

***Boston University***  
***Department of Mechanical Engineering***

***Masters Handbook***  
***Fall 2017***

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**Standard Academic Policies:**

Masters students are required to complete a minimum of 32 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 mechanical engineering website at <http://www.bu.edu/eng/departments/me/general-resources-students/current-masters-students/>. 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 the program requirements effective at the date of matriculation.

To graduate, a cumulative GPA of at least 3.0 (B) must be attained for the courses used against the degree. If necessary, student can take more than 32 credits and drop the lowest grade. **Successful completion of a 3-credit course in either the College of Arts and Sciences or the Questrom School of Business does not obviate the need to complete 32 credits.** Students are permitted to take a single course multiple times to achieve the GPA requirement, but will only receive 4 credits if used against the degree requirements.

All students are required to submit a Program Planning Sheet for approval by the Director of Masters Programs at the end of their first semester, indicating the eight courses they intend to take to fulfill the curriculum requirements.

Credit cannot be given for two or more courses having significant overlap (including overlap with courses that had been taken to fulfill the candidate's undergraduate degree requirements).

Students are permitted to utilize 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 must include a copy of the syllabus of the equivalent course and a transcript including their grade.

Students may also place-out of required courses upon demonstration of completion of a similar course at another accredited undergraduate or graduate institution, again by petition. Though students may place out of specific course requirements, this does not alter the 32 credit requirement, but it enables the student to take other electives.

## **College of Engineering Graduate Student Academic Standards Policy**

### *Academic Standards*

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

Grades of C– or lower are not acceptable for master’s degrees; Grades of C+ or lower for PhD students are interpreted as failures.

### *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 directed to 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.

## **Summary of Course Requirements for Mechanical Engineering Degrees**

Students should always refer to the mechanical engineering website for detailed program information. General requirements are listed below:

### **MS in Mechanical Engineering (non-thesis option)**

The 32 credits must be fulfilled as follows:

- Three courses (12 credits) must be Mechanical Engineering Core courses
- One course (4 credits) must be an approved math course
- Two courses (8 credits) must be mechanical engineering electives
- Two courses (8 credits) must be engineering/science electives

There is also a requirement for a practicum. This requirement may be fulfilled either by taking a course from the approved list on the program planning sheet or via independent study or an internship. Students are advised to get prior approval for the latter.

### **MS in Mechanical Engineering (thesis option)**

Students interested in pursuing a master's thesis must identify a research advisor and a suitable thesis project (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 ME faculty are listed on our website. Students are encouraged to begin the process of identifying a research advisor and thesis topic prior to matriculating in the program, even as early as during the time of preparing the application for the MS program. However, students are not required to have secured a research advisor or thesis topic prior to matriculating.

The 32 credits must be selected as follows:

- Three courses (12 credits) must be Mechanical Engineering Core courses
- One course (4 credits) must be an approved math course
- Two courses (8 credits) must be engineering/science electives
- Two courses (8 credits) must be MS thesis courses guided by a research advisor (ME 954)

### **MEng in Mechanical Engineering**

The MEng degree is intended for students who desire a curriculum with more management/business content than typically offered in a traditional Master's program.

- Three courses (12 credits) must be Mechanical Engineering Core courses
- Two courses (8 credits) must be engineering management Courses
- Three courses (12 credits) may be engineering/physical Science electives

There is also a requirement for a practicum. This requirement may be fulfilled either by taking a course

from the approved list on the program planning sheet or via independent study or an internship. Students are advised to get prior approval for the latter.

### **Summary of Course Requirements for Product Design and Manufacturing Engineering Degrees**

Students should always refer to the mechanical engineering website for detailed program information. General requirements are listed below:

#### **MS in Product Design and Manufacturing Engineering (non-thesis option)**

The 32 credits must be fulfilled as follows:

- Four courses (16 credits) must be Manufacturing Engineering Core Courses
- Two courses (8 credits) must be Design and Manufacture Electives
- One course (4 credits) must be an Engineering and Physical Science course

There is also a requirement for a practicum. This requirement may be fulfilled by taking a course from the approved list on the program planning.

#### **MS in Product Design and Manufacturing Engineering (thesis option)**

Students interested in pursuing a master's thesis must identify a research advisor and a suitable thesis project (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 MechE faculty are listed on our website. Students are encouraged to begin the process of identifying a research advisor and thesis topic prior to matriculating in the program, even as early as during the time of preparing the application for the MS program. However, students are not required to have secured a research advisor or thesis topic prior to matriculating.

The 32 credits must be selected as follows:

- Four courses (16 credits) must be Manufacturing Engineering Core courses
- Two courses (8 credits) must be Design and Manufacturing Electives
- Two courses (8 credits) must be MS thesis courses guided by a research advisor (ME 954)

#### **MEng in Manufacturing Engineering:**

The MEng degree is intended for students who desire a curriculum with more management/business content than typically offered in a traditional Master's program.

The 32 credits must be selected as follows:

- Six courses (24 credits) must be Manufacturing Engineering Core courses
- One course (4 credits) must be a Manufacturing Elective course
- One course (4 credits) must be the manufacturing industry practicum (ME 866)

MS in Manufacturing Engineering (non-thesis option) **\*No longer an option after September 2017\***

The 32 credits must be fulfilled as follows:

- Four courses (16 credits) must be Manufacturing Engineering Core courses
- One course (8 credits) may be an engineering/science elective
- One course (4 credits) must be a an approved math course
- One course (4 credits) may be a manufacturing elective from an approved list

There is also a requirement for a practicum. This requirement may be fulfilled either by taking ME 606 or via independent study or an internship. Students are advised to get prior approval for the latter.

MS in Manufacturing Engineering (thesis option) **\*No longer an option after September 2017\***

Students interested in pursuing a master's thesis must identify a research advisor and a suitable thesis project (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 MechE faculty are listed on our website. Students are encouraged to begin the process of identifying a research advisor and thesis topic prior to matriculating in the program, even as early as during the time of preparing the application for the MS program. However, students are not required to have secured a research advisor or thesis topic prior to matriculating.

The 32 credits must be selected as follows:

- Four courses (16 credits) must be Manufacturing Engineering Core courses
- Two courses (8 credits) may be engineering/science electives
- One course (4 credits) must be a math course from an approved list
- Two courses (8 credits) must be MS thesis courses guided by a research advisor (ME 954)

MS in Manufacturing Engineering and MBA in Management Dual Degree Program

The Department of Mechanical Engineering and the Questrom School of Business offer a coordinated Master of Science/Master of Business Administration program which prepares recent graduates or practicing professionals who are committed to careers in industry for positions as manufacturing managers. Individuals taking courses on a full-time basis complete the program in two calendar years and receive two degrees.

**Course Requirements**

A total of 80 credits is required for the dual degree program. Students must take at least 40 credits from the Questrom School of Business and also meet the MS requirements for Manufacturing Engineering, either with or without a thesis, including 32 credits of engineering courses. Courses may be used to meet the requirements of one degree only. The remaining 8 credits can be taken at either



the Questrom School of Business or the College of Engineering. Students are encouraged to contact the Department of Mechanical Engineering graduate programs coordinator, who will help them plan their curricula with an advisor at the time of first enrollment in the dual degree program.

The requirements for the Manufacturing Engineering portion of the degree are as follows:

- Four Courses (16 credits) must be Manufacturing Engineering Core courses
- One course (4 credits) must be an Engineering and Physical Science course
- One course (4 credits) must be a Math course
- One course (4 credits) must be a Manufacturing Elective
- One course (4 credits) must be the manufacturing industry practicum (ME 866)

## **Other Program Information**

### **Practicum**

For all non-thesis programs, one of the courses taken by the student to satisfy the 32 credits must also satisfy the Practicum Requirement. Please see the relevant program planning sheet for a listing of courses that satisfy this requirement. The approved courses require a substantive project, which provides the opportunity for each student, whether working individually or in teams, to gain hands-on experience with:

- 1) Defining a problem;
- 2) Researching, formulating, and realizing a solution (such as the design of a process or product); and
- 3) Presenting the solution in written and oral formats.

The project can be expected to require at least 50 hours (a few hours per week, on average) of time commitment by each student.

### **Master of Science and Master of Engineering degrees “with Engineering Practice”**

The College of Engineering offers an Engineering Practice degree option to students in all of 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 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. 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.
- A mid-point review between the student and the internship supervisor must be conducted and submitted.
- Before the end of the semester in which the internship takes place, a final report must be submitted and reviewed by the Academic Advisor.
- 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 and the CPT form to the ISSO for review and approval for off-campus curricular practical training.

#### Courses that Fulfill the Mechanical Engineering Math Requirement:

If the degree requires a math class, students can choose to take one of the following courses:

**ENG EK 500 Probability with Statistical Applications** A first course in probability, random processes, and statistics for students with a level of mathematical maturity and experience comparable to that normally found in entering graduate students. Sample spaces, probability measures, random variables, expectation, applications of transform methods, stochastic convergence and limit theorems, second order statistics, introduction to random processes, estimation, filtering, and elementary hypothesis testing. May not be taken for credit in addition to ENG EC 381 or ENG ME 308. 4 cr

**ENG EK 501 Mathematical Methods I: Linear Algebra and Complex Analysis** Introduction to basic applied mathematics for science and engineering, emphasizing practical methods and unifying geometrical concepts. Topics include linear algebra for real and complex matrices. Quadratic forms, Lagrange multipliers and elementary properties of the rotation group. Vector differential and integral calculus. Complex function theory, singularities and multi-valued functions, contour integration and series expansions. Fourier and Laplace transforms. Elementary methods for solving ordinary linear differential and systems of differential equations with applications to electrical circuits and mechanical structures.

**ENG EC 505 Stochastic Processes** Pre-reqs: ENG EC 401 & CAS MA 142 or equivalent and either ENG EC 381 or ENG EK 500. Introduction to discrete and continuous-time random processes. Correlation and power spectral density functions. Linear systems driven by random processes. Optimum detection and estimation. Bayesian, Weiner and Kalman filtering.

**CAS MA 511 Introduction to Analysis I** Fundamental concepts of mathematical reasoning. Properties of the real-number system, elementary point-set theory, metric spaces. Limits, sequences, series, convergence, uniform convergence, continuity. Differentiability for functions of a single variable,

Riemann-Stieltjes integration.

**CAS MA 555 Numerical Analysis I** Numerical solutions of equations, iterative methods, analysis of sequences. Theory of interpolation and functional approximation, divided differences. Numerical differentiation and integration. Polynomial theory. Ordinary differential equations.

**CAS MA 561 Methods of Applied Mathematics I** Pre-reqs: CAS MA 226 OR CAS MA 231. Derivation and analysis of the classical equations of mathematical physics; heat equation, wave equation, and potential equation. Initial boundary value problems, method of separation of variables, eigenvalue problems, eigenfunction expansions. Fourier analysis. Existence and uniqueness of solution.

**ENG ME 542 Advanced Fluid Mechanics** Incompressible fluid flow. Review of control-volume approach to fluids engineering problems, with advanced applications. Differential analysis of fluid motion. Derivation of full Navier-Stokes, Euler, and Bernoulli equations. Unsteady Bernoulli equation. Velocity potential and its application to steady two-dimensional flows. Vorticity and vortex motion. Eulerian vs Lagrangian analysis.

**ENG ME 566 Advanced Engineering Mathematics** Pre-reqs: CAS MA 225 OR CAS MA 226; senior standing, and consent of instructor. Introduces students of engineering to various mathematical techniques that are necessary in order to solve practical problems. Topics covered include a review of calculus methods, elements of probability and statistics, linear algebra, transform methods, difference and differential equations, numerical techniques, and mathematical techniques in optimization theory. Examples and case studies focus on applications to several engineering disciplines. The intended audience for this course is advanced seniors and entering MS engineering students who desire strengthening of their fundamental mathematical skills in preparation for advanced studies and research. (Formerly ENG MN 566)

**CAS PY 501 Mathematical Physics** Introduction to complex variables and residue calculus, asymptotic methods, and conformal mapping; integral transforms; ordinary and partial differential equations; non-linear equations; integral equations.

Students may petition for a different graduate-level course to count towards the Math Requirement.

### Academic Advising and Registering for Classes

Every student in the Master's program is assigned an academic advisor upon matriculation. The faculty advisor plays a central role in guiding student's academic program, assisting in course selection, and providing guidance and counseling in all academic matters. Note however, that **final responsibility for meeting all degree deadlines and requirements rests solely with students.** To register each semester, the process is straightforward:

1. Meet with advisor to discuss class and research schedules. Your advisor will be the best source of information regarding what classes to take.
2. Obtain your academic advising code from your advisor. This code will activate your web registration ability.
3. Register for classes using the StudentLink and WebReg.

Students are strongly advised to register as soon as the registration period is open, since many classes have enrollment limits.

If a student experiences difficulty in obtaining academic advising from their designated advisor, they are strongly urged to contact the Master's Program Coordinator. Any issues will be treated with confidentiality.

### Applying to Graduate

Students must submit an application to graduate from the program; **graduation does not occur automatically.** Students must submit an application to graduate from the program; **graduation does not occur automatically.** The Application for Graduation is available here:

<http://www.bu.edu/dbin/eng/graduation/grad/index.php>

In addition to the application, prospective graduates must also:

- Be registered for either a course or at least 2 credits of ME 954 in the semester or summer session in which they complete degree requirements and the semester prior.
- Submit a complete and signed Program Planning Sheet to be uploaded with the graduation application.

MS thesis students should visit the Graduate Program Deadlines section of the Engineering Bulletin for more information on the timeline for defending and submitting their thesis.

Students should consult with the department coordinator for any further requirements, procedures, and deadlines which may affect their graduation eligibility.

Deadlines for applying to graduate are as follows:

July 1st for September Graduation

November 1st for January Graduation

March 31st 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.

## **Writing a Thesis**

### **Research Project**

Writing a thesis is not required, but each student who chooses to write a thesis is responsible for finding a research project, conducting scientific studies under the guidance of an approved faculty member, presenting the proposal and results to the general scientific community in a public defense and finally turning in a thesis to be bound for the library and the MechE Department.

### **Finding a Research Advisor and Project**

Occasionally students enter the program with a specific research advisor in mind and may even plan to work on a specific project. The majority of students, however, will utilize the first two semesters to determine what their specific interests are in the field of mechanical or manufacturing engineering and identify the opportunities for funding in a professor's lab.

Another valuable way of learning more about specific research opportunities is to speak with other graduate students who are currently working in the MechE Department's various labs. The best method for learning about working in a specific lab is to make an appointment to speak with the faculty member in charge of a lab you are interested in. Once a student finds a research opportunity and has the consent of a faculty member to be his/her advisor, the process of developing a research thesis begins.

To find out more about specific research programs, please visit the individual faculty member webpages via the MechE website.

### **Academic vs. Research Advisors**

If a student chooses the MS with thesis option, his/her research advisor automatically becomes the student's academic advisor as well. However, if the student's principal research advisor is not a MechE full-time primary or affiliated faculty member (but has an active research collaboration with a primary ME faculty member), then a MechE co-advisor is required. A primary MechE faculty member with an active research collaboration with the off-campus research advisor will become the student's academic advisor and research co-advisor. This academic advisor is expected to be a member of the student's committee.

### **Invention and Copyright Agreements**

Students who receive support from sponsored research programs or who make significant use of BU funds and facilities are required to sign the BU Invention and Copyright Agreement. Seek counsel with your faculty advisor about this policy pertaining to intellectual property. A signed form is required before a student can be paid. The Academic Programs Manager will provide you with the necessary form.

### Off-Campus Thesis

Thesis research is usually carried out in laboratories and centers of MechE faculty located on campus. In cases of non-BU advisors (see discussion above regarding required approval) the research is often performed off-campus, in the lab of the principal research advisor. There may be special problems that arise due to intellectual property and other conflicts of interest, **which must be addressed prior to starting the work.**

### Research Opportunities Outside the Department

Most students who complete a thesis choose to do their research with a faculty member from the MechE 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 Director of Masters Programs) to be a student's principal research advisor **only if they have an active research collaboration with a primary MechE faculty member** who will agree to be the student's research co-advisor.

### MS Thesis Committee Membership

After identifying a research advisor and project, each student forms a thesis committee. Any of these three members can be the primary advisor. **The MS Thesis Committee must have a minimum of three (3) members:**

- Two members must be from the primary MechE faculty
- One member may be from outside the department (MechE Affiliated faculty, Research faculty and Research Associates with a PhD and sufficient experience may count as the "outside" member)

### MS Thesis Proposal

A brief written proposal (3-5 pages) of the MS research project must be submitted and approved no later than the semester *before* the student defends his/her thesis. It is the student's responsibility to schedule a formal meeting with his/her Thesis Committee members for discussion and approval of the proposal document. The student must present the *MS Proposal* and *Thesis Committee Approval Form* to his/her thesis committee during this meeting. If the proposal is approved, the members of the thesis committee must sign the form, thereby indicating their willingness to participate on the thesis committee. The student must submit the signed approval form and the proposal document (signed by the advisor) to the Academic Programs Manager. It is required that the student's thesis committee meet with the student regularly throughout the remainder of his/her thesis research.

Important dates and deadlines for Thesis Proposal, Defense, and Submission are found here:

<http://www.bu.edu/eng/current-students/grad/graduate-program-deadlines/>



## MS Thesis

An MS Thesis must be written and defended successfully for completion of the MS degree. Note that in order for a student to make full use of the critiques on the proposal offered by his/her committee, **students are not permitted to defend the final thesis the same semester in which the proposal was submitted.**

It is the student's responsibility to confirm a date and time of the presentation with his/her Committee members and to contact the Mechanical Engineering front desk to book a room. The *MS Thesis Defense Approval Form* must be completed. This form should include title, abstract, names of committee members and advisor's signatures. Once a date has been confirmed and room booked, the time and location, along with a copy of the Abstract, must be submitted to the Master's Programs Manager at least 10 business days 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 Programs Manager will process announcement of the MS Thesis Defense to the MechE faculty and graduate students via email and add the event to the MechE calendar.

There are requirements for formatting of the written document and signature pages on the library's website <http://library.bu.edu/theses>, contained in the Guide for Writers of Theses & Dissertations. Please refer to this guide before you defend your thesis document. If your thesis does not adhere to these required university guidelines, you will need to reformat and rewrite it in order for it to be considered complete and submit it to the online thesis database.

The format of the actual defense is not rigid and is decided on by the chair of the MS defense committee. The student can expect to give a 30-40 minute seminar presenting the results of the completed project. There may be questions during the presentation or after the student has completed the presentation, depending on the decision of the defense committee.

Following a reasonable question period, 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 defense committee must vote unanimously to pass the student. The results are noted on the *Thesis Defense Form* and submitted to the Master's Programs Administrator, who will be responsible for obtaining the signature of the Director of Master's Programs.

Important dates and deadlines for Thesis Proposal, Defense, and Submission are found here:  
<http://www.bu.edu/eng/current-students/grad/graduate-program-deadlines/>

## Submission of the Final Thesis

The final thesis document must be submitted to Mugar Library. The information on how to do this is listed on <http://www.bu.edu/library/guide/theses/>. Please note: You will need to create a minimum

of three signed signature pages and one blank signature page (for upload with your final document), all correctly formatted. Copy of title page and one original signature page needs to be turned into the Master's Programs Manager upon successful submission to Mugar Library.

#### MS Program Completion Time Schedule

It is up to the student and academic advisors to complete the project in a reasonable amount of time for a MS thesis. 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 research project. 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 by being prevented from participating due to missed deadlines. A list of deadlines for the MS Program (with thesis) is located online at <http://www.bu.edu/eng/current-students/grad/commencement/graduate-program-deadlines/>. Please contact the Academic Programs Manager if you have any questions about these deadlines.

Each 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 still 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.

#### Relation of the MS Program to the PhD Program

Often students who enter the MS program later decide that they would like to pursue a PhD in Mechanical Engineering at BU. The student must formally apply to the PhD program. However, the MS program is designed so that a transition into the PhD program is straightforward. MS students wishing to continue on for a PhD with the intent to extend their MS research will be encouraged to modify their MS Thesis as necessary into a PhD Prospectus. If a student wishes to change research topics, then a prospectus appropriate for the new topic will be required. It is important to note that all students must have passed the MechE PhD oral qualifier prior to submitting and defending a PhD Prospectus.

#### Planning for Graduation

A MS student cannot defend his/her thesis and/or graduate the same semester in which the MS proposal was submitted. In order to graduate, students must be registered as part or full-time students in the semester in which they complete degree requirements and in the preceding semester.

## **Financial Information**

### **Stipend Paychecks**

All students are expected to have a bank account in the U.S. Direct Deposit of payments to your bank account is the norm for most students. If you elect not to use direct deposit, paychecks can be picked up at the BU Payroll Office at 25 Buick Street on the last Friday of the month.

### **Research Assistantships**

**It is important to first recognize that Research Assistantships are not guaranteed for MS with thesis students.** Research Assistantships are offered by individual faculty members with sponsored research grants. Students interested in off-campus Research Assistantships should speak with MechE Master's Director for departmental approval (to ensure that the research project is appropriate for Mechanical or Manufacturing Engineering and that there is direct involvement of a MechE/MA faculty member).

A Research Assistant is a member of a research group in a laboratory or center. The position offers close association with members of the faculty and is a very effective arrangement for graduate study. The association and the work with the lab or center usually lead to other opportunities. Work on the thesis is normally part of an assistant's assignments. RA's are expected to work full-time, with time allowed for courses during the academic year.

### **Tuition**

RAs supported full-time by a faculty's sponsored research grant are not eligible for tuition coverage. Any tuition scholarships are handled separately when students are awarded tuition scholarships upon acceptance to the Master's Program.

### **Summer Stipends and Tax Withholding**

Students funded on fellowships other than NIH will have FICA taxes withheld from their paychecks during the summer (May, June, July and August).

## **Graduate Student Resources**

### **Computer Resources and Printing Facilities**

The Engineering Computation Lab (ECL) is a classroom in room 125 at 15 St. Mary's Street containing 38 HP Z400 workstations, as well as a printer which is available for student use. The Computer-Aided Design Lab (CAD Lab) is located in room 301 at 110 Cummington Mall. It is a laboratory that is used by students for research projects and to supplement coursework involving design and analysis. It contains 40 Lenovo ThinkCentre M81 – Intel Core i5 – 4GB personal computers and two complementary printers. There is also a Ricoh MP3350B Multifunctional machine as well as a Dell 5130cdn color printer in room 120 at 15 St. Mary's Street available for graduate student use. There is a Ricoh MP2250B Multifunctional machine in room 236 at 110 Cummington Mall available for graduate student use. Please submit a request through Zaius for card access to these rooms.

### **Student Link**

The Boston University Student Link is an online resource where you 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 by visiting [www.bu.edu/studentlink](http://www.bu.edu/studentlink) 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 your 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

MechE 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 communication is through your BU email account, not private accounts.

### Receiving Packages

Packages can be delivered to the Mechanical Engineering Front Office (room 101, 110 Cummington Mall). You will receive an email from the MechE Front Desk Staff once your package has arrived. If you have not received an email, then the package has not been processed or the front office has not received it. There is a package sign-out log where the recipient name, mail carrier, tracking code, and company. You simply need to find your name, and sign and date in the appropriate columns.

Please remember: You must send personal packages to your own personal address. **The MechE Front office cannot be responsible for sorting and tracking personal packages. They will not sign for them.**

#### ME Graduate Student Lounge

The MechE Lounge is located on the second floor of 730 Commonwealth Ave., room 216. This room contains graduate student mailboxes. This room contains a kitchenette, a table and chairs, and several sofas. A limited supply of lockers are available upon request.

#### 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](mailto: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 Programs Manager or the Director of Masters Programs.

#### EPIC

EPIC is a 15,000 square foot living classroom dedicated to teaching students the fundamentals of product development from invention through manufacture. The center is used by students in all of our engineering programs, from undergraduate through PhD. The center also serves as a “maker space” for the BU community. To use EPIC, merely take the on-line safety test and then visit the center with a drawing of your proposed project. The staff will help you with your design and then train you to use the appropriate tools in the shop. There is no charge to BU students unless unusual material costs arise.

Many Masters classes also use the facility for class projects and related work.

#### Seminar Series and Distinguished Lectures

The Mechanical Engineering Department hosts a variety seminars throughout the year. They cover a broad range of topics and bring together highly regarded faculty from many disciplines. Unless otherwise noted, all seminars take place Fridays at 11 am in Room 245 at 110 Cummington Mall. You can find the seminar schedule on the BU Mechanical Engineering website under the “Community” tab. You can also sign up for email reminders for the seminar series on that page. Master’s students are strongly recommended to attend these seminars and guest lectures.

### Career Development Office

The Career Development Office (CDO) connects College of Engineering undergraduate and graduate students with employers for internships and full-time employment.

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

They help employers gain access to the top talent they seek. They welcome employer participation in our Fall and Spring Career Fairs and through resume books and on-campus interviews. They can also help you engage with our undergraduate and graduate engineering students through a range of design projects, including junior and senior design projects and the graduate-level practicum. Employers can also explore broader engagement opportunities through access to their Corporate Leaders Circle.

The Career Development Office is located in room 112 at 44 Cummington Mall. The office is open from 9:00am-5:00pm Monday through Friday.

Phone: 617-353-5731

Email: [engcareers@bu.edu](mailto:engcareers@bu.edu)

<http://www.bu.edu/eng/careers/>

## **Graduate Student Academic Conduct Code**

### **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 imposed should be carefully determined so that they are no more or no less than is required to maintain the desired atmosphere. In defining 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

The procedures for enforcing the Boston University Code of Conduct may all be found on-line at <http://www.bu.edu/academics/policies/academic-conduct-code/>. Potential penalties range from Reprimand to expulsion. Please refer to the website for more information.