## **BUS 60000 - Revenue Management**

The course focuses on how firms should manage capacity, resources and product availability decisions across different selling channels in order to maximize performance and profitability. The ultimate goal is to learn to identify and exploit opportunities for revenue optimization in different business contexts.

Cr. 1.5

## **BUS 60001 - Experiential Learning**

The course is a valuable real world, resume building experience. Consulting teams of students are matched to business project needs. Guided by faculty experts, these consulting arrangements ensure projects are managed on schedule and to specifications. Sponsor of the project provides input that is critical to overall evaluation.

Cr. 3.0

## **BUS 60002 - Investment Analysis**

This course focuses on analyzing common stock of corporations using various complex and analytical tools. Value line analysis supplementing financial statement analysis is shown. Investment philosophies used by successful institutional investors are covered.

Cr. 1.5

## **BUS 60100 - Value Based Pricing Analytics**

The course focuses on how firms should manage capacity, resources and product availability decisions across different selling channels in order to maximize performance and profitability. The ultimate goal is to learn to identify and exploit opportunities for revenue optimization in different business contexts.

Cr. 1.5

## **BUS 60101 - Executive Mentoring**

A series of executive lectures, where high-level managers serve as mentors in class. Each area of discussion is treated as a reflective learning assignment. The interaction with executives helps to establish stronger ties with regional businesses and acts as a strong learning tool.

Cr. 1.0

## **BUS 60102 - Asset Valuation**

The course focuses on how asset valuation is used in major investment decisions and covers analysis of demand for and pricing of financial securities. Asset pricing models, theory and empirical tests, risk and return analysis, derivative securities are introduced.

Cr. 1.5

## **BUS 60200 - Discovery With Data Mining**

A predictive analytics course with an overview of creating and discovering value with techniques such as cluster and discriminant analysis. The techniques seek to find patterns and classifications that look toward the future, which not only provides a more complete understanding of data but, enables managers to make better decisions.

Cr. 1.5

### **BUS 60201 - Corporate Financial Risk Management**

All businesses operate under uncertainty and face financial risk. Therefore, managing financial risks is important for the success of the enterprise. The course emphasizes identifying financial risk, measuring financial risk, and applying Value at Risk (VaR) and stress testing methodologies to manage risk.

Cr. 1.5

### **BUS 60300 - Risk Analytics**

The course covers neural networks, advanced simulation, and decision tree as predictive tools to tackle uncertainty and to help in contingency planning. Examples are drawn from marketing, banking, finance, insurance, supply chain, logistics, manufacturing, transportation, energy and health care.

Cr. 1.5

### **BUS 60301 - Real Options In Capital Budgeting**

This course focuses on developing advanced capital budgeting skills to take uncertainty and managerial operating flexibility into account. The analysis of real options capitalizes on the flexibility, for example, in the timing and the scale. This course provides a more robust methodology for project valuation.

Cr. 1.5

### **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.

#### **Notes**

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

### **CHM 53300 - Introductory Biochemistry**

A rigorous one-semester introduction to biochemistry.

#### **Preparation for Course**

P: CHM 25600 or 26200.

Cr. 3.

**Dual Level Course**

Dual Level, Undergraduate-Graduate

### **CHM 53400 - Introductory Biochemistry**

Continuation of CHM 53300 with emphasis on enzymatic catalysis and metabolic transformations.

**Preparation for Course**

P: CHM 53300 or equivalent.

Cr. 3.

### **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**

Dual Level, Undergraduate-Graduate

### **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**

Directed reading or special work not included in other courses.

**Preparation for Course**

P: Consent of instructor.

Cr. 1-4.

**Variable Title**

(V.T.)

**Notes**

May be repeated for credit.

**Dual Level Course**

Dual Level, Undergraduate-Graduate

## **COM 41301 - Magazine Article Writing**

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 must complete this course at IUPUI or IU Bloomington.

### **Preparation for Course**

P: COM 20000. In-depth explanation of the nonfiction magazine article field.

Cr. 3.

### **Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

## **COM 50000 - Introduction To Graduate Studies In Communication**

Introduces basic conventions of the principles and procedures of scholarly research, surveys research methods utilized in the communication discipline, applies research methods to various subjects, and offers an overview of degree requirements.

Cr. 3.

### **Dual Level Course**

Graduate Only

## **COM 50200 - Classroom Communication**

An introduction to fundamental concepts and basic research related to communicative behavior in the classroom. The primary focus is on the study of and application of principles of effective classroom communication through personal inquiry. Among topics discussed are components of classroom communication, systematic observation as a method of studying classroom communication, and applications of systematic observation in a variety of classroom communication settings.

### **Preparation for Course**

P: COM 21200 or a course in methods of teaching.

Cr. 3.

### **Dual Level Course**

Graduate Only

## **COM 50700 - Introduction to Semiotics**

The study of languages, literatures, and other systems of human communication, including 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. 3.

### **Dual Level Course**

Undergraduate-Graduate

## **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**

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**

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 consent of instructor.

Cr. 3.

### **Dual Level Course**

Undergraduate-Graduate

## **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 consent of instructor.

Cr. 3.

### **Dual Level Course**

Undergraduate-Graduate

## **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 consent of instructor.

Cr. 3.

**Dual Level Course**

Undergraduate-Graduate

## **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**

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 consent of instructor.

Cr. 3.

**Dual Level Course**

Undergraduate-Graduate

## **COM 52200 - History and Criticism of Public Communication**

A survey of speechmaking 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**

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**

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 post-colonialism, privileging context as a means of understanding culture.

**Preparation for Course**

P: COM 330.

Cr. 3.

**Dual Level Course**

Undergraduate-Graduate

**COM 53100 - Special Topics in Mass Communication**

Critical analysis and evaluation of current and continuing problems in commercial and public mass communication.

**Preparation for Course**

P: COM 33000.

Cr. 3.

**Notes**

May be repeated for credit.

**Dual Level Course**

Undergraduate-Graduate

**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**

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, 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 consent of instructor.

Cr. 3.

**Dual Level Course**

Undergraduate-Graduate

**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 consent of instructor.

Cr. 3.

**Dual Level Course**

Undergraduate-Graduate

**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**

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 58200 - Descriptive/Experimental Research in Communication**

Introduction to the fundamental tools of quantitative research in communication, including data analysis, statistical design and methods, basic measurement concepts, and designs for descriptive and experimental research. Individual and/or group research projects are planned, conducted, and reported. Course restricted to graduate students only. Admission by consent of instructor.

**Preparation for Course**

P: consent of instructor.

Cr. 3.

**Notes**

May be repeated for credit.

**Dual Level Course**

Graduate Only

## **COM 58400 - Historical/Critical Research in Communication**

Introduction to modes of qualitative research in communication, including theoretical assumptions, bibliographical methods, varying approaches to historical and critical inquiry, and the standards and techniques of scholarly writing. Emphasis is placed on historical research during fall semesters and on critical research during spring semesters.

**Preparation for Course**

P: consent of instructor.

Cr. 3.

**Notes**

May be repeated for credit.

**Dual Level Course**

Graduate Only

## **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**

Department permission required.

**Dual Level Course**

Graduate Only

## **COM 59000 - Directed Study of Special Problems**

**Preparation for Course**

P: consent of instructor.

Cr. 1-3.

**Variable Title**

(V.T.)

**Notes**

May be repeated for credit.

**Dual Level Course**

Graduate Only

## **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

**COM 59800 - Synthesis Paper Research**

This course is for students pursuing the research and writing of the synthesis paper required for graduation with an M.A. or M.S. in professional communication. The synthesis paper is an 20 page culminating manuscript demonstrating understanding of communication theory, research, or practice.

Cr. 0-4.

**Notes**

(May be repeated.)

**Dual Level Course**

Graduate Only

**COM 69800 - Research MA or MS Thesis**

Research MA or MS Thesis. Permission of instructor required.

Cr. 1-18.

**Notes**

Repeatable for credit.

**Dual Level Course**

Undergraduate-Graduate

**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**

Undergraduate-Graduate

**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 instructor.

Cr. 3.

**Dual Level Course**

Undergraduate-Graduate

### **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**

Undergraduate-Graduate

### **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, student's academic advisor). Does not substitute for either M.S. thesis or M.S. project credit.

Cr. 1-6.

**Variable Title**

(V.T.)

### **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.

### **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 expected to spend at least three hours per week gaining hands-on experience in using and modifying a small operating system.

Cr. 3

**Dual Level Course**

Undergraduate-Graduate

### **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 consent of instructor.

Cr. 3.

**Dual Level Course**

Dual Level, Undergraduate-Graduate

## **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 consent of instructor.

Cr. 3.

**Dual Level Course**

Dual Level, Undergraduate-Graduate

## **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 consent of instructor.

Cr. 3.

**Dual Level Course**

Dual Level, Undergraduate-Graduate

## **CS 59000 - Topics in Computer Science**

Selected topics in computer science.

Cr. 3.

**Dual Level Course**

Dual Level, Undergraduate-Graduate

## **CSD 50500 - Evidence-Based Practice In Speech-Language Pathology**

Emphasis on evaluating scientific evidence and the application of research findings to evidence-based practice.

**Preparation for Course**

C: CSD 54900. Permission of department required.

Cr. 2.

### **CSD 51200 - Critical Thinking In Clinical Practice I**

Introduction to critical thinking in a clinical setting. Integration of course material from concurrent courses focused on child/developmental disorders with an emphasis on developing assessment and treatment skills using clinical simulations.

#### **Preparation for Course**

C: CSD 52300, CSD 52100, CSD 52600, and CSD 54400. Permission of department required.

Cr. 4.

### **CSD 51300 - Critical Thinking In Clinical Practice II**

Further development of critical thinking in a clinical setting. Integration of course material from concurrent courses focused on adult/acquired disorders with an emphasis on developing assessment and treatment skills using clinical simulations.

#### **Preparation for Course**

P: CSD 51200. C: CSD 53100, 53300, 53800 and 53900. Permission of department required.

Cr. 4.

### **CSD 51400 - Critical Thinking In Clinical Practice III**

Application of critical thinking skills to clinical practice with an emphasis on interprofessional practice in medical and school based speech-language pathology. Permission of department required.

#### **Preparation for Course**

P: CSD 51300. C: CSD 53200 and 64800 or 64900.

Cr. 2.

### **csd 51500 - Critical Thinking in Clinical Practice IV**

Application of critical thinking skills to clinical practice with an emphasis on interprofessional practice in medical and school based speech-language pathology and effective supervision of support staff.

#### **Preparation for Course**

P: CSD 51400. C: CSD 52900 and 64800 or 64900.

Cr. 2.

### **CSD 52100 - Speech Sound Disorders In Children**

A detailed study of phonetic and phonological aspects of speech sound disorders in children. Recent research findings dealing with normal and disordered development are reviewed. Advanced procedures for diagnosis and intervention are discussed.

**Preparation for Course**

P: CSD 30600 and 30900.

Cr. 2.

**CSD 52300 - Language Disorders In Children**

Principles of description assessment and intervention for children with language disorders.

**Preparation for Course**

Permission of department required.

Cr. 2.

**CSD 52600 - Language & Literacy Disorders**

Principles of description, assessment, and intervention for children with language disorders with an emphasis on the interaction of oral language and literacy.

**Preparation for Course**

Permission of department required.

Cr. 2.

**CSD 52900 - Stuttering: Nature, Diagnosis, and Treatment**

Reviews applications of research findings and theoretical developments to our understanding of the onset, development, perpetuation, and amelioration of stuttering. Demonstrates and discusses methods and procedures for diagnosing and treating stuttering across the lifespan.

Cr. 2,

**CSD 53100 - Language & Cognitive Communication Disorders In Adults**

Study of the causes, assessment, and treatment of acquired language and cognitive disorders in adults, including aphasia, right hemisphere disorder, traumatic brain injury, and dementia.

**Preparation for Course**

Permission of department required.

Cr. 2.

**CSD 53200 - Voice Disorders**

Principles of differential diagnosis and clinical management for children and adults presenting voice disorders, based on a working knowledge of normal laryngeal structure and function.

Cr. 2.

**CSD 53300 - Medical Speech-Language Pathology**

Introduces the graduate speech-language pathology student to issues encountered in the medical environment in preparation for a healthcare externship and a career in the healthcare setting. Topics will include collaborative models in the medical setting, clinical documentation, ethical issues, equipment and instrumentation, medications, among others.

**Preparation for Course**

Permission of department required.

Cr. 2.

**CSD 53800 - Motor Disorders Of Speech**

A study of the neuropathologies that affect the speech production system. Emphasizes the differential diagnosis and management of acquired motor speech disorders.

**Preparation for Course**

Permission of department required.

Cr. 2.

**CSD 53900 - Deglutition & Dysphagia**

A study of the normal and disordered anatomy and physiology of the swallowing process. Principles of evaluation and treatment of dysphagia are discussed.

**Preparation for Course**

Permission of department required.

Cr. 2.

**CSD 54000 - Augmentative & Alternative Communication**

Introduction to augmentative and alternative communication. Cognitive, educational, physical, psycho-social, and linguistic aspects are considered together with symbol characteristics, teaching strategies, and research issues.

**Preparation for Course**

Permission of department required.

Cr. 2.

**CSD 54300 - Clinical Methods In Speech-Language Pathology**

Introduction to principles and procedures for the assessment and treatment of communication disorders including written documentation of clinical practice.

**Preparation for Course**

C: CSD 54900. Permission of department required.

Cr. 2.

**CSD 54400 - School Based Speech-Language Pathology**

Organization, materials, and methods for conducting speech, language, and hearing services in elementary and secondary schools.

Cr. 2.

### **CSD 54500 - Licensure**

Professional requirements for obtaining and maintaining credentials for clinical practice as a speech-language pathologist.

Cr. 0.

### **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 with a grade 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.

#### **Dual Level Course**

Undergraduate-Graduate

### **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.

#### **Dual Level Course**

Undergraduate-Graduate

## **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

## **CSD 64800 - Speech-Language Pathology Education Externship**

School-clinical experience to provide speech, language, and hearing services in elementary and secondary schools, under the supervision of a school clinician and university staff holding the ASHA Certificate of Clinical Competency.

Cr. 4 or 5.

## **CSD 64900 - Speech-Language Pathology Healthcare Externship**

An advanced-level clinical practicum in speech and language disorders.

Cr. 4 or 5.

## **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, or consent of instructor.

Cr. 3.

### **Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

## **EAPS 41500 - Geomorphology**

Geomorphic processes, evolution, and classification of landforms. Laboratory: interpretation of topographic and geologic maps and aerial photographs. Field trips.

### **Preparation for Course**

P: EAPS 22201 or consent of instructor.

Cr. 3.

### **Hours**

Class 2-3, Lab. 0-2,

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

**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. May be repeated. (spring)

**Preparation for Course**

C: EAPS 10001 and written consent of instructor.

Cr. 1-2.

**Variable Title**

(V.T.)

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

**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 consent of instructor.

Cr. 3.

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

**ECE 50600 - Biomedical Instrumentation 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.

Cr. 3.

**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**

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.

**Dual Level Course**

Undergraduate-Graduate

**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**

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**

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 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**

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, 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**

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 36200 or equivalent courses or instructor permission.

Cr. 3.

**Dual Level Course**

Undergraduate-Graduate

## **ECE 56700 - FPGA Designs 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 35800 and 30100.

Cr. 3.

**Session Indicators**

Typically offered Fall and Spring

**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 351, MA 363.

Cr. 3.

**Session Indicators**

Typically offered fall.

**Dual Level Course**

Undergraduate - Graduate

**ECE 57500 - Bioelectromagnetism, Modeling and 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 58100 - Microwave Engineering**

In this course, analysis of microwave components and circuits in terms of scattering parameters, determination of electrical characteristics of waveguides and transmission lines through electromagnetic field analysis, design of microwave amplifiers and based on stability, bandwidth, gain, and noise figure criteria, generating layouts and measurement of these devices, fundamentals of antennas, and use of CAD tools in RF/Microwave circuit design will be discussed.

**Preparation for Course**

P: ECE 25500 and 31100.

Cr. 3.

**Session Indicators**

Typically offered Fall and Spring

**Dual Level Course**

Undergraduate - Graduate

**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.

**Session Indicators**

Fall and Spring.

## **ECE 59500 - Selected Topics in Electrical Engineering**

Formal classroom or individualized instruction on topics of current interest.

**Preparation for Course**

P: consent of instructor.

Cr. 1-3.

**Variable Title**

(V.T.)

**Notes**

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

## **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.

**Session Indicators**

Fall and Spring.

## **ECE 60400 - Electromagnetic Field Theory**

Review of general concepts (Maxwell's equations, materials interaction, boundary conditions, energy flow); statics (Laplace's equation, Poisson's equation); distributed parameter systems (classification of solutions, transmission lines, and waveguides); radiation and antennas (arrays, reciprocity, Huygen's principle); a selected special topic (e.g., magnetostatics, waves in anisotropic media and optical fibers).

**Preparation for Course**

P: Consent of instructor.

Cr. 3.

**Notes**

For graduate engineering courses presented by tape delay from West Lafayette, contact Continuing Engineering Education in West Lafayette, 765-494-7015.

**Dual Level Course**

Graduate Level

**ECE 60800 - Computer Models And Methods**

Computation models and techniques for the analysis of algorithm complexity. The design and complexity analysis of recursive and nonrecursive algorithms for searching, sorting, set operations, graph algorithms, matrix multiplication, polynomial evaluation and FFT calculations. NP-complete problems.

**Preparation for Course**

P: Graduate standing. Master's student standing or higher.

Cr. 3.

**ECE 66100 - Computer Vision**

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.

Cr. 3.

**ECE 69800 - Research MS Thesis**

Research MS Thesis.

**Preparation for Course**

P: Instructor permission required.

Cr. 1 to 18.

**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. project credit.

**Preparation for Course**

P: consent of instructor.

Cr. 1-6.

**Dual Level Course**

Undergraduate-Graduate

**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 50000 - Topical Exploration in Education**

This course number identifies a one-semester course on a particular topic, established at the request of a faculty member and by the approval of the Academic Affairs Committee. Applies only as elective credit.

Cr. 1-15

**Variable Title**

(V.T.)

## **EDU 50001 - Introduction to Educational Leadership**

This course entails an introduction to the history, philosophy, and social aspects of educational leadership. It reviews relevant theories of administration; the historical role of administration in schools; and the political, social, economic, and philosophical frameworks that have informed administration.

Cr. 3.

## **EDU 50002 - Instruction in the Context of Curriculum**

First course for the master's degree in curriculum and instruction. Extends concepts introduced in undergraduate teacher preparation. Topics include conceptions and definitions of curriculum and instruction and their impact on social contexts, learning theories, and schooling practices. Elementary and secondary contexts are studied.

Cr. 3.

## **EDU 50003 - Topical Workshop in Special Education**

Intensive study of such selected topics as language development for exceptional children, the disadvantaged child, and behavior modification for exceptional children.

**Preparation for Course**

P: consent of instructor.

Cr. 1-3.

**Variable Title**

(V.T.)

**Notes**

May be repeated.

## **EDU 50004 - Integrated Professional Seminar**

The seminar is linked to courses and field experiences included in the Transition to Teaching (T2T) program. It will allow for collaboration among school-based mentors, university-based instructors and T2T candidates in offering

academic content appropriate to the program. The seminar will provide a technology-rich and performance-based professional experience. This course has a fee attached.

Cr. 0-6.

### **EDU 50100 - Laboratory/Field Experience**

A laboratory or field experience in education for graduate students. May be repeated.

Cr. 0-3.

### **EDU 50101 - Statistical Method Applied to Education**

Problems in statistical analysis, taken from education and psychology, including computation and interpretation of averages, variance, coefficients of correlation; introduction to hypothesis testing.

Cr. 3.

### **EDU 50200 - Professional Orientation and Ethics**

Studies that provide an understanding of all aspects of professional functioning including history, roles, organizational structures, ethics, standards, and credentialing.

Cr. 3.

### **EDU 50300 - Counseling Theories and Techniques I: Humanistic and Existential**

Restricted to counseling majors. Analysis of major humanistic and existential counseling theories emphasizing didactic and experiential activities designed to model application of processes, procedures, and techniques of theories being studied.

#### **Preparation for Course**

P: EDU 50200.

Cr. 3.

### **EDU 50301 - Introduction to Research**

Methods and procedures in educational research.

Cr. 3.

### **EDU 50302 - Secondary School Curriculum**

Designed to provide an overview for the teacher of the basic theories underlying the secondary-school curriculum and an examination of the subject areas, problems, trends, challenges for the future, and significant research in the field.

Cr. 3.

## **EDU 50400 - Counseling Theories and Techniques II: Behavior and Family Systems**

Restricted to counseling majors. Analysis of major behavior and family counseling theories emphasizing didactic and experiential activities designed to model application of processes, procedures, and techniques of behavior, and family approaches to professional practice.

### **Preparation for Course**

P: EDU 50300.

Cr. 3.

## **EDU 50401 - History of American Education**

A study of education, both informal and institutional, in American history, leading to an understanding of present educational theory and practice. Designed for graduate students who seek to develop a historical perspective of education in America.

Cr. 3.

## **EDU 50500 - Individual Appraisal: Principles and Procedures**

An analysis of statistical, psychometric, sociometric, and clinical principles crucial to professional interpretation of standardized and informal data regarding individual clients. Current issues/controversies about ethnic, sex, cultural, and individual differences will be examined.

### **Preparation for Course**

P: EDU 50400.

Cr. 3.

## **EDU 50501 - Introduction to Special Education for Graduate Students**

Basic special-education principles for graduate students with no previous course work in special education. Students cannot receive credit for both Introduction To Exceptional Child and EDU 50501.

Cr. 3.

## **EDU 50700 - Assessment Theory And Practice**

This course provides a foundation in psychometric theory. It surveys current trends in assessment and examines the specific role of standardized testing in evaluating students and schools. Students will explore important considerations for test selection and interpretation for diverse student populations, and develop expertise in data literacy and use of test results for instructional planning. Students will learn to create formal and informal assessment instruments. Authentic assessment, peer assessment, and student self-assessment will be addressed.

Cr. 3.

## **EDU 50800 - Seminar in Early Childhood Education**

Seminar will be based on current interest of students and will serve as a means of synthesizing their experiences. An interdisciplinary approach will be taken to exploring current issues and problems in early childhood education, current happenings as they relate to the issues, and major research efforts to support programs.

Cr. 3.

### **EDU 51000 - School-Community Relations**

For teachers and school administrators. Characteristics of the community-school, including the multicultural quality of the resources, adapting the educational program to community needs; use of community resources in instruction; planning school-community relations.

#### **Preparation for Course**

C: EDU 50001.

Cr. 2-3.

### **EDU 51001 - Psychology in Teaching**

Basic study of psychological concepts and phenomena in teaching. An analysis of representative problems and of the teacher's assumptions about human behavior and its development. This course is intended for those working toward the master's degree who currently are or are planning to be classroom teachers.

Cr. 3.

### **EDU 51400 - Life Span Development: Birth to Death**

A survey course of human development from infancy through old age, emphasizing the life span perspective of development. Classical stage theorists, current popular conceptions, major research findings, and educational implications for all life stages from birth to death.

Cr. 3.

### **EDU 51500 - Educational Leadership: Teacher Development and Evaluation**

The primary goal is to develop the knowledge, interpersonal and leadership skills that can be applied in the leadership for the improvement of instruction. Models of supervision and evaluation will be examined, but the major focus will be to examine the context for change in today's schools and apply leadership knowledge to the task of direct assistance, group development, professions development, curriculum development, and action research.

Cr. 3.

### **EDU 51501 - Methods of Small Group Instruction**

Students will examine the purpose and several approaches to using small-group instruction in the classroom. Emphasis is on learning how to improve the quality of interaction and integrate small-group instruction into the basic curriculum.

Cr. 3.

### **EDU 51502 - Child Development**

Major theories and findings concerning human development from birth through the elementary years as they relate to educational and clinical practice. Topics include: biological development, cognitive development, language acquisition, emotional and social development.

Cr. 3.

### **EDU 51600 - Advanced Study in the Teaching of Secondary School English Language Arts**

Current methods and materials for secondary-school English courses; guiding reading to meet literary, historical, vocational, or scientific interests.

#### **Preparation for Course**

P: completion of an undergraduate methods course and teaching experience, or permission of instructor.

Cr. 3.

### **EDU 51601 - Adolescent Development**

Characteristics of growth and development in adolescents, including physical, psychological, social, cognitive, and emotional, are studied. Emphasis is given to relevance for the educational practitioner and potential for future research. Contemporary issues such as drug and alcohol abuse, sexuality, vandalism are examined. Minority and handicapped youths' problems are studied.

Cr. 3.

### **EDU 51602 - Advanced Study in the Teaching of Reading in the Junior High and Secondary School**

For secondary teachers. The developmental reading program in secondary schools; use of reading in various curriculum areas, appraisal of reading abilities, and techniques and materials for helping reluctant and retarded readers.

Cr. 3.

### **EDU 51700 - Advanced Study in the Teaching of Secondary School Mathematics**

Methods, materials, literature; laboratory practice with mathematics equipment; evaluation techniques; standards; and determination of content essentials. Developing mathematics programs for specific school situations.

#### **Preparation for Course**

P: completion of an undergraduate methods course and teaching experience, or permission of instructor.

Cr. 3.

### **EDU 51800 - Advanced Study in the Teaching of Secondary School Science**

Improved techniques, current literature, textbooks, free and low-cost materials, and solutions of specific practical problems confronting science teachers in the classroom and laboratory.

#### **Preparation for Course**

P: completion of an undergraduate methods course and teaching experience, or permission of instructor.

Cr. 3.

### **EDU 52000 - Education and Social Issues**

Identification and analysis of major problems set for education by the pluralistic culture of American society.

Cr. 3.

### **EDU 52001 - Advanced Study in Foreign Language Teaching**

Principles, practices, problems, and current research pertaining to the teaching of a particular modern language in the secondary school. Emphasis on teaching the advanced levels. Separate sections as needed for teachers of French, German, Russian, and Spanish.

#### **Preparation for Course**

P: completion of an undergraduate methods course and teaching experience, or permission of the instructor.

Cr. 3.

### **EDU 52400 - Practicum in Counseling**

Restricted to counseling majors. Closely supervised counseling practice with clients in the department's counseling laboratories or approved field sites in schools or agencies. Intensive supervision.

#### **Preparation for Course**

P: EDU 50300, 50400, with minimum B in each.

Cr. 3.

### **EDU 52500 - Advanced Curriculum Study in Early Childhood Education**

Curriculum planning, guiding, and evaluating learning experiences, and interpreting values of early childhood education. New approaches to teaching.

#### **Preparation for Course**

P: one course in early childhood education.

Cr. 3.

### **EDU 52501 - Advanced Counseling Practicum**

Restricted to counseling majors. Supervised use of individual, couples, and/or group counseling techniques with emphasis on more complex and difficult client situations. May be repeated for credit with the advice of counselor education program faculty.

#### **Preparation for Course**

P: EDU 52400.

Cr. 3.

### **EDU 52502 - Survey of Mild Handicaps**

An advanced survey of the literature relating to mild handicaps, including historical foundations, definitions, and current issues facing workers in the field.

Cr. 3.

### **EDU 53000 - Philosophy of Education**

A study of representative topics in the philosophy of education.

Cr. 3.

### **EDU 53200 - Introduction to Group Counseling**

Restricted to counseling majors. Psychological and theoretical foundations of group counseling. Analysis of the dynamics of groups.

#### **Preparation for Course**

P: EDU 50300 and 50400.

Cr. 3.

### **EDU 53500 - Elementary School Curriculum**

Social, economic, and educational forces influencing changes in the curriculum of the elementary school; observation and study of the curriculum and methods of evaluating it.

Cr. 3.

### **EDU 53501 - Assessment and Remediation of the Mildly Handicapped**

Emphasizes the collection and use of formal and informal assessment information for designing the content of individual educational plans for handicapped children in various academic areas such as reading and mathematics.

Cr. 3.

### **EDU 53600 - Assessment and Remediation of the Mildly Handicapped II**

Focuses on the analysis and selection of instructional materials, the use of assessment information, and the development and implementation of individual educational plans for mildly handicapped children.

#### **Preparation for Course**

P: EDU 53501.

Cr. 3.

### **EDU 53800 - Critical Thinking and Education**

Theory of instruction and critical assessment of reflective thinking in (1) problem-solving and (2) the process of discovery.

Cr. 3.

### **EDU 54100 - Transition Across the Life Span**

In this course, issues and strategies related to the array of transitions students with disabilities need to make as they progress from pre-school to public school and on to adult life are discussed. The course covers laws, policies, and guidelines governing service provision across age groups and levels of instruction, and it addresses strategies for program planning, interagency cooperation and collaboration, and resource utilization.

Cr. 3.

### **EDU 54200 - Organization and Development of Counseling Programs**

Environmental and population needs-assessment for program planning. Procedures for counseling program development and accountability/ evaluation. Case studies.

#### **Preparation for Course**

P: EDU 52400.

Cr. 3.

### **EDU 54500 - Advanced Study in the Teaching of Reading in the Elementary Schools**

Review of developmental reading program in the elementary school, use of reading in various curriculum areas, appraisal of reading abilities, and techniques and materials for individualized instruction.

Cr. 3.

### **EDU 54700 - Advanced Study in the Teaching of Social Studies in the Elementary Schools**

Explores the purposes, substantive issues, essential pedagogies, and content of elementary social studies curriculum. Also Examines innovative approaches to designing and implementing social studies curriculum for elementary classrooms.

Cr. 3.

### **EDU 54800 - Advanced Teaching of Science in the Elementary School**

Designed for experienced teachers to gain proficiency in the teaching of science in the elementary school. Individualized learning experiences will be provided for persons interested in middle school teaching.

Cr. 3.

### **EDU 54900 - Advanced Study in the Teaching of Language Arts in the Elementary Schools**

Helps experienced teachers gain further insight into the development of the English language and how best to teach language arts. Emphasizes basic communication skills and significant trends and materials.

Cr. 3.

### **EDU 55000 - Internship in Counseling and Guidance**

Counseling experience in actual school or agency situations. Under direction and supervision of the counselor, students get practice in counseling, interviewing, in-service training, orientation procedures, and data collection.

#### **Preparation for Course**

P: EDU 52400 and 52501 and permission of instructor.

Cr. 3-5.

### **EDU 55100 - Advanced Internship in Counseling**

Advanced internship experience. Provide counseling services in a field placement with supervision.

#### **Preparation for Course**

P: EDU 55000 and/or permission of instructor.

Cr. 3.

### **EDU 55200 - Career Counseling: Theory and Practice**

An introduction to career-development theory, psychological assessment for career planning, and sources and uses of career information in counseling.

Cr. 3.

### **EDU 55300 - Classroom Management & Behavior Support**

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 55500 - Problems in Human Relations and Cultural Awareness**

Current problems in human relations and cultural awareness will be examined with emphasis on behaviors and practices that enable teachers and administrators to understand and obtain knowledge about themselves and others. Discriminatory practices involving race, sex, disability, religion, and social class will be studied.

Cr. 3.

### **EDU 56000 - Political Perspectives of Education**

This course focuses on theoretical and conceptual approaches useful in describing, explaining, and predicting political behavior related to schools. Forces for continuity and change at local, state, and federal level are explored.

Cr. 3.

### **EDU 56200 - School Counseling: Intervention Consultation and Program Development**

Foundations and contextual dimensions of school counseling. Knowledge and skills for the practice of school counseling. Developmental counseling. Program development, implementation, and evaluation. Consultation. Principles, practices, and applications of needs assessment. Provides an overall understanding of the organization of schools and the function of counselor and counseling program.

Cr. 3.

### **EDU 56300 - Foundations of Mental Health Counseling**

Foundations and contextual dimensions of mental health counseling. Program development, implementation, and evaluation. Principles, practices, and applications of community needs assessment. Ethics. Examination of professional issues. Administration, finance, and management of mental health counseling services.

Cr. 3.

### **EDU 56500 - Collaboration & Service Delivery**

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 56700 - Introduction to Marriage and Family Counseling**

Analysis of historical context, theoretical formulations, counseling techniques/strategies, research findings, treatment issues, and ethical/social concerns in marriage and family counseling.

#### **Preparation for Course**

P: EDU 50400 .

Cr. 3.

### **EDU 57000 - Human Sexuality**

This is an introductory graduate-level course dealing with all areas of human sexuality that a person might encounter in day-today living. Topics will include sexual terminology, the human body, expressing one's sexuality, heterosexuality, homosexuality, pornography, sex education, sex offenses, sexual dysfunction, and sex therapy.

#### **Preparation for Course**

P: EDU 50200 or permission of instructor.

Cr. 3.

### **EDU 57001 - Building Classroom Communities**

An analysis of pupil and teacher behaviors as they relate to discipline. Attention is given to the development of such skills as dealing with pupils' problems and feelings, behavior modification, reality therapy, assertiveness in establishing and maintaining rules, and group processes. Designed for teachers, administrators, and pupil-personnel workers.

Cr. 3.

### **EDU 57500 - Multicultural Counseling**

This course is designed to provide both a cognitive and guided training opportunity. It examines the influence of cultural and ethnic differences of counselor and client in counseling. Attention is given to theory, research, and practice. General cross-cultural dynamics as well as specific target populations are studied.

Cr. 3.

### **EDU 58000 - Topical Seminar in Counseling and Guidance**

An intensive study of theory and research of selected topics in counseling.

#### **Preparation for Course**

P: EDU 50200 or consent of instructor.

Cr. 1-3.

#### **Variable Title**

(V.T.)

### **EDU 59000 - Research in Elementary Education**

Individual research in a given subject area.

Cr. 1-3.

#### **Variable Title**

(V.T.)

### **EDU 59001 - Research in Counseling and Guidance**

Individual research.

#### **Preparation for Course**

P: consent of instructor.

Cr. 1-3.

#### **Variable Title**

(V.T.)

### **EDU 59002 - Research in Secondary Education**

Individual research in a given subject area.

Cr. 1-3.

#### **Variable Title**

(V.T.)

## **EDU 59100 - Research Project in Secondary Education**

Designed to permit students to demonstrate their ability to identify, analyze, and propose solutions to problems in their educational area. Solutions may include research or comprehensive review of the literature, together with recommendations. An oral examination and defense of the project is required.

Cr. 3.

## **EDU 59500 - Problem Analysis in Elementary Education**

For experienced elementary teachers. Individual and group study of organizational and teaching problems. Techniques of problem analysis, identification, and use of resources contributing to the alleviation of teaching problems.

Cr. 3.

### **Variable Title**

(V.T.)

## **EDU 59501 - Practicum in Special Education**

Provides for closely supervised field experience in various areas of special education.

### **Preparation for Course**

P: consent of instructor.

Cr. 1-6.

### **Variable Title**

(V.T.)

## **EDU 59800 - Comprehensive Examination in Counseling**

The comprehensive examination is a program-wide test of knowledge for eight areas in counseling: human development, social and cultural foundations, the helping relationship, group counseling, research and evaluation, appraisal, career and lifestyle development, and professional orientation.

Cr. 0.

## **EDU 59900 - Specialization Project in Counseling**

Students confer on an individual basis with counselor education faculty to gain assistance in constructing a paper or project that contributes to knowledge on a specific topic of the student's choice. Completed projects would meet the standards either for publication in professional journals or for presentation at professional conferences.

Cr. 0

## **EDU 59901 - Master's Thesis in Special Education**

Cr. 3.

## **EDU 60000 - Problems in School Administration**

Designed to identify practical school problems, determine issues, develop skills, and formulate concepts. A workshop in which case-concept method is used in determining behavioral patterns.

**Preparation for Course**

P: EDU 50001.

Cr. 3.

**EDU 60800 - Legal Perspectives on Education**

Overview of the legal framework affecting the organization and administration of public schools, including church-state issues, pupil rights, staff-student relationships, conditions of employment, teacher organizations, tort liability, school finance, and desegregation.

**Preparation for Course**

P: EDU 50001.

Cr. 3.

**EDU 62000 - Workshop on Selected Problems in School Administration**

Individual and group study. One credit hour is offered for each week of fulltime work.

Cr. 1-6.

**EDU 62400 - Educational Leadership: The Principalship K-12**

This course engages students in a dialogue around building a professional learning community leading to instructional program coherence committed to the success of all students. Students complete their leadership platform as a part of this course.

Cr. 3.

**EDU 63000 - Economic Dimensions of Education**

Includes current problems in school support, costs of education, sources of school revenue, state and federal support, state and local control in school finance, and legal basis of school finance.

**Preparation for Course**

P: EDU 50001.

Cr. 3.

**EDU 63800 - Public School Personnel Management**

The background, present conditions, and future directions of school personnel management; development and implementation of a school personnel management program; and examination of problems and issues.

**Preparation for Course**

P: EDU 50001.

Cr. 3.

### **EDU 69500 - Practicum in Educational Leadership**

This course provides for a closely supervised field experience in various areas of school administration. S/F grading.

#### **Preparation for Course**

P: consent of instructor.

Cr. 3.

### **ENGL 50000 - Introduction to the English Language**

An introduction to the English language: its nature, structure, and development.

Cr. 3-4.

#### **Dual Level Course**

Graduate Level

### **ENGL 50001 - History of the English Language**

Survey of the evolution of the English language from its earliest stages to the present, with reference to its external history and to its phonology, morphology, syntax, and vocabulary.

Cr. 3.

#### **Dual Level Course**

Graduate Level

### **ENGL 50101 - Professional Scholarship in Literature**

Materials, tools, and methods of research.

Cr. 3.

#### **Dual Level Course**

Graduate Level

### **ENGL 50201 - Introduction to Literacy Studies and the Teaching of College English**

Historical and cognitive effects of writing, reading, and language use and the implication of these effects for the teaching and study of literature and writing.

Cr. 3.

#### **Dual Level Course**

Graduate Level

### **ENGL 50501 - Composition: Issue And Critical Approaches**

Fundamental issues in the teaching of writing. Topics include teaching invention and revision, diagnosing errors, teaching style and organization, making assignments, and evaluating student writing.

Cr. 3.

**Dual Level Course**

Graduate Level

## **ENGL 50601 - Teaching Composition Practicum**

This is a practicum for teaching assistants (TA's) in the Department of English and Linguistics who have successfully completed C505 and are in either their first or second semester of teaching composition for the Writing Program. The class focuses on issues involving teaching writing as they arise for the TAs in the college classroom. Subject matter is largely student-driven but mentor-guided to assist and enhance teaching.

**Preparation for Course**

P: ENGL 50501.

Cr. 1.

**Notes**

S/F grading only.

## **ENGL 50701 - Writing Center Theory and Praxis**

Examines techniques for responding to writers in writing centers, including nontraditional populations and writers in various disciplines. Understand and test cognitive, social constructionist, and collaborative theories through consulting in the writing center mentored by experienced writing consultants and the director. Write journals, a case study outline, and a paper linking theory to practice.

Cr. 3.

**Dual Level Course**

Graduate Level

## **ENGL 51101 - Writing Fiction**

**Preparation for Course**

P: permission of instructor.

Cr. 3.

**Dual Level Course**

Graduate Level

## **ENGL 51201 - Chaucer**

Critical analysis of The Canterbury Tales, Triolus and Criseyde, and selected shorter poems.

Cr. 3.

**Dual Level Course**

Graduate Level

## **ENGL 51301 - Writing Poetry**

**Preparation for Course**

P: permission of instructor.

Cr. 3.

**Dual Level Course**

Graduate Level

**ENGL 51302 - Middle English Literature**

Selected themes and writers in English from 1100 to 1500.

Cr. 3.

**Dual Level Course**

Graduate Level

**ENGL 51303 - Advanced Poetry Writing**

Focused work in the art and profession of poetry writing.

**Preparation for Course**

P: ENGL 51301 or permission of the instructor.

Cr. 3.

**Notes**

May be repeated once for credit.

**Dual Level Course**

Graduate Level

**ENGL 51501 - Writing Prose Nonfiction**

Study and practice in such modes as the personal essay, autobiography, and documentary. Review of historical thematic, and stylistic range of work in these modes with emphasis on producing informed, thoughtful, and effective documents.

Cr. 3

**Dual Level Course**

Graduate Level

**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.

**ENGL 52001 - Publications Management**

Explores the document production process and asks students to practice this process by individually creating a suite of publications and by working with a team of writers to produce a published book or website. Students study theories of publication and production as applied to writing groups.

Cr. 3.

### **ENGL 52201 - Elizabethan Poetry**

Spenser and other major Elizabethan poets.

Cr. 3.

**Dual Level Course**

Graduate Level

### **ENGL 52202 - 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 in the discourse communities of their choosing.

Cr. 3.

### **ENGL 52401 - Elizabethan Drama and Its Background**

English drama, excluding Shakespeare, from the Middle Ages to 1642.

Cr. 3.

**Dual Level Course**

Graduate Level

### **ENGL 52501 - Shakespeare**

Critical analysis of selected texts.

Cr. 3.

**Variable Title**

(V.T.)

**Dual Level Course**

Graduate Level

### **ENGL 52502 - Research Methods for Professional Writers**

Examines quantitative, qualitative, and action research practices of professional writers in the light of contemporary theories of researched writing. Take students through the process of designing a scholarly or organizational research project, and the completion of the research proposal or prospectus.

Cr. 3

**Dual Level Course**

Graduate Level

### **ENGL 52701 - English Poetry of the Early 17th Century**

Major poets and their intellectual milieu, 1600 to 1660.

Cr. 3.

**Dual Level Course**  
Graduate Level

### **ENGL 52801 - Milton**

Poetry and prose, with special attention to Paradise Lost, Paradise Regained, and Samson Agonistes.

Cr. 3.

**Dual Level Course**  
Graduate Level

### **ENGL 53501 - British Literature 1660-1790**

Poetry and nonfictional prose. Emphasis on Dryden, Pope, Swift, and Johnson and his circle.

Cr. 3.

**Dual Level Course**  
Graduate Level

### **ENGL 53901 - British Fiction to 1800**

Cr. 3.

**Dual Level Course**  
Graduate Level

### **ENGL 54401 - Victorian Literature**

Poetry and non-fictional prose from 1837 to 1900.

Cr. 3.

**Dual Level Course**  
Graduate Level

### **ENGL 54501 - British Fiction 1800-1900**

Cr. 3.

**Dual Level Course**  
Graduate Level

### **ENGL 54801 - 20th Century British Poetry**

20th Century British Poetry.

Cr. 3.

**Dual Level Course**  
Graduate Level

### **ENGL 54901 - 20th Century British Fiction**

Cr. 3.

**Dual Level Course**  
Graduate Level

### **ENGL 55101 - American Literature 1800-1865**

Cr. 3.

**Dual Level Course**  
Graduate Level

### **ENGL 55201 - American Literature 1865-1914**

Cr. 3.

**Dual Level Course**  
Graduate Level

### **ENGL 55401 - American Literature since 1914**

Cr. 3.

**Dual Level Course**  
Graduate Level

### **ENGL 55501 - American Fiction to 1900**

Cr. 3.

**Dual Level Course**  
Graduate Level

### **ENGL 55601 - 20th Century American Fiction**

American fiction since 1900, including such writers as Dreiser, Lewis, Fitzgerald, Hemingway, and Faulkner.

Cr. 3.

**Dual Level Course**  
Graduate Level

### **ENGL 55701 - Recent Writing**

May be repeated once for credit under a different topic.

Cr. 3.

**Variable Title**  
(V.T.)  
**Dual Level Course**  
Graduate Level

### **ENGL 56001 - Studies in British and American Writers**

May be repeated once for credit under a different topic.

Cr. 3.

**Variable Title**

(V.T.)

**Dual Level Course**

Graduate Level

### **ENGL 56501 - 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.

Cr. 3.

**Dual Level Course**

Graduate Level

### **ENGL 56601 - Survey of Children's Literature**

Survey of literature for children and adolescents from the Medieval period to the present.

Cr. 3.

**Dual Level Course**

Graduate Level

### **ENGL 56701 - 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).

Cr. 3.

**Dual Level Course**

Graduate Level

### **ENGL 56801 - Topics in Children's Literature**

Study of a period, a genre, or a group of writers. May be repeated once for credit under a different topic.

Cr. 3.

**Variable Title**

(V.T.)

**Dual Level Course**

Graduate Level

### **ENGL 57201 - Composing the Self**

Study of the ways in which language underlies 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.

Cr. 3

**Dual Level Course**

Graduate Level

**ENGL 57301 - Studies in Women and Literature**

Women writers and literary representations of women.

Cr. 3.

**Variable Title**

(V.T.)

**Dual Level Course**

Graduate Level

**ENGL 57501 - Studies in American Ethnic and Minority Literature and Culture**

May be repeated once for credit under a different topic.

Cr. 3.

**Variable Title**

(V.T.)

**Dual Level Course**

Graduate Level

**ENGL 57601 - 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.

Cr. 3

**Dual Level Course**

Graduate Level

**ENGL 58801 - Irish Literature and Culture**

Study of one writer, a group of writers, a period, or a genre. May be repeated once for credit under a different topic.

Cr. 3.

**Variable Title**

(V.T.)

**Dual Level Course**

Graduate Level

**ENGL 59001 - Internship in Writing**

A supervised internship in uses of language in the workplace. Evaluations by workplace supervisor and reports to faculty supervisor including a portfolio of completed assignments and an evaluation of the internship experience are required.

Cr. 3.

**Dual Level Course**

Graduate Level

**ENGL 60101 - History of Rhetoric**

Development of rhetorical theory from Plato to the present, including the influence of historical rhetoric on present-day composition theory.

Cr. 3.

**Dual Level Course**

Graduate Level

**ENGL 60102 - Introduction to Old English**

Introduction to the phonology, morphology, and syntax of Old English and intensive reading of major prose and verse texts.

Cr. 3.

**Dual Level Course**

Graduate Level

**ENGL 60201 - Contemporary Theories of Composition**

Current research in rhetoric and composition. Draws on insights from linguistic theory, cognitive theory, and rhetorical theory to develop greater understanding of the writing process and build pedagogical applications.

Cr. 3.

**Dual Level Course**

Graduate Level

**ENGL 60501 - Critical Theory**

Survey of contemporary critical approaches to literary, language, and rhetorical studies.

Cr. 3.

**Dual Level Course**

Graduate Level

**ENGL 61101 - Writing Fiction**

**Preparation for Course**

P: ENGL 51101 or permission of the instructor.

Cr. 3.

**Notes**

May be repeated once for credit.

**Dual Level Course**

Graduate Level

**ENGL 62301 - Literacy & Family History Research**

Define and theorize concepts of community, family, and family history writing, using ethnographic and archival research methodologies. Explore theories of narrative, story, and materiality in relation to family identity formation.

Cr. 3.

### **ENGL 63101 - Milton**

Cr. 3.

**Dual Level Course**

Graduate Level

### **ENGL 64201 - Romantic Literature**

Blake, Wordsworth, Coleridge, Byron, Shelley, Keats, and other writers of the British Romantic movement.

Cr. 3.

**Dual Level Course**

Graduate Level

### **ENGL 64300 - Victorian Literature**

Cr. 3.

**Variable Title**

(V.T.)

**Dual Level Course**

Graduate Level

### **ENGL 65101 - Major American Writers 1700-1855**

Cr. 3.

**Variable Title**

(V.T.)

**Dual Level Course**

Graduate Level

### **ENGL 65300 - Major American Writers 1855 to the Present**

Cr. 3.

**Variable Title**

(V.T.)

**Dual Level Course**

Graduate Level

### **ENGL 68001 - Special Topics in Literary Study and Theory**

Readings in sociological, political, psychological, and other approaches to literature. May be repeated once for credit under a different topic.

Cr. 3.

**Variable Title**

(V.T.)

**Dual Level Course**

Graduate Level

**ENGL 68002 - Special Studies in British and American Literature**

May be repeated for credit under a different topic.

Cr. 3.

**Variable Title**

(V.T.)

**Dual Level Course**

Graduate Level

**ENGL 68003 - Special Studies in Rhetoric and Composition**

Cr. 3.

**Variable Title**

(V.T.)

**Notes**

May be repeated once for credit under a different topic.

**Dual Level Course**

Graduate Level

**ENGL 68200 - Topics in Rhetoric and Composition**

Cr. 3.

**Variable Title**

(V.T.)

**Notes**

May be repeated once for credit under a different topic.

**Dual Level Course**

Graduate Level

**ENGL 69500 - Individual Readings in English**

Independent study.

Cr. 1-3.

**Variable Title**

(V.T.)

**Dual Level Course**

Graduate Level

**ENGL 69700 - Independent Study in Writing**

**Preparation for Course**

P: permission of instructor.

Cr. 1-3.

**Variable Title**

(V.T.)

**Dual Level Course**

Graduate Level

**ENGL 69901 - Master's Thesis**

Cr. 3-6.

**Variable Title**

(V.T.)

**Dual Level Course**

Graduate Level

**ENGR 58000 - Engineering Optimization**

Concentrates on recognizing and solving convex optimization problems that arise in engineering. Convex sets, functions, and optimization 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 Credit, Undergraduate-Graduate

**ENGR 59500 - Selected Topics in Engineering**

This course number serves as a means to offer one-time, interdisciplinary specialty topics in engineering such as engineering optimization, design, innovation, engineering management, and infrared radiometry (an interdisciplinary topic that is relevant to a local employer). It will also be used as a vehicle for the Engineering Department to develop new interdisciplinary engineering curriculum offerings.

Cr. 1-3.

**Variable Title**

(V.T.)

**ENGR 69800 - Master of Science in Engineering (M.S.E.) Thesis Research**

This course number will be used to offer credit for original research in systems engineering leading to their preparation of a thesis or dissertation. Project will be supervised by a faculty member after being approved by the Engineering Department thesis committee and after project initiation, thesis projects will be periodically reviewed by the thesis committee.

Cr. 1-18.

**FNR 50500 - Molecular Ecology and Evolution**

Lectures cover the genetic attributes of both conventional and contemporary molecule 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).

**Preparation for Course**

P: BIOL 21800, one semester of biochemistry is recommended.

Cr. 3

### **FNR 52300 - Aquaculture**

Historical perspectives and current practices in aquaculture, including production systems, feeds, water quality requirements, and diseases of 0commercially important species.

#### **Preparation for Course**

P: BIOL 21700 and 21900 or permission of instructor.

Cr. 3

### **FOLK 51200 - Survey of Folklore**

Content and scope of folk belief and tradition: various genres (tale, legend, myth, and ballad) and approaches to folklore. Folklore of both literate and nonliterate peoples.

Cr. 3.

#### **Dual Level Course**

Graduate Level

### **FOLK 60000 - Asian Folklore/Folk Music**

Folk religion, material culture, social customs, oral literature, and folk music of Asian societies. Relationship between political movements and the use of folklore scholarship. Transformations of traditions in modern contexts. May be repeated for credit when topics vary.

Cr. 3.

#### **Variable Title**

(V.T.)

#### **Dual Level Course**

Graduate Level

### **FOLK 64000 - Native American Folklore/ Folk Music**

Comparative examination of various verbal, musical, and dance forms of Native American societies in North and South America. Examination of contributions of folklore and ethnomusicological scholarship to Native American studies. May be repeated for credit when topics vary.

Cr. 3.

#### **Variable Title**

(V.T.)

#### **Dual Level Course**

Graduate Level

### **FR 44301 - 19th Century Novel I**

Mme. de Stael, Balzac, Stendhal, and others.

#### **Preparation for Course**

P: FR 30500 and 30600.

Cr. 3.

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

## **FR 45001 - Colloquium in French Studies**

Emphasis on one topic, author, or genre. May be repeated up to a maximum of 9 credits.

**Preparation for Course**

P: FR 30500 or 30600 or consent of instructor.

Cr. 2-3.

**Variable Title**

(V.T.)

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

## **FR 45300 - Litterature Contemporaine I**

20th century French literature.

**Preparation for Course**

P: FR 30500 or 30600 or consent of instructor.

Cr. 3.

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

## **FR 46300 - Civilisation Francaise I**

French civilization from medieval period through 17th century. Readings in French.

**Preparation for Course**

P: 6 credits in French at the 300 level or consent of instructor.

Cr. 3.

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

## **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

**Preparation for Course**

P: FR 31700 or 31800 or 33001.

Cr. 2-3.

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

## **FVS 50200 - Genre Study in Film**

Topic varies: major periods of film history and their relationship to the intellectual and social climate of the time; studies in genres or individual artists; studies of technology and modes of production; close reading of major works of film theory; new developments in theory and criticism.

Cr. 3.

### **Hours**

Class 3,

### **Variable Title**

(V.T.)

### **Dual Level Course**

Graduate Level

## **GEOG 31500 - Environmental Conservation**

Conservation of natural resources, including soil, water, wildlife, and forests as interrelated components of the environment, emphasizing an ecological approach. Current problems relating to environmental quality. This course satisfies conservation requirement for teachers.

### **Preparation for Course**

P: two college-level science courses including GEOG 10700 or EAPS 10001 or 10300 or written consent of instructor.

Cr. 3.

### **Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

## **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 30500, 30600, or 30701.

Cr. 3.

### **Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

## **GER 45100 - Introduction to the Structure of Modern German**

Morphology (including principles of word-formation) and syntax of modern German, with a practical introduction to the methods of grammatical analysis. Brief sketch of the evolution of standard language.

### **Preparation for Course**

P: 6 credits of 300-level work in German or departmental permission.

Cr. 3.

### **Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

## **HIST 30101 - Colonial America**

Social, cultural, economic, political, and religious developments in colonial American 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.)

**Dual Level Course**

Undergraduate Level, 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 decedents.

Cr. 3.

**Variable Title**

(V.T.)

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

## **HIST 30302 - The United States from 1789 to 1865 I**

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. II. 1840-1865: Slavery, antislavery movement, Mexican War, sectional crises of 1850s, Civil War.

Cr. 3.

**Variable Title**

(V.T.)

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

## **HIST 31301 - Origins of Modern America**

Reconstruction, industrialism, immigration, urbanism, culture, foreign policy, progressivism, and World War I.

Cr. 3.

**Variable Title**

(V.T.)

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

## **HIST 31401 - Recent U.S. History I 1917-1945**

The 1920s, the Depression, New Deal, with interpretive readings in politics, diplomacy, economics, society, thought, literature of the period, and World War II.

Cr. 3.

**Variable Title**

(V.T.)

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

### **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.)

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

### **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.

**Dual Level Course**

Undergraduate Level, 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.

Cr. 3.

**Variable Title**

(V.T. for A346)

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

### **HIST 35102 - Barbarian Europe 200-1000**

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.

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

### **HIST 35202 - The Age of Chivalry 1000-1500**

Expansion of European culture and institutions: chivalry, Crusades, rise of towns, universities, Gothic architecture, law, and revival of central government. Changes in late medieval Europe: famine, plague, Hundred Years' War, peasant revolt, crime, Inquisition, and heresy.

Cr. 3.

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

**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, and diffusion of the Enlightenment; agriculture, commerce, and industry in preindustrial economies; Old Regime France.

Cr. 3.

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

**HIST 36102 - Europe in the 20th Century**

Diplomatic, economic, intellectual, military, political, and social developments within Europe from World War I to World War II.

Cr. 3.

**Variable Title**

(V.T.)

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

**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, closing with the reign of Justinian (A.D. 527-565).

Cr. 3.

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

**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.

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

**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**

Undergraduate Level, Eligible for Graduate Credit.

**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.

Cr. 1-3.

**Variable Title**

(V.T.)

**Notes**

May be repeated for credit.

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

**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.

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

**HIST 57701 - History Of American Sports**

This course is an exploration of the interplay of social, cultural, economic, and political forces producing an American sporting culture from 1607 to the present. It examines the ways social class, race, gender, ethnicity and region have influenced American sport. This graduate course uniquely features a survey of appropriate historiography.

Cr. 3

**HIST 59901 - Topics In History**

Intensive study and analysis of selected issues and problems of limited scope. Topics will vary but will ordinarily cut across fields, regions, and periods. May be repeated for up to 12 credits.

Cr. 3.

**Variable Title**

(V.T)

**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**

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**

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.

Cr. 1-6.

### **Dual Level Course**

Undergraduate-Graduate

## **IT 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. May be repeated for credit.

Cr. 1-3.

### **Notes**

Departmental permission required.

## **LBST 50000 - Graduate Project**

Independent project to be undertaken in consultation with graduate advisor. This project requires students to demonstrate mastery of some specific topic or medium of expression.

Cr. 3-6.

### **Variable Title**

(V.T.)

### **Dual Level Course**

Graduate Level

## **LBST 50100 - Humanities Seminar**

An interdisciplinary graduate seminar in the humanities

Cr. 3.

### **Variable Title**

(V.T.)

### **Notes**

Topics vary from semester to semester. May be repeated with different topic for a maximum of 9 credits.

### **Dual Level Course**

Graduate Level

## **LBST 50200 - Social Science Seminar**

An interdisciplinary graduate seminar in the social sciences.

Cr. 3.

### **Variable Title**

(V.T.)

### **Notes**

Topics vary from semester to semester. May be repeated with different topic for a maximum of 9 credits.

### **Dual Level Course**

Graduate Level

## **LBST 50300 - Science Seminar**

An interdisciplinary graduate seminar in the sciences.

Cr. 3.

### **Variable Title**

(V.T.)

### **Notes**

Topics vary from semester to semester. May be repeated with different topic for a maximum of 9 credits.

### **Dual Level Course**

Graduate Level

## **LBST 51000 - Introduction To Graduate Liberal Studies**

A comprehensive introduction to graduate liberal studies. Explores the cultures of the humanities, social sciences, and sciences, investigates interdisciplinary methodologies. Offers strategies for graduate-level reading, research, and writing for other publics.

Cr. 3-4.

## **LBST 60000 - Topics in Liberal Studies**

Intensive study of a major issue in the humanities, social sciences, or sciences. Interdisciplinary approach, seminar format. Individual project required. Specific topic announced in Schedule of Classes. May be repeated with different topic for a maximum of 9 credits.

### **Preparation for Course**

P: Completion of two 500-level LBST seminars or permission of program director.

Cr. 3.

### **Variable Title**

(V.T.)

### **Dual Level Course**

Graduate Level

## **LING 43000 - Language Change and Variation**

Basic principles of diachronic linguistics. The comparative method. Phonological and morphological development. Growth of lexicon.

**Preparation for Course**

R: 10300 or 30300.

Cr. 3.

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

**LING 50500 - Professional Scholarship in Language Study and Linguistics**

Training in the practices of professional scholarship in language study, focused on research and presentation approaches necessary for participating in the primary sub-fields of linguistics. Also provides coherent, structured introduction to the study of language itself.

Cr. 3.

**LING 51101 - Methods and Materials for TESOL 1**

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.

Cr. 3.

**Dual Level Course**

Graduate Level

**LING 51201 - Methods and Materials for TESOL 2**

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.

Cr. 3.

**Dual Level Course**

Graduate Level

**LING 53201 - Second Language Acquisition**

A survey of the major theories of first and second language learning and their potential applications to language development strategies.

Cr. 3.

**Dual Level Course**

Graduate Level

**LING 53500 - TESOL Practicum**

Under supervision, students teach English as a second language to adult learners. The course also provides experience in testing, placement, and materials preparation. Classroom lectures focus on issues related to the art and profession of language teaching.

**Preparation for Course**

C: Linguistic Resources and The Teaching of English as Second Language.

Cr. 3.

**Dual Level Course**

Graduate Level

**LING 54300 - Syntactic Analysis**

An examination of the methods and argumentation used in syntactic analysis conducted within the framework of generative grammar. Emphasis on constructing and evaluating grammatical analyses and promoting critical understanding of the generative framework.

Cr. 3.

**Dual Level Course**

Graduate Level

**LING 55000 - 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 theoretical 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 and 30300 or permission of Instructor required.

Cr. 3.

**LING 57500 - Introduction to Linguistic Theory**

Cr. 3.

**Dual Level Course**

Graduate Level

**LING 59001 - Linguistic Structure**

Analysis of particular aspects of the structure of a language or of a group of closely related languages. Methods used may include text analysis, informant work, study of secondary sources, lectures, and reports.

**Preparation for Course**

P: consent of instructor.

Cr. 3.

**Dual Level Course**

Graduate Level

**LING 61901 - Language and Society**

Relationship between geographical and historical factors and dialectal differentiation and spread of linguistic features. Evaluation of linguistic atlases; practical training in collection of dialect data.

Cr. 3.

**Dual Level Course**

Graduate Level

**LING 69001 - Advanced Readings in Linguistics****Preparation for Course**

P: consent of instructor.

Cr. 1-4.

**Variable Title**

(V.T.)

**Dual Level Course**

Graduate Level

**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: 26100 (or 26300).

Cr. 3.

**Notes**

Note: Prerequisites in mathematics and statistics are intended as a guide and may be satisfied through completion of equivalent or more advanced courses. Consent of the course instructor can substitute for completion of specified prerequisites, and students are invited to discuss their eligibility for enrollment with their advisors or the instructor of the course.

**Dual Level Course**

Dual Level, Undergraduate-Graduate

**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: 35100.

Cr. 3.

**Notes**

Note: Prerequisites in mathematics and statistics are intended as a guide and may be satisfied through completion of equivalent or more advanced courses. Consent of the course instructor can substitute for completion of specified prerequisites, and students are invited to discuss their eligibility for enrollment with their advisors or the instructor of the course.

**Dual Level Course**

Dual Level, Undergraduate-Graduate

## **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: 51000, and 35100 or 51100.

Cr. 3.

**Notes**

Note: Prerequisites in mathematics and statistics are intended as a guide and may be satisfied through completion of equivalent or more advanced courses. Consent of the course instructor can substitute for completion of specified prerequisites, and students are invited to discuss their eligibility for enrollment with their advisors or the instructor of the course.

**Dual Level Course**

Dual Level, Undergraduate-Graduate

## **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 26300 and MA 36300.

Cr. 3.

**Dual Level Course**

Undergraduate-Graduate

## **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: 26300 or 44100 or 51000.

Cr. 3.

**Notes**

Note: Prerequisites in mathematics and statistics are intended as a guide and may be satisfied through completion of equivalent or more advanced courses. Consent of the course instructor can substitute for completion of specified prerequisites, and students are invited to discuss their eligibility for enrollment with their advisors or the instructor of the course.

**Dual Level Course**

Dual Level, Undergraduate-Graduate

**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: 44100.

Cr. 3.

**Notes**

Note: Prerequisites in mathematics and statistics are intended as a guide and may be satisfied through completion of equivalent or more advanced courses. Consent of the course instructor can substitute for completion of specified prerequisites, and students are invited to discuss their eligibility for enrollment with their advisors or the instructor of the course.

**Dual Level Course**

Dual Level, Undergraduate-Graduate

**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: 54000.

Cr. 3.

**Notes**

Note: Prerequisites in mathematics and statistics are intended as a guide and may be satisfied through completion of equivalent or more advanced courses. Consent of the course instructor can substitute for completion of specified prerequisites, and students are invited to discuss their eligibility for enrollment with their advisors or the instructor of the course.

**Dual Level Course**

Dual Level, Undergraduate-Graduate

**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: 45300.

Cr. 3.

**Notes**

Note: Prerequisites in mathematics and statistics are intended as a guide and may be satisfied through completion of equivalent or more advanced courses. Consent of the course instructor can substitute for completion of specified prerequisites, and students are invited to discuss their eligibility for enrollment with their advisors or the instructor of the course.

**Dual Level Course**

Dual Level, Undergraduate-Graduate

**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: 45300.

Cr. 3.

**Notes**

Note: Prerequisites in mathematics and statistics are intended as a guide and may be satisfied through completion of equivalent or more advanced courses. Consent of the course instructor can substitute for completion of specified prerequisites, and students are invited to discuss their eligibility for enrollment with their advisors or the instructor of the course.

**Dual Level Course**

Dual Level, Undergraduate-Graduate

**MA 55600 - Introduction to the Theory of Numbers**

Divisibility, congruences, quadratic residues, Diophantine equations, and the sequence of primes.

**Preparation for Course**

P: 26300 (or 26100).

Cr. 3.

**Notes**

Note: Prerequisites in mathematics and statistics are intended as a guide and may be satisfied through completion of equivalent or more advanced courses. Consent of the course instructor can substitute for completion of specified prerequisites, and students are invited to discuss their eligibility for enrollment with their advisors or the instructor of the course.

**Dual Level Course**

Dual Level, Undergraduate-Graduate

**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: 30500.

Cr. 3.

**Notes**

Note: Prerequisites in mathematics and statistics are intended as a guide and may be satisfied through completion of equivalent or more advanced courses. Consent of the course instructor can substitute for completion of specified prerequisites, and students are invited to discuss their eligibility for enrollment with their advisors or the instructor of the course.

**Dual Level Course**

Dual Level, Undergraduate-Graduate

**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: 44100.

Cr. 3.

**Notes**

Note: Prerequisites in mathematics and statistics are intended as a guide and may be satisfied through completion of equivalent or more advanced courses. Consent of the course instructor can substitute for completion of specified prerequisites, and students are invited to discuss their eligibility for enrollment with their advisors or the instructor of the course.

**Dual Level Course**

Dual Level, Undergraduate-Graduate

**MA 57500 - Graph Theory**

Introduction to graph theory with applications.

**Preparation for Course**

P: 30500 (or 35100) or equivalent.

Cr. 3.

**Notes**

Note: Prerequisites in mathematics and statistics are intended as a guide and may be satisfied through completion of equivalent or more advanced courses. Consent of the course instructor can substitute for completion of specified prerequisites, and students are invited to discuss their eligibility for enrollment with their advisors or the instructor of the course.

**Dual Level Course**

Dual Level, Undergraduate-Graduate

**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: P: MA 26100 and one of the following: EDU 20000 or graduate status or instructor permission.

Cr. 3.

**Notes**

Note: Prerequisites in mathematics and statistics are intended as a guide and may be satisfied through completion of equivalent or more advanced courses. Consent of the course instructor can substitute for completion of specified prerequisites, and students are invited to discuss their eligibility for enrollment with their advisors or the instructor of the course.

**Dual Level Course**

Dual Level, Undergraduate-Graduate

**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**

Note: Prerequisites in mathematics and statistics are intended as a guide and may be satisfied through completion of equivalent or more advanced courses. Consent of the course instructor can substitute for completion of specified prerequisites, and students are invited to discuss their eligibility for enrollment with their advisors or the instructor of the course.

**Dual Level Course**

Undergraduate-Graduate

**ME 50500 - Intermediate Heat Transfer**

Heat and mass transfer by diffusion in one-dimensional, two-dimensional, transient, periodic, and phase change systems. 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.

Cr. 3.

**Notes**

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**

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: CE 31800 or ME 31800.











Cr. 3.

**Notes**

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. Permission of department required. Permission of instructor required.

**Preparation for Course**

P: graduate standing and/or permission of the instructor.

Cr. 3.

**ME 54500 - Finite Element Analysis: Advanced Theory and Applications**

Theory of the course covers various algorithms for non-linear and time-dependent problems in two and three dimensions. Applications 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**

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, Robotics 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 or graduate standing.

Cr. 3

**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

**ME 56300 - Mechanical Vibrations**

Review of systems with one degree of freedom. LaGrange's equations of motion for multiple degree of freedom systems. Introduction to matrix methods. Transfer functions for harmonic response, impulse response, and step response. Convolution integrals for response to arbitrary inputs. Principle frequencies and modes. Applications to critical speeds, measuring instruments, isolation, torsional systems. Introduction to nonlinear problems.

**Preparation for Course**

P: ME 25100.

Cr. 3.

**Notes**

Graduate student standing required.

For graduate engineering courses presented by tape delay from West Lafayette, contact Continuing Engineering Education in West Lafayette, 765-494-7015.

**MUSC 53600 - Special Workshop in Music Education**

To be arranged with instructor.

Cr. 1-3.

**Dual Level Course**

Graduate Level

**OLS 51000 - Foundations of Behavior and Leadership in Organizations**

Leadership involves relationships and social influence processes in an interactive, relational context. In this survey course, the foundational concepts and theories of human behavior that enable effective leadership are examined. Organizational behavior at the levels of the individual, group, and organization are discussed, with the goal of predicting, shaping, and evaluating workplace behavior.

**Preparation for Course**

P: graduate student standing or instructor permission.

Cr. 3.

**OLS 51500 - Foundations of Human Resources**

A survey course emphasizing the human resource function (and its development) in the context of the work organization. Human resource development topics include exploration of various training and development techniques, the relation of training to organizational strategies, training needs analysis, evaluation of training, and career development. The strategic approach to human resource management also is covered, including what human resource

professionals can and should do to help the organization succeed.

**Preparation for Course**

P: graduate student standing or instructor permission.

Cr. 3.

**OLS 52000 - Foundations of Organizational Context**

An introduction of the tools of organizational decision making and for students to learn to integrate functional area knowledge and analysis in the organizational context. A variety of analyses are introduced, including budgeting, audits (i.e., cultural, strategic), planning, classification of core competencies and strategic capabilities, and understanding value chain, industry and competitor analyses, and basic project management. Using cases and real organizational problems, students will: (1) identify types of organizational reports and understand how to evaluate them; (2) demonstrate knowledge of when to request various analyses; and (3) understand how to complete some common organizational analyses and reports.

**Preparation for Course**

P: graduate student standing or instructor permission.

Cr. 3.

**OLS 52500 - Organizational Analysis and Action**

A survey of key, recent, and essential elements of organizational theory and design that provide the foundation for diagnosing, developing, and critiquing organizational decisions and forms. Questions and issues to explore include: Why do organizations exist and why do they survive? Why and how do organizations differ? Why and how do organizations change? Multiple frameworks from the social sciences that are useful for understanding organizational processes will be applied.

**Preparation for Course**

P: graduate student standing or instructor permission.

Cr. 3.

**OLS 53000 - System Change and Organization Development**

This graduate seminar explores the theory and practice of change in organizations. The process of organization development is explored, as well as basic OD interventions. Issues and challenges of organization development also are discussed.

**Preparation for Course**

P: graduate student standing or instructor permission.

Cr. 3.

**OLS 53010 - Mixed Methods Research**

This course provides an overview of mixed methods research and is designed for students interested in integrating qualitative and quantitative data into single or sequential research studies. Requires successful completion of quantitative and qualitative research methods courses.

**Preparation for Course**

P: Permission of instructor required.

Cr. 3.

**OLS 54000 - Leading Collaborative Projects and Work Teams**

Focuses on methods of understanding and improving the performance of collaborations and work teams. A holistic view of teams is obtained by combining psychological theories and current practices in contemporary organizations. Topics include task design, team composition, member role structures, member socialization, influence and power, leadership, decision making, and training. Students are asked to watch and reflect on collaborative work relationships. A heavy emphasis is placed on experiential learning, including case studies and a variety of team-learning exercises.

**Preparation for Course**

P: OLS 51000 or instructor permission.

Cr. 3.

**Dual Level Course**

Dual Level, Undergraduate-Graduate

**OLS 54500 - Compensation and Benefits**

Addresses the theoretical and practical issues associated with the design of effective compensation systems. Covers compensation philosophy, strategy, and policy, including topics such as performance-based pay, equity considerations, job evaluation, and benefits.

**Preparation for Course**

P: OLS 51500.

Cr. 3.

**OLS 55500 - Workforce Planning and Employment**

An examination of all aspects of the staffing process beginning with workforce planning and applicant recruitment and ending with termination and outplacement. Recruitment and selection methods used by organizations are evaluated using scientific and ethical criteria, and discrepancies between research recommendations and practice are explored.

**Preparation for Course**

P: OLS 51500 and a research skills course.

Cr. 3.

**OLS 56000 - Leadership of Virtual Teams**

Introduces students to contemporary theories, concepts, and applications of virtual teamwork. Students explicitly examine the differences in virtual and collocated team development, and use emerging theories (e.g., team identity theory) and perspectives (e.g., online community development) to predict and explain virtual team behavior and leadership decisions. This course requires Internet connection and completion of some collaborative tasks, while maintaining only computer and technological linkages to widely dispersed team members.

Cr. 3.

## **OLS 56500 - Employee Relations**

Explores determinants of employee attitudes and job satisfaction and modification of attitudes and morale. Ways to reduce barriers between management and employees are investigated, as are organizational communication issues, diversity issues, procedures to resolve disputes, employee involvement strategies, and working effectively with unions and maintaining non-union status.

### **Preparation for Course**

P: OLS 51500.

Cr. 3.

## **OLS 57000 - Leadership Across Cultural Boundaries**

This course will enhance the student's ability to harness the talents of diverse members in organizations and take full advantage of cultural similarities and differences. Various activities will link theory and experience and help students predict and understand the worldly context of organizations.

### **Preparation for Course**

P: OLS 51000.

Cr. 3.

## **OLS 57500 - Contemporary Employment Practices and the Law**

A survey and analysis of the law governing human resources. Students will strengthen their understanding of the legal framework in which human resource administration takes place by studying employment discrimination, compensation laws and regulations, employee selection guidelines, and other topics.

### **Preparation for Course**

P: OLS 51500.

Cr. 3.

## **OLS 58500 - Health Safety and Security**

A seminar course covering safety promotion, human factors considerations, contingency planning and crisis management, theft and misuse of organizational resources, and investigations and preventive measures. Other topics covered include promoting employee health and creating psychosocially healthy organizations.

### **Preparation for Course**

P: OLS 51500.

Cr. 3.

## **OLS 58700 - Developing a Leadership Philosophy**

Explores issues in leadership and organizational change. Included are change theories, utilizing resistance to change, contemporary approaches to change, the future workplace, and researching best practices in organizational change.

### **Preparation for Course**

P: OLS 51000 or instructor permission.

Cr: 3.

**Dual Level Course**

Dual Level, Undergraduate-Graduate

## **OLS 59000 - Individual Research Problems in Supervision and Personnel**

This course is intended to generate critical thought and reflection, and to provide the opportunity for the practical application of leadership development that draws upon the theories, concepts, and research learned throughout the OLS graduate study. The course will require that students engage in personal reflection, especially with regards to leadership style, philosophies, and skills. Students will explore how they have developed, and will continue to develop, their leadership 'persona', and the impact it will have in their careers, on communities, and the overall enrichment of their lives. The class will include a team-based project that requires diagnosing and addressing organizational problems. Written assignment will be designed to foster synthesis of learning and practice.

**Preparation for Course**

P: Completion of all core courses, research skills class, and most required courses, and approval of instructor/advisor.

Cr. 1-6.

**Variable Title**

(V.T.)

**Notes**

May be repeated to a maximum of 9 credit hours.

## **OLS 68000 - Research in OLS**

This course focuses on the planning and executing of research designs after identifying a real organizational challenge or problem. Students will develop their own methods for uncovering and diagnosing organizational problems, reviewing relevant literature, formulating solution models and recommendations, and helping client organizations implement changes. Students are required to prepare and present an action learning project, with an emphasis on documenting ways they have and can make a difference in an organization. May be repeated for credit for up to 6 credit hours.

**Preparation for Course**

P: Completion of core courses and consent of instructor/advisor.

Cr. 3-6.

## **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: Nice credit hours in Philosophy or consent of instructor.

Cr. 3.

**Notes**

Junior or higher class standing or consent of instructor required.

**Dual Level Course**

Undergraduate-Graduate

**PHIL 51000 - Phenomenology**

A detailed, critical examination of some major issue(s) in phenomenology. Attention will be given to either the historical development or the contemporary relevance of phenomenological philosophy. Readings will be drawn from the works of Husserl, Heidegger, Merleau-Ponty, and others.

**Preparation for Course**

P: Nine credit hours in Philosophy or consent of instructor.

Cr. 3.

**Notes**

May be repeated for credit.

**Dual Level Course**

Dual Level, Undergraduate-Graduate

**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. 3.

**Dual Level Course**

Dual Level, Undergraduate-Graduate

**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.

**Preparation for Course**

P: Nine credit hours in Philosophy or consent of instructor.

Cr. 3.

**Notes**

May be repeated for credit with consent of instructor.

**Dual Level Course**

Undergraduate-Graduate

**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, Foucault, 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**

Dual Level, Undergraduate-Graduate

### **PHIL 58000 - Pro-Seminar 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.

**Preparation for Course**

P: Nine credit hours in Philosophy or consent of instructor.

Cr. 1-3.

**Variable Title**

(V.T.)

**Notes**

Instructor permission required.

May be repeated for credit.

**Dual Level Course**

Undergraduate-Graduate

### **PHIL 59000 - VT - Dir 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 up to six credit hours.

**Preparation for Course**

P: Nine credit hours in Philosophy and consent of instructor.

V: 1-3.

### **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 detail 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: PHYS 32200 and 34200.

Cr. 3.

**Dual Level Course**

Undergraduate-Graduate

### **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: 31000, 33000, and a course in differential equations or advanced calculus.

Cr. 3.

**Dual Level Course**

Dual Level, Undergraduate-Graduate

**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, the calculus of residues, partial differential equations, and the special functions of mathematical physics.

**Preparation for Course**

P: 31000, 32200, 33000 or consent of instructor.

Cr. 3.

**Dual Level Course**

Dual Level, Undergraduate-Graduate

**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: 32200, 33000, and 55000.

Cr. 3.

**Dual Level Course**

Dual Level, Undergraduate-Graduate

**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 is 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: 32200 or equivalent.

Cr. 4.

**Dual Level Course**

Dual Level, Undergraduate-Graduate

**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 an in-depth study of selected topics or applications.

**Preparation for Course**

P: 25100 or equivalent.

Cr. 4.

**Dual Level Course**

Dual Level, Undergraduate-Graduate

**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: 55000 or equivalent.

Cr. 3.

**Dual Level Course**

Dual Level, Undergraduate-Graduate

**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 observable; 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: 34200 and at least one other junior-level course in mathematics and physics or equivalent.

Cr. 3.

**Dual Level Course**

Dual Level, Undergraduate-Graduate

**PHYS 57000 - Selected Topics in Physics**

Specialized topics in physics selected from time to time.

Cr. 3.

**Variable Title**

(V.T.)

**Dual Level Course**

Dual Level, Undergraduate-Graduate

**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.

Cr. 3.

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

## **POL 34000 - East European Politics**

The study of the evolution of the governmental and political processes in the states of Eastern Europe. Traditional, ideological, and political aspects of the individual Communist societies will be discussed, with special emphasis on ideological differentiation and nationalism.

Cr. 3.

### **Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

## **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.

Cr. 3.

### **Variable Title**

(V.T.)

### **Notes**

May be repeated once for credit with permission of department advisor.

### **Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

## **POL 38100 - History of Political Theory I**

An exposition and critical analysis of the major political philosophers and philosophical schools. I. From Plato to Machiavelli. II. From Machiavelli to present.

Cr. 3.

### **Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

## **POL 38200 - History of Political Theory II**

An exposition and critical analysis of the major political philosophers and philosophical schools. I. From Plato to Machiavelli. II. From Machiavelli to present.

Cr. 3.

### **Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

## **POL 38300 - American Political Ideas I**

American political ideas from the colonial period to the founding period.

Cr. 3.

### **Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit.

## **POL 38400 - American Political Ideas II**

American political ideas from the founding period to the present.

Cr. 3.

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit.

**POL 68101 - Readings In Comparative Politics**

Political process and government structure in the Russian state. Political institutions inherited from tsarist empire and the Soviet state 1917-1991, history of subsequent political reform. Political problems of ethnic conflict, creating democratic institutions, and transition from socialism to market economy. Graduate students will do some extra reading, write a term paper, and participate in regular discussion sessions led by the instructor.

Cr. 1-4.

**PPOL 50200 - Public Management**

Analysis of concepts, methods, and procedures involved in managing public organizations. Problems of organization, planning, decision making, performance evaluation, and the management of human resources are considered. Cases are drawn from a variety of public services at federal, state, and local levels of government.

Cr. 1-3.

**Variable Title**

(V.T.)

**Dual Level Course**

Graduate Level

**PPOL 50400 - Public Organizations**

This course focuses on the behavior and theory of public organizations in four areas: (1) individuals and groups in public organizations, (2) the design of public organizations, (3) organizational environment relations, and (4) interorganizational relations.

Cr. 1-3.

**Variable Title**

(V.T.)

**Dual Level Course**

Graduate Level

**PPOL 50600 - Statistical Analysis for Effective Decision Making**

Noncalculus survey of concepts in probability, estimation, and hypothesis testing. Applications of contingency table analysis; analysis of variance, regression, and other statistical techniques. Computer processing of data emphasized.

Cr. 3.

**Dual Level Course**

Graduate Level

**PPOL 50900 - Administrative Ethics in the Public Sector**

Ethical conduct in the public sector is examined. Topics covered could include personal ethical responsibility, deception, corruption, codes of ethics, policy-making, morality, politics, and whistle blowing. Case studies and media material will be used to illustrate these and other issues affecting the workplace.

Cr. 3.

**Dual Level Course**

Graduate Level

### **PPOL 51200 - Public Policy Process**

An examination of the role of public affairs professionals in policy processes. Focuses on relationships with political actors in various policy areas.

Cr. 3.

**Variable Title**

(V.T.)

**Dual Level Course**

Graduate Level

### **PPOL 51700 - Managerial Epidemiology**

Examines general epidemiologic methods such as population descriptive techniques, use of health indicators, and secondary data sources. Includes design, administration, and analysis of observational and experimental studies. Emphasis will be on the use of epidemiologic techniques to assess community health, determine community risk factors, and evaluate community-based programs.

Cr. 3.

**Dual Level Course**

Graduate Level

### **PPOL 51701 - Public Management Economics**

This course focuses on applications of the principles and concepts of intermediate microeconomic theory and managerial economics to public-sector management decisions and policy analysis. The course utilizes case studies with the goal of giving students opportunities to recognize the economic dimensions inherent in public policy problems and to develop an analytical problem-solving orientation.

Cr. 3.

**Dual Level Course**

Graduate Level

### **PPOL 52100 - The Nonprofit And Voluntary Sector**

The theory, size, scope and functions of the nonprofit and voluntary sector are covered from multiple disciplinary perspectives including historical, political, economic and social.

Cr. 3.

### **PPOL 52200 - Human Resource Management in Nonprofit Organizations**

Effective human resource management is vital for the long-term success of nonprofit organizations. This course explores the attachments of participants in nonprofit organizations, the motivational and personnel programs required by these attachments, and the managerial strategies for effective human resource management.

Cr. 3.

**Dual Level Course**

Graduate Level

### **PPOL 52500 - Management in the Nonprofit**

An examination of nonprofit organizations and their role in society. Management issues and public policy affecting these organizations are discussed. Primary emphasis is upon U.S. organizations, but attention is given to the global nature of the sector.

Cr. 3.

**Dual Level Course**

Graduate Level

### **PPOL 53900 - Management Science for Public Affairs**

Focus on management science methods as applied to public affairs. Includes treatment of decision theory, constrained optimization, and probability simulation.

**Preparation for Course**

P: PPOL 50600.

Cr. 3.

**Dual Level Course**

Graduate Level

### **PPOL 54000 - Law and Public Affairs**

Explanation of law in society and its influence on public-sector operations. Examination of some of the central substantive areas of the study of the law, including regulatory processes, administrative adjudication, the Administrative Procedures Act, ombudsmen, and citizen rights, among others.

Cr. 1-3.

**Variable Title**

(V.T.)

**Dual Level Course**

Graduate Level

### **PPOL 54300 - Health Services Management**

A course that integrates theory and application with respect to management of health service organizations. Emphasis on the role of managers and management within formal health service organizations. Current management and organization theories are applied to an understanding of healthcare delivery settings.

Cr. 3.

**Dual Level Course**

Graduate Level

## **PPOL 54500 - The U.S. Healthcare System**

An analysis of delivery of healthcare in the United States from 1900 to the present. Major system components are defined and studied with emphasis on current healthcare policy. Topics include the organization of healthcare delivery on federal, state, and local levels in both public and private sectors.

Cr. 3.

### **Dual Level Course**

Graduate Level

## **PPOL 54600 - Health Services Utilization**

An examination of problems of access to health care and the utilization of health services. The social, political, and individual factors associated with use are studied, along with social change and control strategies. Special emphasis is given to power and the definition of power in the system.

Cr. 3.

### **Dual Level Course**

Graduate Level

## **PPOL 55000 - Topics in Public Affairs**

Selected research and discussion topics organized on a semester-by- semester basis, usually with significant student input in the course design.

Cr. 1-3.

### **Variable Title**

(V.T.)

### **Notes**

May be repeated for credit with different topics.

### **Dual Level Course**

Graduate Level

## **PPOL 55700 - Proposal Development And Grant Administration**

This course provides the opportunity for each student to develop a complete proposal through participation in the entire grant application process. The integration of case studies, visual media, printed materials and class discussions provide students with practical knowledge for writing successful proposals.

Cr. 3.

## **PPOL 55800 - Fund Development For Nonprofit**

Important aspects of the fund raising process in nonprofit organizations are covered, including techniques and strategies for assessing potential sources fo support; effective use of human resources; process management; theory to underlay practice; analysis of current practice; practice standards; and discussion of ethical problems.

Cr. 3.

## **PPOL 56000 - Public Finance and Budgeting**

The fiscal role of government in a mixed economy; sources of public revenue and credit; administrative, political, and institutional aspects of the budget and the budgetary process; problems and trends in intergovernmental fiscal relations.

Cr. 1-3.

**Variable Title**

(V.T.)

**Dual Level Course**

Graduate Level

## **PPOL 56100 - Public Human Resources Management**

Analysis of the structure, operations, and design of public personnel systems, including government agencies and public enterprise. Relationships between public policy and personnel concepts, values, and operations considered.

Cr. 3.

**Variable Title**

(V.T.)

**Dual Level Course**

Graduate Level

## **PPOL 56200 - Public Program Evaluation**

Examination of how the programs of public agencies are proposed, established, operated, and evaluated. Discussion of the role and conduct of research in the program evaluation process. In addition, techniques of effective evaluation and analysis are discussed.

Cr. 1-3.

**Variable Title**

(V.T.)

**Dual Level Course**

Graduate Level

## **PPOL 56600 - Executive Leadership**

The course offers an in-depth examination of factors that contribute to successful executive leadership practice in a wide variety of organizational settings. Topics include what leadership is, what impact leadership has, and how leaders use various approaches and powers to achieve their goals.

Cr. 3.

**Dual Level Course**

Graduate Level

## **PPOL 58000 - Readings in Public Affairs**

Readings on selected topics in public affairs.

**Preparation for Course**

P: written permission of the instructor.

Cr. 1-6.

**Dual Level Course**

Graduate Level

## **PPOL 58500 - Practicum in Public Affairs**

Students hold work assignments with public agencies.

Cr. 1-6.

### **Notes**

Pass/Not-Pass grading.

### **Dual Level Course**

Graduate Level

## **PPOL 59000 - Research in Public Affairs**

Readings on selected topics in public affairs.

### **Preparation for Course**

P: written permission of the instructor.

Cr. 1-6.

### **Dual Level Course**

Graduate Level

## **PPOL 60000 - Capstone in Public and Environmental Affairs**

Interdisciplinary course designed to give students exposure to the realities of the policy process through detailed analyses of case studies and projects. Course integrates science, technology, policy, and management.

Cr. 3.

### **Dual Level Course**

Graduate Level

## **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**

Dual Level, Undergraduate-Graduate

## **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**

Dual Level, Undergraduate-Graduate

**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: Senior class standing and 12 credits in psychology.

Cr. 3.

**Dual Level Course**

Dual Level, Undergraduate-Graduate

**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**

Dual Level, Undergraduate-Graduate

**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**

Dual Level, Undergraduate-Graduate

**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.

**Variable Title**

(V.T.)

**Dual Level Course**

Dual Level, Undergraduate-Graduate

## **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**

Provide 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.

**Notes**

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

## **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 enduring 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**

Undergraduate-Graduate

## **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.

Cr. 3.

## **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 51401 - Health and Healthcare Issues**

An investigation of health and the healthcare system in the United States with focus on issues, problems, and alternatives for policy reform.

**Preparation for Course**

P: graduate standing.

Cr. 3.

**Dual Level Course**

Graduate Level

**SOC 54001 - Principles of Sociological Theory and Practice**

This course will introduce graduate students to the theoretically informed practice of sociology. Students will develop the ability to use social theory in the analysis of society and social life.

**Preparation for Course**

P: undergraduate course in social theory.

Cr. 3.

**Dual Level Course**

Graduate Level

**SOC 55001 - Statistical Techniques for Sociological Practice I**

Course focuses on how to use statistical analysis to answer common questions in the practice of sociology, as well as on what statistical techniques are useful to answer sociological practice questions, and how to apply them and interpret their results. Specific methods to be covered include documentary, ethnographic, survey, experimental design, secondary data analysis, social indicators, focused literature reviews, and library research techniques.

**Preparation for Course**

P: one basic undergraduate statistics course.

Cr. 3.

**Dual Level Course**

Graduate Level

**SOC 56001 - Topics in Sociology**

Selected topics in social organization and social psychology, including, but not limited to, the sociologies of work, sex roles, education, mental illness, science, sociolinguistics, socialization, deviance, sexual patterns and variations, and small-group processes.

Cr. 3.

**Variable Title**

(V.T.)

**Dual Level Course**

Graduate Level

**SOC 57001 - Applied Research Methods**

Course covers the methodological tools and practical knowledge needed to conduct applied social research. Students will be exposed to a variety of methods and will learn how to choose the most appropriate method for specific research problems and settings, and understand advantages and disadvantages for each.

**Preparation for Course**

P: undergraduate course in sociological research methods.

Cr. 3.

**Dual Level Course**

Graduate Level

**SOC 69701 - Professional Development**

Covers professional socialization into the practice of sociology, including professional ethics, grant writing, development of various types of proposals, professional organizations and services, and developing a career as a practicing sociologist.

**Preparation for Course**

P: graduate standing.

Cr. 3.

**Dual Level Course**

Graduate Level

**SOC 69801 - Practicum in Sociological Practice**

First semester, students develop a research proposal and obtain necessary approvals. Second semester, students work with a client organization, produce a report, present findings. May be taken multiple times; only 6 hours count toward degree requirements.

**Preparation for Course**

P: permission of the program director, all core courses and 12 hours approved electives.

Cr. 3.

**Dual Level Course**

Graduate Level

**SOC 69901 - Master's Thesis Research**

First semester, students develop a research proposal and obtain necessary approvals. Second semester, students carry out applied research, produce a thesis, and present findings. May be taken multiple times; only 6 hours will count toward degree requirement.

**Preparation for Course**

P: Permission of program director, all core courses and 12 hours of approved electives.

Cr. 3.

**Dual Level Course**

Graduate Level

**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 and 30201.

Cr. 3.

**Dual Level Course**

Undergraduate Level, 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 Galdos, Unamuno, Garcia Lorca, and other representative writers.

**Preparation for Course**

P: SPAN 30101 and 30201.

Cr. 3.

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

**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 and 30201 or departmental permission.

Cr. 3.

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

**SPAN 41200 - Latin-American Culture and Civilization**

A course to integrate historical, social, political, and cultural information about Spanish America.

**Preparation for Course**

P: SPAN 30101 and 30201 or departmental permission.

Cr. 3.

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

**SPAN 41800 - Hispanic Drama**

Forms, traditions, themes, and periods of Hispanic drama from the Renaissance to the present. Topic may vary.

**Preparation for Course**

P: SPAN 30101 and 30201 or departmental permission.

Cr. 3.

**Notes**

May be repeated with a different topic.

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

### **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 SPAN 30101 and 30201 or instructor permission.

Cr. 3.

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

### **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**

Undergraduate Level, Eligible for Graduate Credit

### **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**

Undergraduate Level, Eligible for Graduate Credit

### **SPAN 47101 - Spanish-American Literature I-II**

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.

**Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

## **SPAN 47200 - Spanish-American Literature II**

Introduction to Spanish-American literature from the beginning of the twentieth century to the present.

### **Preparation for Course**

P: SPAN 30101 and 30201 or departmental permission.

Cr. 3.

### **Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

## **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**

Undergraduate Level, Eligible for Graduate Credit

## **SPAN 48001 - Argentine Literature**

Argentine literature from Independence to the present.

### **Preparation for Course**

P: SPAN 30101 and 30201 or departmental permission.

Cr. 3.

### **Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

## **SPAN 49500 - Hispanic Colloquium**

Topic and credit may vary.

### **Preparation for Course**

P: SPAN 30101 or consent of instructor.

Cr. 1-3.

### **Session Indicators**

Typically offered Fall and Spring.

### **Variable Title**

(V.T.)

### **Notes**

May be repeated with a different topic.

### **Dual Level Course**

Undergraduate Level, Eligible for Graduate Credit

## **STAT 51100 - Statistical Methods**

Descriptive statistics; elementary probability; sampling distributions; inference, testing hypotheses, and estimation; normal, binomial, Poisson, and 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.

**Notes**

Note: Prerequisites in mathematics and statistics are intended as a guide and may be satisfied through completion of equivalent or more advanced courses. Consent of the course instructor can substitute for completion of specified prerequisites, and students are invited to discuss their eligibility for enrollment with their advisors or the instructor of the course.

**Dual Level Course**

Dual Level, Undergraduate-Graduate

## **STAT 51200 - Applied Regression Analysis**

Inference in simple and multiple linear regression, residual analysis, transformations, polynomial regression, model building with real data, and nonlinear regression. One-way and two-way analysis of variance, multiple comparisons, fixed and random factors, and analysis of covariance. Use of existing statistical computer programs.

**Preparation for Course**

P: 51100 or 51700 or 52800 with a grade of C or higher.

Cr. 3.

**Notes**

Note: Prerequisites in mathematics and statistics are intended as a guide and may be satisfied through completion of equivalent or more advanced courses. Consent of the course instructor can substitute for completion of specified prerequisites, and students are invited to discuss their eligibility for enrollment with their advisors or the instructor of the course.

**Dual Level Course**

Dual Level, Undergraduate-Graduate

## **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  $2n$ ,  $3n$ ,  $2m \times 3n$ ; 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: 51200 with a grade of C or higher.

Cr. 3.

**Notes**

Note: Prerequisites in mathematics and statistics are intended as a guide and may be satisfied through completion of equivalent or more advanced courses. Consent of the course instructor can substitute for completion of specified prerequisites, and students are invited to discuss their eligibility for enrollment with their advisors or the instructor of the course.

**Dual Level Course**

Dual Level, Undergraduate-Graduate

## **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.

### **Notes**

Note: Prerequisites in mathematics and statistics are intended as a guide and may be satisfied through completion of equivalent or more advanced courses. Consent of the course instructor can substitute for completion of specified prerequisites, and students are invited to discuss their eligibility for enrollment with their advisors or the instructor of the course.

### **Dual Level Course**

Dual Level, Undergraduate-Graduate

## **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: 51600 with a grade of C or higher.

Cr. 3.

### **Notes**

Note: Prerequisites in mathematics and statistics are intended as a guide and may be satisfied through completion of equivalent or more advanced courses. Consent of the course instructor can substitute for completion of specified prerequisites, and students are invited to discuss their eligibility for enrollment with their advisors or the instructor of the course.

### **Dual Level Course**

Dual Level, Undergraduate-Graduate

## **STAT 51800 - Introduction To Statistical Learning**

### **Preparation for Course**

P: 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**

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, and limit theorems.

**Preparation for Course**

P: MA 26100 or MA 26300 with a grade of C or higher.

Cr. 3.

**Notes**

Note: Prerequisites in mathematics and statistics are intended as a guide and may be satisfied through completion of equivalent or more advanced courses. Consent of the course instructor can substitute for completion of specified prerequisites, and students are invited to discuss their eligibility for enrollment with their advisors or the instructor of the course.

**Dual Level Course**

Dual Level, Undergraduate-Graduate

**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.

**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: 51900 with a grade of C or higher.

Cr. 3.

**Notes**

Note: Prerequisites in mathematics and statistics are intended as a guide and may be satisfied through completion of equivalent or more advanced courses. Consent of the course instructor can substitute for completion of specified prerequisites, and students are invited to discuss their eligibility for enrollment with their advisors or the instructor of the course.

**Dual Level Course**

Dual Level, Undergraduate-Graduate

**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**

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 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 standing.

Cr. 3.

**Dual Level Course**

Undergraduate-Graduate

**TECH 59500 - Workshop in Advanced 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: graduate student standing and consent of instructor.

Cr. 0-8.

**Variable Title**

(V.T.)

**TECH 64600 - Analysis of Research in Industry and Technology**

Analysis of research and evaluation of research reports. Emphasis on understanding the application of fundamental statistical methods in design and interpretation of research findings in industrial, technical, and human resource development environments.

**Preparation for Course**

P: Master student standing

Cr. 3.

**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: 44000.

Cr. 3.

**Hours**

Class 2, Lab. 2,

**Dual Level Course**

Dual Level, Undergraduate-Graduate

**THTR 56000 - Advanced Scenic Design**

Advanced study of the principles of design and their application to specific staging problems.

**Preparation for Course**

P: 36000 or consent of instructor.

Cr. 3.

**Hours**

Class 1, Lab. 4,

**Dual Level Course**

Dual Level, Undergraduate-Graduate

**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: 36100 or consent of instructor.

Cr. 3.

**Hours**

Class 2, Lab. 3,

**Dual Level Course**

Dual Level, Undergraduate-Graduate

**THTR 56200 - Advanced Light Design**

Advanced study of the principles of light design and their application to specific lighting problems.

**Preparation for Course**

P: 36200 or consent of instructor.

Cr. 3.

**Hours**

Class 3, Lab. 1 (with two hours experiential),

**Dual Level Course**

Dual Level, Undergraduate-Graduate

**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.

**Preparation for Course**

P: 28400.

Cr. 3.

**Notes**

May be repeated for credit.

**Dual Level Course**

Dual Level, Undergraduate-Graduate

**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.

**Preparation for Course**

P: consent of instructor.

Cr. 1-3.

**Variable Title**

(V.T.)

**Notes**

May be repeated for credit.

**Dual Level Course**

Dual Level, Undergraduate-Graduate

## Academic Calendar

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

- 2019-2020 Academic Calendar
  - Fall Semester 2019
  - Winter Inter-session 2019-2020
  - Spring Semester 2020
  - Summer Semester I 2020
  - Summer Semester II 2020

## 2019-2020 Academic Calendar

<b>Fall Semester 2019</b>	
Classes Begin	Monday, Aug. 26, 2019
Labor Day Holiday Begins 4:30 p.m.	Friday, Aug. 30, 2019
Classes Resume	Tuesday, Sept. 3, 2019
Fall Break	Monday-Tuesday, Oct. 21-22, 2019
Classes Resume	Wednesday, Oct. 23, 2019
Thanksgiving Recess Begins After Last Class	Tuesday, Nov. 26, 2019
Classes Resume	Monday, Dec. 2, 2019
Last Week Of Classes/Final Exams	Mon.-Sun., Dec. 16-22, 2019
Classes And Exams End	

<b>Winter Inter-session 2019-2020</b>	
Classes Begin	Thursday, Dec. 26, 2019
Holiday Recess Begins	Monday-Wednesday, Dec. 30-Jan. 1, 2019-2020
Classes Resume	Tuesday, Jan. 2, 2020
Classes And Exams End	Sunday, Jan. 12, 2020

<b>Spring Semester 2020</b>	
Classes Begin	Monday, Jan. 13, 2020
Martin Luther King Jr. Day Holiday	Monday, Jan. 20, 2020
Spring Break Begins	Monday-Sunday, Mar. 9-15, 2020
Classes Resume	Monday, Mar. 16, 2020
Classes Suspended 4:30 p.m.	Friday, Apr. 10, 2020
Classes Resume	Monday, Apr. 13, 2020
Last Week Of Classes/Final Exams	Monday-Sunday, May 4-10, 2020

Tentative Date Of Commencement	Wednesday, May 13, 2020
--------------------------------	-------------------------

<b>Summer Semester I 2020</b>	Monday, May 11, 2020
Classes Begin	Monday, May 18, 2020
Memorial Day Holiday Begins 4:30 p.m.	Friday, May 22, 2020
Classes Resume	Tuesday, May 26, 2020
Classes End 4:30 p.m.	Friday, June 26, 2020

<b>Summer Semester II 2020</b>	
Classes Begin	Monday, June 29, 2020
Classes Suspended at 4:30p.m. (Independence Day Weekend Recess)	Friday, July 3, 2020
Classes Resume	Monday, July 6, 2020
Classes End 4:30 p.m.	Friday, Aug. 7, 2020

<b>Summer Semester Ends</b>	Sunday, Aug. 23, 2020
-----------------------------	-----------------------