



Materials Science & Engineering (MSE)

Graduate Program Guidelines

Graduate Handbook
2025-2026
Effective from 8/16/2025

This Handbook is available online at <https://mse.ufl.edu/academics/handbooks/>

This Guide contains information that supplements the University's Graduate Catalog which is the primary document governing all academic programs. Although every effort has been made to maintain accuracy, the Materials Science and Engineering Department reserves the right to correct errors when found, without further notice to students. The presence of errors will not affect the application of the rules and requirements applicable to all students.

Table of Contents

1. Introduction	3
1.1. Department Education Mission	3
1.2. Materials Science & Engineering Graduate Program Objectives	3
2. Graduate Faculty	5
2.1. Department Administration	5
2.2. MSE Faculty and Staff	5
3. Graduate Programs	6
3.1. Common Curriculum, Core Courses, and Diagnostic Exam	6
3.2. M.S. Degree Program and Requirements	7
3.2.1. Course Requirements	7
3.2.2. Final Exam	8
3.3. Ph.D. Degree Program and Requirements	8
3.3.1. Individual Development Plan (IDP) for Graduate Students	8
3.3.2. Course Requirements	9
3.3.3. Research Advisor and Supervisory Committee	9
3.3.4. Admission to Candidacy	10
3.3.5. Supervised Teaching	12
3.3.6. Externally Funded PhDs	13
3.3.7. Remote PhDs	14
3.4. Thesis and Dissertation Defense	15
4. Courses and Registration	16
4.1. Registration Requirements	16
4.2. Courses and Credits	18
4.3. Transfer Credit	18
4.4. Add/Drop	19
4.5. Retaking Courses	19
5. Grades	19
6. Research	20
6.1. Safety	20
6.2. Responsible Conduct in Research (RCR)	21
7. General Information	21
7.1. Graduate Coordinator	21
7.2. Academic Services Office	21
7.3. MSE Graduate Program Committees	21
7.4. Department Student Council	22
7.5. Graduate Guidelines and Catalog Year	22
7.6. Graduate Assistantships, Fellowships, and Awards	22
7.7. Professional Work	23
8. Internships	23
9. Academic Honesty	24
10. Satisfactory Progress and Scholarship	25

11.	Correspondence and Forms	26
12.	Preparation for Final Semester	26
13.	Student Responsibility	27
14.	Grievance Procedure for Academic Problems	27
15.	Appendix	29
15.1.	<i>Course Checklists</i>	29
15.2.	<i>Degree Timeline and Deadlines for Ph.D. Students</i>	35
15.3.	<i>Representative Course Schedules</i>	38

1. Introduction

The Department of Materials Science & Engineering (MSE) offers graduate students the opportunity to reach the intellectual frontiers of the discipline, and to conduct state-of-the-art research under the supervision of faculty while pursuing Master of Science (M.S.) or Doctor of Philosophy (Ph.D.) degrees in the discipline. The UF Graduate Catalog is the University of Florida's official record of graduate policies, critical dates, deadlines, course descriptions, and faculty members for master's degree and doctoral degree students. It is the student's responsibility to know, understand and abide by these rules. The current graduate school catalog may be found at <http://gradcatalog.ufl.edu/> (see the Print Options menu in the top banner) and the Graduate Student Handbook at <https://graduateschool.ufl.edu/work/handbook/>.

This MSE Graduate Handbook is provided to all MSE graduate students to serve as a companion resource to the University of Florida Graduate Catalog.

It is the responsibility of the student to be familiar with all publications and to adhere to the stated rules.

It should be noted that for all graduate students, the contract for UF Graduate Assistants United can be found at this link <http://ufgau.org/>.

1.1. Department Education Mission

The mission of the Materials Science and Engineering (MSE) Program is to educate students with strong engineering and science backgrounds for Bachelor of Science, Master of Science, or Doctor of Philosophy degrees in Materials Science & Engineering so that they can productively apply their training to the solution of engineering problems in all materials related fields.

1.2. Materials Science & Engineering Graduate Program Objectives

- Provide students with a strong foundation of materials science & engineering and specialized knowledge, and experience in at least one of the core areas: Biomaterials, Ceramics, Computational Materials, Electronic Materials, Metals, and Polymers.
- Develop students' ability to apply fundamental engineering principles to identify, analyze, and solve scientific and engineering problems for the design and application of materials.
- Develop students' ability to design and conduct scientific and engineering experiments, simulations, and theoretical analysis and to analyze and interpret the resulting data.
- Provide students with experience and understanding of design requirements and constraints in the science and engineering environment, including technology transfer.
- Enable students to build the skills needed to communicate effectively, work collaboratively, and to fulfill their professional and ethical responsibilities and to understand the impact of significant engineering solutions in a societal and economic context.

The field of materials science & engineering is highly interdisciplinary and collaborative, with interactions with other engineering and science disciplines and with professional, engineering, and clinical practice. As such, the graduate programs in MSE benefit from other departments in the Herbert Wertheim College of Engineering (HWCOE), College of Liberal Arts and Sciences

(CLAS), College of Medicine (COM), and College of Dentistry (COD) acting as partners in the education of Materials Engineers and Scientists.

2. Graduate Faculty

2.1. Department Administration

Prof. Michael Tonks
Interim Chair
100B Rhines Hall
chair@mse.ufl.edu
(352) 846-3779

Prof. Simon Phillpot
Associate Chair for MSE
100A Rhines Hall
phillpot@ufl.edu
(352) 846-3782

Prof. Kevin Jones
MSE Graduate Coordinator
160 Rhines Hall
mse-gradcoordinator@mse.ufl.edu
(352) 846-3301

Sonya Robinson
Human Resources (HR)
112 Rhines Hall
mse-hr@eng.ufl.edu
(352) 846-3769

Tahara Franklin and Allyson Beatty
Academic Advisors
Academic Services Office (ASO), 108 Rhines Hall
advising@mse.ufl.edu
(352) 846-3312

Dr. Kevin Gilley
Laboratory and Safety Manager
112 Rhines Hall
labsafety@mse.ufl.edu
(352) 846-3339

2.2. MSE Faculty and Staff

The current faculty of the MSE department and their contact information are provided on the MSE website: <https://mse.ufl.edu/people/?cn-s=&cn-cat=3>

The MSE Department professional staff provide essential services to the students, faculty and department. Their contact information is provided on the MSE website:
<https://mse.ufl.edu/people/?cn-s=&cn-cat=7>

3. Graduate Programs

The University of Florida's Materials Science and Engineering (MSE) graduate program offers students a world-class education in a world-class research environment. We offer two graduate degrees: Master of Science and Doctor of Philosophy.

Our MSE graduate program includes more than 40 graduate faculty members across multiple colleges and departments and numerous research institutes. Our faculty routinely conduct multi-disciplinary research with researchers in other departments, other colleges, other universities, research laboratories, and industry. This provides our graduate students exposure to a broad spectrum of concepts and skills, access to state-of-the-art research instrumentation, and the experience of a vibrant collaborative culture.

MSE graduate students master a set of core concepts and principles critical to a fundamental understanding of materials science and engineering but also have tremendous flexibility in designing a sequence of coursework and research.

3.1. Common Curriculum, Core Courses, and Diagnostic Exam

The core courses for the MSE program are divided into two groups

All M.S. and Ph.D. students take four courses as core:

Materials Fundamentals Courses (both must be taken)

- EMA 6316: Materials Thermodynamics (Fall)
- EMA 6136 Diffusion, Kinetics and Transport (Spring)

Materials Applications Courses (Any 2 are required)

- EMA 6313: Materials Structure and Mechanical Properties (Fall)
- EMA 6580: Science of Biomaterials (Fall)
- EMA 6165: Polymer Physics (Fall)
- EMA 6581: Polymeric Biomaterials (Spring)
- EMA 6667: Polymer Processing (Spring)
- EMA 6114: Functional Properties of Materials (Spring)

In addition to passing each of the core courses (with at least a B for Ph.D. students, with at least a C for M.S. students; B- and C- minus are not passing grades for Ph.D. and M.S. students respectively), a minimum of 6 credits of MSE elective graduate level-5000/6000 (letter graded) courses are taken based upon a student's specific interests and committee requirements. These may include courses listed above that were not taken as part of the Materials Applications Core.

An introductory materials science course EMA 6001 (Properties of Materials) is also offered to help students who wish to review core materials science material or do not have a strong materials science background. A diagnostic exam on fundamentals of materials science is given before the start of each Fall semester to help incoming graduate students decide if they should take EMA 6001. If EMA 6001 is taken, it should be taken in the first Fall semester. It is recommended that it

be taken concurrently with EMA 6316 but not in the same semester as EMA 6313. EMA 6001 is considered as an elective course towards the degree.

Seminar Requirement

Every full-time graduate student is required to register for EMA6936 (Seminar in Materials Science and Engineering; 1 credit; graded S/U) each Fall and Spring semester, unless they are registered for 9 credits of letter graded courses in that semester, are in the EDGE program, or are in the final semester before graduation and have received a waiver from the Academic Services Office (ASO).

3.2. M.S. Degree Program and Requirements

3.2.1. Course Requirements

The MSE Department offers a Master of Science (M.S.) degree, which requires completion of a minimum of 30 credits of course work at grade C or better or S for S/U course. Credits for which a C- or lower grade or a U is awarded do not count towards the 30 credits needed for graduation. The M.S. degree may be thesis or non-thesis.

M.S. Thesis option

The M.S. thesis option requires a minimum of 3 credits of Master's Thesis Research (EMA 6971; graded S/U). No more than 6 credits of EMA 6971 will count toward the thesis degree. In addition to EMA 6971, thesis students may take up to 5 credit hours of Supervised Research (EMA 6910; graded S/U). Research can also be conducted on a voluntary basis by registering for 0 credit hours of EGN 6913.

There is no maximum limit of S/U credits for the M.S. thesis degree as long as the student has completed the core and elective requirements (see Sec. 3.1). Courses numbered EMA 7979 and EMA 7980 are not eligible to count toward any M.S. degree program.

In addition to the twelve credits of core courses and the 6 credits of graded MSE electives, up to 9 credit hours of 5000-level or higher courses from outside the MSE program can be taken based upon a student's specific interests. In certain cases, 3000 or 4000-level courses may be taken with approval of the MSE graduate coordinator.

For M.S. students working to a thesis degree, the graduate supervisory committee consists of the research advisor and two additional faculty members, all of whom need to have Graduate Faculty status in Materials Science and Engineering; in addition to the three MSE faculty members, an external member is allowed but is not required.

M.S. non-thesis option

Thesis Research (EMA 6971; graded S/U) cannot count toward the non-thesis degree; however, non-thesis Master course work may include up to 5 credit hours of Supervised Research (EMA 6910; graded S/U). Courses numbered EMA 7979 and EMA 7980 are not eligible to count toward any M.S. degree program.

The M.S. non-thesis option allows up to 6 credits of S/U graded to be counted. Research can also be conducted on a voluntary basis by registering for 0 credit hours of EGN 6913.

In addition to the twelve credits of core courses and the MSE electives, up to 9 credit hours of 5000-level or higher courses from outside the MSE program can be taken based upon a student's specific interests. In certain cases, 3000 or 4000-level courses may be taken with approval of the MSE graduate coordinator.

For the M.S. students working to a non-thesis degree, the graduate coordinator is designated as the graduate supervisory committee chair and is the sole committee member.

3.2.2. Final Exam

All Master's students (thesis and non-thesis) are required to pass a final examination. The final examination should be no more than 6 months before degree is awarded. The M.S. non-thesis students satisfy this requirement by submitting a technical paper, see <https://mse.ufl.edu/academics/graduate/mse-ms/>. The M.S. thesis students produce a thesis and have an oral defense, which is described in Sec. 3.4.

3.3. Ph.D. Degree Program and Requirements

3.3.1. Individual Development Plan (IDP) for Graduate Students

The Individual Development Plan (IDP) is a formal requirement of the Ph.D. program. It is designed to support doctoral students in planning, monitoring, and achieving their academic, professional, and personal development goals throughout the duration of their studies. The full Graduate School IDP policy can be found at <https://gradadvance.graduateschool.ufl.edu/planning-resources/idp/>.

Purpose of the IDP

The IDP is a structured tool intended to:

- Facilitate self-reflection on skills, interests, and values.
- Help students assess areas of strength and areas needing improvement.
- Support the development of realistic short-term and long-term goals.
- Enable students and faculty advisors to create and revise action plans.
- Provide a framework for tracking and evaluating progress.

The IDP is considered a working document and should be reviewed and updated annually in consultation with the student's faculty advisor.

Annual IDP Requirement

All Ph.D. students are required to complete and update their IDP every academic year. The department administers this requirement through a [Canvas](#) IDP course, which houses all modules and assignments.

Students are automatically enrolled in the [Canvas](#) IDP course following the drop/add period of their first semester in the program. Completion of IDP assignments each semester is mandatory and is a prerequisite for registration in future semesters.

IDP Assignments

Students must complete eight (8) IDP assignments annually which are submitted via the Canvas IPD course. These assignments are divided between the Fall and Spring semesters as follows:

Fall Semester Assignments

- Explore Module: Aspirations, Goals, and Responsibilities
- Assess Module: Self-Assessment Survey
- Plan Module: Advisement Appointment, Mentoring Plan, Action Plan, and Annual Mentor Meeting Confirmation
- Implement Module: Short-term Goal Check-in

Spring Semester Assignment

- Implement Module: Long-term Goal Check-in

As the IDP is a dynamic document, students are encouraged to revise their plans as their goals, interests, or circumstances evolve. Regular meetings with the faculty advisor are expected, and these discussions should include review and feedback on the student's progress, challenges, and future plans.

For additional guidance regarding the IDP requirement, students should contact the [Academic Services Office \(ASO\)](#).

3.3.2. Course Requirements

The MSE Department offers a Ph.D. degree, which requires a minimum of 90 credits of course work. In addition to twelve credits of core courses, a one-credit course EMA 6920 Professional Development (graded S/U), four credits of EMA 6941 Supervised Teaching (graded S/U), and 6 credits of EMA graduate electives (letter graded) are required. A passing grade for Ph.D. students in the core courses and EMA 6001 is B or better in each course (B- is not a passing grade). The requirement for 4 credits of EMA 6941 may be waived completely or partially for remote Ph.D. students or for Ph.D. students with funding support that disallows teaching. Credits from courses in which a C- or lower or a U for an S/U course do not count towards the 90 credits needed for graduation.

3.3.3. Research Advisor and Supervisory Committee

Each Ph.D. student has a supervisory committee whose members guide and supervise the student's research program. This committee is solely responsible for setting any specific requirements beyond those set the MSE program or the University of Florida, conducting and reporting on oral examinations, and approving the student's doctoral dissertation. The student should meet at least annually with their supervisory committee to discuss their progress towards the Ph.D. degree.

The supervisory committee is usually chaired by the student's research advisor, who must have Graduate Faculty status in Materials Science and Engineering – some 40 faculty – but not necessarily a faculty member in the MSE department. The other three members of the supervisory committee are selected by the student and the committee chair and typically complement the student's research interests. Two of the other members must be members of the Graduate Faculty of Materials Science, while one committee member (the “external member”) must be from outside the Graduate Faculty of Materials Science and Engineering.

Students need to select a research advisor, who is chair of their Supervisory Committee, by November 1 of the first semester. Students need to form their Supervisory Committee no later than

the end of their second semester of study or after 12 credit hours in order to be able to register for a third semester. The form for constructing the committee can be found at <https://mse.ufl.edu/academics/forms/>. Changes in the membership of the supervisory committee are made by a Committee Change Request form to Academic Advising.

Students without a research advisor will be assigned departmental duties, such as a teaching assistant (TA).

3.3.4. Admission to Candidacy

Admission to candidacy requires students to complete both the written qualifying requirement and the oral qualifying examination.

Written Qualifying Requirement

The written qualifying requirement for the Doctor of Philosophy in Materials Science is comprised of successful completion of course work; students must pass with a B or better (B- is not a passing grade) the two Materials Fundamentals courses (EMA 6316 and EMA 6136) and two of the six select Materials Applications courses (EMA 6313, EMA 6580, EMA 6165, EMA 6581, EMA 6667 EMA 6614), declaring them as selected core courses prior to completion of the third course and before registering for the fourth. All core coursework must be completed prior to the qualifying examination and no later than the end of the second year in the program. The MSE Ph.D. Core Course Declaration Form can be found at <https://mse.ufl.edu/academics/forms/>.

If a student earns below a B in one Materials Applications course or falls below the required 3.0 GPA after completing all four core courses, they may take a fifth course (selected from the Materials Applications list and declared before the drop/add deadline of the semester in which the fifth course is taken). The grade in the fifth course may replace one Materials Applications course for qualification purposes, though the original course will still count toward the cumulative GPA and major GPA. Materials Fundamentals courses may not be replaced.

In addition, students are required to complete EMA 6920 (Professional Development in Materials Science and Engineering, 1 credit) no later than the Fall of their second year and prior to attempting their oral qualifying exam. The written qualifying requirement must be completed prior to the oral exam.

Failure to meet the written qualifying requirement by the specified deadlines and under this policy will result in termination from the Ph.D. program.

Oral Qualifying Exam

The purpose of the Qualifying Exam is to certify that a student possesses the fundamental knowledge and the academic and research skills necessary to complete a Ph.D. thesis. The successful completion of the exam implies that the course work is nearly completed and that other requirements are either completed or nearly complete. In the Ph.D. Qualifying Exam, the students write a Ph.D. research proposal and defend it orally to their supervisory committee. In addition, the exam will test knowledge of the subjects covered in the core courses.

Students have a maximum of 24 months (6 terms) from entry to the graduate program and up to two attempts, to pass the Qualifying Exam. It is recommended to take the exam no later than the end of the 5th term (counting the summer term) from the entry to the graduate program. Students converted from the M.S. program must attempt the qualifying exam at the end of their second year

as an MSE graduate student or one year after entering the PhD program, whichever is later. If needed, the student must make a second attempt in the semester following the first attempt. The Qualifying Exam is graded pass/fail separately for the written and oral components. An overall passing grade requires passing both the writing and oral component. All work for the doctorate must be completed within 5 calendar years after the qualifying examination, or this examination must be repeated.

To select a proposal topic, students should consult with their advisor and supervisory committee. The proposal topic – title and abstract – must be submitted to the supervisory committee at least 4 weeks before the Ph.D. qualifying exam. The abstract should include a brief description of the students' *significant independent intellectual contribution* in formulating the proposed research.

Research Proposal: Prior to the oral presentation and exam, the student shall prepare a document serving as the dissertation research proposal. The research proposal document must be submitted to the Supervisory Committee at least 5 business days before the presentation and oral examination take place.

The dissertation research proposal should be prepared as if it were to be submitted to a federal agency for consideration and follow guidelines for the proposal summary, description, and references of the National Science Foundation or other federal agencies (NIH, DOE, DOD, *etc.*). Example proposals can be made available by the faculty advisor or by other graduate students.

The proposal should present original research ideas, anticipated to lead to new scientific understanding, new engineering, new properties, or economic benefit. The proposal needs to demonstrate a comprehensive understanding of the relevant literature, describe the tools and techniques to be used to answer the questions raised and how the proposed techniques will specifically answer the questions. The proposal topic and the requirements, expectations and other issues related the qualifying exam should be discussed with the student's research advisor and the committee. However, the written proposal should be primarily the work of the student. The research advisor will not review or edit the written proposal prior to the submission of the proposal document to the entire supervisory committee.

The proposal document is limited to 20 printed pages including all figures and tables but excluding references. The document should be single sided with 1-inch margins all around. For the proposal text, 1.5 line spacing and a 12-point font should be used. The following topics should be addressed:

- a) Summary of the proposal (1 page)
- b) Introduction, motivation, problem statement, and significance
- c) Objectives of proposed research
- d) Literature background
- e) Proposed research – tasks and experiments to be carried out to achieve objectives
- f) Description of procedure and methods
- g) Description of preliminary work if applicable
- h) Anticipated outcomes and broader impact
- i) Timeline and required resources
- j) References

The information associated with items b-d above should occupy about a quarter of the proposal description, items e-g should occupy about 2/3 and h-i should occupy about 10% (excluding abstract and references).

Oral Presentation and Exam: The proposal presentation and oral examination occur in the same session. Students should coordinate for an appropriate time with their committee and then reserve a conference room through the Front Office Staff in Rhines 100. Please note the room should be reserved for two hours to allow enough time for the exam.

The exam cannot be held on reading days. The exam may be held during the final exam week if the student does not have any non-research courses that semester, or during academic breaks with the approval of the Supervisory Committee. The Department must announce the Qualifying Exam online prior to the defense. To generate this announcement, you must submit the “Oral Examination Announcement” form, found at <https://mse.ufl.edu/academics/forms/>, at least two weeks in advance of defense date.

All admission to candidacy approval forms are processed by the Academic Services Office (ASO), once the “Oral Examination Announcement” form is received.

For the oral proposal examination, the student and all members of the committee are expected to be physically present. If a committee member will not be able to be physically present, they should let the student and Committee Chair know as soon as possible so they can find a substitute. In rare circumstances a committee member, though not the Chair, may participate remotely with the prior written approval of the Committee chair, and the MSE Grad Coordinator or MSE Associate Chair. This request must be made at least one week before the scheduled defense.

The focus of the oral examination is on the content of the presentation and the oral communication skills. Providing food or drink is not expected or required and never a consideration by the committee members in evaluation.

The proposal presentation should be about 30 minutes in length and complement the written proposal. The presentation should demonstrate to the committee the value of the proposed research and the ability of the student to identify a scientific/engineering problem and determine a plan to resolve it. The audience and the committee may ask questions during the presentation or at the end of it. Afterwards, the general audience will be excused.

After the audience is excused, the committee will ask relevant questions to evaluate the student’s competency in the chosen field of research and the proposal (presentation and written proposal). In addition, the committee will evaluate the student’s competency in the core subjects and graduate level materials science and engineering topics.

Following the oral examination, the student will be excused from the room and the committee will deliberate the student’s performance. A pass or fail decision will be made at this time. The written and oral components of the exam will be graded separately. Passing both components is required to pass the Ph.D. Qualifying Exam. The student will be informed of the committee’s decision once the deliberation is completed. If a student receives a failing grade in either the written or the oral component, or both, the student must defend the failed component(s) in the next academic term. If a student fails to pass both written and oral components of the Qualifying Exam after two attempts, they will be released from the Ph.D. program.

Ph.D. students may qualify to apply for an M.S. degree (non-thesis) when they have fulfilled the requirements for that degree. Application for an M.S. degree should be made at least one semester prior to the semester of anticipated graduation from the Ph.D. program.

3.3.5. Supervised Teaching

Usually in their second year, occasionally in their third year, every Ph.D. student will be required to take four credits of EMA 6941 Supervised Teaching and engage in supervised teaching of students (STS) for two separate courses as part of the course requirement for EMA 6941. The workload is expected to average 6 hours per week per course for this two-credit course. Teaching assignments will be given before or close to the beginning of the semester. It is the student's responsibility to meet with the assigned faculty instructor as soon as the assignment is made to discuss duties and expectations. Possible duties may include, but are not limited to, host office hours and review sessions, grade homework and exams, help create homework and exam problems, prepare homework and exam solutions, proctor exams, prepare, copy and distribute classroom materials, and attend the lecture and labs. Under special circumstances, and as agreed upon by the student and instructor, the student can lecture to the class.

Performance in supervised teaching will be evaluated by both the faculty instructor and the students enrolled in the course. Students who do not receive satisfactory evaluations by the instructor will need to repeat the assignment in a future semester. The instructor evaluation will also be forwarded to the student's research advisor. The supervised teaching student should communicate regularly and promptly with the instructor to resolve issues related to students' work in the course as well as the performance and duties. An official grievance process is in place if the student feels they are being treated unfairly by the students in the course and/or the faculty instructor. The complaint goes to the MSE Graduate Coordinator first, then to the Associate Chair for Academics, and to the Department Chair.

3.3.6. Externally Funded PhDs

The policy of the MSE Department at UF is that most PhD students should be funded by Graduate Research Assistantships (GRAs) and, in a few cases, by teaching assistantships (TAs). Exceptions to this policy are possible if approved by the graduate coordinator, department chair, and the associate dean for academic affairs. For an exception to be granted, the student must have some other sponsor for their education and live and work in the US. The sponsor must pay the student a yearly amount greater than or equal to the HWCOE's minimum yearly stipend and reimburse their tuition, or pay them a yearly amount greater than or equal to the minimum stipend and the cost of tuition. Examples of when exceptions have been granted include when the PhD is funded by the military or by a current employer.

For an exception to be considered, the following material must be completed by the student and their advisor and submitted to the Academic Services Office (ASO):

- Form for petition to wave assistantship requirement (signed by student and advisor).
- Letter of commitment from employer or agency that will fund the PhD.

ASO will forward them to the petitions committee and then the department chair for consideration. If they approve, ASO will forward the petition to the associate dean for academic affairs.

If the student is just starting the PhD program, these materials must be submitted at least one month before the start of their first semester. If the student has already been a part of the PhD program on a GRA or TA and is changing to be externally funded, these materials must be submitted at least one month before the termination of the GRA or TA.

Once the exception is approved, the student and advisor will submit an updated form for petition to wave assistantship requirement to ASO on a yearly basis, though only the graduate coordinator

will need to approve these later forms. This is so the department can track any changes that take place during the PhD.

3.3.7. Remote PhDs

While the standard modality for completing a PhD in MSE from UF is to do so in person on campus, it is possible to complete a PhD remotely or partially remotely. A student completing a fully remote PhD would complete all courses remotely and would carry out their research remotely. A student completing a PhD partially remote would complete all or some of their courses in person on campus and then complete the remainder of their courses and their research remotely.

Remote PhD students must have external funding for their PhD, as discussed in the previous section. A remote PhD student cannot be funded under a GRA or TA. The only exception to this is if an in-person PhD student funded on a GRA leaves to carry out their research for a temporary period at a remote location. In such cases, a remote work agreement must be completed with the department. The tuition will be paid by the remote student and may be reimbursed by an employer or other agency. The remote student must receive regular payment equal to or greater than the minimum GRA stipend plus the cost of any tuition not reimbursed. Only students living in the US will be eligible to be externally funded remote students. See the table below for a summary of the MSE program policies on remote and externally funded PhDs.

Funding	External	Requires funding petition	Requires funding petition	Requires funding petition
	Funding transition	Requires funding petition	Requires funding petition	Not allowed
	Assistantship	Allowed	Requires remote work form	Not allowed
		In-person	Modality transition	Online
Modality				

The only changes to the course requirements compared to on-campus students are:

- EMA 6941 (4 credits) –This supervised teaching requirement will be waived for remote students because they are having mentoring experience through their employment or military service.
- EMA 6936 (1 credit) The requirements for registering for Seminar are the same as for on-campus students. However, since on-campus seminars are not available online, remote students are required to document 10 hours of similar technical content each semester and send it to the instructor of the seminar course. Examples of appropriate content include seminars, technical trainings and attendance at technical conferences.

External PhD students follow the same rules for the formation and constitution of the supervisory committee as on-campus students. Researchers from the external institution funding the work can be additional members of the committee.

The research topic for the remote student will be decided together by the advisor and the external funding source, as is done for in-person students funded by industry contracts. The requirements for the qualifying exam, proposal defense, and final defense will be unchanged. The student must attend the proposal and final defense in person on campus. The standards for passing these academic milestones are the same for remote and in-person students.

3.4. Thesis and Dissertation Defense

The final examinations for the M.S. with thesis and the Ph.D. degrees are in the form of a public defense with open questioning followed by a closed session with private questioning by members of the supervisory committee. Students should coordinate for an appropriate time with their committee and then reserve a conference room through the Front Office Staff in Rhines 100. Please note the room should be reserved for two hours to allow enough time for the exam.

It is the student's responsibility to schedule their final defense with enough lead time to allow for review, feedback, and any necessary revisions to the thesis or dissertation. We recommend scheduling the final defense no later than two weeks before the Graduate School's submission deadlines. For detailed information about final semester timelines, see the Graduate School's [Submission Process](#) and [Deadlines](#).

The defense presentation should be no longer than one hour, and the committee chair may provide a shorter recommended length. The focus of the oral examination is on the content of the presentation and the oral communication skills. Providing food or drink is not expected or required and never a consideration by the committee members in evaluation.

At the time of the defense, the written thesis or dissertation must be completed in all respects and editorially acceptable for final approval, though it may be modified as a result of feedback from the committee. The thesis or dissertation document must be submitted to the Supervisory Committee at least 5 business days before the presentation and oral examination take place. The student should contact the committee members to verify the acceptable form (type of file or printed version) of submission. It is the responsibility of the student to ensure that all requirements of the Materials Science and Engineering program and the Graduate School have been successfully completed in order to be awarded a M.S. or Ph.D. degree.

The Department must announce the Thesis or Dissertation Defense online prior to the defense. To generate this announcement, you must submit the "Oral Examination Announcement" form, found at <https://mse.ufl.edu/academics/forms/>, at least two weeks in advance of defense date. The defense should be no more than 6 months before the Ph.D. degree is awarded.

All dissertation approval forms are processed by the Academic Services Office (ASO), once the "Oral Examination Announcement" form is received.

If there are any internal substitutes (maximum of 2), then the substitution(s) must be indicated on the form. Neither the committee chair nor the external member may be substituted.

For the final dissertation or thesis defense, all members of the committee are expected to be physically present. If a committee member will not be able to be physically present, they should let the student and Committee Chair know as soon as possible so they can find a substitute. In rare

circumstances a committee member, though not the Chair, may participate remotely with the prior written approval of the Committee chair, and the Grad Coordinator or MSE Associate Chair. This request must be made at least one week before the scheduled defense.

If the student fails the Final Examination, the exam must be retaken in the next semester. The Final Examination may be retaken only once. If a student fails a second final exam, they will be released from the program.

Table I. Summary of the graduate degree requirements.

SCH (Semester Credits Hours) Requirements	Master (Thesis)	Master (Non-thesis)	Doctor of Philosophy
Minimum Credit Hours	30 ^a	30 ^a	90 ^{a,b}
MSE Core Requirements	12	12	13
MSE Electives	≥6	≥6	≥6
Specialization Electives ^c	≤9	≤9	variable
Supervised Teaching	N/A	N/A	4
Research/Special Project	≤6	optional	variable
Supervisory committee members (minimum number)	3	1 ^d	4
Qualifying Exam	No	No	Yes
Final Exam	Oral defense and written thesis	Written ^e	Oral defense and written dissertation
Time limit for completing degree	7 years	7 years	5 years ^f

^a Beyond B.S.

^b May include credit hours from Master's program

^c Graduate level coursework outside of MSE approved by graduate coordinator

^d Graduate Coordinator

^e Technical paper graded by Graduate Coordinator

^f From admission to Ph.D. Candidacy on passing Qualifying Exam.

4. Courses and Registration

4.1. Registration Requirements

Full-Time Registration

Full-time registration is usually 6-12 credits, depending on the semester and appointment. Graduate students on appointments as Graduate Research Assistants with a typical FTE of 0.5 are

required to register for 9 credits in the Fall/Spring term and 6 in the summer C term (or 3 in summer A and 3 in summer B). However, the number of credit hours required may depend on a student's individual circumstances and funding; therefore, students should coordinate with the [Academic Services Office](#) (ASO) to ensure that they are taking the correct number of credits. Students not on appointment may wish to enroll full time to finish their degrees in the minimum timeframe or may be required to enroll full time by external funding agencies or their academic units. See the MSE ASO or HR for information regarding FTE, required course hour enrollment, and other requirements associated with your appointment.

Part-Time Registration

A student not on an appointment and without a specific registration requirement by their external funding agency or government may register as a part-time student. Minimum registration is 3 credits in fall or spring and 2 credits in summer.

International Student Registration

For international students on U.S. visas, full-time registration is required in the Fall and Spring semesters. Full-time registration in the Summer is only required if it's the student's first semester. See the UF International Center's guidelines for detailed information regarding registration requirements for [F-1](#) and [J-1](#) visas.

Registration Process

Course registrations are processed by the Academics Services Office. Each semester, you must complete a graduate registration form, which can be found at: <https://mse.ufl.edu/academics/forms/>. Please read the instructions on the form carefully; the form is occasionally updated, so please ensure that you are using the current form. Master's non-thesis registration forms are approved by the Graduate Coordinator. Master's thesis and Doctoral student's registration forms are approved by their research advisor. Once approved, the forms are routed to the Academic Services Office (ASO) for processing. To allow time for registration requests to be processed, students should submit their registration form no later than two weeks prior to the registration deadline for the upcoming term.

Students should seek advice from their advisor or the graduate coordinator prior to submitting their registration form. Guidance will be provided for registration in the form of the required courses and suggested electives. Appendices to this Handbook give model semester plans. Students need to register on time to avoid unnecessary late registration fees. Registration deadlines can be found at <https://gradcatalog.ufl.edu/graduate/calendar/>. Fee payment deadlines can be found at <https://www.fa.ufl.edu/directives/critical-dates/>. Registration for future terms will be restricted until current charges are resolved. To check for holds and charges, go to the Student Self Service portal (<https://one.uf.edu/>). Students also have access to their degree audit and UF transcript via the Student Self Service portal (<https://one.uf.edu/>). *Students are ultimately responsible for ensuring they are on track to finish their degrees.*

To review the anticipated schedule of courses for an upcoming semester, students should go to <https://one.uf.edu/soc/>. EDGE students can also review EDGE course listings at <https://ufedge.ufl.edu/online-graduate-programs/courses/>. If a student has any questions about their academic progress, they should schedule a meeting with an academic advisor. Advisors can be contacted at advising@mse.ufl.edu.

Final Semester Registration Requirements

During the final semester, students must register for the appropriate credits for their degree. Master's Non-Thesis students must enroll in course work that counts toward the graduate degree; Master's Thesis students must enroll in EMA 6971; and Doctoral students must enroll in EMA 7980. Students receiving a tuition waiver (e.g., GRA, TA, or fellowship recipients) must follow their tuition waiver requirements (typically 9 or 12 credits in spring/fall and 6 in summer). Ph.D. students without a tuition waiver need to register for a minimum of 3 credits in EMA 7980 (Doctoral Research) if the final semester is fall or spring and 2 credits if the final semester is summer. M.S. non-thesis students without a tuition waiver need to register for a minimum of 3 credits, which are applicable to the degree if the final semester is fall/spring and 2 credits if the final semester is summer. M.S. Thesis students without a tuition waiver need to register for a minimum of 3 credits in EMA 6971 (Master's Research) if the final semester is fall/spring or 2 credits if the final semester is summer. This minimum final semester registration is applicable to all graduate students. The Graduate School will not accept petitions to this policy.

Clear Prior

Thesis and Dissertation students who have met all published deadlines for the current term except Final Submission and/or Final Clearance, may receive their degree in the following semester without registering for credits (this is called "clearing prior"). Please email advising@mse.ufl.edu for specific eligibility requirements defined by the Graduate School. More information about clearing prior can be found here: <https://success.grad.ufl.edu/td/submission/>.

4.2. Courses and Credits

Courses listed at 5000 and above are considered graduate-level courses. Courses numbered 7000 and above are designed primarily for Ph.D. candidacy students, who have passed their Qualifying Exam.

Generally, graduate courses may not be repeated for additional credit. However, selected courses are designed to be taken multiple semesters. These repeatable courses are designed and typically subjected to a maximum number of credit hours, including courses numbered EMA 6936, EMA 6938 (Special Topics in Materials Science and Engineering), EMA 6941, EMA 6971, EMA 7979, and EMA 7980.

If a student lacks skills in a particular area, the Associate Chair, Graduate Coordinator, or Graduate Advisor may suggest course(s) to enhance this student's education to the benefit of that student. For these select cases, a course could potentially not be at the graduate level, (but must be at least 3000) and could be credited towards the graduate degree (with an approved petition). *This course, however, must be approved by the Graduate Coordinator prior to enrollment.*

A Tuition and Fee Calculator is provided by UF at <http://www.fa.ufl.edu/bursar/current-students/>.

4.3. Transfer Credit

Graduate level courses completed at another university before beginning our degree program may be considered for transfer toward the M.S. or Ph.D. degree, with approval of the MSE Program Petitions Committee and the UF Graduate School. For the M.S. program, up to nine credits may

be transferred. For the Ph.D. program, up to 30 credits may be transferred. Only courses completed with a grade of B or higher are eligible for transfer. Courses that were used to meet requirements for a bachelor's degree cannot be transferred. All coursework, including transferred credits, must be completed within seven years of the degree being awarded.

For Transfer of Credit, students need to contact the Academic Services Office (ASO) and send the transcript by email to advising@mse.ufl.edu. The final decision as to whether transfer credits will be accepted will be made by the graduate school. Petitions for transfer of credit must be made during the student's first term of enrollment in the Graduate Program.

Students who transfer into the M.S. or Ph.D. program in MSE must first establish a Major GPA (calculated from graduate level, letter-graded coursework completed with an EMA-prefix) before enrolling exclusively in S/U-graded coursework.

M.S. thesis and Ph.D. students are required to complete at least 12 credit hours in the major, excluding research courses such as EMA 6910, EMA 6971, EMA 7979, and EMA 7980. M.S. non-thesis transfer students must complete 15 credit hours in the major, with no more than 6 credit hours of S/U-graded coursework.

Academic advisors are available to assist with course planning and transfer policy clarification.

4.4. Add/Drop

Courses may be dropped or added during the drop/add period without penalty; however, students on fellowships or assistantships must clear these changes with their faculty advisor prior to modifications. This period typically lasts five UF calendar days, or two days for summer sessions, beginning with the first day of the semester (exact dates available on <https://one.ufl.edu/>). Courses that meet for the first time after the drop/add period may be dropped without academic penalty or fee liability by the end of the next business day after the first meeting of the course. Note, this does not apply to laboratory sections. After this period, a course may be dropped and a W will appear on the transcript. *Students become financially liable for any course added or dropped after the deadline, including students with fee waivers.* International students should consult with Academic Services before dropping any course to determine any possible effects on US visa status.

4.5. Retaking Courses

Graduate students may only repeat a course in which they earn a failing grade once. Grade points from both the initial failed attempt and the second attempt are included in computing the grade point average. The student receives credit for the satisfactory attempt only.

5. Grades

The only passing grades for graduate students are A, A-, B+, B, B-, C+, C, and S. Note: MSE Ph.D. students must earn a B or better in their core courses. A student is considered in good academic standing if the student's GPAs are above 3.00 (truncated). There is an overall GPA, an MSE major GPA and, if elected, a minor GPA; each individually has to be above 3.00. If any of these GPA's drops below 3.00 the student is in academic probation, which triggers limitations in course selection for registration. Students with less than 3.00 GPA may not hold an assistantship or fellowship. Students also cannot graduate if any of their GPAs are below 3.00 (truncated). Grade points are not designated for S and U grades and are not used in calculating the grade point average;

however, a grade I (incomplete) will convert to a 0.0 credit if not changed within 1 semester. All letter graded courses taken as a graduate student are used in calculating the cumulative grade point average. Letter grades of C-, D+, D, D- or E are not considered passing at the graduate level, although the grade points associated with these letter grades are included in grade point average calculations.

6. Research

All students conducting research must be registered for research credits or on a paid appointment. International students who seek to perform research at UF are *required to either be enrolled in a research course or be paid for their effort*, to ensure compliance with student visa policies. All researchers must follow appropriate MSE policies for laboratory and office access (see your Supervisory Chair for guidance). The specific course number to enroll in order to account for research effort is dependent upon the degree program (M.S. or Ph.D.) and desired credit. See Sections 3.2 and 3.3 for further details regarding appropriate research courses.

Safety and Responsible Conduct in Research training is required *prior* to enrollment in research credit (see Sections 6.1 and 6.2 for details). This is also *enforced* for students on NSF, NIH, and USDA awards.

6.1. Safety

The Materials Science & Engineering Department, in collaboration with the Herbert Wertheim College of Engineering, is committed to providing a safe and healthy working and learning environment for all of its students (<https://www.eng.ufl.edu/safety/resources/>). Sustaining a culture of excellent laboratory safety starts with rigorous training. To facilitate appropriate training of safety concerns, all MSE students are required to complete a laboratory checklist prior to gaining access to the laboratory:

<https://www.eng.ufl.edu/safety/wp-content/uploads/sites/237/2017/10/Engineering-Laboratory-Safety-Guidelines-and-Training-Checklist-2017-FINAL.pdf>

This checklist outlines required general safety training needed for general work in the building. Additional training may be needed, depending on the specific research conducted and risks encountered in the laboratory. Guidance on the lab-specific training needed will be provided by the Supervisory Chair, as all chairs are required to provide a safe working environment, ensure adequate safety training of their personnel, and maintain appropriate safety records for their own labs. Remember that most training is annual, so it must be updated. To further promote a culture of safety, our department has a MSE Student Safety Council (SSC), which is comprised of the department Laboratory and Safety Manager (currently Dr. Kevin Gilley), and graduate and undergraduate students; an Engineering Safety Steering Committee serves at the college level. Students are strongly encouraged to join these councils. Any concerns regarding safety or training should be directed to your Supervisory Chair and/or the SSC. If needed, the HWCOE Director of Laboratory Safety, or UF Environmental Health and Safety (<http://www.ehs.ufl.edu/>) may be contacted. The Laboratory and Safety Manager can be reached at labsafety@mse.edu.

6.2. Responsible Conduct in Research (RCR)

Responsible conduct in research (RCR) is expected for all University of Florida students. Students conducting research will be expected to follow ethical standards when conducting research, from identification of potential conflicts of interest to responsible authorship and publication. To assist in supporting this endeavor, all students enrolled in research credits and students funded by NSF, NIH, or USDA awards must complete the general RCR training: <https://research.ufl.edu/rcr/rcr-training/>.

Any concerns regarding responsible conduct in research should be brought to the attention of the research advisor and/or the graduate coordinator.

7. General Information

7.1. Graduate Coordinator

The graduate coordinator (mse-gradcoordinator@mse.ufl.edu; currently Prof. Kevin Jones) is the advisor to all admitted and present UF MSE graduate students who have not yet joined a research group or don't have a research advisor. All UF MSE non-thesis master students are advised by the graduate coordinator even if they perform research with a faculty member. The graduate coordinator helps in planning the courses, advises on certificates, minors, and majors and guides the students in addition to the rules provided by the graduate school and the department. The graduate coordinator is not able to assist applicants or non-admitted students. Admitted international students can get additional letters for US-visa issuance if the US-embassy requires more information than was provided by the UF International Office.

The graduate coordinator holds scheduled open office hours (see signage outside of the Academic Services Office) and is also available for meetings in person (on-campus students) or on Zoom (EDGE students) by appointment.

7.2. Academic Services Office

The Academic Services Office (ASO) serves as the graduate advising and administration unit and is administered by the Associate Chair of MSE and the Academic Advisors. The Academic Advisors serve to assist graduate students in admission, deadlines, course requirements, registration, and routine administrative issues. Inquiries regarding the graduate program should first be made to the Academic Advisors (advising@mse.ufl.edu), which can then be forwarded to the Associate Chair, if needed. The Academic Advisors are available to meet with any student during office hours or by appointment, which can be scheduled by emailing advising@mse.ufl.edu or booking online: <https://mse.ufl.edu/academics/advising/>.

7.3. MSE Graduate Program Committees

The Associate Chair of MSE oversees the operation of the MSE Graduate Program, is responsible for academic program administration and policy directions, ensuring policy compliance with both MSE and the Graduate School. The admissions committee oversees admission of incoming students. The curriculum committee leads the process of making changes in academic policy. The petitions committee reviews student petitions. A student may petition regarding academic issues

by submitting a formal request via the Academic Petition Form which can be found at <https://mse.ufl.edu/academics/forms/>. Petitions must be formally approved or denied by the petitions committee.

7.4. Department Student Council

The purpose of Department Student Council (DSC) is 1) to provide an agency for the coordination of materials science & engineering student activities to promote common goals and interests of the MSE graduate student body, 2) to advance and enrich the academic and educational experience of graduate students in the UF MSE Department, and 3) to seek the improvement of MSE graduate student education through active communication and representation between MSE students and faculty, and other governing bodies at the University of Florida such as the Graduate Student Council and UF Student Government. All MSE graduate students are welcome to attend DSC meetings and are encouraged to become involved in this organization. See the website for more information: <http://www.mse.ufl.edu/about/societies/>.

7.5. Graduate Guidelines and Catalog Year

The catalog year determines the set of academic requirements that must be fulfilled for graduation from the program. Students graduate under the catalog in effect when they begin enrollment for that degree at UF, provided they maintain continuous enrollment. A catalog year runs from Summer B of one year to Summer A of the next year. Students who are unregistered for 2 or more consecutive semesters must reapply for admission and will be assigned the catalog in effect when enrollment is resumed. Students transitioning to a more advanced degree (e.g., Masters to Doctoral) must follow the catalog year in effect when they begin the new degree program. If a catalog change occurs during the program of a student, the student has the choice to select the current catalog year requirements or remain under the original catalog requirements.

7.6. Graduate Assistantships, Fellowships, and Awards

The Department of Materials Science & Engineering offers Graduate Assistantships to select students in good academic standing. Minimum stipend rates paid are determined by the department and based on graduate standing and degree program. Interested students should follow up with the Academic Services Office (ASO) regarding the availability of assistantships and the procedure for applying. Students are highly encouraged to apply for external fellowships for which they are eligible, such as NSF, NIH NRSA, NDSEG, DoD, DOE, and DHS. See the MSE website for more information on these opportunities: <https://mse.ufl.edu/academics/funding-and-awards/>.

M.S. out-of-state or international students, who are not on traditional funding, may be awarded partial financial support via the [University of Florida Achievement Award Scholarship](#). This award includes a partial tuition waiver of \$1,500 a semester for up to three semesters (minimum of nine hours enrolled per semester; eligibility is for Fall/Spring semesters only). The three semesters must be used within the first two years of enrollment. No other funding, e.g., assistantship and fellowship, may be held concurrently. The students must notify ASO upon receipt of other funding, e.g., fellowship or assistantship. Support for services that do not contribute to their degree program is permitted, e.g., outside employment, temporary Other Personnel Services (OPS) in department. Students must maintain a minimum 3.0 GPA to be eligible for this award.

The university requires that all students have health insurance

(<https://healthcompliance.shcc.ufl.edu/>). Students on fellowships are typically not considered employees of the University of Florida and do not receive health insurance. However, they should be able to purchase health insurance through a university recommended plan (<https://shcc.ufl.edu/fees-and-insurance/health-insurance-options/uf-insurance-plan/>) or other vendor.

Students can find on-campus jobs through <https://jobs.ufl.edu/>; the ability of international students to work may be limited by the terms of their US visa. International students should consult with the [UF International Center \(UFIC\)](#) to understand any work restrictions related to their US visa. Graduate students cannot volunteer to work in the department, they must either be compensated for their work in a lab or be registered for research under the faculty member's supervision.

Students appointed as Graduate Assistants or Graduate Fellows are still responsible for paying applicable student fees per semester credit hour. Further, they will be financially liable for excess credits beyond the required registration (see appointment letter for details). If a student on appointment drops below the required registration at any time in the semester, the student becomes financially liable for the entire registration cost.

7.7. Professional Work

Graduate students may receive credit towards their degrees for courses in professional programs (e.g., D.V.M., or M.D.) when their advisors and graduate coordinators certify that the course work is appropriate for their programs and when the students receive permission from the academic units and colleges offering the courses. See the UF Graduate Catalog (Courses and Credits section) for further details.

8. Internships

The Department recognizes that internships can be an important part of the education of many graduate students and strongly supports these valuable educational experiences.

All MSE graduate students who are interested in pursuing an internship should notify the [Academic Services Office](#) (ASO) as soon as it becomes a serious possibility and **MUST** submit a Graduate Internship Request, which can be found at <https://mse.ufl.edu/academics/forms/>, by the following deadlines:

- Fall Internship – July 16th
- Spring Internship – December 1st
- Summer Internship – April 16th

It is important for students who hold appointments at UF to be cognizant of the start and end dates of their appointments while making internship plans. Graduate students are appointed to assistantships on a semester-by-semester basis (August 16 – December 31; January 1 to May 15; May 16 to August 15) and only for entire semesters. A student cannot be on an assistantship for only part of a semester. In addition, students are not permitted to be on appointment and be on internship at the same time. This is why ASO must be notified and the request for internship form must be submitted by the posted deadlines.

Start and end dates of internships SHOULD NOT interfere with the start and end dates of your UF appointment. We strongly advise when negotiating the timeframe of your internship, you request that your internship dates strictly align with the start and end dates of your appointment. Failure to submit the request for internship form by the required deadlines will make it extremely difficult for the request to be processed in a timely manner, which can cause interruptions in pay and health insurance. More critically, internship requests that aren't approved before the start of the semester in which the student will go on internship may result in the loss of assistantship funds for that semester. Please discuss the beginning and ending dates of any potential internship with ASO as soon as possible to prevent difficulties with processing of assistantships, health insurance and visas. Do not wait until all the details are worked out before discussing an internship with ASO; rather, talk with them as soon as an internship becomes a reasonable possibility.

Students may register for internship credits by completing and submitting the internship form at <https://mse.ufl.edu/academics/forms/>. The offer letter from the company should be attached. The student needs to have permission from their supervisory committee chair or graduate coordinator if the student has no supervisory committee. ASO will review the form and notify the student via email if the registration is approved or not. If approved ASO will register the student for EGN 5949.

If registered for EGN5949, the following forms should be submitted to ASO electronically no later than a week before classes end for the term registered to receive a grade for that term:

- Internship Employer Evaluation Form
- Student Work Report
- Technical report (please contact advising concerning specific requirements for the technical report).

These forms are available at: <https://mse.ufl.edu/academics/forms/>.

International students can accept internship through Curricular Practical Training (CPT). Instructions for the CPT and the registration requirements can be found at <http://www.ufic.ufl.edu>. To apply students should follow the registration for internship instructions above by the appropriate deadline: April 1 – summer CPT, July 1 – fall CPT, and November 1 – spring CPT.

Payroll and Tax Information: Students on formal funding (assistantship, fellowship, etc.) should refer to the Tax Office for information on whether taxes will be taken out of their stipends: <http://www.fa.ufl.edu/tax/>.

Graduate Insurance: Students on appointments receiving health care benefits, please refer to <http://www.hr.ufl.edu/benefits/gatorgradcare/> for additional information on the effects of the internship.

9. Academic Honesty

All enrolled UF students have signed a statement of academic honesty upon enrollment, which commits the student to holding themselves and their peers accountable for maintaining the highest standard of honor (see <https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/>). This standard is essential to maintain the integrity of the program. Students are expected to work independently on coursework and program examinations, unless specifically authorized by the instructor or supervisor. It is always better to clarify permitted degrees of collaboration than to

assume and be incorrect. Plagiarism of any form, from course assignments to doctoral dissertations, is a serious offense and will never be tolerated. Students are responsible for seeking and utilizing resources to understand the definition of plagiarism, see for example:

<https://guides.uflib.ufl.edu/copyright/plagiarism>

https://gradadvance.graduateschool.ufl.edu/media/gradadvancegraduateschoolufl.edu/OGPD_Plagiarism_Workshop_20221019.pdf

Further, students can register for [iThenticate](#), [TurnItIn](#), or other plagiarism detection software to help screen their documents to avoid inadvertent plagiarism. Failure to comply with the honor code will result in disciplinary action that can span from grade penalties up to dismissal from the program.

10. Satisfactory Progress and Scholarship

Every student is expected to make satisfactory progress toward graduation each semester. This includes maintaining a grade point average (GPA) of B (3.0) or higher both cumulatively and in their major (and in the minor, if a minor is declared), the timely meeting of academic milestones (e.g., passing the Qualifying Examination, securing and retaining a research advisor, and obeying the Honors Code). Students with a GPA of less than 3.0 GPA may not hold an assistantship or fellowship.

Students who fail to make satisfactory progress may be required to seek advisement and fulfill specific conditions in order to continue in the major or may be denied further registration in the program. Students who fail to maintain the minimum 3.0 GPA in either the cumulative or departmental courses are placed on Academic Probation and may need to petition to maintain funding.

For students on an appointment, the research advisor provides an evaluation for each semester's performance of one of the following:

- Exceeds expectations
- Above average
- Meets expectations
- Unsatisfactory

In determining this overall evaluation, the faculty member considers eight criteria, each of which is graded in the same way:

1. Demonstrates promptness and efficiency in assignments and milestones
2. Completes tasks with accuracy and thoroughness
3. Demonstrates sound scientific and engineering methods
4. Displays independence and initiative in research
5. Displays effective oral communication skills
6. Displays effective written skills
7. Interacts with others and demonstrates good teamwork/citizenship

8. Exhibits leadership in the Laboratory

Each student is appointed on an annual basis. Based on the criteria above, in processing the appointment, the research supervisor selects one of the following

- A. Has satisfactorily completed all required duties and responsibilities for the appointment period indicated
- B. Need improvement in the areas outline above and will not be reappointed if progress is not made
- C. Has not completed all duties and responsibilities and the supervisor requests not to renew the appointment
- D. Graduating and will not be reappointed.

If either B or C is selected, the faculty member and student will develop and commit a remediation plan for each of the eight criteria above that were separately evaluated as unsatisfactory. This remediation plan must be approved by the Graduate Coordinator or Associate Chair. Failure of the student to fulfill the remediation plan may lead to the termination of appointment and removal from the degree program.

11. Correspondence and Forms

Students must correspond and comply with outlined policies via electronic or hardcopy means. For electronic communications, all students are provided with a University of Florida email account (ufl.edu) upon entrance to the program. The department will use this UF account for all official communications. Students should use their UF email account for all official business with the department and university to ensure correct identification. *Students are responsible for promptly and thoroughly reading emails from these accounts and are expected to communicate in a professional manner.* For hardcopy correspondence, all documents, including forms, should be fully completed and submitted directly to the Academic Services Office (ASO). To minimize paperwork burden, the ASO encourages electronic submissions (email to advising@mse.ufl.edu) and accepts electronic signatures, unless specifically stated otherwise. Submission of forms may require the student to comply with deadlines. Otherwise, financial penalties may occur, e.g., for late registration.

12. Preparation for Final Semester

It is the student's responsibility to ascertain that all requirements have been met and that every deadline is observed. Deadline dates are set forth by the registrar's office (<https://one.ufl.edu>) and the MSE department.

Prior to the semester of graduation, students should meet with the Academic Services Office (ASO) to conduct a graduation check. Students must notify the ASO of graduation plans no later than the Graduate School registration deadline for their program. At the beginning of the final semester, students must also file a degree application online through Student Self Service (<https://one.ufl.edu/>) and must meet minimum registration requirements. Master's Thesis and PhD students should obtain the checklist for their relevant degrees from the Graduate School website to ensure compliance with MSE and Graduate School requirements and final examination

deadlines. Final semester deadlines, checklists, templates, and additional resources are available at <https://success.grad.ufl.edu/td/deadlines/> and <https://success.grad.ufl.edu/td/resources/>.

Students must register for the appropriate credits for their degree. Students receiving a tuition waiver (GRA, GSPA, etc.) must follow their tuition waiver requirements (typically 9 or 12 credits in spring/fall and 6 or 8 credits in summer). Ph.D. students without a tuition waiver need to register for a minimum of 3 credits in EMA7980 (Doctoral Research) if the final semester is fall or spring and 2 credits if the final semester is summer.

M.S. Non-thesis students without a tuition waiver need to register for a minimum of 3 credits, which are applicable to the degree if the final semester is fall/spring and 2 credits if the final semester is summer. Applicable courses include EMA5000-6000 level courses, courses outside the department if the maximum has not been taken, EMA6910 (Supervised Research) if the maximum S/U credit limit (6 credit hours) and the maximum credit limit of EMA6910 (5 credit hours) has not been reached. Non-thesis M.S. students need to submit a technical paper in their final semester. After applying for graduation, students will be added to the MS Non-Thesis course in [Canvas](#), where detailed instructions for the final paper requirement will be provided.

M.S. Thesis students without a tuition waiver need to register for a minimum of 3 credits in EMA6971 (Master's Research) if the final semester is fall/spring or 2 credits if the final semester is summer.

Graduating students must complete the Departmental Exit Survey. The request to complete the Exit Survey is sent out to students via email during their final graduating term.

For deadline information regarding submissions to the Graduate Editorial Office, please visit: <http://helpdesk.ufl.edu/application-support-center/graduate-editorial-office/>. When the dissertation or thesis is ready to be put in final form, the following website offers formatting information: <https://asc.helpdesk.ufl.edu/>.

It is solely each student's responsibility to ensure that all required forms are submitted in accordance with Department and Graduate School deadlines.

13. Student Responsibility

The student is responsible for becoming informed and observing all program regulations and procedures. The student must be familiar with UF Graduate Catalog general regulations and requirements, specific degree program requirements, and offerings and requirements of the major academic unit. *Rules are not waived for ignorance.* It is also the student's responsibility to check their UF email on a regular basis. Failure to do so will not be a valid excuse for missing deadlines. Under no circumstances will a faculty advisor be responsible for meeting student deadlines.

14. Grievance Procedure for Academic Problems

From the Graduate Student Handbook

The University of Florida is committed to treating all members of the campus community fairly and considerately when it comes to conflict resolution.

UF has mechanisms in place to ensure that you are given adequate opportunity to raise concerns (aside from grades) before university administrators if you feel that you have experienced unfair treatment or undue hardship, such as academic issues, discrimination, employment problems, scholarly misconduct, or sexual harassment.

Your degree program, department, or college may have their own specific conflict resolution procedures as well, so be sure to check with those units.

If academic conflicts arise, here are the steps you can take to address and resolve them:

1. Communicating promptly and proactively is key. As soon as you become aware of activity or circumstances that cause you concern, speak to the individuals involved, your department's graduate coordinator, or your supervisory committee chair, to see if you can resolve the conflict informally. You may wish to present your concerns in writing to the individuals alleged to have caused a conflict. Those individuals must respond either orally or in writing.
2. If Step 1 does not resolve the conflict to your satisfaction, submit a written grievance and supporting documentation to your department chair or designated representative, who must respond to you in writing in a timely fashion.
3. If Step 2 does not resolve the conflict to your satisfaction, submit your written grievance and support documentation to your college's graduate associate dean, who will investigate the matter and respond to you in writing within a reasonable time frame.
4. If Step 3 does not resolve the conflict to your satisfaction and the issue includes questions of fairness, justice, discrimination, or similar concerns, submit your written grievance and support documentation to the UF Office of the Ombuds. You can only take this step after you have gone through Steps 1 through 3. Appeals to and decisions of the Ombuds are final. For more information, click this online link to the Ombuds website: go.ufl.edu/ombuds.

For graduate assistants, most employment-related grievances are covered by Article 22 of the Collective Bargaining Agreement between the Florida Board of Education of the State University System and Graduate Assistants United (GAU). In such cases, call the GAU office at 352-392-0274 or UF Human Resources at 352- 392-2477 for information and instructions.

In cases of research misconduct, consult UF Research Integrity before lodging a formal complaint, by clicking on this online link: go.ufl.edu/integrity. Any follow-up formal complaints would go to the administrator (department chair or dean, for example) to whom the accused party reports.

If you have questions, problems, or complaints with other aspects of student life, consult the UF Dean of Students Office: go.ufl.edu/dso.

15. Appendix

15.1. Course Checklists

Checklist M.S. (non-thesis) Program

Materials Fundamentals Core (6 credits total with grade C or better)	Credits	Semester/Year	Grade
<input type="checkbox"/> EMA 6316 Materials Thermodynamics	3		
<input type="checkbox"/> EMA 6136 Diffusion, Kinetics, & Transport	3		
Materials Applications Core (6 credits total with grade C or better)	Credits	Semester/Year	Grade
<input type="checkbox"/> EMA 6313 Materials Structure and Mechanical Properties	3		
<input type="checkbox"/> EMA 6114 Functional Properties of Materials	3		
<input type="checkbox"/> EMA 6580 Science of Biomaterials	3		
<input type="checkbox"/> EMA 6581 Polymeric Biomaterials	3		
<input type="checkbox"/> EMA 6667 Polymer Processing	3		
<input type="checkbox"/> EMA 6165 Polymer Physics	3		
MSE Electives (9 credits minimum with C or better or S for S/U course)^a	Credits	Semester/Year	Grade
<input type="checkbox"/> EMA			
<input type="checkbox"/> EMA			
<input type="checkbox"/> EMA			
<input type="checkbox"/> EMA			
<input type="checkbox"/> EMA			

^a Graduate-level EMA-prefix course. At least 6 credits must be lecture (letter graded) coursework. These may include courses listed in Materials Applications not used to fulfill the core requirements.

Non-MSE Electives (9 credits maximum with C or better or S for S/U course)^b	Credits	Semester/Year	Grade
<input type="checkbox"/>			
<input type="checkbox"/>			
<input type="checkbox"/>			
<input type="checkbox"/>			

^b Any 5000-level or higher course in the College of Engineering, and the Physics, Chemistry, and Mathematics Department (other courses require special approval). Excludes S/U graded courses.

Checklist M.S. (thesis) Program

Materials Fundamentals Core (6 credits total with grade C or better)	Credits	Semester/Year	Grade
<input type="checkbox"/> EMA 6316 Materials Thermodynamics	3		
<input type="checkbox"/> EMA 6136 Diffusion, Kinetics, & Transport	3		

Materials Applications Core (6 credits total with grade C or better)	Credits	Semester/Year	Grade
<input type="checkbox"/> EMA 6313 Materials Structure and Mechanical Properties	3		
<input type="checkbox"/> EMA 6114 Functional Properties of Materials	3		
<input type="checkbox"/> EMA 6580 Science of Biomaterials	3		
<input type="checkbox"/> EMA 6581 Polymeric Biomaterials	3		
<input type="checkbox"/> EMA 6667 Polymer Processing	3		
<input type="checkbox"/> EMA 6165 Polymer Physics	3		

MSE Core (12 credits total with grade C or better)	Credits	Semester/Year	Grade
<input type="checkbox"/> EMA 6313 Materials Structure and Mechanical Properties	3		
<input type="checkbox"/> EMA 6114 Functional Properties of Materials	3		
<input type="checkbox"/> EMA 6316 Materials Thermodynamics	3		
<input type="checkbox"/> EMA 6136 Diffusion, Kinetics, & Transport	3		

MSE Electives (9 credits minimum with C or better or S for S/U course)^a	Credits	Semester/Year	Grade
<input type="checkbox"/> EMA			
<input type="checkbox"/> EMA			
<input type="checkbox"/> EMA			

☐ EMA

☐ EMA

^a Graduate-level EMA-prefix course. At least 6 credits must be lecture (letter graded) coursework. These may include courses listed in Materials Applications not used to fulfill the core requirements.

Non-MSE Electives (9 credits maximum with C or better or S for S/U course)^b	Credits	Semester/Year	Grade
---	----------------	----------------------	--------------

☐

☐

☐

☐

☐

^b Any 5000-level or higher course in the College of Engineering (3000 and 4000 only with special approval). Excludes S/U graded courses.

Thesis Research (3-6 credits)^c	Credits	Semester/Year	Grade
--	----------------	----------------------	--------------

☐ EMA 6971 Master's Thesis

☐ EMA 6971 Master's Thesis (graduating term)

^c M.S. Thesis students must enroll in MSE 6971 during their final graduating term for a minimum of 3 credits for Fall/Spring or 2 credits for Summer.

Checklist Ph.D. Program

Materials Fundamentals Core (7 credits total with grade B or better in graded courses and S in 6920)	Credits	Semester/Year	Grade
<input type="checkbox"/> EMA 6316 Materials Thermodynamics	3		
<input type="checkbox"/> EMA 6136 Diffusion, Kinetics, & Transport	3		
<input type="checkbox"/> EMA 6920 Professional Development (S/U)	1		

Materials Applications Core (6 credits total with grade B or better)	Credits	Semester/Year	Grade
<input type="checkbox"/> EMA 6313 Materials Structure and Mechanical Properties	3		
<input type="checkbox"/> EMA 6114 Functional Properties of Materials	3		
<input type="checkbox"/> EMA 6580 Science of Biomaterials	3		
<input type="checkbox"/> EMA 6581 Polymeric Biomaterials	3		
<input type="checkbox"/> EMA 6667 Polymer Processing	3		
<input type="checkbox"/> EMA 6165 Polymer Physics	3		

Supervised Teaching (4 credits, graded S)	Credits	Semester/Year	Grade
<input type="checkbox"/> EMA 6941 Supervised Teaching	2		
<input type="checkbox"/> EMA 6941 Supervised Teaching	2		

MSE Electives (6 credits minimum with C or better)^a	Credits	Semester/Year	Grade
<input type="checkbox"/> EMA			
<input type="checkbox"/> EMA			
<input type="checkbox"/> EMA			

^a Any graduate-level course that has an EMA-prefix or is advisor approved. Excludes S/U graded courses. These may include courses listed in Materials Applications not used to fulfill the core requirements.

Non-MSE Electives (variable credits with C or better or S for S/U course)^b	Credits	Semester/Year	Grade
<input type="checkbox"/>			
<input type="checkbox"/>			
<input type="checkbox"/>			
<input type="checkbox"/>			
<input type="checkbox"/>			

^b Any 5000-level or higher course in the College of Engineering (3000 and 4000 only with special approval). Excludes S/U graded courses.

15.2. Degree Timeline and Deadlines for Ph.D. Students

The following table illustrates a typical timeline to the Ph.D. degree.

Time	Milestone
Annually	Complete your yearly Individual Development Plan (IDP)
1 st semester (Fall)	Select a doctoral advisor Complete 3 courses: EMA 6316 (B or better), one Core Applications course (B or better), and a third course (MSE elective, research, or EMA 6001 if needed)
2 nd semester (Spring)	Establish Ph. D. supervisory committee Complete 3 courses: EMA 6136 (B or better), one Core Applications course (B or better), and a third course (MSE elective or research) Submit Core Course Declaration Form
4 th semester (Fall)	Complete EMA 6920 with S Complete any remaining Core Fundamentals or Core Applications courses (B or better) Complete EMA 6941 (2 credits) with S
5 th semester (Spring)	Pass graduate qualifying examination / admission to candidacy Complete EMA 6941 (2 credits) with S
Annually after qualifying exam	Present annual research update with supervisory committee
Within 6 months of defense	Sufficiency meeting with supervisory committee Meet with ASO to discuss defense requirements and deadlines
4 th -5 th year	Ph.D. dissertation defense

Checklist: minor in MSE for non-MSE MS and PhD students

UF graduate students who want to get a minor in MSE must take 9 credit hours of MSE courses for Master students or 12 credit hours of MSE courses for PhD students in other majors. The minor in MSE is set up by contacting the graduate coordinator in your home department (major) and the graduate coordinator in MSE via email. After consultation, a Graduate Minor Contract is made that list which courses are required to be taken for granting a minor in MSE. This has to be arranged before or at the beginning of the minor. The MSE Graduate Minor Contract can be accessed at <https://mse.ufl.edu/academics/forms/>.

A minimum of one course from the Materials Fundamentals Core is required. The other minor courses can be MSE core courses (including the other Fundamentals core course and the Application Core courses) or MSE electives that fit the educational or research interests of the student. Only letter grade courses are allowed, all of which must be passed with a grade of C or better. No S/U courses are allowed. To successfully complete the minor, students must earn at least a cumulative 3.0 GPA in their minor courses.

At least one Materials Fundamentals Core Course (3 credits with C or better)	Credits	Semester/Year	Grade
<input type="checkbox"/> EMA 6316 Materials Thermodynamics	3		
<input type="checkbox"/> EMA 6136 Diffusion, Kinetics, & Transport	3		

Other EMA6xxx non-S/U courses to select from to complete a total of 9 (M.S.) or 12 (Ph. D.) credits:

Non-MSE minor for MSE major graduate students

UF MSE graduate students who want to get a minor in another field of study must take 9 hours of coursework for Master students or 12 credit hours for PhD students at 5000-level or above according to the requirement of the specific minor. The minor is set up by contacting the graduate coordinator in MSE (major) and the graduate coordinator in your desired minor field via email. After consultation, a contract is made that lists which courses are required to be taken for granting a minor. This has to be arranged before or at the beginning of taking courses for the minor. Only letter grade courses are allowed. No S/U courses. A minimum GPA of 3.00 for the minor has to be achieved for successful completion.

Nontraditional Doctoral/Master's degree program

Students who are interested in pursuing M.S. and Ph.D. degrees in 2 different or more disciplines need to file paperwork for a nontraditional degree or a concurrent degree with the program coordinators in MSE and the other program(s). Students will have to complete 21 credit hours offered from the Materials Science and Engineering program (EMA prefix only) to earn the M.S. degree. A maximum of 9 credits can be shared between both programs. The form can be found at: <https://grad.ufl.edu/media/gradufl.edu/pdf/nontraditional.pdf>. Students must contact the Academic Services Office (ASO) at advising@mse.ufl.edu to generate and submit the correct form.

15.3. Representative Course Schedules

These are representative schedules. They may be tuned to the requirements of each individual student. Please consult Academic Services.

PhD: Years 1 and 2

Note that at least 3 credits of graded EMA5xxx/EMA6xxx courses in addition to required courses must be taken prior to proposal defense.

Year 1 Fall (9 credits)

- EMA 6316 Materials Thermodynamics (Materials Fundamentals Core course - 3)
- Two other MSE courses, at least one of which should be a Materials Application Core course

Note: If students take EMA 6001, they should delay registration in EMA 6313 to Fall of the second year if they want to take the course also. Completion of the diagnostic exam prior to registering for the first semester is strongly advised to assist students in deciding if they should take EMA 6001 or EMA 6313.

Year 1 Spring (9 credits)

- EMA 6136 Diffusion, Kinetics and Transport (Materials Fundamentals Core course - 3)
- Two other MSE courses, at least one of which should be a Materials Application Core course (6 credits)

Year 1 Summer (6 credits)

EMA 7979 Advanced Research (6)

Year 2 Fall

EMA 6xxx (up to 6 credits)

- Any courses needed to fulfill requirement of Materials Fundamentals or Materials Application Core should be taken
- EMA 7979 Advanced Research may be taken

EMA 6920 Professional Development (required, 1 credits S/U)

EMA 6941 Supervised Teaching (required, 2 credits S/U)

EMA 6936 Seminar (required unless 9 credits of graded courses taken, 1 credit S/U)

Year 2 Spring

EMA 6xxx (up to 6 credits)

- Any course needed to fulfill requirement of Materials Fundamentals or Materials Application Core should be taken
- EMA 7979 Advanced Research may be taken

EMA 6941 Supervised Teaching (required, 2 credits S/U)

EMA 6936 Seminar (required unless 9 credits of graded courses taken, 1 credit S/U)

Which Research Course?

EMA 7979 Prior to admission to candidacy (generally years 1 and 2)

EMA 7980 After admission to candidacy (generally years 3 and beyond)

Non-thesis MS (on campus): Years 1 and 2

Year 1 Fall (9 credits)

- ***Low Score on Diagnostic Test***

EMA 6316 Materials Thermodynamics (Materials Fundamentals Core course, 3)

EMA 6001 Properties of Materials (3)

EMA xxxx Other MSE course from the Materials Applications Core(3)

- ***High Score on Diagnostic Test***

EMA 6316 Materials Thermodynamics (Materials Fundamentals Core course, 3)

EMA xxxx Two other MSE courses, at least one of which should be from the Materials Applications Core (3)

Year 1 Spring (9 credits)

EMA 6136 Diffusion, Kinetics and Transport (Materials Fundamentals Core course, 3)

EMA xxxx Two other MSE courses, at least one of which should be from the Materials Applications Core (3)

Year 1 Summer (3 credits)

EMA 6507 Scanning Electron Microscopy (3)

Year 2 Fall

9 credits of 6xxx courses.

- Courses needed to fulfill requirements of Materials Applications core should be prioritized
- Must include EMA 6936 (Seminar) unless 9 credits of graded courses.

Final Term - Year 2 Spring (9 credits)

9 credits of 6xxx courses.

- Courses needed to fulfill requirements of Materials Applications core should be prioritized
- Must include EMA 6936 (Seminar) unless 9 credits of graded courses.

Which Research Course?

Preferred:

EMA 6910 Supervised Research (5 credits maximum)

Short term, volunteer research:

EGN 6913 Engineering Graduate Research

Note: Maximum of 6 (S/U) credits will count towards MS Non-Thesis Degree.

Non-thesis MS (EDGE)

Each EDGE student's background and time availability is different and may vary through the program. The department is committed to helping each student construct a course plan that will lead to success. Representative one-course and two-course per semester plans are below. Students may take one course in some semesters and two in others according to their availabilities.

EDGE: One course a semester

*Year 1 Fall: EMA 6001 Properties of Materials or EMA 6316 Materials Thermodynamics (Materials Fundamentals Core course, 3 credits)

*Year 1 Spring: EMA 6136 Diffusion, Kinetics and Transport (Materials Fundamentals core course, 3)

Year 1 Summer: EMA 6507 Scanning Electron Microscopy (3) or, with approval, non MSE 5xxx/6xxx course (3)

Year 2 Fall: MSE Applications Core course or, if not taken in Year 1, EMA 6316 Materials Thermodynamics (Materials Fundamentals Core course, 3 credits)

Year 2 Spring: EMA course, with courses to fulfill requirements of Materials Application core prioritized. (3)

Year 2 Summer: EMA 6507 Scanning Electron Microscopy (3) or, with approval, non MSE 5xxx/6xxx course. (3)

Year 3 Fall: EMA course, with courses to fulfill requirements of Materials Application core prioritized. (3)

Year 3 Spring: Elective (3)

Year 3 Summer: EMA 6507 Scanning Electron Microscopy (3) or, with approval, non MSE 5xxx/6xxx course. (3)

Year 4 Fall: Elective (3)

**If a high score is achieved on the diagnostic exam, then EMA 6001 need not be taken*

EDGE: Two courses a semester

*Year 1 Fall: EMA 6001 Properties of Materials (3 credits) and EMA 6316 Materials Thermodynamics (Materials Fundamentals Core course, 3)

or

*EMA 6316 Materials Thermodynamics (Materials Fundamentals Core, 3) and Materials Application Core course (3)

Year 1 Spring: EMA 6136 Diffusion, Kinetics and Transport (Materials Fundamentals Core course, 3) and Materials Application Core course (3)

Year 1 Summer: EMA 6507 Scanning Electron Microscopy (3) or, with approval, non MSE 5xxx/6xxx course (3)

Year 2 Fall: Two courses, with courses to fulfill requirements of Materials Application core prioritized.

Year 2 Spring: Two courses, with courses to fulfill requirements of Materials Application core prioritized.

Year 2 Summer: EMA 6507 Scanning Electron Microscopy (3) or, with approval, non MSE 5xxx/6xxx course (3)

**If a high score is achieved on the diagnostic exam, EMA 6001 need not be taken.*

Thesis MS: Years 1 and 2

Year 1 Fall (9 credits)

- ***Low Score on Diagnostic Test***

EMA 6316 Materials Thermodynamics (Materials Fundamentals Core course, 3)

EMA 6001 Properties of Materials (3)

EMA xxxx Other MSE course from the Materials Applications Core(3)

- ***High Score on Diagnostic Test***

EMA 6316 Materials Thermodynamics (Materials Fundamentals Core course, 3)

EMA xxxx Two other MSE courses, at least one of which should be from the Materials Applications Core (3)

Year 1 Spring (9 credits)

EMA 6136 Diffusion, Kinetics and Transport (3)

EMA xxxx Two other MSE Courses with priority to those in the Applications Core (3)

Year 1 Summer (3 credits)

EMA 6507 Scanning Electron Microscopy (3)

Year 2 Fall

9 credits of 6xxx courses, including research. Must include EMA 6936 (Seminar) unless 9 credits of graded courses.

Final Term - Year 2 Spring (9 credits)

EMA 6971 Master's Thesis Research (3)

+6 credits of other 6xxx courses. EMA 6936 (Seminar) is not required in your final term.

Which Research Course?

Required:

EMA 6971 Master's Thesis Research (3 credits minimum, 6 credits maximum)

Optional:

EMA 6910 Supervised Research (5 credits Maximum)