

PRINCETON

Department of Electrical Engineering

<http://ee.princeton.edu/>

# Graduate Student Handbook



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## PART 1: NEW GRADUATE STUDENTS

### *WELCOME*

We are delighted that you have chosen Princeton's Department of Electrical Engineering for your graduate studies. Princeton has much to offer, both at the Department and University level. We encourage you to take advantage of the many opportunities at Princeton to get to know the faculty and your fellow students.

During your stay at Princeton you will also interact with a range of University staff in the department, the School of Engineering and Applied Science, and the Graduate School. Many of these people have years of experience at Princeton and are happy to assist graduate students in their research, answer questions and guide you through the maze of University administration.

If you have questions about University procedures and don't know whom to contact, start with the EE Graduate Program Coordinator:

Colleen Conrad, B209 E-Quad, 8-6728, [cconrad@princeton.edu](mailto:cconrad@princeton.edu).

If you have any concerns that apply specifically to you (personal or professional), feel free to contact the Director of Graduate Studies (DGS, Professor Peter J. Ramadge, B222 E-Quad, 8-4645, [ramadge@princeton.edu](mailto:ramadge@princeton.edu)).

### *GETTING STARTED*

**Fall Semester:** Classes begin on September 13. Beginning September 7<sup>th</sup>, students can log into [TigerHub](#) to sign-in for the academic year, enroll in courses, view course and exam schedules, view their academic record, follow their degree progress, and evaluate courses.

**Academic Advisor:** Each incoming student is assigned an academic advisor to help with course selection and other academic issues. Please meet with your academic advisor as soon as possible. Students have time to meet with their academic advisors and attend some classes before making final course decisions.

**Course Add/Drop:** If you want to add or drop a course after the Graduate School's posted deadlines (see [academic calendar](#)) the change is done via the paper [Course Worksheet](#) form. The

form should be signed by the DGS, a copy provided to the Graduate Program Coordinator and the original delivered to the Registrar, 101 West College. If you stop attending a class but do not officially drop the class, you will receive a grade assigned by the course instructor.

**Building Access:** All exterior doors to the E-Quad are unlocked Monday thru Friday from 7:00 am to 7:00 pm, excluding University holidays. Most locked doors can be opened with a building access card. Handicapped access to the E-Quad is available at the entrance to the G-Wing near the tall liquid nitrogen tanks and also at the main E-Quad entrance on Olden Street.

**Desk Space:** You will be assigned a temporary desk upon arrival. After Advisor Matching, if a desk change is necessary, a request should be made to the Graduate Program Coordinator, in writing, by your research advisor. *PLEASE NOTE: All of the E-Quad is a public space. PLEASE LOCK YOUR PERSONAL BELONGINGS WHEN YOU ARE AWAY FROM YOUR DESK. UNIVERSITY INSURANCE DOES NOT COVER LOSS OF PERSONAL ITEMS.*

**Keys:** Office/Desk keys can be obtained from the Graduate Program office. Laboratory keys are available from the Main Department office.

**Mailbox:** Each enrolled graduate student has a mailbox on the third floor in the hallway above the Café. **Please do not have personal mail sent to your department mailbox.**

Mail that arrives in the department is sorted and deposited in the appropriate mailbox daily. The Graduate Program office will contact you to pick up any packages that arrive for you that will not fit in your mailbox. If you order from outside vendors that ship via UPS, FedEx or other shipping method other than the postal service, those packages will be delivered to the purchasing office, B321. The Purchasing Office will contact you when the package arrives. Outgoing mail (both US and campus mail) may be deposited in the mailboxes located near the Café. Interdepartmental envelopes for campus mail are available in B209.

**Coffee Lounge:** The department lounge is in B211 of the Engineering Quadrangle. It is equipped with a microwave and a coffee/tea/cocoa machine (25¢ per cup, bring your own mug.) You are welcome to eat there. It is your responsibility to ensure the area remains neat and clean, including the microwave and the sink.

## *LOOKING AHEAD*

**Selecting a Research Advisor:** In January/February of the first year, each Ph.D. student will select a research advisor who will then take over the academic advising responsibilities. Choosing a research advisor is one of the most important steps in the Ph.D. program; it should be done with care. A good way to select a research advisor is to get to know most (if not all) of the professors in your area of interest, and to schedule meetings with these professors so they can learn about your interests. Students should contact the professors to arrange one-on-one meetings, during the fall semester of the first year. In addition to meetings with professors, students should talk with current graduate students and ask professors for permission to visit and sit in on some weekly research group meetings.

It is not uncommon for students to focus initially on finding a professor whose research interests most closely align with the student's. There are other factors to consider in addition to the area of research:

- Is there a good match in terms of research style? (For example, an experimental vs. theoretical focus; collaborative, group-oriented research vs. very independent research)
- Amount of faculty time available for students, and the style of interaction: Some professors schedule one-hour weekly meetings with students, other professors might stop by the lab to chat periodically, and others expect the students to arrange appointments when they need to talk.
- Consider personality, keeping in mind that dissertation research usually lasts for three to five years.
- What do graduates of this research group do next? All academics? All industry? A mix? How does this match the student's own career aspirations?
- How long does it typically take a student to graduate from this group?
- Are the current students happy?

Overall, you should not simply choose an advisor based on research alone, but should ask enough questions to develop a sense of which faculty member's research interests and work style are most compatible with her/his own.

Certain faculty may have specific expectations for students they take on as research advisees. Discuss course/research plans with your academic advisor early in the Fall semester.



**Advisor Matching Process:** On the last day of fall semester reading period, each first year Ph.D. student is asked to submit a ranked order list of exactly three preferences. Each preference can be either an individual faculty advisor or a pair of co-advisors. The list is submitted to the DGS and Graduate Program Coordinator. On the Friday of intercession, each student will be notified if it has been possible to match a student with one of the three submitted preferences. Non-matched students may need to reconsider their list of preferences and can be subsequently matched at any point in the spring semester.

Each faculty is free to decide to make a decision on a student advisee during the end of fall semester matching period or wait until any later time in spring semester. If a faculty decides to wait, he or she will discuss this with those students who listed their names on the preference lists before the Friday of intercession. Each student then has the option to make his or her own choice: participate in this round of matching or wait till later.

You must have a research advisor by June 1 of your first year to be reenrolled for the 2<sup>nd</sup> year.

**Changing Your Research Advisor:** The Department recognizes research interests may change after a student begins graduate study at Princeton. If a student feels that her/his talents and interests would be better served working with a different research advisor, a change is often possible. While it can feel awkward to switch advisors, the benefits often outweigh the hassles.

The specifics of how to go about a switch depends on the individual situation. Students are always welcome to discuss the situation (confidentially, if preferred) with the DGS. But in general, a typical approach for a student to follow is to:

- Discuss any issues with the current advisor. Sometimes a simple adjustment of research topic may be enough to improve the situation.
- Speak to faculty members with whom the student would like to work.
- Finalize with the professor who will be the new advisor.
- Let the former advisor know about the new choice and work out a transition plan.
- When the switch is finalized, notify the Graduate Program Coordinator to update the records.

## *OTHER IMPORTANT INFORMATION*

**Safety:** *Laboratory Safety is of the utmost importance!* *All incoming first year graduate students are required to take Laboratory Safety Seminars to help ensure their safety and the safety of their colleagues.* Every student who works in a laboratory *must* complete the Laboratory Safety Course. In addition, the [SEAS Safety Guidebook](#) outlines procedures to ensure a safe and healthful working environment for all faculty, staff, students and visitors. Please review the [Safety Highlights](#) and the [Safety Guidebook](#) to ensure the safety of you and your colleagues. If you are sure that you will not be working in a lab or if you have questions about Lab Safety Training, please see the Graduate Program Coordinator, Colleen Conrad.

**Graduate Student Policies:** Please review the Graduate School policies at <http://gradschool.princeton.edu/policies>. There are two aspects of these policies that you need to learn about as soon as possible: (1) Academic Integrity and (2) The Vacation Policy.

**Academic and Scholarly Integrity:** The ability of the University to achieve its goals depends upon the quality and integrity of the academic and scholarly work that its faculty, staff and students perform. Intellectual integrity, with its accompanying rights and responsibilities, lies at the heart of the University's mission. Observing basic honesty in one's work, words, ideas, and actions is a principle to which all members of the community are required to subscribe. The best guide to these issues is the University's publication [Rights, Rules, Responsibilities](#) (RRR). The RRR is revised and reprinted each year however the standards for issues such as plagiarism and other academic violations do not change. *It is crucial that you read and understand the RRR, most importantly the section on Academic Regulations.* *You must understand what constitutes an academic violation at Princeton. If you have questions, please contact the Director of Graduate Studies, [ramadge@princeton.edu](mailto:ramadge@princeton.edu)*

**Vacation Policy:** Graduate study is a full-time commitment. As outlined in the [Graduate Student Policies](#), during the academic year, September 1 to August 31, graduate students may take up to, but no more than, 4 weeks of vacation (this includes standard university vacation days). The department encourages students to take a vacation – break from work often increases your subsequent productivity. However, please remember that any vacation time must be discussed and approved by your advisor (academic or research) before taking time off.

If a student is an AI, he/she should also discuss vacation plans with the Professor teaching the course. If the student anticipates being an AI during the Fall semester and is planning to travel during the summer, the student should ensure that he/she will return before the start of the Fall semester. NOTE: International Students, if you are returning home to renew your visa, please check with the Davis International Center regarding the timing of your travel and possible delays.

**Library Facilities:** The University's library is electronically accessible at <http://libweb.princeton.edu>. From this site, you can access the University's on-line catalog, many databases and the electronic forms of many key journals. The University also has an electronic document delivery service, where you can request articles from journals not held by the Library, or in older volumes in branch libraries. There are also "non-virtual" branches of the library.

**Electrical Engineering Emergency Action Plan.** Please review the [Department's Emergency Action Plan](#).

**Electrical Engineering General Policies and Procedures:** Please review the [Department General Policies and Procedures](#)

**Tax Filing Responsibilities:** For international students, please see the Davis International Center website <http://www.princeton.edu/intlctr/davis-ic-home/taxes-social-security/>

## PART 2: THE DOCTORAL PROGRAM

### **COURSE WORK**

**Course Requirements:** A minimum of eight graded technical courses at the 400 and/or 500 level must be completed in the first two years of Ph.D. study, with a required minimum GPA of 3.3 for eight courses. During your first year, a minimum of six graded technical courses at the 400 and/or 500 level must be completed. The grades for these courses are an important component of the Department's readmission decision (see Reenrollment Section). Some technical courses at the 300 level from ELE and other departments may count for this requirement. Permission of the Faculty Graduate Committee is required for any 300 level course to count towards the 8 minimum courses. If you wish to do that, please contact the Graduate Program Coordinator. It is suggested that you obtain the permission before registering for the course.

**Incompletes:** Graduate students who have not completed the requirements of a course by the deadline will receive an incomplete (INC). INCs are typically given for extremely extenuating circumstances, such as personal or family problems. INCs must be replaced by a regular grade (including F) within one year from the end of the semester in which the INC was assigned. For each INC, the student and the professor should agree on a concrete plan for completing the unfinished work within the necessary time period.

**Minor Requirement:** To satisfy the minor requirement the student, in consultation with his/her advisor, should select two courses from the courses completed that are (1) outside the student's major area and (2) have a minimum GPA of 3.3 for the two courses. Some specific courses may be recommended or required by an advisor. Students should check with their advisor for specific details.

**Responsible Conduct of Research:** To ensure graduate students conducting research are educated in research ethics, the University and the Graduate School expect all graduate students in the divisions of social science, natural science, and engineering receive training in responsible conduct in research. Electrical Engineering students are expected to complete the Responsible Conduct of Research training during the second year. If the student has a conflict, he/she should contact the Graduate Program Coordinator to discuss an alternative plan.

## **REENROLLMENT**

All graduate students must apply formally for annual reenrollment. Each spring the Graduate Program Coordinator will notify all students when reenrollment is open and provide a deadline for completion of reenrollment comments. Each student should plan to meet with his/her advisor before completing the reenrollment comments. After the student submits reenrollment data, the student's advisor will review, comment and submit the reenrollment request to the DGS. The DGS will then review, comment and submit the request to the Graduate School for processing. The Dean of the Graduate School makes the final reenrollment decisions for all students, based upon the departmental recommendations. The Graduate School will then notify all students of their reenrollment status.

In order to be reenrolled into the second year of study with continuing Ph.D. candidacy, a student must satisfy the following departmental requirements:

- Six graded technical courses at the 400 and/or 500 level, with a minimum GPA of 3.0. If a student has not completed six graded, graduate level courses by the end of the first year, readmission may be deferred, granted for fall term only or declined depending on the student's performance and any extenuating circumstances.
- A commitment from a faculty member to advise and support the student.
- completion of the University English language requirement necessary for appointment as an Assistant-in-Instruction.

In order to be reenrolled into the third year of study with continuing Ph.D. candidacy, a student must satisfy the following departmental requirements:

- Eight graded technical courses at the 400 and/or 500 level, with a minimum GPA of 3.3.
- Successful completion of the General Exam. See General Exam section below.

In order to be reenrolled into the fourth and subsequent year of study with continuing Ph.D. candidacy, a student must make satisfactory research progress, as determined by the research advisor.

*Please note: Permission of the Faculty Graduate Committee is required for any 300 level course to count towards the 8 minimum courses. If you wish to do that, please contact the Graduate Program Coordinator. It is suggested that you obtain the permission before registering for the course.*

## ***FINANCIAL SUPPORT***

***Academic Year Support:*** Enrolled PhD students in good standing are supported with full tuition and a stipend set by Princeton University. All first-year Ph.D. students are supported by fellowships. After the first year, Ph.D. students in good standing can expect to be supported by Assistantships in Research (AR) and/or Assistantships in Instruction (AI), or some combination of the two. See below for more information on AI and AR appointments.

***Summer Support:*** Students should discuss their summer plans in advance with their research advisor. Students who continue their research on campus with their advisor can expect to receive

support for the months of July and August. With the approval of the student's advisor, students may seek a summer research internship. Please see section on Internships for more information.

**External Fellowships:** The Department recognizes that external fellowships are prestigious for our students and our department. Both new and continuing students are encouraged to apply for appropriate fellowships. More information is available at the Graduate School's website: <http://gradschool.princeton.edu/costs-funding/sources-funding/external-funding>

Students receiving a fellowship from a non-Princeton source are expected to accept that award and to notify the Graduate Program Coordinator in writing of the award details. Students with external fellowships *may be* eligible to receive a prize/bonus. Please see the Graduate School website for more information <http://gradschool.princeton.edu/policies/external-fellowships>

If you receive an external fellowship, please contact the Graduate Program Coordinator with the details of the fellowship.

## **INTERNSHIPS**

**Summer:** If a student plans to hold an internship during the summer of 2017 (anytime between May 29, 2017 and September 13, 2017), the Graduate Program Coordinator should be notified of the details of the internship. International students with an internship in the US need to apply for Curricular Practical Training (CPT) and register for the Extramural Research Internship course, ELE515. Please contact the Davis International Center for more information on [Curricular Practical Training](#).

**Regular Academic Year:** If you will hold an internship during any part of the regular academic year (September 13, 2016 to May 28, 2017) please notify the Graduate Program Coordinator of the details of your internship. Students who have an internship for more than half of either the fall or spring semester must also apply for In Absentia status. Please beware that In Absentia status can affect campus housing. An international student with an internship in the US will need to apply for CPT and register for the Extramural Research Internship course, ELE514. Please contact the Davis International Center for more information <http://www.princeton.edu/intlctr/graduate/for-f-1-students/employmenttraining/off-campus-employment/curricular-practical-trai/>

## *THE GENERAL EXAM*

The General Exam consists of two components: a Research Seminar and an Oral Exam to be completed prior to the end of the second year of study. The Research Seminar and Oral Exam are scheduled by the student and the student's advisor, during the General Exam period in the spring term of the second year, as set by the University. There should be at least 1 hour between the end of one component of the General Exam and the start of the second component. The performance of the Research Seminar and the Oral Exam are evaluated by the student's General Exam Committee (discussed below). Students must take the General Exam before June 1 of the second year in the Ph.D. program. Requests for exemption must be made to the DGS. Failure to complete the General Exam by June 1 of the second year will be considered unsatisfactory academic progress unless an exemption has been given.

**General Exam Committee:** The committee consists of at least three Princeton faculty members, one of which must be a Department or Department-affiliated faculty member. The committee is selected by the advisor in consultation with the student. One member of the committee should be in a research field outside the student's immediate research.

**Research Seminar:** The Research Seminar is a presentation of the student's research at Princeton, typically lasting about 45 minutes, followed by questions from the exam committee. The seminar is intended to demonstrate that the student is capable of independent research and has initiated a research topic that has the potential to lead to a doctoral dissertation.

**Oral Exam:** The Oral Exam is administered by the student's General Exam Committee. It may be held one hour after the research seminar, or at a later date within one month of the Research Seminar. A student should talk with the General Exam Committee regarding the topics of the Oral Examination.

**Master of Arts (M.A.):** The M.A. degree can be earned by Ph.D. students en route to their Ph.D., after the student has: (a) completed the course requirements (b) presented a Research Seminar approved by the student's General Exam Committee and (c) passed the General Exam.

## AWARDS

Graduate students are eligible for a variety of internal awards recognizing research achievements. Some of these awards and prizes are listed below. We encourage students to become familiar with these awards and strive to make themselves a strong contender for an award.

### *Department Awards:*

- *TA Awards:* TA awards are given each year to outstanding TAs from the prior academic year. Students must be nominated by the faculty.
- *Early Stage PhD Award:* This is awarded to Ph.D. students who have excelled during their first two years at Princeton. To be eligible for nomination, a second year student must have passed the general exam with distinction by the end of their second spring semester. Students are nominated for this award by their advisor with two supporting letters provided by members of the general-exam committee.
- *Best Dissertation Award:* This award recognizes students who have completed an outstanding thesis. Students who have submitted their thesis and passed their FPO during the 12 months preceding the end of the spring semester are eligible to be nominated for this award. Nominations are submitted by the student's advisor together with two supporting letters provided by either the readers or members of the FPO committee.

### *SEAS Awards:*

- *Wu Prize for Excellence:* This award recognizes senior students who have excelled at research. Students must be nominated by the department during the spring and must be starting their terminal year of study in September of the same year. Students who received a Wu or Upton Fellowship upon entering Princeton are not eligible for this prize.
- *Travel Awards:* The School of Engineering offers travel awards each semester. These recognize research accomplishments that have led to accepted conference publication. To apply go to <http://www.princeton.edu/engineering/graduate/travel-funds/>

### *University Awards:*

- *Honorific Fellowships:* These fellowships are awarded by the Graduate School to students of outstanding academic promise and superior academic achievement. Students must be



nominated by their department in time to hold the fellowship during a final year of regular enrollment (not in DCE enrollment). Fellows must agree not to teach or engage in any other remunerative activities during the year. Please see the Graduate School website for more information <http://gradschool.princeton.edu/costs-funding/sources-funding/fellowships/competitive>

- *Travel Awards:* Students can apply for travel awards from the Deans Fund for Scholarly Travel. Please see the website for more information <http://gradschool.princeton.edu/costs-funding/sources-funding/travel-grants>

### *ASSISTANT IN RESEARCH (AR) and ASSISTANT IN INSTRUCTION (AI)*

***Assistantship in Research (AR):*** Students supported on AR appointments for part of the academic year are expected to be working on the associated research project during the portion of the academic year for which they are being paid.

***Assistantships in Instruction (AI):*** Assistants-in-Instruction are an important component of the overall teaching effort of the University. AIs assist faculty in the teaching of courses. This can include: classroom instruction, laboratory supervision, and grading. It is important to have a clear idea of AI responsibilities at the beginning of the term. Students holding non-Princeton fellowships may also be appointed (and receive additional compensation) as an AI. Every Electrical Engineering graduate student is required to hold one 3-hour AI in order to graduate.

The typical AI assignment is referred to as a “3-hour AI.” The term “3-hour” refers to the number of hours the AI spends in contact with students each week. A student with a 3-hour AI should expect to spend 10 hours per week on the duties assigned by the course instructor. A 3-hour AI assignment is made in combination with an AR assignment. Students enrolled *in absentia* may not hold AI assignments.

***Required AI Training:*** All students who serve as AIs are required to attend a training session administered by the [McGraw Center for Teaching and Learning](#). Failure to attend will jeopardize the financial support for that semester. Students who cannot attend the scheduled session should inform the Graduate Program Coordinator to arrange for an alternative training time.

## *DEGREE REQUIREMENTS*

The average time to complete a Ph.D. is five years. However, students are encouraged to complete the degree requirements earlier if possible. Discuss your progress and a tentative timeline for your Ph.D. with your advisor at regular intervals.

***PhD Degree Requirements:*** In the first two years, students must complete eight graded, graduate-level courses with a minimum grade point average (GPA) of 3.3. Six of these courses must be completed in the first year. In the second year, students are expected to demonstrate competence in certain core subjects relevant to their chosen area of study, as determined by the General Examination. Each doctoral candidate must

- complete all course requirements (see page 10 *Course Requirements*)
- pass the General Exam
- complete one 3 hour AI appointment
- satisfy the minor requirement
- complete the responsible conduct in research training
- submit and successfully defend an original doctoral dissertation

***MSE Degree Requirements:*** The MSE degree is typically awarded to students in the Ph.D. program who, for personal or academic reasons, cannot complete the Ph.D. degree. The M.S.E. is a terminal degree. To qualify for the M.S.E. degree a student must:

- Enroll as a full-time Ph.D. candidate for at least one academic year.

Complete six graded graduate-level courses, with a GPA of 2.7 or better. Four of the courses must be 400 or 500-level graded ELE courses. Permission of the Faculty Graduate Committee is required for any 300 level course to count towards the 8 minimum courses. If you wish to do that, please contact the Graduate Program Coordinator. It is suggested that you obtain the permission before registering for the course.

- Complete an M.S.E. thesis under the supervision of a faculty advisor.

## *STUDENT STATUS*

There are two very broad status types for degree-seeking students: enrolled and unenrolled. Graduate School links explaining these status types are given below. In order to change your status you must login to TigerHub and complete and submit the Status Change Request, along with the required documentation. Please note, student benefits can be affected by a change from enrolled to unenrolled status.

*Before making a status change you should check with the Department Graduate Program Coordinator. Additionally, if you are an international student on a visa, you should also check with the Davis International Center about how the status change will affect your visa. For information on benefits affected with a status change, please see*

<http://gradschool.princeton.edu/sites/gradschool/files/docs/ACA/Benefit%20Changes.pdf>

**Regular Enrolled Status:** To retain your regular enrollment status you must complete academic year sign-in September before the start of classes when notified to do so by the Graduate School.

<http://gradschool.princeton.edu/academics/statuses/degree-seeking-statuses>

**In Absentia Enrolled Status:** This status is for students pursuing degree related work but who are not in residence. Typically, this status is used if a student has an internship during the regular academic year or is working at another institution during the academic year.

<http://gradschool.princeton.edu/academics/statuses/degree-seeking-statuses/absentia>

**Dissertation Complete Enrollment (DCE):** Students who have not completed their degree within the departments normal program period (5 years or less) have the opportunity to be enrolled for up to 2 additional years in Dissertation Complete Enrollment (DCE).

<http://gradschool.princeton.edu/academics/statuses/degree-seeking-statuses/dissertation-completion-enrollment-dce>

**Leave of Absence Unenrolled Status:** Students who need to interrupt their studies temporarily for personal, medical or professional reasons can apply for a Leave of Absence. For more information, please see this website <http://gradschool.princeton.edu/academics/statuses/degree-seeking-statuses/leave-absence>

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**Enrollment Terminated, Degree Candidacy Continues (ET/DCC):** Students who are continuing to make satisfactory progress toward completing their degree may enter Enrollment Terminated/Degree Candidacy Continues (ET/DCC) status if they are (1) beyond the defined program length; (2) have exhausted DCE status; (3) chosen not to enter DCE status; or (4) must leave to pursue other opportunities, typically permanent employment. For more information, please see this website <http://gradschool.princeton.edu/academics/statuses/degree-seeking-statuses/enrollment-terminateddegree-candidacy-continues-etc>

## GRADUATE PROGRAM COMMITTEES

**Faculty Graduate Committee:** Each year the department chair appoints a faculty committee for the graduate program. The committee is chaired by the DGS. The members of this committee serve as departmental resources for students to contact beyond their academic or research advisors. For the 2016-17 academic year, the members of the Faculty Graduate Committee are:

### Director of Graduate Studies

Prof. Peter J Ramadge

B222, [ramadge@princeton.edu](mailto:ramadge@princeton.edu)

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### Committee Members

Prof. Paul Cuff

B-316, [cuff@princeton.edu](mailto:cuff@princeton.edu)

Prof. Nathaie deLeon

B-320, [npdeleon@princeton.edu](mailto:npdeleon@princeton.edu)

Prof. Claire Gmachl

B-227, [cgmachl@princeton.edu](mailto:cgmachl@princeton.edu)

Prof. Prateek Mittal

B-326, [pmittal@princeton.edu](mailto:pmittal@princeton.edu)

Prof. Barry Rand

B-414, [brand@princeton.edu](mailto:brand@princeton.edu)

Prof. Kaushik Sengupta

B-216, [kaushiks@princeton.edu](mailto:kaushiks@princeton.edu)

Prof. Jeff Thompson

B303, [jthompson@princeton.edu](mailto:jthompson@princeton.edu)

Prof. Naveen Verma

B-226, [nverma@princeton.edu](mailto:nverma@princeton.edu)

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**Graduate Student Committee:** The Graduate Student Committee (GSC) is organized in accordance with the University's "[Rights, Rules, and Responsibilities](#)." The Committee is elected each fall by the ELE department graduate student body. The GSC is your best channel for expressing your ideas, concerns and opinions about all aspects of graduate student life in the department. The GSC meets periodically with the department Chair and Director of Graduate Studies, with junior

faculty candidates and with the departments external Advisory Council. In addition, the GSC organizes a variety of social and academic activities. The Faculty Graduate Committee frequently solicits the opinions of the Graduate Student Committee and uses it as a sounding board for pending policy issues.

## PART 3: CLOSURE

### *PREPARING FOR YOUR FPO AND APPLYING FOR YOUR PHD*

**Final Public Oral Examination (FPO):** The FPO is the defense of the student's thesis before a committee selected by the advisor in consultation with the student (See Selection FPO Committee Members below). During the FPO the student gives a formal oral presentation of their dissertation research. The presentation is followed by questions by the FPO Committee and others in attendance. After the question/answer period, the committee will make a final decision to recommend (or not) the granting of the Ph.D.

**Preparation of Thesis:** Instructions for preparing the dissertation in proper form for archiving in Mudd Library may be obtained at: <http://www.princeton.edu/~mudd/thesis/index.shtml>

Conversations with your advisor will provide a good guide to the content of the thesis. Students are responsible for costs incurred in the preparation of the thesis (copying, binding, etc.).

**Selecting Readers:** There must be at least three principal readers of a dissertation, normally members of the Princeton Faculty at the rank of assistant professor or higher. One of the three readers must be a current regular faculty member of the student's home department, normally the student's advisor. Any non-Princeton reader must be of a comparable standing in a relevant branch in the scholarly community. Please forward the prospective reader's C.V to the Graduate Program Coordinator for prior review and approval by the Graduate School.

**Selecting FPO Committee Members:** The FPO committee consists of three principal examiners, all at the rank of assistant professor or higher, at least two of whom have not been principal readers of the dissertation. One of the three examiners must be a current regular faculty member of the student's home department, normally the student's advisor. Any external examiner must be of a comparable standing in a relevant branch in the scholarly community. Please forward the prospective external committee member's C.V to the Graduate Program Coordinator for prior review and approval by the Graduate School. NOTE: Both advisors for co-advised students must be members of the student's FPO committee and two additional committee members will be required.

**Degree Conferral Dates:** Princeton University has five deadlines for graduate degree applications each academic year. The deadline and degree conferral dates for academic year 2015-2016 appear below. In order to participate in the June 2016 Commencement exercises you MUST hold your FPO no later than 10 am on Tuesday, May 17, 2016.

Degree Deadline for 2016-17	Degree to be Awarded on:
Friday, September 9, 2016	Saturday, September 24, 2016
Friday, November 4, 2016	Saturday, November 19, 2016
Friday, January 13, 2017	Saturday, January 28, 2017
Friday, March 24, 2017	Saturday, April 8, 2017
Tuesday, May 23, 2017	Tuesday, June 6, 2017

**Timeline:** A student should plan to complete the draft thesis a minimum of 10 weeks before the proposed FPO date. Please keep in mind that all forms, including readers' reports, must be submitted 2 ½ weeks prior to your FPO date (see Paperwork Summary below). The Advanced Degree application in TigerHub must be completed 2 ½ weeks prior to the FPO date. The Advanced Degree application is not complete without the inclusion of the names of all readers, and FPO committee, the confirmed FPO date and time and the room where the FPO will be held. The student has 7 ½ weeks to; (1) give the readers your thesis to read and provided feedback and comments, (2) make the suggested revisions; (3) provide the readers with the revised thesis for review and comments; (4) make the final revisions.

**Paperwork:** To schedule the FPO, please contact the Graduate Program Coordinator with the anticipated FPO date. A summary of the steps are below. Everything must be submitted 2 ½ weeks before your FPO date.

- Submit the Graduation Application in TigerHub, be sure to include the confirmed date, time and location of the FPO as well as all readers and FPO Committee members. Please see above for more information on selecting readers and FPO Committee members.
- Upload the Title page, with the month and year your degree will be conferred (See Degree Conferral dates above).
- Upload the Dissertation abstract (no more than 350 words)

- If for any reason an embargo on the dissertation is required, that must be requested at the time of the advance degree application. If uncertain, please check with your advisor.
- Provide the Prior Presentation and Publication form with appropriate information and advisor signature.
- Instruct the Readers to provide the Reader's Report form at least 2 ½ weeks in advance of the FPO. Please see above for more information on selecting readers.
- Verify with the Graduate Program Coordinator that the minor requirement has been satisfied.

When the request to hold your FPO is approved by the Graduate School, the Graduate Program Coordinator will provide instructions as to forms and documents needed at and after the FPO. A brief outline appears below:

*One week prior to your FPO:*

- Deliver a loose bound copy of your thesis to the Graduate Program office.
- Provide the Graduate Program office with a "New York Times" style version of your abstract (non-technical, 100 to 350 words) that can be posted on our EE Events website.
- Complete the Checklist for Students departing the University form <http://gradschool.princeton.edu/sites/gradschool/files/Student%20Checkout.pdf> and deliver the completed form to the Graduate Program Coordinator. If you live in campus housing, the Housing Department must complete and sign the housing section of the End of Enrollment form. Firestone library must complete the library section. If you have outstanding fines or books to be returned, do so before requesting the library to complete and sign the form.
- Please let the Graduate Program Coordinator know, via email, if you will require a letter from the Graduate School after your FPO, stating that you have met all of the requirements to receive your PHD.



**At your FPO:**

- Two professionally bound copies of the dissertation must be available at the FPO. These copies **should not be printed** on Department printers. Please see Mudd Library website for more information <http://www.princeton.edu/~mudd/thesis/index.shtml>

**After your FPO:**

- Immediately following the FPO, the student should remind the advisor to email the Graduate Program Coordinator with the FPO results and the names of the committee members present. The student should then bring the following documents to the Graduate Program Coordinator's office.
- Two professionally bound copies of the dissertation.
- An email confirming that you have successfully uploaded your thesis to the UMI website, per Mudd Library's rules <http://www.etsdadmin.com/cgi-bin/school?siteId=408>
- Survey of Earned Doctorates <https://sed.norc.org/showRegister.do> (please print two copies of the confirmation page).
- Graduate School Exit Questionnaire [https://gradschoolquestionnaire.az1.qualtrics.com/SE/?SID=SV\\_6zDxgyDwKqgFRTn](https://gradschoolquestionnaire.az1.qualtrics.com/SE/?SID=SV_6zDxgyDwKqgFRTn) (Please print two copies of the confirmation page).
- ELE Department Exit Info Form <https://www.ee.princeton.edu/guide/forms/ExitInfoForm-GS.pdf> Please update it with your current address, job and email information.
- Webpage Release form <http://www.ee.princeton.edu/grad/WebpageReleaseForm.pdf>
- Clean out desk and return desk/office/lab keys.

### *APPLYING FOR THE MSE DEGREE*

To apply for the MSE degree, a student must meet the MSE requirements set forth above. The degree deadline dates set forth above also apply to the MSE degree. The MSE thesis must be read and evaluated by the student's advisor. The advisor must complete a report evaluating the thesis and assign a grade for the work. No other readers are necessary. Instructions for preparing the dissertation in proper form for its archiving in Mudd Library may be obtained from their website <http://rbsc.princeton.edu/policies/masters-theses-phd-dissertations-submission-guidelines> However, the best guide on what information should be included in the thesis would come from conversations with your advisor. The student is responsible for costs incurred in the preparation of the thesis (copying, binding, *etc.*).

The student must also:

- Submit the Graduation Application in TigerHub.
- Complete the Checklist for Students departing the University form <http://gradschool.princeton.edu/sites/gradschool/files/Student%20Checkout.pdf> and deliver the completed form to the Graduate Program Coordinator. If you live in campus housing, the Housing Department must complete and sign the housing section of the End of Enrollment form. Firestone library must complete the library section. If you have outstanding fines or books to be returned, do so before requesting the library to complete and sign the form.
- ELE Department Exit Info Form <https://www.ee.princeton.edu/guide/forms/ExitInfoForm-GS.pdf> Please update it with your current address, job and email information.
- Clean out desk and return desk/office/lab keys.