Orientation to
ECE Graduate Programs

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Who's in charge of what?

- Purdue Graduate School---acts for the entire university

- ECE Graduate Committee---sets School of ECE Policy

- ECE Graduate Coordinator---counsels and implements rules set by ECE Graduate Committee

We're here to help!

- Matt Golden---Administrator of ECE Graduate Office

- Michelle Wagner---Registration and Plans of Study

- Karen Jurss---Applications and Admission

- Prof. Samuel Midkiff---Admission and Fellowships Director

- Prof. Stan Żak---Graduate Coordinator

- ECE Graduate office is located in EE 135

Preparation for 1st Semester Registration

- Review ECE Program Handbooks (MS or PhD) for degree requirements

- Tentatively select first semester courses from Advanced Planning List, Fall Class Schedule and Area Flow Charts

- Consult ECE faculty in Primary and Related areas before registering

- https://engineering.purdue.edu/ECE/Graduates/

Graduate Areas in ECE

- Automatic Control

- Biomedical Imaging and Sensing

- Communication Networks & Image Signal Processing

- Computer Engineering

- Fields and Optics

- Energy Sources and Systems

- Microelectronics and Nanotechnology

- VLSI and Circuit Design

- https://engineering.purdue.edu/ECE/Graduates/General/gradarea.html

About ECE Core Courses

- Foundation courses for the respective ECE area

- Listed as ECE 600--ECE 610

- Usually demanding and competitive

- Prudent to allocate more time and attention to core courses than you would for other courses

Things to do during Orientation Week

- Visit 3 faculty to discuss your 1st semester choices
  (Be prepared before these visits)

- Come to ECE Graduate Office (EE 135) to complete your registration

- Pay your fees

- Check your ECN account

- Get your mailbox assignment (via e-mail)

- Inform ECE Graduate office of your local address and telephone number

How many courses should I take?

- For certification purposes, 8 or more credit hrs in Fall or Spring semester is full-time for students without graduate appointment, 6 or more cr. hrs. for students with half-time graduate assistantships (TAs and RAs)

- Immigration laws require international students to maintain full-time enrollment throughout the academic year

- Try not to take two core courses in your first semester

- A maximum of 18 credit hours taken in the Fall or Spring semester may be used on a plan of study and/or toward graduation

How late can I drop courses?

- weeks 1--2 of the semester---no record

- weeks 3--4---Withdrawal, W, on record

- weeks 5--9---requires signature of instructor and Graduate Coordinator, W or WF on record

- check SSINFO to confirm that the drop is processed

Health Insurance

- Three separate programs:
  - Graduate staff
  - U.S. students
  - International students

- See ECE Business Office or PUSH for additional information

How do I find TA or RA support?

- Do well in your courses

- Improve your communication skills

- Talk to faculty

- Apply for a TA position midway through semester

- Watch for opportunities in other departments

- Be flexible and patient

What's on the web?

- ECE program documents and faculty
  - http://www.purdue.edu/ECE

- Purdue Graduate School Calendar, Fellowships, Thesis
  - http://www.purdue.edu/GradSchool/

- Short courses
  - http://www.purdue.edu/PUCC/Short-Courses

- ECE offices and mailboxes
  - http://www.purdue.edu/GradSchool/People/directory/

- International Students and Scholars(ISS)
  - http://www.purdue.edu/OIP/iss/

Student Organizations

- ECE Graduate Students Association (ECEGSA)
- Eta Kappa Nu (HKN)
- Engineering Student Council
- Institute of Electrical and Electronics Engineers (IEEE)
- National Society of Black Engineers (NSBE)
- Society of Hispanic Professional Engineers (SHPE)
- Society of Professional Engineers
- Society of Women Engineers (SWE)
- Women in Engineering

Ethical and Academic Conduct

- ECE's primary goals are: the education and development of its students, faculty, and staff, the discovery of new knowledge, and service to the University, state, and nation.

- These goals can only attained when the members of the ECE community adhere to a high standard of ethical and academic conduct. Any activity which might unfairly improve a student's score in a class or jeopardize the integrity of research programs or results will be considered dishonest, and will not be tolerated

- See https://engineering.purdue.edu/ECE/Graduates/General/ethics.pdf

Workshops on Responsible Conduct of Research

- **What is Plagiarism and How to Avoid it?**
  September 19, 2007, 5:00 p.m.- 6:30 p.m. Pfendler Hall 241
  http://ias.itap.purdue.edu/rgs/wgb_workshop.disp_online_workshop
  Registration opens on August 15, 2007

- **Intellectual Property and Copyright Regulations**
  October 10, 2007, 5:00 pm – 6:30 pm, Pfendler Hall 241
  http://ias.itap.purdue.edu/rgs/wgb_workshop.disp_online_workshop
  Registration opens on September 15, 2007

- **Roles and Responsibilities of Mentoring**
  November 20, 2007, 5:00 pm – 6:30 pm, Pfendler Hall, Room 241
  http://ias.itap.purdue.edu/rgs/wgb_workshop.disp_online_workshop
  Registration opens on October 15, 2007

Responsible Conduct of Research Course

- 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

Orientation Schedules

- Do attend meetings which are mandatory

Program Particulars for Masters' Students

Summary of Master's Course Requirements

	MS Only		MS/PhD Track	
	Non-Thesis	Thesis	Non-Thesis	Thesis
Required Core courses	2	2	2	2
Required Math courses	2	1	2	1
Allowed 695I or 696/697 cr. hrs	3 hrs	0	6 hrs	0
Allowed Undergrad cr. hrs*	6 hrs	6 hrs	6 hrs	6 hrs
Required Grad-Level ECE cr. hrs	15 hrs Can Include 3 hrs 696/697	15 hrs Includes 698	15 hrs Includes 3 hrs 696/697	15 hrs Includes 698
Required cr. hrs. on Plan of Study	30 hrs	30 hrs Min of 18 hrs non-thesis	30 hrs Includes 6 hrs 692/696/697	30 hrs Min of 18 hrs non-thesis

Master's: thesis or non-thesis?

- Benefits of thesis option:
  - Mentoring and valuable research experience not normally available from attending classes

- Benefits of non-thesis option:
  - Concentrate on courses for now, start research at Ph.D. level after you know more

- Other considerations:
  - Some faculty are reluctant to supervise Master's
  - Gain research experience via ECE 695I, 696
  - Interest in continuing on for the PhD degree

Conditions for Including U/G Courses on POS

- Max of 6 hrs of two 300- or 400-level courses based on need to overcome deficiency or interdisciplinary research. Has to be taken in the first calendar year.

- Must have prior permission. Request must provide a short written academic justification and be approved* by the student's advisory committee and ECE Graduate Coordinator.

- Credit for u/g courses may not be transferred from another institution. Courses must be taken while the student is enrolled in the Graduate Program, and grade has to be "B" or better to fulfill graduation requirements.

- Student's GPA will include the grades earned in these u/g courses.

* Not binding, still has to be approved by student's
  final advisory committee at graduation

Master's degree---first semester

- Decide thesis or non-thesis, MS-Only or MS/PhD track

- Select major professor and Advisory Committee

- Submit request for permission to include U/G courses
  Note: approval to register at this stage does not constitute approval to include in POS.

- Research credit requirement:
  - None for non-thesis MS-only track
  - At least 1 cr. hr. of ECE 695I/696/697 for those on non-thesis MS/PhD track
  - Note: ECE 695I or 696/697 not allowed on POS on thesis option
  - Satisfy ECE 694 Graduate Seminar and Written English (ENGL 002) requirement early

- Submit POS online prior to mid-semester

Masters Program Milestones
During Your FIRST Semester:

- Satisfy **all admission conditions** (such as presentation of your final transcript to the Graduate School)

- Satisfy the English Proficiency requirement. If you do not satisfy this requirement in the first semester, do so in the earliest semester possible.

- Select a major professor and an advisory committee.

- Submit a plan of study (**prior to registration for 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.

Ph.D. and Direct Ph.D.:
Things to do---first semester

- Talk to faculty to initiate research and to establish Academic Advisory Committee

- Submit preliminary POS prior to mid-semester

- Select Major Professor during second semester

Summary of PhD Course Requirements

	PhD (with MS)	Direct PhD
Non-Thesis Course Requirement in PhD Program	4 courses (2 ECE courses numbered $\geq$ 611 and 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[1] 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[1] courses or 2 Math and 3 Related-Area courses.
Allowed 696/697 Credit Hours	0	0

[1] 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.

Noteworthy Items

- Must register for at least 1 cr. hr. of ECE 695I or 699
- Must attempt QE early:
  - at the 1st offering after entry into program for PhD with MS
  - after 2 semesters into the program for Direct PhD
- Maintain a GPA ≥ 3.3
- No grade less than C on courses in POS
- Required resident hrs:
  - ≥ 60 hrs for PhD with MS
  - ≥ 90 hrs for direct PhD
- Final Plan of Study due
  - before 6th semester registration for PhD with MS
  - before 4th semester registration for PhD with MS

Qualifying Exam (QE)

- QE is offered once yearly in August during the week before the Fall semester

- Information on registration, exam rules and past exams may be obtained from the ECE Grad web site or the ECE Grad Office

Subsequent Semester Registration

- Required preliminary or Final POS must be submitted prior to registering

- Registration begins around the middle of the previous semester – advise to register early

- Satisfy ECE 694 Graduate Seminar and Written English (ENGL 002) as early as possible

- PhD students must register for ECE 699 from 3rd semester onwards

Ph.D. Degree Milestones
<u>During your FIRST Semester:</u>

• Satisfy **all admission conditions** (Such as presentation of your final transcript to the Graduate School)

• Satisfy the English proficiency requirement. If you do not satisfy this requirement in the first semester, do so in the earliest semester possible

• Select a Major Professor and an advisory committee

• Submit a preliminary plan of study (**prior to registration for 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.

Th-Th-Th-*That's All Folks*!