

Department of Engineering

Indiana University–Purdue University Fort Wayne

**GRADUATE PROGRAM
GUIDELINES**

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Version 3.4

Table of Contents

1	MASTER’S DEGREE	6
2	ADMISSION REQUIREMENTS	6
2.1	Basic Requirements	6
2.2	English Requirement	7
2.3.	Conditional Admission	7
3	DEGREE REQUIREMENTS	7
3.1	Core Course Requirement	8
3.2	Engineering Elective Requirement (Depth Requirement)	8
3.3	Math/Stat/ACS/CS Requirement	9
3.4	General Elective Requirement	9
3.5	Taking courses from other Purdue Campuses and Universities	9
3.6	Research (Thesis) Credit Requirement	9
4	ADVISORY COMMITTEE	10
4.1	Committee Composition	10
4.2	Committee Duties for a Thesis Option Student	11
4.3	Committee Duties for a Non-Thesis Option Student	11
5	PLAN OF STUDY	11
5.1	Preparing the Plan of Study	12
5.1.1	Procedure	12
5.1.2	Plan of Study, Graduate School Form 6	12
5.2	Changing the Plan of Study	14
5.3	Transfer and Excess Course Credits	14
5.3.1	Transfer Credits	14
5.3.2	Excess Course Credits	14
5.3.3	Special Approval Requirements	15
6	FINAL EXAMINATION	15
6.1	Thesis Preparation and Thesis Defense	15
6.2	Comprehensive Exam	16
7	GRADUATION PROCEDURES	16
7.1.	Minimum GPA to Graduate	17
8	REGULATIONS AND POLICIES	17

8.1. Grades	17
8.2. Grade-Point Average	18
8.3. Academic Standing	18
Appendix A: Course Titles and Their Coordinators	20
Appendix B: Tentative Schedule for the Core Courses	21
Appendix C: Graduate Engineering Elective Courses	23
Appendix D: Sample of Plan of Study	24

Revision Summary

1	Section 6.2, <i>Comprehensive Exam</i>	November, 28, 2011	Version 3.2
<p>Change: The requirement for a comprehensive exam, for non-thesis option students, has been eliminated</p> <p>Rationale: This change was approved by the faculty on Nov 21, 2011</p>			
2	Section 8.3, <i>Academic Standing</i>	November, 28, 2011	Version 3.2
<p>Change: Section 8.3 was added to describe the policy on academic standing and probation</p> <p>Rationale: This change was approved by the faculty on Nov 21, 2011.</p>			
3	Section 4.2 and 4.3, <i>Committee Duties</i>	November, 28, 2011	Version 3.2
<p>Change: The committee responsibilities in reviewing and advising probationary students was added to the list of responsibilities</p> <p>Rationale: This change is a consequence of the Nov 21, 2011 policy on academic probation</p>			
4	Section 3.5, <i>Taking Courses from other Campuses</i>	November, 28, 2011	Version 3.2
<p>Change: Students are advised to discuss taking courses off-campus with faculty to prevent being classified as inactive.</p> <p>Rationale: This change reflects the lack of a consistent Registrar's office policy on how graduate students can maintain active status when not enrolled on campus for more than one semester.</p>			
5	Section 3.5, <i>Taking Courses from other Campuses</i>	December, 10, 2011	Version 3.3
<p>Change: The application process for taking an on-line course at Purdue, West Lafayette is described.</p> <p>Rationale: Memo from Jenni McIver-Jennings, Manager, Enrollment Services, ProEd Purdue University.</p>			
6	Appendix B, <i>Tentative Schedule for Core Courses</i>	May, 14, 2012	Version 3.3
<p>Change: The tentative list of core course offerings has been revised</p> <p>The list has been revised based on projected enrollments using the plans of study on file</p>			

1 MASTER'S DEGREE

The Department of Engineering offers the Master of Science in Engineering (MSE) degree with the following four *areas of specializations*:

- Computer Engineering
- Electrical Engineering
- Mechanical Engineering
- Systems Engineering

Thesis and non-thesis options are both possible. The MSE degree is awarded to students who:

1. Have been accepted into the Engineering Master's program (see Sec. 2, Admission Requirements).
2. Have satisfied the requirements of the Engineering Master's program (see Sec. 3, Degree Requirements).

2 ADMISSION REQUIREMENTS

2.1 Basic Requirements

Admission to the MSE program may be granted if the applicant meets the following requirements:

1. Hold a Bachelor of Science degree in engineering.
2. Have achieved an undergraduate grade point average of at least 3.0 or equivalent.
3. Have completed the mathematics sequence of courses equivalent to MA 165 (Calculus I), MA 166 (Calculus II), MA 261 (Multivariable Calculus), MA 351 (Linear Algebra), and MA 363 (Differential Equations).
4. Have completed the physics sequence of courses equivalent to PHYS 152 (Mechanics) and PHYS 251 (Heat, Electricity, and Optics).
5. Have completed an equivalent of the undergraduate engineering prerequisite courses in his/her area of specialization according to Table 1.

Table 1 Undergraduate engineering prerequisite courses

Area of Specialization	Prerequisite Undergraduate Courses
Computer Engineering	ECE 301, ECE 302, ECE 368, ECE 437
Electrical Engineering	ECE 333, ECE 428, ECE 436
Mechanical Engineering	ME 251, ME 252, ME 318, ME 321
Systems Engineering	—

See [Appendix A](#) for Course Titles

2.2 English Requirement

An applicant whose native language is not English must demonstrate acceptable proficiency in written English by satisfying one of the following options:

1. Earn a score of 550 on the paper-based (or 213 for computer-based) Test of English as a Foreign Language (TOEFL).
2. Minimum TOEFL Internet-Based Testing (iBT) exam scores of: Writing 18, Speaking 18, Listening 14, Reading 19, and Overall 77. All five of these scores must be met.
3. Earn at least a 6.5 band score on the International English Language Testing System (IELTS) exam.

2.3. Conditional Admission

A conditional admission to the MSE program may be granted if the applicant meets all requirements for admission except that the applicant:

1. Holds a Bachelor of Science degree in physical sciences, computer science, or technology (as opposed to engineering) from an accredited institution, or
2. Has achieved an undergraduate grade point average of 2.5 to 3.0 (as opposed to 3.0 or higher) in engineering. Special consideration may be given to candidates not meeting this requirement.

In the first case, the applicant will be required to complete the prerequisite undergraduate courses listed in Sec. 2.1 as well as those listed in Table 1 in the desired area of specialization. In the second case, the applicant will be required to maintain a GPA of 3.0 or better for the first two semesters of graduate work or the first 12 credits, and is excluded from consideration for graduate assistantship during this period.

A student may fulfill the requirements for an undergraduate prerequisite course through one the following methods:

1. Take the course and receive a grade of “B” or better.
2. Pass a comprehensive exam for the course with a grade of “B” or better. (This option is available only to students who are not enrolled in the course.)
3. Establish that a grade of “B” or better was obtained in an equivalent course.

3 DEGREE REQUIREMENTS

A student pursuing the MSE degree must select the thesis or non-thesis option and an area of specialization. For the non-thesis option, a minimum of 30 credit hours of graduate-level coursework is required. For the thesis option, a minimum of 30 credit hours of graduate-level credits, of which 6 credit hours are research, is required. Pass/No-Pass grades are not permitted for courses on Master’s plan of study. *Only 500-level courses and above can be used to satisfy degree requirements.*

3.1 Core Course Requirement

For the system engineering specialization area a student must successfully complete four required core courses as listed in Table 2. The core courses cover material essential to the area of systems engineering.

Table 2
Core courses for the System Engineering Specialization Area

Area of Specialization	Abbr.	Core Courses	Total Cr. Hrs.
Systems Engineering	SE	SE 510, SE 520, SE 530, SE 540	12

See [Appendix A](#) for Course Titles

[Appendix B](#) has a tentative schedule for the core courses listed in Table 2 for the next two years

For the computer engineering and electrical engineering specialization areas a student must successfully complete, for each area, four out of the six courses listed in Table 3.

Table 3
Core courses for the Computer Engineering and Electrical Engineering Specialization Areas

Area of Specialization	Abbr.	Core Courses (choose four out the listed six)	Total Cr. Hrs.
Computer Engineering	CmpE	ECE 538, ECE 547, ECE 567, ECE 600, ECE 608, ECE 661	12
Electrical Engineering	EE	ECE 538, ECE 549, ECE 581, ECE 584, ECE 600, ECE 604	12

See [Appendix A](#) for Course Titles

[Appendix B](#) has a tentative schedule for the core courses listed in Table 3 for the next two years

There are two tracks for the mechanical engineering specialization area. Students must successfully complete, for each track, the courses listed in Table 4.

Table 4
Core courses for the Mechanical Engineering Specialization Area

Track	Core Courses	Total Cr. Hrs.
Thermal/Fluids	ME 505, ME 509, ME 5xx, ME 5yy, ENGR 580	15
Mechanics	ME 550/CE 570, ME 5xz, ME/CE 5zz, ME 5yy, ENGR 580	15

See [Appendix A](#) for Course Titles

- Students from one track can choose courses from the other track to satisfy their engineering electives and general electives requirements.
- Non-thesis option students are required to take ME 5xy Graduate Project

3.2 Engineering Elective Requirement (Depth Requirement)

For the computer engineering, electrical engineering and systems engineering specialization areas a minimum of two graduate engineering elective courses is required. Only one graduate engineering elective course is required for the mechanical engineering specialization area. Refer to [Appendix C](#) for more information about these courses.

3.3 Math/Stat/ACS/CS Requirement

A minimum of two graduate-level courses from mathematics (MATH), statistics (STAT), or computer science (ACS or CS) is required. For more information about these courses refer to the following document (page 13),

<http://new.ipfw.edu/dotAsset/240062.pdf>

3.4 General Elective Requirement

For the computer engineering, electrical engineering and systems engineering specialization areas a non-thesis option student must successfully complete two general elective graduate-level courses from engineering, ACS, CS, OLS, TECH, MATH/STAT, BUS, PHYS, CHEM, and/or BIOL. Only one general elective graduate-level course is required for the mechanical engineering specialization area (non-thesis option). The purpose of these courses is to give students flexibility to tailor the program to meet his/her specific needs. For more information about these courses refer to the following document (page 13-14),

<http://new.ipfw.edu/dotAsset/240062.pdf>

3.5 Taking courses from other Purdue Campuses and Universities

Students are allowed to take courses from other Purdue campuses as well as from other accredited universities. In order to be able to count these courses towards their degree, students must first obtain permission from their committee by updating their plan of study. Additionally, they must maintain their active status at IPFW.

Students who want to take on-line courses at Purdue, West Lafayette through their Professional Education program must complete the on-line application for Non-Degree Seeking students to receive the negotiated discounted rate. The application is available at:

https://engineering.purdue.edu/ProEd/Admissions/non-degree_seeking_application.

The deadline for submitting this application is roughly one month prior to the first day of classes. Check with the Manager of the Engineering Professional Education program Enrollment Services and Client Relations for actual deadlines.

A student taking courses at other campuses for more than one semester should consult their advisor or the Director of Graduate Studies to determine if additional action is necessary to maintain their active status.

3.6 Research (Thesis) Credit Requirement

Research (thesis) credit is not required for students on non-thesis option. However, students pursuing the thesis option are required to register for ENGR 698 research (thesis) credit. Up to 6 hours of research (thesis) credit hours are allowed on the plan of study. Students must check with their major professor (i.e., thesis advisor) to determine the number of ENGR 698 hours appropriate for their program.

Table 5
Summary of course and credit-hour requirements

	Non-Thesis Option		Thesis Option	
	CmpE – EE – SE	ME	CmpE – EE – SE	ME
Core Courses	12	15	12	15
Engineering Elective Courses	6	3	6	3
MATH/STAT/ACS/CS Courses	6	6	6	6
General Elective Courses	6	3	—	—
Graduate Project	—	3	—	—
Research (Thesis) Credits	—	—	6	6
Total Credits on Plan of Study	30	30	30	30

4 ADVISORY COMMITTEE

4.1 Committee Composition

1. The Master's Advisory Committee must consist of a minimum of three faculty members.
2. The Chair of the advisory committee must be a graduate faculty of Purdue University and a member of the area of specialization that the student has declared. See Table 6 for the list of graduate engineering faculty and their areas.

Table 6 Graduate engineering faculty

Faculty Name	Office	Identifier	Area
Regular Appointment			
Abu-Mulaweh, Hosni	ET 327C	W0283	ME
Alhassan, Mohammad	ET 327A	W0347	Civil
Ashur, Suleiman	ET 321B	W0322	Civil
Bi, Zhuming	ET 321D	W0378	ME
Chen, Chao	ET 327D	W0285	CmpE
Chen, Dong	ET 327F	W0379	Civil
Cooklev, Todor	ET 229D	W0364	EE
Eroglu, Abdullah	ET 327F	W0358	EE
Kang, Bongsu	ET 321E	W0288	ME
Liu, Yanfei	ET 327G	W0291	EE
Moor, S. Steven	ET 321F	W0293	ME
Mueller, Donald	ET 327H	W0294	ME
Njock-Libii, Josué	ET 321J	W0142	ME
Oloomi, Hossein	ET 327B	W0162	EE
Pomalaza-Ráez, Carlos	ET 243D	W3327	EE
Thompson, Elizabeth	ET 321J	W0243	EE
Walter, Steve	ET 229B	W0319	SE
Wang, Guoping	ET 321G	W0301	CmpE
Younis, Nashwan	ET 321H	W0152	ME
Special Appointment			
Simunek, Paul	ET 321A	W0307	CS

3. A majority of the advisory committee must be composed of members of the engineering graduate faculty at IPFW.
4. Faculty members from other universities, researchers from industry, and non-faculty research staff from the IPFW campus have to be certified as a special member by the Graduate School for them to be members of the advisory committee. A student may initiate a request for special membership and submit it to the Director of the graduate engineering program. A current and complete vita for the special member has to be submitted along with the request.
5. A special member, defined as a person without regular certification, may be added as the fourth member of the committee.
6. The advisory committee is established when the plan of study is approved. Any change to the advisory committee requires a "Request for Change to the Plan of Study" form (i.e., Graduate Form 13) to be completed. This form is available from the engineering graduate website.

4.2 Committee Duties for a Thesis Option Student

1. The student shall select a major professor (also called the thesis advisor) who will serve as the Chair of the advisory committee.
2. The major professor/student relationship must be a mutually acceptable one.
3. With the advice of the major professor, the student will select the remaining members of the advisory committee.
4. The duties of the advisory committee are to assist the student in the preparation of the plan of study, advise the student on research related to the Master's thesis, and conduct examinations on the Master's thesis.
5. The committee may also assist in reviewing and advising a student placed on probation, per the policy on academic standing described in section 8.3.

4.3 Committee Duties for a Non-Thesis Option Student

1. The Director of the graduate program, in consultation with the student, shall select the advisory committee and the Chair of the committee.
2. The major professor/student relationship must be a mutually acceptable one.
3. The duties of the advisory committee are to assist the student in the preparation of the plan of study.
4. The committee may also assist in reviewing and advising a student placed on probation, per the policy on academic standing described in section 8.3.

5 PLAN OF STUDY

All Master's students must file a draft of plan of study before the end of their second semester with the Director of the graduate engineering program. This helps to ensure a logical curriculum early in the program, sets a clear pathway toward completion of the student's degree, and helps the department plan and monitor the overall engineering graduate program. For this reason, registrations for

subsequent semesters will be restricted until a draft of the plan of study has been filed. If necessary, changes can be made to the plan of study at a later date, subject to the restrictions cited in Section 5.1. The plan of study must be appropriate to meet the needs of the student's chosen area of specialty as determined by the advisory committee.

5.1 Preparing the Plan of Study

5.1.1 Procedure

The plan of study form (i.e., the Graduate School Form 6) can be obtained from the engineering graduate website. The plan of study must be typed. The following are guidelines and instructions for preparing the plan of study.

1. Review the list of graduate-level courses to determine the degree requirements for the particular area of specialization you wish to pursue, and the courses of most interest to you which will enable you to meet the degree requirements.
2. Only 500-level courses and above can be used in the plan of study.
3. Fill out a draft of your plan of study (preliminary).
4. If you are a thesis option student, select an engineering faculty member to be your major professor who will also serve as the Chair of your graduate advisory committee. Then, in consultation with your major professor, select the remaining faculty members to serve on your graduate advisory committee. (See Sec. 4.2.)
5. If you are a non-thesis option student, select your advisory committee and the Chair of the committee in consultation with the Director of the graduate engineering program and the advisory committee members. (See Sec. 4.3.)
6. Confer with your major professor for advice on the plan and obtain his/her signature on the draft copy of your plan of study.
7. Prepare an electronic version of your formal plan of study from the draft copy. Sign the form and obtain the signatures of your committee members.
8. Submit the original copy of the plan of study with all necessary signatures as well as the latest copy of your transcript to the Director of the graduate engineering program.

Your plan of study will be reviewed by the Director of the graduate engineering program to ensure that it meets all requirements. A copy will be kept in your file. Before the last semester in your program, it will be submitted to the Purdue Graduate School for final approval. The Graduate School approval process takes at least 3 to 4 weeks.

5.1.2 Plan of Study, Graduate School Form 6

The Graduate School Form 6 is available from the engineering graduate website. A sample plan of study is included in Appendix D, and the relevant items appearing on the form are explained below for your reference.

1. The “PUID No.” appearing on the form is a 10-digit Purdue University Identifier Number assigned to each graduate student.
2. The department and degree codes are listed in Table 7.

Table 7 Degree options and their corresponding codes

Dept. Code	Degree Code	Degree Title
ENGR	MSE	Master of Science in Engineering

3. The thesis or non-thesis option box should be checked.
4. The space for indicating the research area is left blank in most cases.
5. The area of specialization (concentration) should be selected from among those mentioned in Tables 2 to 4. The AOS code should be left blank.
6. The “Area” label for a course is either “P” if the course is a primary-area course, or “R” if it is a related-area course. The primary area courses are the core courses in your area of specialization (concentration) as mentioned in Tables 2 to 4. All other courses are the related area courses.
7. The title of a special topic course (e.g., ECE 595) must start with “TPCS:” followed by the title of the course.
8. The column labeled “Regular Regis.” (i.e., “RR”) is used to indicate whether a course was (or is to be) taken at IPFW. Use the label “RR” for this type of courses.
9. The column labeled “Other or Transfer From +” is reserved for courses that are transferred from another school. Use the label “TR” for this type of courses and add to this the name of the school from which the course was transferred from.
10. Courses transferred from another school should be listed on the plan of study with the course numbers and titles that appear on the transcript from the school at which they were taken. Do not use the equivalent course number from a Purdue course. One copy of the catalog description of each course transferred should be submitted together with the plan of study.
11. The column labeled “Non-Degree Regis.” is used to indicate courses that were taken while a student was in non-degree status and not officially admitted to a degree program. Use the label “NR” for this type of courses. No more than 12 credit hours taken in non-degree status may be used on a plan of study.
12. To use an undergraduate excess course on the plan of study, the course must be declared undergraduate excess on the transcript or, a letter from the school at which the course was taken must be supplied to verify that it was not used to satisfy a degree requirement.
13. ENGR 698 M.S. Research Thesis should not be listed on the plan of study.

5.2 Changing the Plan of Study

It is recognized that as a student's program progresses there may arise conditions that make it desirable to change the program for the plan of study. Indeed such changes, when based on sound academic reasons, are allowed. However, there are regulations to be observed for the change. Specifically:

- According to the Graduate School rule, a course may not be removed from the plan of study once a grade of "D" or lower is received.
- No changes to the plan of study are allowed after the Form 6 submission deadline during the semester before the student's final semester.
- Changes to a plan of study require the approval of the student's advisory committee.
- If the requirements of Department of Engineering for the Master's degree program are modified, there is no need for students to revise their previously approved plans of study to conform to the new rules. All approved plans of study remain valid. Students have the option to change their plan of study to conform to the new rules, but are not required to do so.

To make changes to an approved plan of study, Graduate School Form 13 "Request for Change to the Plan of Study" has to be completed and filed with the Graduate School. This form is also used to request a change of major professor and/or other advisory committee members, or for a change of the area of specialization. This form is available from the engineering graduate website.

5.3 Transfer and Excess Course Credits

5.3.1 Transfer Credits

A maximum of 12 graduate-level credit hours earned at an accredited university may be applied toward the MSE degree and entered on the plan of study. All courses transferred must be graduate-level courses, must not have been used to meet the requirements for another degree, and must have been completed with a grade of "B" or better. Grades from transfer courses are not included in computing the grade point average.

5.3.2 Excess Course Credits

Up to 12 credit hours of graduate-level courses taken before a student was admitted to the graduate program may be applied toward the MSE degree and entered on the plan of study. Allowed courses include those taken:

- As excess undergraduate-degree credit while at senior-year standing
- In non-degree status
- While seeking a degree in another department or school, if a request to transfer to engineering program was subsequently made
- While seeking a degree in another department or school, if a request for a dual-degree status in engineering program was subsequently made

5.3.3 Special Approval Requirements

Without exception, all transfer and excess course credits used on the plan of study must be approved by your advisory committee. The steps to follow in requesting approval to include such credits on the plan of study are:

1. Add the course to your plan of study.
2. If a transfer course is taken at another university, show a copy of the catalog description of the course to your advisory committee members and to the Director of the graduate program.
3. If you are transferring a course from another university, an original transcript showing the grade earned is required. A statement, from an official at the university where the course was taken, certifying that the course was not used to fulfill the requirements for any other degree may also be required.

6 FINAL EXAMINATION

6.1 Thesis Preparation and Thesis Defense

Every thesis-option student must submit a thesis. The thesis must be prepared according to Purdue Graduate School procedures as outlined in the "Graduate School Manual for the Preparation of Graduate Thesis." This manual provides specific instructions on organizing, formatting, and binding the thesis. It is also required that the student present and defend his/her work in a final oral examination, also called the thesis defense.

The procedure to be followed by the student in preparing the thesis and defense is as follows:

1. Prior to beginning work on your thesis, students are strongly advised to develop a written proposal for their thesis. Students shall present the thesis proposal to their advisory committee to seek their input and approval for their proposed work.
2. If your thesis is confidential, a request for confidentiality needs to be submitted to the Purdue Graduate School by completing the Graduate School Form 15 "Request for Confidentiality of Thesis."
3. Prior to your final semester you are strongly advised to consult with your major professor (thesis advisor) to review your plans for preparing and presenting the thesis. You should also review the necessary forms and graduation deadlines.
4. The thesis advisor, in consultation with the student and the examining committee, will determine when a draft of the thesis is due.
5. Graduate School Form 8 "Request for Appointment of Examining Committee" is used to schedule the thesis defense and must be submitted at least three weeks prior to the date of the defense. Additionally, in consultation with your thesis advisor, determine the number of bound copies of the thesis that need to be produced.

6. On the day of thesis defense, you must have the following forms prepared and ready to be signed by your advisory committee members:

- Graduate School Form 7 “Report of Master’s Examining Committee”
- Graduate School Form 9 “Thesis Acceptance” printed on thesis bond.

After your thesis defense, Form 7 must be completed and submitted by your major professor to the Director of the graduate program.

7. Prior to submitting the final copy of your thesis you must complete Form 19, Master’s Thesis Agreement and Form 20, “Research Integrity and Copyright Disclaimer printed on thesis bond. These forms along with the original signed copy of Form 9 should be submitted to be bound in your thesis.
8. The final copy of your thesis to be deposited needs to comply with the format requirements which are published in Purdue’s Graduate School publication “A Manual for the Preparation of Graduate Theses.” The thesis must be checked for proper formatting and approved by either the chair of the examining committee or department thesis format advisor.
9. Complete the ProQuest/UMI Publishing Agreement, which is available on the engineering graduate program web site.
10. Finally, deposit your thesis with all the signed pages with IPFW Office of Graduate Studies.

6.2 Comprehensive Exam

There is no comprehensive exam requirement for non-thesis option students.

7 GRADUATION PROCEDURES

In the penultimate semester, every student should complete and submit the following forms:

1. A plan of study (see section 5.1)
2. The IPFW Graduate Application

Links to these forms can be found on the Department of Engineering Graduate Program web site.

In the first half of the final semester, your advisor should schedule a date for your thesis defense or comprehensive exam. The procedure for scheduling and holding these exams is covered in section 6.

If you plan to attend graduation, you must order your cap and gown and graduation announcements during the middle of semester. The procedures and dates are published on the IPFW commencement web site.

The specific due dates for forms submission and meetings held are published on IPFW web site each semester.

7.1. Minimum GPA to Graduate

The graduation GPA is computed using credits for which you are assigned a GPA-related grade in only those courses that fulfill a graduation requirement. The minimum GPA to graduate is 3.0

8 REGULATIONS AND POLICIES

The content of this section is from the Graduate Bulletin, Part 5 — Regulations and Policies, published yearly by the IPFW Office of the Registrar, <http://bulletin.ipfw.edu/index.php?catoid=Graduate>

8.1. 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.

Semester Grades: The following grades may be assigned,

Grade	Comments	Grade Point
A+, A	Highest passing grade.	4.0 x Semester Hours
A-		3.7 x Semester Hours
B+		3.3 x Semester Hours
B	Average passing grade for graduate courses.	3.0 x Semester Hours
B-		2.7 x Semester Hours
C+		2.3 x Semester Hours
C	Lowest passing grade for graduate courses.	2.0 x Semester Hours
C-		1.7 x Semester Hours
D+		1.3 x Semester Hours
D	No credit for graduate courses.	1.0 x Semester Hours
D-		0.7 x Semester Hours
F	Failure, or unauthorized discontinuance of class attendance; no credit.	

Note: To earn credit in a graduate course, you must receive a C or better. A “C-” is not a passing grade for graduate students and cannot be applied toward graduation.

Incomplete: A grade of incomplete (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. The full set of rules governing the use of incompletes can be found in the IPFW Graduate bulletin.

8.2. 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 IPFW 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.

Graduation 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 graduation GPA will be determined by the academic unit through which you register.

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

8.3. Academic Standing

Only grades of A, B, or C are acceptable in fulfilling requirements. All grades, however, are used in the calculation of your GPA, and students are expected to maintain a graduation index representing a B average or better.

The IPFW Department of Engineering requires that students maintain a graduation index of 3.0 to remain in good academic standing. This policy is motivated by the fact that a graduation index of 3.0 is required to graduate and failure to maintain a graduation index of 3.0 can result in loss of a teaching or research assistantship.

The Department of Engineering defines the student's graduate index as their cumulative grade point average (GPA) for courses listed on the student's approved Plan of Study (i.e., Purdue Graduate School Form 6). The motivation of this policy is to ensure that students who are not making satisfactory progress toward graduation are identified and advised. In situations where a student is unable to raise their GPA to 3.0, they may be dismissed. Additionally, failure to maintain a graduation index of 3.0 may result in loss of a teaching or research assistantship.

Students who are admitted conditionally start their academic career on probation, per the terms stated in their admission letter. Probationary standing will also occur when a student's graduation index drops below 3.0 due to a grade of B- or worse. The following steps will take place when a student is placed on probationary status:

1. The student will be notified of their probation status by the Department.
2. When the graduation index drops below 3.0, the student will need to schedule a meeting with their advisor. The student and their advisor will discuss the student's performance and develop a plan to improve their grade point average. To ensure that this meeting takes place, the student will have a hold placed on their account until that meeting takes place.

3. If the student is unable to improve their GPA and graduation index at the end of the first probationary semester, the student will need to meet with their advisory committee. It is the responsibility of the advisory committee to determine if progress has been made, and if not, whether there were extenuating circumstances interfering with the student ability to perform at a satisfactory level. If the student has not made progress toward improving their graduation index, the committee may either allow the student to continue in the program with a deadline or ask them to leave the program. If the advisory committee disallows continuation, the student will be dismissed from the program.

Appendix A: Course Titles and Their Coordinators

Table A
Titles and coordinators of courses relevant to the engineering graduate program

Course No.	Course Title	Primary Coordinator	Secondary Coordinator
Undergraduate Prerequisite Courses			
ECE 301	Signals and Systems	Oloomi	Thompson
ECE 302	Probabilistic Methods in Electrical Engineering	Chen, C.	Pomalaza-Ráez
ECE 333	Automatic Control Systems	Oloomi	Kang
ECE 368	Data Structures	Chen, C.	Wang
ECE 428	Modern Communication Systems	Pomalaza-Ráez	Chen, C.
ECE 436	Digital Signal Processing	Thompson	---
ME 251	Dynamics	Kang	Alhassan
ME 252	Strength of Materials	Younis	Alhassan
ME 318	Fluid Mechanics	Njock-Libii	Chen, D.
ME 321	Heat Transfer	Abu-Mulaweh	Mueller
Graduate Core Courses			
CE 570	Advanced Structural Mechanics	Younis	Alhassan
CE 5zz	Introduction to Fracture Mechanics	Younis	Alhassan
ECE 538	Digital Signal Processing I	Thompson	Oloomi
ECE 547	Introduction to Computer Communication Networks	Pomalaza-Ráez	Chen, C.
ECE 549	Software Defined Radio	Cooklev	Pomalaza-Ráez
ECE 567	FPGA Designs for Signal Processing Applications	Wang	Thompson
ECE 581	Microwave Engineering	Eroglu	Pomalaza-Ráez
ECE 584	Linear Control Systems	Oloomi	Liu
ECE 600	Random Variables and Signals	Chen, C.	Pomalaza-Ráez
ECE 604	Electromagnetic Field Theory	Eroglu	Cooklev
ECE 608	Computational Models and Methods	Chen, C.	Pomalaza-Ráez
ECE 661	Computer Vision	Liu	Pomalaza-Ráez
ENGR 580	Engineering Optimization	Oloomi	Pomalaza-Ráez
ME 505	Intermediate Heat Transfer	Abu-Mulaweh	Mueller
ME 509	Intermediate Fluid Mechanics	Njock-Libii	Mueller
ME 550	Advanced Strength of Materials	Younis	Alhassan
ME 562	Intermediate Dynamics with Applications	Kang	Njock-Libii
ME 5xx	Modeling and Simulation of Energy Systems	Mueller	Abu-Mulaweh
ME 5xy	Graduate Project	Abu-Mulaweh	---
ME 5xz	Advanced Vibrations Analysis	Kang	Njock-Libii
ME 545	Finite Element Analysis: Advanced Theory & Applications	Bi	Alhassan
ME 5zz	Introduction to Fracture Mechanics	Younis	Alhassan
SE 510	Systems Engineering	Walter	---
SE 520	Engineering Economics	Walter	---
SE 530	Engineering Management	Walter	---
SE 540	System Architecture	Walter	---

Appendix B: Tentative Schedule for the Core Courses

The schedule shown in Tables B.1 is a tentative. Depending on students' interests, faculty availability, and enrollments, the offering of particular course might not occur during the semester listed. Table B.1 also includes the schedule of ECE 543, ME 563 (both engineering electives).

Note:

Students from one concentration area can take required courses from another area of specialization to satisfy the engineering elective requirements, e.g. computer, electrical, or mechanical engineering students can take courses in Systems Engineering to satisfy their engineering elective and general elective requirements.

Table B.1
Tentative Schedule for Core Courses

Semester	Course Number and Title	Concentration			
		EE	CmpE	ME	SE
F 2011	ECE 547 Communication Networks		core		
	ECE 600 Random Variables and Signals	core	core		
	ENGR 580 Engineering Optimization			core	
	ME 505 Intermediate Heat Transfer			core	
	ME 563 Mechanical Vibrations				
	SE 510 Systems Engineering				core
	SE 540 System Architecture				core
S 2012	CE 570 Advanced Structural Mechanics			core	
	ECE 538 Digital Signal Processing I	core	core		
	ECE 549 Software Defined Radio	core			
	ECE 567 FPGA Designs for Signal Processing Applications		core		
	SE 520 Engineering Economics				core
	SE 530 Engineering Management				core
F 2012	ECE 581 Microwave Engineering	core			
	ECE 584 Linear Control Systems	core			
	ECE 600 Random Variables and Signals	core	core		
	ME 509 Intermediate Fluid Mechanics			core	
	SE 510 Systems Engineering				core
	SE 540 System Architecture				core

Table B.1 (Cont.)
Tentative Schedule for Core Courses

Semester	Course Number and Title	Concentration			
		EE	CmpE	ME	SE
S 2013	ECE 543 Wireless Communications				
	ECE 549 Software Defined Radio	core			
	ECE 567 FPGA Designs for Signal Processing Applications		core		
	ME 545 FEA: Advanced Theory & Applications			core	
	SE 520 Engineering Economics				core
	SE 530 Engineering Management				core
F 2013	ECE 547 Communication Networks		core		
	ECE 600 Random Variables and Signals	core	core		
	ENGR 580 Engineering Optimization			core	
	ME 563 Mechanical Vibrations				
	SE 510 Systems Engineering				core
	SE 540 System Architecture				core

Appendix C: Graduate Engineering Elective Courses

The engineering electives offer the student a chance to develop depth in his/her area of specialization and to explore new technologies of interest. Students will have the option of taking engineering elective courses on campus or via video.

More information about the engineering elective courses for the mechanical engineering and system engineering specialization areas can be found in the following document,

<http://new.ipfw.edu/dotAsset/240062.pdf>

For the computer engineering and electrical engineering concentration areas students can choose two courses out of the four shown in Table C.1

Table C.1

Engineering Electives for the Computer Engineering and Electrical Engineering Concentration Areas

Course No.	Course Title	Primary Coordinator	Secondary Coordinator
ECE 543	Wireless Communications	Pomalaza-Ráez	Cooklev
ECE 544	Digital Communications	Pomalaza-Ráez	Cooklev
ECE 569	Introduction to Robotics	Liu	Oloomi
ENGR 580	Engineering Optimization	Oloomi	Pomalaza-Ráez

Note:

Students from one concentration area can take required courses from another area of specialization to satisfy the engineering elective requirements, e.g. computer, electrical, or mechanical engineering students can take courses in Systems Engineering to satisfy their engineering elective and general elective requirements.

Additional engineering elective courses are the ones offered by Purdue University at West Lafayette. For the list of graduate engineering courses that are accessible from Purdue University via video and the schedule of their current offerings, visit the website

https://engineering.purdue.edu/ProEd/courses/courses_by_school

Appendix D: Sample of Plan of Study

Please see next page.

**PURDUE UNIVERSITY
GRADUATE SCHOOL**

(Revised 6/06)

Request for Master's Degree Advisory Committee and Plan of Study Approval
(Please read instructions on reverse side.)

Pg. 1 of 1 Pgs.

Date Degree Expected Dec, 2010

1. NAME OF STUDENT Alan W. Parker PUID No. 00123-45678
 2. DEPARTMENT Department of Engineering Dept. Code ENGR Thesis Option Nonthesis Option

Degree Title Master of Science in Engineering Degree Code MSE Research Area _____

3. AREA OF SPECIALIZATION (if any) Systems Engineering AOS Code Leave this field blank

Area	4. COURSES				5. METHOD OF ESTABLISHING CREDIT			6. DATE COMPLETED OR TO BE COMPLETED
	OFFICIAL TITLE ABBREVIATION <i>Please group courses into "Primary" (P) & "Related" (R) areas.</i>	Subject Abbr.	Course No.*	Cr. Hours	Regular Regis.	Non-degree Regis.	Other or Transfer From +	
P	Systems Engineering	SE	510	3		NR	IPFW	Dec, 2008
P	Engineering Economics	SE	520	3	RR			May, 2009
P	Systems Engineering Management	SE	530	3	RR			Dec, 2009
P	Systems Architecture	SE	540	3	RR			Dec, 2010
R	Linear Algebra with Applications	MA	511	3		NR	IPFW	Dec. 2008
R	Graph Theory	MA	575	3	RR			Dec. 2010
R	Project Management	TECH	561	3	RR			May, 2009
R	Fundamentals Behavior & Leadership in Org	OLS	510	3	RR			Dec, 2009
R	Deterministic Systems	EE	611	3	TR		University of Kentucky	Dec, 1998
R	Optimal Control Theory	EE	613	3	TR		University of Kentucky	May, 1999

7. LANGUAGE REQUIREMENTS Method to be used to meet language requirements + Transfer course must be described as on original transcript.
 a. N/A a. * Mark course number with asterisk (*) if B or better is required.
 b. b.

8. NAMES OF ADVISORY COMMITTEE MEMBERS (Please type full name.)	9. GRADUATE FACULTY IDENTIFIER	APPROVED BY ADVISORY COMMITTEE MEMBERS (Signature)	10. DEPARTMENT		11. ADVISOR IN AREA OF:
			Abbr.	Code	
John Smith Chair	W8315	Chair	ENGR	E25	ME
Amame Hozumi	W8323		ENGR	E25	ECE
Mustafa Peker	W8201		ENGR	E25	ECE

Check here if supplemental notes or other requirements are attached.

13. APPROVED BY:

 Head of the Graduate Program Date _____

12. SIGNATURE OF STUDENT _____ Date _____ Academic Dean (if required) _____ Date _____ Graduate School Dean