# PhD PROGRAM HANDBOOK

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# 1 INTRODUCTION

This handbook contains information about the PhD program offered by the School of Electrical and Computer Engineering (ECE) at Purdue. Included is relatively detailed information about the degree requirements, minimum academic standards, advisory committees, the plan of study, registration, examinations (Qualifying, Preliminary, and Final), and the Doctoral Thesis. The information in this handbook applies to both students who were admitted to the PhD program after having completed a Master's degree and to students admitted directly after their undergraduate program. When there is a difference in procedures, those students entering after having completed a Master's degree will be referred to herein as "PhD students with an MS;" students entering directly after their undergraduate program, "direct PhD students."

A strength of the academic component of the PhD program at Purdue is that each student creates his/her own plan of study (POS), a document that defines each student's academic program. The degree requirements, which have elements of depth and breadth, afford flexibility for developing a plan of study that best suits your needs and goals. The information in this handbook is intended to assist you in setting up your plans of study and advisory committees. A Preliminary Plan of study has to be filed early in the program. Advice on this Preliminary Plan of study can be sought from members of the Academic Advisory Committee, a committee that is established by you for the sole purpose of helping you with the Preliminary Plan of study. Further into the program, you would establish another advisory committee, the Doctoral Advisory Committee. Your Doctoral Advisory Committee, chaired by your Major Professor, will assist you in the preparation of your final plan of study, advise you in your thesis research, and conduct your Preliminary and Final Examinations.

Students in the PhD program must identify an ECE Primary Area from the eight defined areas listed in Table 1:

**Table 1 ECE Research Areas** 

Research Area	Core
	Course
Automatic Control (AC)	EE602
Biomedical Imaging and Sensing (BE)	EE600
Communications Networks and Signal and Image Processing (CS)	EE600
Computer Engineering (CE)	EE608
Energy Sources and Systems (ES)	EE610
Fields and Optics (FO)	EE604
Microelectronics and Nanotechnology (MN)	EE606
VLSI and Circuit Design (VC)	EE606/608

Entries in the second column of Table 1 are the core courses associated with each of the eight ECE areas. Within ECE, the Primary Area is defined as one of the above eight areas closest to your interests or thesis research. Courses outside of your Primary Area are to be considered as part of one or more Related Areas. On your plan of study the courses are to be identified as belonging to either the ECE primary or ECE Related Areas.

All students begin their PhD studies with the status of "admitted to the PhD program". Continuation in the PhD program requires that the student perform satisfactorily on the PhD Qualifying Examination (QE). Finally, admission to candidacy requires that the student demonstrate evidence of research ability on the Preliminary Examination. If key program activities are completed in a timely fashion (see Appendix A), the time-to-degree for the PhD is expected to be 4 to 4.5 years for students entering with a Master's degree and 5 to 5.5 years for direct PhD students. As also noted in Appendix A, students whose programs extend beyond the cited times are subject to progress reviews, and ultimately to an overall program time limit.

In addition to this handbook, there are other resources available in the ECE Graduate Office (located in Room 135 of the EE Building) and on the ECE Graduate Program website (https://engineering.purdue.edu/ECE/Graduates).

#### 2 PhD DEGREE REQUIREMENTS

#### 2.1 Common Course Requirements

#### **Required Research-Course Registration**

Consistent with the research emphasis in the PhD program, all PhD students are required to register for at least one credit hour of ECE 692 (Introduction to Graduate Research) or ECE 699 (PhD Thesis Research) in their first and second semesters in the PhD program. In each subsequent semester, students must enroll in at least one credit hour of ECE 699.

#### **Mathematics and Related-Area Course Requirement**

During a student's Master's *and* PhD programs (if entering the PhD program with an MS degree) or during the student's direct PhD program, a student must complete a minimum of 5 graduate-level courses outside the student's Primary Area. The group of courses is to consist of either 3 math courses and 2 related-area courses or 2 math courses and 3 related-area courses. The "math-courses" taken at Purdue are to be from the approved mathematics, statistics, computer science, and physics courses listed in Appendix B.

#### 2.2 Course Requirements for PhD Students with an MS

#### Non-Thesis Graduate-Level Course Requirement

A minimum of 4, non-thesis, graduate-level courses is required on the plan of study. Two of the courses are to be ECE 611 or higher-numbered ECE courses. The courses meeting this requirement can simultaneously be used to meet the previously described mathematics and related-area course requirement. ECE 696 (Advanced Projects) and ECE 697 (Directed Reading) are not to appear on the plan of study and cannot be used to fulfill this requirement.

#### 2.3 Course and Credit-Hour Requirements for Direct PhD Students

# **Non-Thesis Course Requirements**

The plan of study is to contain a minimum of 36 non-thesis credit hours, of which there must be at least 2 ECE core courses, 2 ECE courses numbered 611 or higher, and 3 additional graduate-

level ECE courses. ECE 696 (Advanced Projects) and ECE 697 (Directed Reading) are not to appear on the plan of study and cannot be used to fulfill this requirement.

### **Undergraduate Credit Hours**

A maximum of 6 credit hours of two advanced-level (300- or 400-level) undergraduate courses taken in the first calendar year of a direct PhD student's program are allowed on the plan of study.

- Students must request permission to include undergraduate courses on their PhD POS. They are required to provide a short written academic justification for the inclusion of the undergraduate courses.
- Undergraduate courses on the POS must be specifically approved by the student's advisory committee and the ECE Graduate Coordinator.
- Credit for undergraduate courses may not be transferred from another institution. The Graduate School requires that the course(s) be taken while the student is enrolled in the Graduate Program, and that the student must earn a grade of "B" or better in these courses to fulfill graduation requirements.
- The computation of a student's GPA will include the grades earned in these undergraduate level courses.

**Table 2 Summary of Course Requirements** 

	PhD (with MS)	Direct PhD
Non-Thesis Course Requirement in PhD Program	4 courses (12 hours), 2 ECE courses numbered ≥ 611, 2 other graduate-level courses. (The courses here can simultaneously meet the Math and Related-Area course requirement.)	36 hrs (non-thesis) with 21 ECE non-thesis graduate-level credit hours consisting of 2 core courses, 2 ECE 611 or above and 3 other graduate level courses.
Required Core Courses	0	2
Required Math and Related- Area Courses	Either 3 Math and 2 Related-Area <sup>1</sup> courses or 2 Math and 3 Related-Area courses. (This requirement can be partially or totally fulfilled with coursework taken previously in the Master's program.)	Either 3 Math and 2 Related-Area <sup>1</sup> courses or 2 Math and 3 Related-Area courses.
Allowed 696/697 Credit Hours	0	0
Allowed Undergraduate Credit Hours	0	6 hrs

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<sup>&</sup>lt;sup>1</sup> Courses outside the Primary Area, including all non-ECE courses, ECE courses associated with a different ECE area, and courses dual-administered by the Primary Area and another ECE area may serve as related-area courses.

# 2.4 Other Requirements

#### **English Requirement**

All ECE graduate students must demonstrate acceptable proficiency in written English before graduating. Students will not be allowed to graduate until this requirement has been met. We strongly recommend that students fulfill the English requirement as early as possible (first semester) in their academic program. Methods that may be used to fulfill the English requirement are detailed in Appendix C.

#### **Graduate Seminar Requirement**

All ECE graduate students must satisfactorily complete one semester of the ECE Seminar, ECE 694. This course carries no credit, but a grade of Satisfactory or Unsatisfactory is assigned at the end of the semester. ECE 694 should not be listed on the plan of study. Also, it is strongly recommended that students take EE 694 during their first semester.

#### Responsible Conduct of Research Course Requirement

All ECE graduate students must satisfactorily complete the Responsible Conduct of Research course. This is an online course offered through Collaborative Institutional Training Initiative (CITI). The course should be completed during the first year of graduate studies. When the course has been completed the student should submit a copy of the certificates of completion to the ECE Graduate Office. The link to the course is:

https://www.citiprogram.org/default.asp?language=english

#### **Examination Requirement**

The three major examinations that must be passed during the course of a PhD program are the Qualifying Examination (QE), the Preliminary Examination, and the Final Examination. The purpose of the QE is to verify that students have mastered fundamental area-related topics in the student's Primary and Related Areas at the core course level. The purpose of the Preliminary Examination is to determine whether a student is adequately prepared to conceive and undertake a suitable research topic. The Preliminary Examination typically includes an oral presentation and a written thesis proposal. The purpose of the Final Examination or oral defense of the dissertation is to determine if the thesis research warrants granting the PhD degree. Doctoral research must be original and merit publication in the scholarly literature.

#### **Residency Requirement**

The residency requirement for a PhD degree is 90 hours of academic credit beyond the Bachelor's degree or 60 hours beyond the Master's degree. Academic credit includes all course credit hours that appear on the plan of study, other graduate course credit hours with grades of "C" or better that appear on the Purdue transcript, and research (ECE 698 and ECE 699) hours with grades of "S" that appear on the Purdue transcript.

At least one-half of the total credit hours used to satisfy degree requirements must be earned in residence on the Purdue campus where the degree is to be granted. Course credits obtained via televised instruction are considered to have been obtained in residence on the campus from which the course was broadcast.

#### 3 MINIMUM ACADEMIC STANDARDS

As a PhD student in ECE, you are expected to achieve the following standards throughout your academic program:

- Maintain a cumulative POS grade point average of at least 3.30 out of 4.00 over the courses on your plan of study, with no grade less than "C";
- Earn grades of "Satisfactory" in thesis research credit hours;
- Satisfactorily complete the EE 694 seminar and the written English proficiency requirement within the first two semesters of your academic program;
- Make continuous and significant progress each semester toward completion of your degree requirements; and
- Complete all degree requirements and graduate within the deadlines described in Appendix A.

You will be placed on academic probation if you complete any semester or summer session with a deficiency in any of the above standards. Should you remain on academic probation at the end of the succeeding semester or summer session, and at the discretion of the Graduate Coordinator, you may be prohibited from registering for further graduate study. Students concerned about their academic progress should schedule an appointment with the ECE Graduate Coordinator.

The cumulative POS grade point average referred to above is calculated using the courses on the PhD plan of study, excluding courses taken as part of the Master's program. However, transfer courses and graduate-level courses taken while an undergraduate student are not included in the computation. In the case of a deficiency in the cumulative POS grade point average, courses may be repeated. If a course is repeated, only the most recent grade received will be used in computing the index.

University requirements state that no grade of "D" or "F" is allowed in a course on the plan of study. Any plan of study course in which a grade of "D" or "F" is received must be repeated and completed successfully; it cannot be dropped from the plan of study.

#### **4 ADVISORY COMMITTEES**

#### 4.1 Academic Advisory Committee

The purpose of your Academic Advisory Committee is to provide advice on your choice of courses on the Preliminary Plan of study. Your Academic Advisory Committee consists of the three West Lafayette campus Electrical and Computer Engineering faculty members who sign your Preliminary Plan of study. A Major Professor need not be indicated on the Preliminary Plan of study. The Academic Advisory Committee serves until you have selected a Major Professor and Doctoral Advisory Committee. The two advisory committees need not be the same.

# 4.2 Doctoral Advisory Committee

The Doctoral Advisory Committee consists of at least four members. The primary duties of this committee are to assist in the preparation of your final plan of study, to advise you during the course of your thesis research, and to conduct your Preliminary and Final Examinations.

Your Major Professor serves as chair of the Doctoral Advisory Committee. The selection of your Major Professor requires his/her consent and the approval of the ECE Graduate Coordinator. Your research interests, either in a general topic or a specific project, will guide your choice of Major Professor. Your Major Professor may offer you financial support as a Research Assistant or at a later date. In the event that you may want to change your Major Professor, please visit and discuss the planned change with the ECE Graduate Coordinator.

In most cases, the Major Professor and the student choose the Related Areas and the other members who will serve with the Major Professor on the Doctoral Advisory Committee. The following rules and guidelines will help you in selecting your committee members:

- The chairperson and at least one other member must be West Lafayette ECE faculty members and should be members of the Primary Area that you have declared.
- If two advisors guide your research jointly, it may be advisable to have two co-chairs on your advisory committee rather than a single chair. At least one of the co-chairs must be a member of the West Lafayette ECE faculty and should be a member of the Primary Area that you have declared.
- A majority of your advisory committee must be composed of West Lafayette campus faculty members.
- A special member, defined as a person without regular certification, may serve on your Doctoral Advisory Committee. An up-to-date list of faculty members with regular certification and their faculty identifiers is included in the online plan of study program. Faculty members at Purdue, including regional campuses, would have regular certification. Faculty members from other universities, researchers from industry, and non-faculty research staff from Purdue have to be approved for special certification by the Graduate School for them to be members of the advisory committee. You may initiate a request for special certification in the ECE Graduate Office. A current and complete vita for the special member has to be submitted along with your request.

Incorporated as part of the final plan of study, membership of the Doctoral Advisory Committee is formally established when the final plan of study is filed and approved. (For plan of study information see Section 5.) Membership of the Doctoral Advisory Committee, as agreed upon by the Major Professor and the student, is presented to the ECE Graduate Coordinator and the Dean of the Graduate School for their approval and formal appointment. The Dean may appoint additional members if it seems advisable. Changes to the Doctoral Advisory Committee require submitting an electronic request to change your plan of study via SSINFO.

#### 5 PhD PLANS OF STUDY

# **5.1 Preliminary Plan of Study**

All PhD students must file a Preliminary Plan of study using the (purplish in color) Preliminary PhD Plan of Study form during their first semester. 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 school plan and monitor the overall ECE graduate program. For this reason, registration for subsequent semesters is not permitted until the Preliminary Plan of study has been filed. The plan must be appropriate to meet the needs of the student's chosen field as determined by the Academic Advisory Committee, and must be approved by the ECE Graduate Coordinator.

Suggested steps in preparing your Preliminary Plan of study are as follows:

- a) Review the
  - PhD coursework requirements in this handbook; (Also see Subsections 5.4 or 5.5 if undergraduate, transfer, or excess course credit is to be included on the plan of study.)
  - Course information that is available online to determine which courses are of most interest to you and will enable you to meet your degree requirements;
  - ECE Course Advanced Planning List and the University Schedule of Classes to determine the semester(s) in which the chosen courses will be offered;
  - Graduate Areas and Faculty Interests supplement to learn the specific interest areas of faculty members and to determine suitable candidates for the person who will chair your Academic Advisory Committee.
- b) Consult with at least three ECE faculty members, representing at least two of the eight ECE graduate areas, to develop a plan of study. Use these meetings to help you decide on matters such as possible thesis topics, which courses to take, and who to select as the chair of your Academic Advisory Committee.
- c) Secure the agreement of an ECE faculty member to serve as the chair of your Academic Advisory Committee. Confer with him/her to obtain advice on your course selections, the make-up of your advisory committee, and ultimately his/her informal approval of the plan of study. Complete a draft version of the Preliminary PhD Plan of Study form for use in subsequent discussions. The chair person of your Academic Advisory Committee could become your Major Professor, but needn't be so.
- d) Secure the agreement of two additional faculty members to serve on your advisory committee and their informal approval of the plan of study. (Signatures are not required on the draft version of the Preliminary PhD Plan of Study form.) The choice of the two faculty members to serve on your Academic Advisory Committee must be approved by the committee chair.
- e) Enter all required information on the final version of the Preliminary PhD Plan of Study form. The form may be filled out (neatly) by hand. After signing the form, obtain the signatures of your advisory committee members. Make a copy of the form for your records and submit the original to the ECE Graduate Office.

#### 5.2 Final Plan of Study

For those students who entered the PhD program with an MS degree, the final plan of study must be submitted before registering for the 4<sup>th</sup> semester in the program. For direct PhD students, the final plan of study must be submitted before registering for the 6<sup>th</sup> semester in the program.

Suggested steps in preparing your final plan of study are as follows:

- a) Review the
  - PhD coursework requirements in this handbook; (Also see Subsection 5.4 or 5.5 if undergraduate, transfer, or excess course credit is to be included on the plan of study.)
  - Course information that is available online to determine which courses are of most interest to you and will enable you to meet your degree requirements;
  - ECE Course Advanced Planning List and the University Schedule of Classes to determine the semester(s) in which the chosen courses will be offered;
  - Graduate Areas and Faculty Interests supplement to learn the specific interest areas of faculty members and, if necessary, to determine suitable candidates for your major professor, the person who will chair your Doctoral Advisory Committee.
- b) Consult with at least three ECE faculty members, representing at least two of the eight ECE graduate areas, to develop the final plan of study. Use these meetings to help you confirm or decide on matters such as possible thesis topics, which courses to take, and who to select as a major professor.
- c) Secure the agreement of an ECE faculty member to serve as your Major Professor and chair of your Doctoral Advisory Committee. Confer with your Major Professor to obtain advice on your course selections, the make-up of your Doctoral Advisory Committee, and ultimately his/her informal approval of the plan of study.
- d) Employ the online Electronic Plan of Study program (accessed through SSINFO) to compose a draft of your plan of study. Hardcopy instructions for using the online program are available from the ECE Graduate Office. Ensure that you have included courses that satisfy all requirements. You should print out a copy of your draft for use in discussions with members of your advisory committee.
- e) Noting requirements relative to the formation of the Doctoral Advisory Committee in Subsection 4.2, secure the agreement of three additional faculty members (or two faculty members and one special member) to serve on your advisory committee and their informal approval of the plan of study. The choice of the members to serve on your Doctoral Advisory Committee must be approved by your Major Professor.
- f) Returning to the online Plan of Study program, enter all changes that resulted from your discussions with members of your advisory committee. Submit the final version of the plan electronically. Your final plan of study will be automatically routed to the ECE Graduate Office for initial screening before being sent to your advisory committee, the ECE Graduate Coordinator, and the Graduate School for their approvals. If your plan fails to gain any of the required approvals, the reason for the rejection will be explained in an e-mail message. You can then make any required changes and submit the revised plan for approval.

You may check on the status of the approval process at any stage. You will be sent an e-mail message when approval has been obtained from the Graduate School. The required approvals usually take several weeks.

#### 5.3 Changing Your Plan of Study

It is recognized that as a student's program progresses there may arise conditions that make it desirable to change the plan of study. Indeed, such changes, when based upon sound academic reasons, are encouraged. Generally speaking, minor changes to the *Preliminary Plan* of study, an internal ECE document, will not require filing a new Preliminary Plan. ECE Graduate Office personnel will indicate if a new Preliminary Plan of study is needed. On the other hand, any change to the *final* plan of study, a Graduate School document, has to be submitted for approval. The online Plan of Study program (accessed through SSINFO) is used to submit a request to change the final plan of study. Since any change in the courses or advisory committee membership on the current plan of study will require the approval of your Doctoral Advisory Committee and the ECE Graduate Coordinator, you should first discuss the desired changes with your Doctoral Advisory Committee and provide a reason for each change. Relative to changes to the either the preliminary or final plan of study involving courses:

- A course may not be removed from the plan of study once a grade of "D" or lower has been received in the course.
- The deadline for submitting a request to the ECE Graduate Office to remove a course in which you are currently enrolled from your plan of study is the end of the ninth week of the semester, or the end of four and a half weeks in a summer session.

If the ECE requirements for the PhD 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.

#### 5.4 Non-In-Program Course Credits for PhD Students with an MS

#### **Transfer Credits**

A maximum of six graduate-level credit hours earned at regional campuses of Purdue University or at an ABET-accredited university may be applied toward the PhD degree and entered on the PhD plan of study. However, courses transferred from a regional campus or another university may not be used to satisfy the core course requirement. 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.

### **Special Approval Requirements**

Without exception, transfer course credits used on the PhD plan of study must be specially approved by your advisory committee and by the ECE Graduate Coordinator. Whether a course is acceptable or not will depend upon the content of the course and the level at which it is taught. The steps to follow in requesting approval to include such credits on the PhD plan of study are:

- a) Add the course to your plan of study.
- b) Show a copy of the catalog description of the course to your advisory committee members and bring the catalog description to the ECE Graduate Office.

d) If you are transferring a course from another university, the ECE Graduate Office will also require an original transcript showing the grade earned and a statement from an official at the university where the course was taken certifying that the course was not used to fulfill requirements for any other degree.

#### 5.5 Non-in-Program Course Credits for Direct PhD Students

#### **Undergraduate Credits**

As noted in Subsection 2.3, a maximum of 6 credit hours of advanced-level (300- or 400-level) undergraduate courses taken in the first calendar year of a student's program are allowed on the plan of study. Refer to Subsection 2.3 for other restrictions applying to such credits.

#### **Transfer Credits**

A maximum of six graduate-level credit hours earned at regional campuses of Purdue University or at an ABET-accredited university may be applied toward the PhD degree and entered on the PhD plan of study. However, courses transferred from a regional campus or another university may not be used to satisfy the core course requirement. 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

#### **Excess Course Credits**

Up to twelve credit hours of graduate-level courses taken at the West Lafayette campus of Purdue before a student was admitted to the direct PhD program may be applied toward the PhD degree and entered on the PhD plan of study. Allowed courses include those taken:

- a) as excess undergraduate-degree credit;
- b) in non-degree status;
- c) while seeking a degree in another Purdue department or school, if you subsequently request to transfer to ECE;

#### **Special Approval Requirements**

Without exception, all undergraduate, transfer, and excess course credits used on the PhD plan of study must be specially approved by your advisory committee and by the ECE Graduate Coordinator. The steps to follow in requesting approval to include such credits on the Master's plan of study are:

- a) Add the course to your plan of study.
- b) Provide the Graduate office with a short written academic justification for including a 300- or 400-level course on the plan of study.
- c) If a transfer course or a non-ECE course taken at Purdue, show a copy of the catalog description of the course to your advisory committee members and bring the catalog description to the ECE Graduate Office.
- d) If you are transferring a course from another university, the ECE Graduate Office will also require an original transcript showing the grade earned and a statement from an official at the university where the course was taken certifying that the course was not used to fulfill requirements for any other degree.

#### **6 REGISTRATION**

#### **6.1 First Semester Registration**

After consulting with three or more faculty members, prepare a tentative list of classes for the first semester, then report to the ECE Graduate Office, Room EE 135. Make sure to check the official Schedule of Classes for the coming semester to verify that your selected courses are being offered and that their meeting times do not conflict. Also, as previously noted:

- All PhD students are required to register for at least one credit hour of ECE 692 (Introduction to Graduate Research) or ECE 699 (PhD Thesis Research) in their first semester in the PhD program.
- If justifiable, 6 hours of undergraduate credit taken in the first calendar year are allowed on the plan of study of direct PhD students;
- Graduation requirements include the satisfactory completion of one semester of ECE 694, the Electrical and Computer Engineering Graduate Seminar, and demonstration of proficiency in written English. It is strongly recommended that you complete these during your first semester.

The ECE Graduate Office staff will approve your registration. You will enter the registration of courses through MyPurdue. Registration for variable credit courses will be entered by the Graduate Office staff. You will receive a fee statement from the Bursar by mail if there is sufficient time before the beginning of the semester. Otherwise you should acquire it from the Bursar's Office, Hovde Hall. Payment of this fee statement completes the registration process. Your registration will be cancelled if payment is not made by the deadline determined by the Registrar's office. This deadline is posted in several locations, including the bulletin board outside the ECE Graduate Office.

#### **6.2 Subsequent Semester Registrations**

We encourage you to select your courses and to register as early as possible, since school decisions to cancel low-enrollment courses may affect your course options. Advanced registration for the Fall semester and Summer session begins around March 15 and ends respectively on the second Monday of Fall classes and the Friday before summer session begins. Registration for the Spring semester begins around October 15 and ends on the second Monday of Spring classes. Look for the announcement of specific registration dates as the cited dates approach.

All current ECE graduate students must register and pay their tuition and fees during the registration period. Note that late registration incurs a substantial penalty fee. If this is your second semester, you are again required to register for at least one credit hour of ECE 692 (Introduction to Graduate Research) or ECE 699 (PhD Thesis Research). If this is your final semester, check the "Candidate" box marked "Yes" (#6 on the registration form). If you are not certain that you will finish your degree requirements, you are still advised to check the "candidate" box. If you are not on the candidates list, you will not graduate, even if you have completed all requirements. After you have registered, check SSINFO to verify that your registration is correct. Report any errors to the ECE Graduate Office.

Check with the ECE Graduate Office when registering for "Exam Only" or "Degree Only" to make certain that you qualify and have met all necessary requirements. You must have been registered for at least one credit hour of research in the previous semester. The deadline for "Exam Only" or "Degree Only" registration is one week before classes begin.

#### 6.3 Academic Loads

To qualify for full-time student status in a Fall or Spring semester, you must satisfy one of the following criteria:

- Be registered for a minimum of eight credit hours;
- Hold a research or teaching assistantship (1/4 time or greater) and be registered for at least six credit hours.

All international students must be full-time in order to maintain their visa status.

ECE Teaching Assistants may register for a maximum of nine credit hours of non-thesis coursework.

The residency requirement for a PhD degree is 90 hours of academic credit beyond the Bachelor's degree or 60 hours beyond the Master's degree. Students are encouraged to register for the maximum allowable number of credit hours of courses and/or research each session to satisfy this requirement. Your major professor will help you to determine the proper number of research credit hours.

#### **6.4 Dropping and Adding Courses**

To drop or add a course, use MyPurdue. Changes in variable credit courses will require the Graduate Office to enter the changes. Subsequently, be sure to confirm that a dropped or added course has been officially recorded by checking MyPurdue.

Courses dropped during the first two weeks of classes will not appear on your permanent record. Courses dropped during weeks 3 and 4 will be recorded as a "W" grade on your permanent record. Courses dropped during weeks 5 through 9 require the signature of both the instructor and the ECE Graduate Coordinator, the instructor must assign a grade of "W," "WF," or "WN." The end of this period is the final deadline for withdrawing from a class. A "W" simply records the fact that the student withdrew after the second week of the semester. A "WF" records that the student was failing a graded course. "WF" grades are not included in computing the GPA. A "WN" records failing status in a course being taken Pass/No Pass. "W," "WF," and "WN" grades are recorded on your permanent record.

Courses added during weeks 2 through 4 require the approval and signature of the instructor and personnel in the ECE Graduate Office. Courses may be added during weeks 5 through 9, but only under extraordinary circumstances. Courses added after the 4th week require the approval and signature of the instructor and the ECE Graduate Coordinator, the head of the department where the course is offered for non-ECE courses.

#### **7 EXAMINATIONS**

# 7.1 Qualifying Examination

The Qualifying Examination (QE) is a written examination required of all ECE doctoral students. It is a four-hour closed-book exam offered once a year during the week before the start of the Fall semester. Questions on the exam are "topics" based; i.e., based on fundamental area-related topics at the core course level. Each area specifies a group of at least three (3) area-approved topics which form the basis for exam questions. Students are required to answer three (3) questions in their declared Primary Area and one question from their declared Secondary Area. A reading list and prior exam test questions are made available to the students.

Students with an MS degree are required to take the QE at the first offering of the exam after their entry into the PhD program. Direct PhD students must take the QE after having completed two academic-year semesters in the program. Subsequent retakes of the QE must be at the next offering of the exam. To foster taking of the QE as early as possible in a student's PhD program, there is no set limit on the number of attempts to pass the exam. In general, however, multiple (>1) retakes of the QE is likely to be discouraged by the student's Advisory Committee. Each student must complete the QE process, including any remedial work, before he/she is permitted to take the PhD Preliminary Examination.

By the end of the fourth week of the preceding Fall semester, students expected to take the QE must confirm their participation with the Graduate Office and record the areas over which they are to be tested. The Graduate Office is to be informed as soon as possible if circumstances beyond the student's control will cause the student to miss the exam.

Performance on the examination is evaluated as follows:

- $\geq$  70% The QE requirement is satisfied;
- $\geq$  60% but less than 70% Conditional Pass with required remediation;
- < 60% Retake the entire exam with recommended remediation.

In all cases (including Pass) the overall and individual question scores are transmitted to members of the student's advisory committee. When remediation is required or recommended, the student's advisory committee is to meet to determine the best type of remediation among the following options:

- a) Passing a specified course(s) with a grade of B or better;
- b) Auditing a previously taken course(s) for a set period of time (say 5-7 weeks) while assembling a set of relevant course notes and completed homework problems;
- c) Other options as approved by the Graduate Committee.

Option a) is the preferred option when there are individual question scores of less than 50% and/or more than one Primary Area test question score of less than 70%. Before required remediation is initiated, it must be checked for compliance with accepted remediation activities by the Graduate Coordinator, any disagreement as to compliance settled in negotiations between the advisory committee and the Graduate Coordinator, and the agreed-to remediation recorded in the Graduate Office. When something other than passing a course is required, the student's major professor is to be responsible for having the student submit a report of completed work to the Graduate Office. Although considered an unlikely occurrence, students have the option of retaking the QE instead of performing required remediation.

More detailed information about the QE and QE procedures can be found under the "QE Rules & Procedures" entry on the ECE Graduate Program website (https://engineering.purdue.edu/ECE/Graduates).

#### 7.2 Preliminary Examination

The Preliminary Examination is given to determine whether a student is adequately prepared to conceive and undertake a suitable research topic. Students may not schedule their Preliminary Examination until after they have passed the Qualifying Examination and submitted their final plan of study. The Preliminary Examination may include a written exam component, if the Doctoral Advisory Committee so requires, but normally it is an oral examination primarily associated with a written thesis proposal. Students must complete the Preliminary Examination at least two academic sessions (counting regular semesters and summer sessions) for which they are registered before taking the Final Examination. Since one goal of the Preliminary Examination is to provide research direction and feedback, it should be taken early enough to allow the Doctoral Advisory Committee to make an effective contribution. The procedure to be followed in scheduling the Preliminary Examination is outlined in Appendix D. The written thesis proposal should be submitted to members of the Doctoral Advisory Committee at least two weeks before the examination.

During the Preliminary Examination, the student is typically expected to exhibit:

- A clear understanding of the research problem;
- An awareness of pertinent background literature and current efforts in the research area of interest:
- Some initial progress toward solving the research problem; and
- A plan to execute the remainder of the thesis research.

If you pass the Preliminary Examination, the Doctoral Advisory Committee certifies that you have passed the examination by signing the "Report of the Preliminary Examining Committee" furnished by the ECE Graduate Office. If you fail the Preliminary Examination, at least one academic session (Fall, Spring, or summer) must elapse before a re-examination is permitted.

To ensure timely academic progress, the Preliminary Examination is to be taken by PhD students with an MS after no more than six semesters in the PhD program and by direct PhD students after no more than eight semesters in the program. If this deadline is not met, students must request an extension of the deadline using a form available in the ECE Graduate Office. The reason(s) for the delay in taking the Preliminary Examination and specific actions planned to remedy the situation must be indicated on the form. The form must be signed by all members of the Doctoral Advisory Committee and the ECE Graduate Coordinator. A completed form is required each semester past the deadline before registration for the subsequent semester is allowed.

#### 7.3 PhD Thesis and Final Examination

The PhD thesis must be prepared according to a preset format and processed (revised, signatures obtained, bound, distributed) following specified procedures. Detailed information relative to the preparation and processing of the thesis is contained in Appendix E. Once the thesis is prepared and all other requirements have been completed, the student must present and defend

his/her work in a Final Examination. As noted previously, there must be at least two academic sessions (counting regular semesters and summer sessions for which the student is registered) between the Preliminary Examination and the Final Examination. The Final Examination Committee is typically just the student's Doctoral Advisory Committee. However, the Dean of the Graduate School reserves the right to appoint additional committee members.

Schedule your Final Examination, as outlined in Appendix D, with your Major Professor, your advisory committee, and the ECE Graduate Office at least 3 weeks prior to the proposed date of the exam. If you are to receive the PhD degree during the session in which the examination is taken, the results of the examination must be received by the Graduate School before the posted deadline (approximately one week before the last day of classes in the session). Check the Graduate School website or in the ECE Graduate Office for the specific deadline. Those students who are registered for "Exam Only" must complete their Final Examination by the eighth week of classes (fourth week of a summer session).

After receiving your scheduling request, the ECE Graduate Office will seek approval from the Graduate School for your Doctoral Advisory Committee to conduct the Final Examination. Please be aware that late requests to schedule your Final Examination do not allow sufficient time to process your request and adequately publicize your examination date. Any requests to schedule a Final Examination less than three weeks in advance must be approved by the ECE Graduate Coordinator, and will be approved only in exceptional circumstances.

The time and location of the Final Examination will be posted to the entire ECE faculty, and posted on the ECE Graduate Office bulletin board in the EE Building. University regulations permit visitors to attend the Final Examination. Such visitors are permitted to ask questions of the candidate, after having been recognized by the Major Professor, but they may not be present while the Final Examination Committee deliberates on its decision.

The Major Professor must report the results of the Final Examination to the ECE Graduate Office within 24 hours after the examination has been taken. No more than one dissenting vote is acceptable in certifying the candidate to receive the PhD degree. If the examination is unsatisfactory, at least one semester or summer session must elapse before the Final Examination is repeated.

#### 8 SPECIAL CIRCUMSTANCES

#### 8.1 Formal Review and Formal Review Examination

The ECE Graduate Coordinator is required to conduct a Formal Review of a PhD student's program when there are signs of less than satisfactory progress in completing the thesis research and dissertation. The most common indications of less than satisfactory progress are two consecutive grades of "U" in ECE 699 and failure to complete all degree requirements by the specified time limit. Students must take the Final Examination before the end of their sixth calendar year in the doctoral program (seventh year for direct PhD students) or within five calendar years after passing the Preliminary Examination, whichever comes first.

The Formal Review could include any or all of the following components:

- A written explanation by the student of the circumstances that have led to the academic problems and a proposed remedy;
- Interviews with the student, members of the Doctoral Advisory Committee, other faculty, students, or staff who have knowledge of the student's program;
- A Formal Review Examination conducted by the student's Doctoral Advisory Committee.

The format of the Formal Review Examination is the same as that of the Preliminary Examination and includes a written proposal and an oral presentation. The purpose of the examination is to provide the student's Doctoral Advisory Committee with information needed to formulate a recommendation. Responding to two consecutive grades of "U" in ECE 699, the committee might recommend for example:

- Continuation of the student's program with specific changes designed to promote renewed research progress;
- Require terminating the student's doctoral program upon receipt of another grade of "U" in ECE 699;
- Changing the student's project or transferring to a new Major Professor.

In cases where the time limit for taking the Final Examination is the cause of the review, the committee must recommend for or against a one-year program extension.

The ECE Graduate Coordinator, after considering all the available evidence, will inform the student, the Doctoral Advisory Committee, and the Graduate School of the decision for or against the student's continuation in the program.

#### 8.2 Research in Absentia

Under circumstances often beyond their control, graduate students sometimes find it necessary to attempt completing their research in absentia. Experience has indicated that it is very difficult to complete research in absentia status, and it is seldom a recommended course of action. At the very least, research in absentia should only be considered if a student appears to be within one year of completing his/her research.

Permission for research in absentia status must be obtained from the Graduate School. The request for research in absentia is initiated by the student's Major Professor on a form (Graduate School Form 12) available on the Graduate School website. The Graduate School must receive the request form at least one month prior to the beginning of the initial absentia session. Research in absentia is not permitted until after a student has completed all course work, passed the Preliminary Exam, and made substantial progress on the PhD thesis research. In addition to the Graduate School regulations governing research in absentia, as outlined in the Graduate School Bulletin, the School of ECE requires that the official request form must be accompanied by a statement, approved by all members of the Doctoral Advisory Committee, clearly identifying the reason(s) for the request. All requests for research in absentia must also be approved by the ECE Graduate Coordinator.

When approved, permission to register for research in absentia will be valid for an initial period of one calendar year. A request for an extension beyond the approved year of research in absentia initiates a Formal Review by the ECE Graduate Coordinator. As part of the Formal Review, the student must submit a written progress report and a complete explanation of why the

deadline for completion within one year was not met. In addition, the Doctoral Advisory Committee must be convened to conduct a Formal Review Examination. The committee will recommend a) a one year extension of the research in absentia status, b) termination of the research in absentia status (requiring the student to return to Purdue), or c) termination of the student's doctoral program. Students granted an extension of the one year limit must submit a written progress report to their Doctoral Advisory Committee and to the ECE Graduate Office prior to all subsequent registrations for research in absentia. Additional requests for an extension of research in absentia status are subject to the same review procedures. A student must register for research in absentia every semester (summer sessions not included) from the initial approval until all requirements are completed.

It should be noted that if your research merely requires the use of facilities that are available elsewhere, but not available at Purdue, you should not apply for research in absentia. Rather, retain your Purdue University appointment, register as a regular student, and file a request for "Change of Duty Station."

# 8.3 Re-Entry into the PhD Program

If a PhD student fails to register at the West Lafayette Campus for three or more consecutive academic sessions, he/she must submit a new application for re-entry into the doctoral program and obtain approval from the ECE Graduate Office and the Graduate School before any subsequent registration will be permitted. Registration for research in absentia, it should be noted, is considered to be registration at the West Lafayette Campus.

A student seeking to re-enter the PhD program is required to submit a new application as well as updated transcripts (if the applicant has pursued any academic studies in the interim). The student may also be required to submit a personal statement and new letters of recommendation.

It is also a Graduate School rule that course credits earned by a student whose graduate study and/or professional activity has been inactive for five years or more cannot be used on a plan of study for an advanced degree. A plan of study approved prior to such a period of inactivity is deemed invalid. Likewise, a Preliminary Examination passed prior to such a period of inactivity must be repeated.

#### 9 PETITIONS TO THE GRADUATE COMMITTEE

All graduate students have the right to petition for exceptions to any existing rules if they feel that the circumstances are sufficiently unusual to warrant special consideration. The first step is to request an appointment with the ECE Associate Head for Education to see if a resolution can be found at that level. If not, the student may file a petition with the ECE Graduate Committee. The petition is to be delivered in writing to the Chair of the Graduate Committee and is to contain the approval (or disapproval) of each member of the student's advisory committee.

# Appendix A: KEY PHD PROGRAM ACTIVITIES and TIME LIMITS

# **Key PhD Program Activities**

#### **Prior to First Semester Registration**

- Visit with three faculty members for advice on possible courses to take in the first semester.
- Come to the ECE Graduate Office (EE Building, Room 135) to register.

#### **During the First Semester**

- Register for at least one credit hour of ECE 692 or ECE 699.
- Satisfy the English proficiency requirement and all other admission conditions (such as presentation of your final transcript to the Graduate School).
- Select an Academic Advisory Committee.
- Submit a Preliminary Plan of study (*prior to registration for the second semester*).
- Satisfy the EE 694 seminar requirement. If you do not satisfy this requirement in the first semester, do so in the earliest semester possible.

#### First January (with MS) or January after 2nd semester (direct PhD)

• Take the Qualifying Examination.

#### **Before Completion of 4th Semester**

• Satisfy English Proficiency requirement.

#### Before Registration for 4th (with MS) or 6th (direct PhD) Semester

• File final plan of study.

#### Before Completion of 6th (with MS) or 8th (direct PhD) Semester

• Take the Preliminary Examination.

#### Two semesters before You Expect to Graduate

• Review your plan of study to verify that all degree requirements, including residency hours, are or will be met.

#### **During Final Semester**

- Declare candidacy on the registration form when you register for your final semester.
- Obtain thesis format approval from the Thesis Format Advisor prior to scheduling your Final Examination.
- Schedule your Final Examination with your Major Professor, your Doctoral Advisory Committee, and the ECE Graduate Office at least 3 weeks prior to the proposed date of the exam. The Final Examination must be completed before the semester deadline (approximately one week before the last day of classes) as indicated by the Purdue University Graduate School, but we strongly recommend you do not wait until this late date. Check the Graduate School website or in the ECE Graduate Office for the specific deadline. Those who are registered for "Exam Only" must complete their final exam by the eighth week of classes (fourth week of a summer session).

- Distribute copies of your thesis to advisory committee members at least two weeks before the oral exam.
- Take the Final Examination and complete thesis processing as respectively described in Subsection 7.3 and Appendix E.

# **Allowable Time Limit for Completion of the PhD Degree**

The time-limit policy of the School of Electrical and Computer Engineering provided below is to ensure timely academic progress. This policy applies to all students in the PhD program, including those on research in absentia.

Students entering the PhD program with a Master's degree are to complete all degree requirements within six equivalent full-time years from the beginning of their first semester registration. Those entering as direct PhD students have seven years to complete their degree requirements.

Students may request, in writing, an extension to the cited time limit. The first one-year extension beyond the cited time limit, an extension recommended by the student's Doctoral Advisory Committee, may be granted by the ECE Graduate Coordinator without a Formal Review Examination. Further extensions recommended by the student's Doctoral Advisory Committee will only be granted after a Formal Review Examination and the approval of the Graduate Coordinator.

Only full semesters are counted toward the time limit. Summer sessions are not counted even if a student registers for one or more summer sessions. Most students will complete taking the Preliminary and Final Examinations before a Formal Review is implemented. A student who is not in good standing with regard to the cited time limit will not be allowed to register for the following semester without the approval of the ECE Graduate Coordinator.

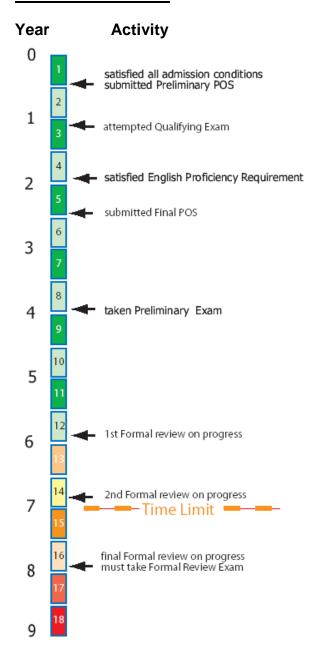
A summary chart of select key activities and time requirements is given on the next page.

# With MS Students

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# Year **Activity** 0 satisfied all admission conditions submitted Preliminary POS attempted Qualifying Exam 1 submitted Final POS satisfied English Proficiency Requirement 2 taken Preliminary Exam 3 4 1st Formal review on progress 5 2nd Formal review on progress 6 Time Limit final Formal review on progress must take Formal Review Exam 7

# **Direct PhD Students**



# **Appendix B: MATHEMATICS REQUIREMENT**

The following list of courses have been approved for meeting the mathematics requirement.

#### **Mathematics Courses**

Courses numbered MA 511 and above are acceptable with the exceptions listed below:

- 1. MA 519 (Stat 519) is not acceptable.
- 2. Only the AC and CS areas accept MA 504.
- 3. Only the BE and ES areas accept MA 510.
- 4. The CS area does not allow MA 527.
- 5. Math Teacher related courses are not acceptable.

#### **Computer Science Courses**

Numerical Analysis
Numerical Analysis of Linear Systems
Computational Methods in Analysis
Numerical Solution of Ordinary Differential Equations
Numerical Solution of Partial Differential Equations

Statistics Courses				
Stat 528 Introduction to Mathematical Statistics				
Stat 529 Applied Decision Theory and Bayesian Statistics				
Stat 532 (MA 532) Elements of Stochastic Processes				
Stat 538 (MA 538) Probability Theory I				
Stat 539 (MA 539) Probability Theory II				
Stat 553 Theory of Linear Models and Experimental Designs				
Stat 554 Multivariate Test Statistics				
Stat 555 Non-Parametric Statistics				
Stat 576 Introduction to Statistical Decision Theory				
Stat 638 (MA 638) Stochastic Processes I				
Stat 639 (MA 639) Stochastic Processes II				
Stat 657 Theory of Tests, Estimation and Decisions I				
Stat 658 Theory of Tests, Estimation and Decisions II				
Stat 667 Measure-Theoretic Statistics: Decision Theoretic and Classical				
Stat 668 Asymptotic Distribution Theory				

#### **Physics Courses**

Phys 600	Methods of Theoretical Physics I
Phys 601	Methods of Theoretical Physics II

Please Note: Faculty-initiated requests for changes or exceptions to the above will be considered by the Graduate Committee after approval by the appropriate area. Student-initiated requests must follow the same procedure, with the additional first step of approval by the student's Major Professor.

# **Appendix C: ENGLISH REQUIREMENT**

Any one of the following methods may be used to fulfill the English requirement:

#### A. For non-native speakers of English:

- Score a five or higher on the GRE Writing Assessment.
- Score a five or higher on the TWE (Test of Written English).
- Score 24 or higher on the Writing section of the Internet Based TOEFL
- Pass English 002 offered at Purdue University with a grade of Satisfactory ("S").
- Provide evidence (transcripts, for example) that you have successfully completed a one-semester-long composition course equivalent to English 002 or English 106 or 108 from an English-medium university with a grade of B or better. Many students can satisfy this requirement with a course taken during their undergraduate program. The ECE Graduate Coordinator may require you to provide a course description or additional information about the course.

#### B. For native speakers of English:

- Score a five or higher on the GRE Writing Assessment.
- Pass English 106 or 108 offered at Purdue University with a grade of B or better.
- Provide evidence (transcripts, for example) that you have successfully completed a one-semester-long composition course equivalent to English 106 or 108 from an English-medium university with a grade of B or better. Many students can satisfy this requirement with a course taken during their undergraduate program. The ECE Graduate Coordinator may require you to provide a course description or additional information about the course.

# Appendix D: SCHEDULING THE FINAL AND PRELIMINARY EXAMINATIONS

Schedule your Preliminary and Final Examinations with your Major Professor, your Doctoral Advisory Committee, and the ECE Graduate Office at least 3 weeks prior to the proposed date of the exam. The *Final* Examination must be completed before the semester deadline (approximately one week before the last day of classes) as indicated by the Graduate School, but we strongly recommend you do not wait until this late date. Check the Graduate School website or in the ECE Graduate Office for the specific deadline. Those who are registered for "Exam Only" must complete their Final Examination by the eighth week of classes (fourth week of a summer session).

To reserve a room for your Preliminary or Final Examination:

- Go to https://engineering.purdue.edu/ECN/Resources/Tools/RAT/;
- Select the room you wish to schedule and check the availability of that room;
- After confirming the availability of the room, select "Request Reservation;"
- Click on Georgina Rupp under the list of managers--you will then be able to submit the request online;
- Should the system not allow you to make a request, send the request by email to ruppg@purdue.edu.

A request to schedule the Preliminary or Final Examination should be sent by e-mail to the Graduate Program Administrator at goldenm@ecn.purdue.edu . Please complete the Preliminary/Final Exam Check Sheet – available online or from the ECE Graduate office – before sending in your request to the Graduate Program Administrator.

When making your request to schedule an examination, please supply the ECE Graduate Office with the following information:

- Your full name;
- Thesis proposal title or thesis title;
- Your Primary Area;
- Names of Advisory Committee members, with the Major Professor identified;
- Faculty identifiers and areas—in case of faculty outside of the School of ECE, please supply the person's department and email address;
- Date, time and place of the examination;
- An abstract (no more than 250 words) of the thesis research clearly defining the problem and its significance;
- The completed "Preliminary/Final Exam Check Sheet".

After receiving your scheduling request for the Final Examination, the ECE Graduate Office will seek approval from the Graduate School for your Doctoral Advisory Committee to conduct the examination. Please be aware that late requests to schedule your Final Examination do not allow sufficient time to process your request and adequately publicize your examination date. Any requests to schedule a Final Examination less than three weeks in advance must be approved by the ECE Graduate Coordinator, and will be approved only in exceptional circumstances.

# Appendix E: THESIS PREPARATION AND PROCESSING

Before beginning to write your thesis, you are strongly advised to meet the Thesis Format Advisor for ECE to review your plans for preparing your thesis and to obtain answers to any questions about the document formatting requirements. The ECE Thesis Format advisor is Andy Hughes (andy@purdue.edu). In his absence, Matt Golden functions as the Thesis Format Advisor.

"The ECE Thesis Format/Deposit—checklist and deadlines" website maintained by Andy Hughes (http://dynamo.ecn.purdue.edu/~andy/thesis/) provides detailed and extensive information on the preparation and processing of theses. This site should be accessed in the early stages of your thesis preparation and later for details on the proper processing of the thesis. Numerous informational links are available on the site, including links to the Graduate School Manual for the Preparation of Graduate Theses and the Thesis Format: A Style and Notation Guide for the Preparation of Graduate Theses.

Having completed the thesis preparation, receive your Major Professor's approval to proceed and schedule the Final Examination as outlined in Appendix D. Copies of the thesis are to be distributed to the Advisory Committee members at least two weeks in advance of the examination.

On the day of the Final Examination, your Major Professor will pick up your file from the ECE Graduate Office. The file will contain two forms that need to be signed by your committee; namely, "Report of the Final Examination," (Graduate School Form 11) and "Thesis Acceptance," (Graduate School Form 9). The "Report of the Final Examination" must be signed and returned with your complete file by your Major Professor to the ECE Graduate Office immediately after your exam. Keep the "Thesis Acceptance" Form 9 until you have made all revisions that were requested by your committee and have obtained the signatures of all committee members. Lastly, you must obtain final ECE thesis format approval from the Thesis Format Advisor. The Graduate School will not accept Form 9 unless it is signed by the Thesis Format Advisor. Your Major Professor is not responsible for format approval, and he/she should not sign Form 9 at the bottom under "Format Approved by."

After the Thesis Format Advisor has approved your thesis and added his signature to the Thesis Acceptance Graduate School Form 9, you must bind the "Thesis Acceptance" form into the front of the copy to be deposited with the Thesis Approval Office and take that copy and a second bound copy to the School Head for his/her signature. (Please note: the School Head will sign only if you follow the foregoing steps in the order specified. You will need to schedule an appointment with the School Head via his/her administrative assistant in the Main Office). After obtaining the Head's signature, take the copy with the Thesis Acceptance form to the ECE Graduate Office. An Electronic Thesis Acceptance form will be prepared by ECE Graduate Office personnel and subsequently e-mailed to you. You are to add the e-form to a PDF version of your thesis and send the electronic copy to the UMI archiving service.

Having obtained all required signatures and submitted the electronic version to UMI:

- Submit one bound copy with the School Head's signature to the Thesis Approval Office, located in the Graduate School, on or before the last day of the session in which you are a candidate. The other bound copy is to be left with the School Head's administrative assistant. (If the thesis is confidential, both bound copies are to be delivered to the Thesis Approval Office.)
- Give one copy to your Major Professor.
- Give a copy to any member of your examining committee who wants one.