



DOCTORAL STUDENT GUIDE

2023-24



Schaefer School of
Engineering and Science

Department of Electrical and
Computer Engineering

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1. Purpose of This Handbook

This guide serves as a reference to all doctoral programs of the ECE department. This guide does not replace Stevens' graduate policies and procedures but is intended as a reference to provide supplemental and program specific information.

2. Institutional Level Policies and Guidelines

There are general university-level requirements for Ph.D. students at Stevens. ECE requirements are in alignment with the university-level requirements. All ECE doctoral students shall familiarize themselves with both university requirements, procedures and policies as outlined in Stevens Academic Catalog and with ECE specific requirements. Some active links to websites that contain information pertaining to Stevens resources and requirements include:

2.1 Stevens Doctoral Handbook:

<https://www.stevens.edu/about-stevens/university-policy-library/graduate-academics/graduate-student-handbook/doctoral-handbook>

Here you will find information and guidance on doctoral program requirements for all Ph.D. students, including the residency requirement, time limit, enrollment policy, leave absence, and program completion.

2.2 Stevens Academic Catalog:

<https://www.stevens.edu/academics/academic-catalog>

This is the official academic catalog for all academic programs in the university.

2.3 Office of the Registrar:

Public site: <https://www.stevens.edu/directory/office-registrar>

Intranet Site: <https://my.stevens.edu/registrar/content/virtual-registrar>

The Office of the Registrar is responsible for all student records, student enrollment, course scheduling, academic calendar, examination schedules, and many other functions concerning students.

2.4 Graduate Student Handbook:

<https://www.stevens.edu/about-stevens/university-policy-library/graduate-academics/graduate-student-handbook>

Here you will find information and guidance on academic requirements for all graduate students at Stevens.

2.5 Office of Graduate Academics and Student Success:

Public Site:

<https://www.stevens.edu/directory/office-graduate-academics-student-success>

Intranet Site (log in with your Stevens credentials):

<https://my.stevens.edu/provost/grad-academics-and-student-success>

Here you can find information about various resources available to all Stevens graduate students as well as various Institutional policies and procedures. A section is dedicated to doctoral students. It is very important that you spend ample time browsing this site and familiarize yourself with all topics concerning graduate policies and procedures.

2.6 Office of Sponsored Programs (OSP)

<https://my.stevens.edu/osp>

Here you will find various procedures and policies applicable to conducting research at Stevens. Also, you will find information about research related training. All Stevens research policies can be found at: https://my.stevens.edu/osp/research_policies.

3. Ethics and professionalism

Stevens and the ECE department cultivate a diverse and vibrant community of high ethical standards and professionalism. All members of the Stevens community are expected to abide by the university's code of ethics. https://www.stevens.edu/sites/stevens.edu/files/files/UPL/Code_of_Ethics.pdf

By enrolling at Stevens, all graduate students promise to be fully truthful and avoid dishonesty, fraud, misrepresentation, and deceit of any type in relation to their academic work. The Graduate Student Code of Academic Integrity is a policy that aims to ensure the ethical pursuit of knowledge in coursework, research, scholarship, and creative activity. All graduate students are required to be familiar with the Graduate Student Code of Academic Integrity: <https://www.stevens.edu/sites/stevens.edu/files/Graduate-Student-Code-Academic-Integrity.pdf>

4. Financial support

The ECE department provides internal merit financial support to Ph.D. students in the form of Fellowships, Research Assistantships, and Teaching Assistantships, all based on the recommendation of the student's Ph.D. advisor. Other institutional level financial support opportunities such as travel support may be available for Ph.D. students. Details can be found on the intranet site of the office of Graduate Academics and Student Success under the tab Funding Opportunities (<https://my.stevens.edu/provost/grad-academics-and-student-success>).

5. Safety and Security

5.1 Personal Safety

For issues related to personal safety or to report unlawful activity or an activity that may compromise personal/campus safety, please contact the campus police.

- Stevens Police Main Number: 201-216-5105
- Stevens Campus Police Website: <https://www.stevens.edu/directory/campus-police>
- Stevens Emergency Alert System Enrollment: www.stevens.edu/everbridge

5.2 Laboratory Safety

Each lab has a General Laboratory Safety Standard Operating Procedure (SOP) which can be found in the lab. For additional questions about laboratory safety, students may reach out to the ECE department office.

5.3 IT Services and Cyber Security

For IT services or issues related to cyber security, please contact the IT department and the Office of Information Security:

- IT Department: <https://www.stevens.edu/directory/information-technology>
- Office of Information Security: <https://www.stevens.edu/directory/information-technology/training/security>

6. ECE Ph.D. Policies and Guidelines

The ECE department offers a Ph.D. program in Electrical Engineering (EE) and a Ph.D. program in Computer Engineering (CPE). The Ph.D. program requires the completion of a total of 54 credits beyond the masters' degree or 84 credits beyond the bachelor's degree, passing of a qualifying examination, a dissertation proposal defense, and the final dissertation defense.

6.1 Credit Requirements

For students with a Masters' degree a minimum of 18 course credits and 18 research credits must be completed, together with a 3-credit Stevens signature course: PRV961. The remaining 15 credits could be either courses or research credits.

For students admitted into the Ph.D. program directly from the Bachelor's Degree, a minimum of 30 course credits, and 30 research credits must be completed, together with a 3-credit Stevens signature course: PRV961. The remaining 21 credits could be either course or research credits.

Students may take special topics courses CPE 801 or EE 801 (3 credits per semester) as part of their course requirements up to two times to investigate topics that are not related to their dissertation research.

As an Institute requirement, students are not allowed to take more than 9 research credits before passing the Qualifying Examination. The Department recommends that the students take a maximum of 3 research credits in the first semester and a maximum of 6 research credits in the second semester.

Transfer credits: Students who wish to transfer credits earned at another institution beyond their Master's degree should first discuss this with their Ph.D. advisor and then the Associate Chair for graduate education. Additional information can be found at: <https://www.stevens.edu/directory/office-registrar/transfer-credit-information>.

Online courses: The ECE department does not define the maximum course credits allowed for online courses. Students shall consult with their Ph.D. advisor for enrollment in online courses. International students shall comply with the International Office's requirements to maintain the legal visa status.

PRV 961: Per institute requirement, the 3-credit course PRV961 (included in the 84 credits) shall be taken after passing the Qualifying Examination and preferably concurrent with the preparation of the dissertation proposal.

Minimum Credit Load: Students must enroll for a minimum of one credit each semester to maintain matriculation until they have completed or enrolled for all credits required by the program. Students who have completed or already enrolled for all required credits and who need to maintain matriculation while completing their degree requirements such as special problems, dissertation, or project, must enroll for D999, Maintenance of Matriculation, and pay the required fees.

To maintain the full-time status (required for international students), it is required to enroll for a minimum of 9 credits each semester. For special situations (such as final semester of study before completion of all the credit requirements) that the student shall enroll for less than 9 credits, please refer to the below link for reduced course load information:

https://www.stevens.edu/sites/stevens.edu/files/files/ISSS/RCL_Student%20Instructions.pdf

6.2 Study Plan and Performance Assessment

A Ph.D. student completes a study plan selecting the courses that are relevant for the student's future research work and also will help prepare for the Qualifying Exam. The selection of courses should be done following the advice of the dissertation Advisor. The student should prepare and submit a study plan at the end of the first semester into the program.

The doctoral study plan form is available from the Office of the Registrar website at:
https://www.stevens.edu/sites/stevens.edu/files/files/registrar/SPAC/SP-AC_Doctoral.pdf
https://sit.instructure.com/courses/35399/files/9056711?module_item_id=1380130

The ECE department requires each Ph.D. student and the Ph.D. advisor to submit a performance assessment form at the end of each semester. The form is attached in Appendix B.

6.3 Qualifying Examination

The Qualifying Exam is intended to evaluate if the student has the required knowledge that qualifies her/him to become a Ph.D. candidate and pursue a Doctoral degree. Note that a student becomes officially a Ph.D. candidate after the Qualifying Exam is successfully completed.

The first attempt of the Qualifying Exam must be taken within a year of entering the Ph.D. program for students with a masters' degree and one year and a half for the students entering the program directly from a bachelor's degree.

The Qualifying Exam consists of two written exams testing fundamental knowledge. The student, advised by the dissertation Advisor, selects the two areas that are relevant for its Ph.D. research. The Qualifying Exam is typically offered twice a year: once in Fall and once in Spring. The Qualifying Exam can be taken a maximum of two times, in consecutive semesters. The Qualifying Exam date is announced a couple of weeks in advance by the Department. A student can enroll for a maximum of 9 credits of research before passing the Qualifying Exam, if the student is working under the supervision of a dissertation advisor.

Students planning to take the Qualifying Exam shall register the 0-credit course CPE 930 or EE 930 on Workday in that semester. The detailed policy for ECE Ph.D. Qualifying Exam is attached in *Appendix A*.

6.4 Dissertation Advisory Committee

After passing the Qualifying Examination, the student, together with his/her dissertation advisor, must select a Ph.D. topic and a Dissertation Advisory Committee (DAC). The DAC should be appointed within two months of the passing of the Qualifying Examination. The DAC should have a minimum of four faculty members (including the Chair of the Committee which is the Ph.D. advisor), three within the ECE Department, and one from another Department at Stevens. An additional outside member (outside of Stevens community) may also be appointed if appropriate. The DAC chair or co-chair must be a tenure-track, full-time professor, professor emeritus or non-tenure track faculty who have been approved by the Office of the Provost to serve as a DAC chair.

The DAC will serve as an additional advising resource for the Ph.D. student and will also assist with remediation plans in case there are issues with the normal progression in achieving the Ph.D. milestones. The student and the advisory committee must meet at least once a year and report to the Dean of Graduate Academics that the meeting was held.

Submit DAC Nomination Form on Workday: Once the dissertation advisory committee has been formed, the Doctoral Dissertation Advisory Committee Nomination form must be completed and submitted to Graduate Academics & Student Success for final approval.

The DAC nomination form must be completed and submitted via workday, following these steps or complete the form provided at the following links:

[https://www.stevens.edu/sites/stevens_edu/files/files/registrar/forms/doctoral_program/Doctoral Committee Nomination.pdf](https://www.stevens.edu/sites/stevens_edu/files/files/registrar/forms/doctoral_program/Doctoral_Committee_Nomination.pdf)

For any questions about forms, please contact the graduate academic advisor Ms. Nina Cheung (Email: ncheung@stevens.edu).

<https://sit.teamdynamix.com/TDClient/1865/Portal/KB/ArticleDet?ID=131046>

1. Open Workday Profile
 - 1) Locate “Requests” icon on homepage worklet, and select
 - 2) Under Actions section, select “Create Request”
 - 3) Request type, type in Doctoral Dissertation Advisory Committee Nomination, select OK
 - 4) Fill in all areas of the request and attach any documents (if necessary). If attaching documents, use the first Attachments section within the request, select Submit.
2. Once request is submitted, a notification will display as your confirmation with details of the next in process. Instructions on this and steps to check the progress of submitted request can be found here <https://sit.teamdynamix.com/TDClient/1865/Portal/KB/ArticleDet?ID=131046>.

6.5 Dissertation Proposal

After passing the Qualifying Examination, the student becomes a Ph.D. candidate. The student should start working on the research topic, and towards the preparation for the proposal defense. It is recommended that the proposal defense is scheduled within 1 year of passing the Qualifying Exam.

Students who plan to do proposal defense in one semester must enroll in the 0-credit course CPE 940 or EE 940 on Workday in that semester. The deadlines of add/drop/withdraw of CPE 940 and EE 940 follow the Stevens academic calendar.

6.6 Dissertation Research and Resulting Publication

The dissertation is the capstone deliverable for earning a doctoral degree and must be of the highest quality. A Ph.D. candidate is required to publish her/his dissertation research in peer referred journals or conferences.

The ECE Ph.D. program requires one publication submitted within a year of passing the Qualifying Exam, by the Proposal defense time. Depending on the specific field of research, the Ph.D. student will be advised by the Ph.D. advisor and the Ph.D. committee on the number of publications expected to be submitted and/or accepted by the time of the defense.

6.7 Dissertation Defense

At the completion of the research work, the student defends the research in front of the DAC. The defense is publicly announced at least 10 business days in advance, and it is open to the public. The student must submit to the DAC members a draft of the dissertation one month prior to the defense.

Publication of Dissertation:

After the dissertation is accepted, the student and his or her dissertation advisor are required to prepare a manuscript for publication. Details regarding the publication of dissertation can be found on the [Graduate Academics & Student Success Intranet site](#).

Library Requirements can be found at:

<https://library.stevens.edu/submit>

<https://library.stevens.edu/samplepages>

Dissertation Defense Date:

The dissertation defense must take place at least *three weeks* prior to Commencement. The last date to defend for each academic year can be found in the Academic Calendar at the following link.

Academic Calendar: <https://www.stevens.edu/directory/office-registrar/academic-calendar>

For additional questions, please contact the graduate academic advisor Ms. Nina Cheung (Email: ncheung@stevens.edu).

6.8 Ph.D. Milestones

Milestone	Recommended timeline
Study Plan	By the end of the first semester into the program
Qualifying Exam	Within the first year of the program
Dissertation Committee Appointment	Within two months of passing the Qualifying Exam
Proposal defense	Within a year of passing the Qualifying Exam
Publications	One publication submitted within a year of passing the Qualifying Exam, by the Proposal defense time. Depending on the specific field of research, the Ph.D. student will be advised by the Ph.D. advisor and the Ph.D. committee on the number of publications expected to be submitted and/or accepted by the time of the defense.
Dissertation Defense	At end of the program. Recommended 4 years into the program, depending on the publication level achieved (for students accepted into the program with a master's degree).

Appendix A: ECE Ph.D. Qualifying Exam Policy

Eligibility:

1. The student must maintain Stevens student status to take the ECE qualify exam.
2. The student has at most 2 attempts for the ECE qualify exam.
3. The student must talk to his/her advisor (either [dissertation](#) or academic advisor), and let the advisor know when he/she decides to take the qualify exam.
4. The student must enroll in CPE 930 or EE 930 at the beginning of the semester in order to take the qualify exam. Otherwise, the student cannot take the exam. The add/drop/withdraw deadlines of CPE 930 and EE 930 follow the Stevens academic calendar.
5. If a student chooses to withdraw CPE 930 or EE 930, it must be done before the deadline. Without a formal withdraw, if the student does not show up in the test, he/she will get a failing grade which counts as one attempt towards the overall allowed 2 attempts.
6. If there is an emergency on the exam day that prevents the student from taking the exam, he/she must notify the department as soon as possible and provide adequate supporting documents.
7. The student must arrive on time. The exam room will be closed after 30 minutes from the start of the exam.
8. The student must bring Stevens ID, and place it on the exam desk during the exam.

The Exam:

9. The exam will be closed-book, closed-notes.
10. No food during the exam.
11. Do not sit too close with your neighbors. The proctor may ask you to change your seat.
12. Calculator is allowed. Only standalone scientific calculators but not devices with calculator functions.
13. No borrowing of calculators or batteries.
14. No cell phones, no iPads or any other electronic devices.
15. Use one solution book for each subject, and clearly write your name and the subject.
16. Clearly mark your answers. If there are two different answers for the same question, the wrong one will be graded.
17. Organize your work logically. Show well-organized steps for partial credits.
18. No talking to any of the students. Only ask questions to the proctor when necessary.
19. Leave the room immediately after handing in the exam. No return to the room.
20. Any act of academic dishonesty will result in a failing grade immediately.

Post-Exam Review Policy:

- 1) A student, who did not pass the qualifying exam, after consultation with his/her Ph.D. advisor, may request, in writing within two weeks after the qualifying exam results notification, a grade review.
- 2) After the student's request, the qualifying exam coordinator collects the following information from the subject committee (faculty) for the subject(s) that the student did not pass:
 - a. the graded exam paper(s) of the student and
 - b. a brief explanation of grading
- 3) The qualifying exam coordinator meets with the student and presents the graded exam paper(s) and the explanation of grading to the student.
- 4) After reviewing his/her exam papers, the student has the right to formally request (in writing) a grade appeal within two weeks after the meeting with the qualifying exam coordinator. This will trigger the formation of a Post-Exam Review Committee which will review the grading of the exam paper(s). This committee should include the student's Ph.D. advisor, the qualifying exam coordinator, and the associate chair for graduate education). The committee will respond to the grade appeal request in writing, and will recommend to either keep the original grade, or will recommend a new grade. The committee decision is final. The committee will report its findings to the Department Chair and/or Graduate School, and the committee report will be added to the student's Qualifying Exam official records.

Appendix B: ECE Ph.D. Student Research Performance Assessment Form

Student Name:

Ph.D. Advisor:

Dissertation Advisory Committee Members:

Current status at the end of the current semester:

- Remaining course credits
- Remaining research credits
- Qualifying Exam passed?
- Dissertation committee formed?
- Proposal defended?
- Number of publications submitted/accepted to date (detail conference/journals)

Financial Support:

- Were you supported as a TA/RA/Provost Fellowship this semester?

Research activity this semester (outline achievements/milestones):

Goals for next semester:

Student's signature

Advisor's Assessment

Rating with respect to Department's Expectations:

Meets Few Meets Most Meets All Exceeds

Advisor's comments and recommendations:

Note:

- If Advisor's Assessment is "Meets Few", the student should develop a **Plan of Improvement**. Both student and advisor sign the Plan and submit the Plan along with this Form to the Department (ECE-CONNECT@Stevens.edu)
- If "Meets Few" twice, the student and the advisor should prepare a joint analysis report and present to the Ph.D. Dissertation Advisory Committee and Department. The Committee should provide constructive advice.

Advisor Name and Signature