Department of Electrical & Computer Engineering

Master’s Handbook

2019-2020
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Program Overview

- Masters students are required to complete a minimum of 32.0 credit hours applicable to the degree and fulfill all course requirements as outlined on the program planning sheet for their individual degree program. Updated program planning sheets are always posted on the Electrical and Computer Engineering website.
- Students should use the program planning sheet of the year they matriculated into the program. Students also have the option to (completely) follow planning sheets that were implemented after (but not before) matriculation.
- All 32 credits must be at the 500 level or above. Most graduate courses in the College of Engineering are 4 credits.
- Students are responsible for monitoring their progress, understanding the requirements and completing the degree program in a timely manner. In the event of a program change, students are responsible for fulfilling program requirements effective at the date of matriculation.
- A student has a maximum of five (5) years from the time of matriculation to complete the requirements for the MS degree. If a student has not finished the required courses and research thesis in this time, the student must reapply and be accepted again to the department in order to continue.

GPA Requirement

- To graduate, a GPA of at least 3.0 (B) must be attained for the courses used for the degree.
- Grades of C– or lower are not acceptable for master’s degrees and will not be applied towards a Master’s degree.
- Students are permitted to take a single course multiple times, but only one sitting of the course will count toward the degree requirement (C grade or higher). Any course taken multiple times will remain on a student’s transcript—courses cannot be “removed” from a transcript even if achieving a higher grade.

Transfer Credit from Outside Institutions

Students are permitted to transfer up to 8 credits of required courses against the degree program, if they have taken equivalent courses elsewhere at the graduate level, as long as those courses were not used to meet the requirements of an undergraduate or previous degree. This permission must be granted by petition. Petitioners should include as much content as possible for the equivalent course (i.e. copy of the syllabus, official transcript, homeworks, etc.) Successful completion of a 3-credit course from another institution will carry over as 3.0 credits only. You will still need to complete 32.0 credits to meet your degree requirements.

For further detail, consult the following bulletin policy: College of Engineering Graduate Policy: Transfer Credit

Academic Standards

The academic progress of every graduate student is reviewed at the end of each semester by the Graduate Programs Office. Failure to make satisfactory progress and remain in Good Standing can result in Academic Probation, Suspension for a stated period of time or until stated conditions are met, or Dismissal, as detailed below:

- **Good Standing**—Students maintain good academic standing when they: (1) earn a semester GPA of at least 3.00 (students enrolled only in Pass/Fail courses are exempt from the semester GPA standard); and (2) maintain a cumulative GPA of at least 3.00.
- **Academic Probation**—A student is put on Academic Probation when s/he earns a semester or cumulative GPA below 3.00. Students on Academic Probation may have their financial aid discontinued. **In the event that the semester or cumulative GPA is below a 2.00, a student may be dismissed from the program.**
Students are reviewed after one semester on Academic Probation. Those who earn a semester and cumulative GPA of 3.00 or above will return to Good Standing. Those students who do not achieve Good Standing (as defined above) after the probationary semester will be subject to Academic Suspension, Dismissal, or an additional semester of Academic Probation as determined by the College on a case-by-case basis.

- **Academic Suspension**--A student on Academic Probation faces Academic Suspension or Dismissal when s/he has not achieved Good Standing (as defined above) after the most recent semester of Academic Probation. Specifics regarding Dismissal or the duration and terms of the Academic Suspension will be determined by the College on a case-by-case basis. Dismissal results in permanent separation from the University. Appeals of Dismissal or Suspension are reviewed by the Associate Dean for Academic Programs.

- **Reinstatement after Academic Suspension**--Students who have fulfilled their period of Academic Suspension must meet with their academic advisor and must also reestablish their standing in the College by contacting the College of Engineering Graduate Programs Office.

Please refer to the [website](#).

**Summary of Course Requirements for Electrical and Computer Engineering Degrees**

Students should always refer to the [Electrical and Computer Engineering website](#) for detailed program information. General requirements are listed below:

**MS in Electrical and Computer Engineering**

The 32 credits must be fulfilled as follows:

- One course (4 credits) must satisfy the Software Requirement (EC602)
- One course (4 credits) must satisfy the Practicum requirement (EC601) or if exempt, in an MS Project or Thesis.
- Four courses (16 credits) must be within the Electrical and Computer Engineering department.
- Two courses (12 credits) can be ECE courses, other College of Engineering graduate-level courses, or College of Arts and Sciences graduate courses (500-level or higher) in technical areas (computer science, mathematics, physics, chemistry, biology) or MS Project or MS Thesis credits that are not counted towards the practicum. (Students should consult the Master of Science Program Planning sheet for the list of approved elective courses.)

**MS Project EC953 (Optional)**

- Students interested in pursuing a master’s project must identify a research advisor and a suitable project (in consultation with the research advisor) and complete the [MS Project Proposal Form](#). This form must be submitted at least three weeks before the semester in which the student intend to complete the project, to allow time for its review.
- If the proposal is approved by the Master’s Committee, the student will be registered for the ECE MS Project Course. Approval will based on 1) the quality of the proposal and 2) the committee’s judgment of the adequacy of the academic preparation.
- Please note that the MS Project must be completed in one semester only.

MS students who are finishing their projects in a particular semester are then required to present their work to ECE faculty and students at the end of that semester. Project presentations will typically take place on the last Friday before final exams.

**MS Thesis EC954 (Optional)**

- Students interested in pursuing a master’s thesis must identify a research advisor, a thesis committee, and a suitable thesis topic (in consultation with the research advisor) and then defend the thesis before a committee of
faculty upon completion of the thesis prior to completing the program. The current research interests of the ECE faculty are listed on our website. Students are highly encouraged to begin the process of identifying a research advisor and thesis topic well before the semester of intending to enroll in the Thesis. Please note that the MS Thesis often takes 2-3 semesters to complete due to the research nature of the work.

- In order to enroll in an MS Thesis, students must complete and submit the MS Thesis Proposal Form at least three weeks before the semester in which they are planning to conduct the research. If the proposal is approved by the ECE MS committee, the student will be registered for the ECE MS Thesis course. Approval will based on 1) the research quality of the proposal and 2) the committee’s judgment of the adequacy of the student’s academic preparation for the proposed thesis.

Below is more information on the MS Thesis Defense:

**MS Thesis Defense**

- It is the student’s responsibility to confirm a date and time of the presentation with his/her Committee members and submit a completed MS Thesis Defense Form. To complete this form, the student must provide his/her prospective Committee a draft copy of the thesis, including a title and abstract, and then collect their signatures indicating that the thesis is ready be defended. Once a date has been confirmed, the time and location, along with a copy of the Abstract, must be submitted to the Academic Program Manager at least 2 weeks prior to the defense date. The Abstract must have the names of the student and research advisor listed together with the project title. The Academic Program Manager will process announcement of the MS Thesis Defense to the ECE faculty and graduate students via email and add the event to the ECE calendar.

- The defense typically includes a 45 minute seminar presenting the results of the completed Thesis, and questions may be asked during or only after the presentation, as decided by the chair of the Master’s defense committee.

- Following a reasonable period for questions, the audience is dismissed, so that the committee may ask questions of the student privately; then the student is dismissed and the committee remains to complete its assessment of the thesis defense. The student can only pass the defense with the unanimous agreement of the Master’s Committee. The results are noted on the Thesis Defense Form and submitted to the Academic Program Manager, who will be responsible for obtaining the signature of the Chair of Masters Programs.

**Submission of the Final Thesis**

- The Thesis must be submitted to Mugar Library, as described here. Original title pages and signature pages need to be turned into the Academic Program Manager upon successful submission to Mugar Library.

- Please note that your final thesis and defense materials are expected to be available to the public.

**MS Program Completion Time Schedule**

- It is up to the student and the Master Committee to ensure the MS Thesis is completed in a reasonable amount of time. Most students graduate from the MS with Thesis program in 1.5 to 2 years after entering, which usually includes at least one year of full-time work on the Thesis.

- It is important to keep track of the numerous deadlines that have been established to ensure that students planning to participate in graduation ceremonies are not disappointed.

- A list of deadlines for the MS Program is located online here. Please contact the Academic Program Manager if you have any questions about these deadlines.
Other Program Information

Master of Science degree “with Engineering Practice”
The College of Engineering offers an Engineering Practice degree option to students in its Masters programs. Engineering Practice is a valuable opportunity for a student at the Master’s level to complete an approved internship integral to their program of study, thereby allowing them to develop additional technical and professional skills. Students interested in the Engineering Practice degree option must apply and meet the requirements outlined below. Students successfully completing the Engineering Practice degree option of their program will earn the accompanying degree designation (e.g., Master of Science in Electrical and Computer Engineering with Engineering Practice).

Internships used to complete the degree requirements must be relevant to the student’s program of study and must go through a program level approval process. The “Engineering with Practice” proposal form can be found here. Satisfactory completion of the requirement is determined by the program and then formally recorded by the Graduate Programs Office.

Requirements and Grading

- An internship site and project must be approved by the student’s faculty advisor and the Master’s Chair.
- In addition, a final report of work must be submitted to and reviewed by your academic advisor before the end of the semester in which the internship takes place.
- A brief summary/review from your internship supervisor is also recommended.
- Students receive a grade of Pass or Fail. The final grade is based on satisfactory completion of all requirements and is determined by the academic advisor in consultation with the internship supervisor.

For International Students

- International students must have completed two semesters in full-time status to be eligible to begin an internship in the United States, and they must complete additional paperwork with the BU International Students and Scholars Office (ISSO) after registration.
- International Students with an off campus internship must complete the Curricular Practical Training (CPT) Form, and bring the approved Engineering Practice Approval Form to the Graduate Programs Office for review for off-campus Curricular Practical Training (CPT).

Academic Advising and Registering for Classes

The ECE Department wants you to succeed! The ECE Master’s Program provides a wide variety of resources for the support and advising of students. Note however, that final responsibility for meeting all degree deadlines and requirements rests solely with students. The following resources are available to aid you in navigating Boston, BU, and the program:

- **MS Ambassadors**: MS Ambassadors are peer mentors for first-year students. They are available to answer general questions about the program and the overall student experience at Boston University. Each student will be assigned a MS ambassador who attends the weekly meetings of EC601 – Product Design for ECE. In addition, MS Ambassadors have set office hours and can answer questions over email.
- **MS Academic Program Manager**: The MS Academic Program Manager is the professional staff member responsible for the overall management of the MS program. They can provide advising codes, assist with add/drop of classes, interface to the International Students and Scholar’s Office (ISSO), internships, graduation requirements, program change forms, MS Project and Thesis questions, and petition questions.
• **Associate Chair of MS program**: The Associate Chair of the MS program is the academic lead of the program. They provide final approval for items such as Program Changes, MS Project and MS Thesis Proposals and any Petition Forms.

• **Faculty Academic Advisor**: Each student is assigned an academic advisor upon matriculation who is available to assist with any unresolved advising or program planning questions.

To register each semester, students should:

• Meet with Master Ambassadors, Academic Program Manager, or Academic Advisor as necessary to discuss class schedules.
• Receive academic advising code from the department’s Academic Program Manager. This code will activate the student’s web registration ability.
• Register for classes using the StudentLink.

**Applying to Graduate**

Students must submit an application to graduate from the program within the timelines established by the College; graduation does not occur automatically. Students must submit a complete and a Program Planning Sheet to be uploaded with the graduation application. MS thesis students should visit the Graduate Program Deadlines section of the Engineering website for more information on the timeline for defending and submitting their thesis. Students should consult with the Academic Program Manager for any further requirements, procedures, and deadlines which may affect their graduation eligibility.

**Deadlines for applying to graduate:**
- July 1st for September Graduation
- November 1st for January Graduation
- February 1st for May Graduation

**Commencement Information**

There is one College of Engineering Commencement ceremony per academic year and it takes place in May. All graduating students are invited and encouraged to participate in our commencement ceremony as a way to celebrate your hard work and achievements.

**Research Opportunities Outside the Department**

Most students who complete a thesis choose to do their research with a faculty member from the ECE Department or affiliated research centers. Faculty, scientists or researchers (holding a PhD or MD) within or outside of Boston University can be approved by the Chair of Masters Programs) to be a student’s principal research advisor only if they have an active research collaboration with a primary ECE faculty member who will agree to be the student’s research co-advisor.

**Graduate Student Resources**

**Student Link**

The Boston University Student Link is an online resource from which can access information about your status as a Boston University student, such as grades, class schedules and enrollments, financial aid, housing, and account status.
**How to Access Student Link**
You can log in to Student Link from any Web browser.

**How to Navigate Student Link**
The home page contains tabs representing the different content areas within Student Link—click on any area to learn more about it. Many areas of Student Link are available to all students—these areas are marked with italic font and you do not need a password to enter them.

However, some information on Student Link is specific to you—like your grades and enrollment status. To access these areas, Student Link will prompt you to enter your Boston University login name and Kerberos password, which you will obtain after you have been accepted into a Boston University Online program. Please note that only degree- and certificate-seeking students will receive a Kerberos password.

If you encounter any technical problems when using Student Link, or if you have questions, call the Link Support Line 617-353-LINK (5465).

**What can I do on Student Link?**
The following are just a few examples of the information you may request, access, and update on Student Link:

**The Academic Section**
- View the list of courses for which you are registered by selecting Current Schedule
- View a comprehensive list of courses you have taken at Boston University by selecting Classes
- View your grades by selecting Grades
- Print an unofficial copy of your transcript by selecting Transcript Preview
- Select University Class Schedule to browse or search the entire list of Boston University course offerings by semester and College. The University Class Schedule provides details on meeting times, locations, and available seats for each course.

**The Money Matters Section**
- View and pay your tuition balance by selecting Student Account Inquiry
- Check the status of a financial aid request by selecting Your Financial Aid
- Read about financial aid options by selecting General Financial Aid Information

**The Personal Section**
- View and update your address, phone number, and emergency contact information by selecting Address
- View your Personal Profile—this is the University’s record of your birth date, gender, ethnicity, citizenship, and marital status
- View the University’s record of your name by selecting Identification. For security reasons, the name will be displayed for 10 seconds. If you name is listed incorrectly, you can contact the Office of the University Registrar at 617-353-3612
- Specify whether you would like your contact information to be available to the Boston University community by selecting Data Restriction. When you first enter Boston University your address is made available to the University community—you may choose to specify that your address not be distributed. Note that your information will not be available to individuals outside of the Boston University community, no matter how you set your restrictions
**Email**

ECE utilizes electronic mail as a medium for official communication. Please be sure to check your BU email account on a daily basis for important information, and make sure that your account is not filled up. All ECE e-mail will be directed to your BU email account, not private accounts.

**Graduate Programs Office (GPO)**

Don’t know where to go? Come to the [GPO](#). This office provides resources and support to help you succeed as a student. If you are dealing with a complex issue, considering taking a leave or just don’t know your options, please visit the GPO.

The [Graduate Programs Office](#) is located in room 114 in the Engineering Research Building (ERB), 44 Cummington Mall. The office is open from 9:00am-5:00pm Monday through Friday.

Phone: 617-353-9760
Email: enggrad@bu.edu
Contact Information: https://www.bu.edu/eng/current-students/grad/contact-eng-graduate-programs/

**Student Association of Graduate Engineers (SAGE)**

SAGE addresses the issues and concerns of graduate students in the College of Engineering, including hosting biweekly socials and other activities throughout the year. For more information, please visit [www.bu.edu/sage](http://www.bu.edu/sage). To contact SAGE directly, email sage@bu.edu.

**Graduate Student Concerns**

Any matters concerning leave of absences, medical leave of absences or maternity leaves should be discussed with the Academic Program Manager.

**Career Development Office**

The [Career Development Office (CDO)](http://www.bu.edu/eng/careers/) connects College of Engineering undergraduate and graduate students with employers for internships and full-time employment.

The CDO works with students to help them identify career options and develop the resources they need to move forward along their career paths, whether that is with industry or with graduate studies. Services range from one-on-one counseling to career fairs and professional development workshops. We encourage students to get to know the CDO as soon as they arrive on campus, rely on the CDO throughout their BU education and continue using its services as alumni—as both job seekers and employers.

The [Career Development Office](http://www.bu.edu/eng/careers) is located in room 112 in the Engineering Research Building (ERB) at 44 Cummington Mall. The office is open from 9:00am-5:00pm Monday through Friday.

Phone: 617-353-5731
Email: engcareers@bu.edu [http://www.bu.edu/eng/careers/](http://www.bu.edu/eng/careers/)

**Graduate Student Academic Conduct Code**

The Boston University Code of Conduct, and the procedures for enforcing it, may be found on-line [here](#). Some of its key provisions are reproduced below for the benefit of the student.

**Philosophy of Discipline**

The objective of the College of Engineering in enforcing academic rules is to promote an academic community in which learning can best take place. This atmosphere can be maintained only when every student believes
that his or her academic competence is being judged fairly and that he or she will not be put at a disadvantage because of the dishonesty of someone else. Penalties should be carefully determined so as to be no more and no less than required to maintain the desired atmosphere. In defining a violation of this code, the intent is to protect the integrity of the educational process.

**Definition of Academic Misconduct**

Academic misconduct occurs when a student intentionally misrepresents his or her academic accomplishments or hurts other students' chances of being judged fairly for their academic work.

**Violations of This Code**

Violations of this code are those that constitute an attempt to be dishonest or deceptive in the performance of academic work in or out of the classroom or to alter academic records or to collaborate with another student or students in an act of academic misconduct, such as the following.

1. **Cheating on Examinations**: Cheating is defined as any attempt by a student to alter his or her performance on an examination in violation of that examination's stated or commonly understood ground rules.

2. **Plagiarism**: Plagiarism is any attempt by a student to represent the work of another as his or her own. This violation includes copying the answers of another student on an oral or written examination or copying or substantially restating the work of another person or persons in any oral or written work without citing the appropriate source, collaborating with someone else in an academic endeavor without acknowledging his or her contribution, unless collaboration is specifically permitted for the particular endeavor.

3. **Misrepresentation or Falsification of Data** presented for surveys, experiments, and so on.

4. **Theft of an Examination**: Theft is defined as stealing or otherwise discovering and/or making known to others the content of an examination that has not yet been administered.

5. **Forgery, Alteration, or Knowing** Misuse of graded examinations, grade lists, or official University records or documents, such as transcripts, letters of recommendation, and so on, or alteration of examination or other work after submission.

6. **Theft or Destruction of Examinations or Papers** after submission for the purpose of covering up possible poor performance or to cause harm to another student.

7. **Failure to Comply with the Sanctions** imposed under the authority of this code.

8. **Conflict of interests between GTFs and Undergraduates**.

**Procedures and Penalties**

Potential penalties range from Reprimand to expulsion. Please refer to the [website](http://example.com) for more information.

**Equal Opportunity and Nondiscrimination**

The College of Engineering maintains policies to ensure equal opportunity and nondiscrimination. Please contact Stacey Herman, Director of Graduate Programs, [smherman@bu.edu/617-353-9763](mailto:smherman@bu.edu/617-353-9763) with any questions about the following policies:

- Complaint Procedures in Cases of Alleged Unlawful Discrimination or Harassment
- Disability Accommodation
- Equal Opportunity/Affirmative Action Policy
- Sexual Misconduct/Title IX Policy
- Student Grievance Procedure in Cases of Alleged Disability Discrimination