UF | UNIVERSITY of FLORIDA

The Foundation for The Gator Nation

Materials Science & Engineering (MSE)

Graduate Program Guidelines

Graduate Handbook

2023-2024

Effective from 8/15/2023

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

Past Graduate Handbooks are available at https://mse.ufl.edu/graduate-handbook/

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

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 and understand 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 http://graduateschool.ufl.edu/media/graduate-school/pdf-files/handbook.pdf.

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. Michele Manuel
Chair
100B Rhines Hall
chair@mse.ufl.edu
(352) 846-3300

Prof. Michael Tonks
Associate Chair for MSE
100D Rhines Hall
michael.tonks@ufl.edu
(352) 846-3779

Prof. Simon Phillpot
MSE Graduate Coordinator
162 Rhines Hall
mse-gradcoordinator@mse.ufl.edu
(352) 846-3782

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

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

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

2.2. MSE Faculty and Staff

The current tenure/tenure track 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 Placement Exam

The core courses for the MSE program are:

- EMA 6316: Materials Thermodynamics
- EMA 6313: Materials Structure and Mechanical Properties
- EMA 6136: Diffusion, Kinetics, and Transport
- EMA 6114: Functional Properties of Materials

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), 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.

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 placement 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 and that EMA 6136 be deferred until the following Fall semester. EMA 6001 is considered as an elective course towards the degree.

Every graduate students is required to register for EMA6936 (Seminar in Materials Science and Engineering; 1 credit; graded S/U) each 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 has received a waiver from the Academic Services Office.

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 a minimum of 30 credits of course work. 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 four 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 graduate coordinator.

For M.S. students working to a thesis degree, the 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, thesis and 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 four 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 graduate coordinator.

For the M.S. students working to a non-thesis degree, the graduate coordinator is designated as the graduate 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 http://www.mse.ufl.edu/masters-non-thesis/. 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 requirement of the Ph.D. program and is meant to help guide each Ph.D. graduate student through the entire process of their academic learning

experience. The IDP helps to ensure the guidance needed to complete the Ph.D. process including interaction with their graduate committee. The IDP can be found on the Canvas site for all Ph.D. students. There are several action items that need to be completed. They are listed on the syllabus page on Canvas. The items include the following:

- Discuss your self-assessment summary and existing goals with your faculty advisor. Using the Action Plan Template, develop an action plan based on this conversation, to address your target goals, skills, and competencies for the next 12 months. Write this plan together, with the aim of updating and revising it as you make academic and personal progress during your graduate career.
- Discuss your self-assessment summary and existing goals with your faculty advisor. Using the Mentoring Plan Template, develop a mentoring plan to prepare for meetings with your Lead Mentor/Graduate Coordinator, Thesis Committee Group, Thesis Committee One-on-one, and Collaborators. Upload your completed mentoring plan to this assignment.
- Complete the Self-Assessment Survey and upload your final copy to this assignment. This self-assessment survey allows you to evaluate your current strengths and weaknesses. Please check the boxes according to your ability (1 being low; 3 being high). Use these scores to guide your discussions with your advisor. You may identify targeted goals for this year by using the Goal checkboxes in the relevant skill categories. You may leave the Goals column and Priority column blank if the skill is not one of your goals. You should bring a copy of the completed survey to your advising appointment.

As you implement your IDP, remember to adjust your plans as your circumstances change. It is expected that you regularly meet with your faculty advisor to discuss your progress, achievements and goals. Be sure to verify that your annual meetings with your faculty advisor and committee members have been scheduled, and that previous meetings have been noted on your student record in GIMS.

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 the four 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 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 EMA 6941 may be waived completely or partially for remote Ph.D. students or for Ph.D. students with funding support that disallows teaching.

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. Qualifying and Proposal Exam

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 four core classes.

Students have a maximum of 24 months (6 terms) from the 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. 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.

Written Proposal. The proposal should be prepared as 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).

The written proposal document must be submitted to the Supervisory Committee at least 5 business days before the presentation and oral examination take place.

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 reserve a conference room for the exam for two hours.

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.

For the oral proposal examination, 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.

All admission to candidacy approval forms are processed by the Academic Services Office, once the "Oral Examination Announcement" form is received.

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 a M.S. degree (non-thesis) when they have fulfilled the requirements for that degree. Application for a 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, 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 expected workload is expected to average 6 hours per week per course. Teaching assignments will be given before 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 agreed upon by the student and instructor, the student can lecture to the class.

The TA's performance 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 as TA in a future semester. The instructor evaluation will also be forwarded to the TA's research advisor. The TA 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 of the TA. An official grievance process is in place if the TA 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.

3.4. 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 as early as possible for an appropriate time for the defense with their committee and reserve a room for the exam for two hours.

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 the exam. 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 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, 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.

The successful completion of the Final Examination must be updated into GIMS by the deadline defined by the UF Graduate School, which is posted on the UF Academic Calendar for each semester. *Note that this deadline is typically several weeks prior to the end of classes for that semester.* It is the student's responsibility to ensure that their Final Examination Report is submitted to their Supervisory Chair with sufficient lead-time to permit review, feedback, modification, assignment of final grade, submission of Final Examination Report Form, and uploading of this form by the GAO.

If the student receives a 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 the exam 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 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 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.

For international students, US visa requirements may require a minimum number of credits in each semester.

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, as well as the Graduate Coordinator. Once approved, the forms are routed to the Academic Services Office 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. Students need to register on time to avoid unnecessary late registration fees. Registration and payment deadlines for each semester can be found at https://gradcatalog.ufl.edu/graduate/calendar/. Students need to pay any fees by the fee payment deadline, even if a tuition waiver has not been processed. Registration may be restricted. To check for record holds, registration holds, and late registration fees, go to Student Self Service (https://one.uf.edu/)To review the anticipated schedule of courses for an upcoming semester, students should go to https://one.uf.edu/soc/. Students have access to their degree audit online at www.student.ufl.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/. The graduate degree audits are under construction so they should not be used; however, students can review their academic record by checking their unofficial UF transcript via https://one.uf.edu. Students are ultimately responsible for ensuring they are on track to finish their degrees. If a student has any questions about their academic progress, they should schedule a meeting with an academic advisor immediately. Advisors can be contacted at advising@mse.ufl.edu.

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 (GRA, GSPA, etc.) 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.

Thesis and Dissertation students who complete all graduate degree requirements during a given semester but fail to meet the final submission or final clearance deadline, 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: http://graduateschool.ufl.edu/about-us/offices/editorial/editorial-deadlines/.

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 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 from another university, may be considered for transfer to count towards the M.S. or Ph.D. degree with approval of the MSE Program Petitions Committee. For the M.S. program, up to nine credits may be transferred. For the Ph.D. program, up to 30 credits may be transferred. All work transferred must be coursework taken with a grade of B or better. For Transfer of Credit, students need to contact Academic Services Offices 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 for a master's degree must be made during the student's first term of enrollment in the Graduate School. All work, including transferred credits, counted toward the degree must have been completed during the seven years immediately preceding the date which the degree is awarded.

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://student.ufl.edu). Classes 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 class. 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 class 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. 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 that all have to be at least 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 in a laboratory must be registered for research credits or on a paid appointment. International students who seek to work in a research laboratory 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 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 *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/labsafety/). 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/labsafety/resources/engineering-laboratory-safety-guidelines-and-training-checklist/.

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 (Dr. Kevin Gilley, kgilley@mse.ufl.edu), 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.

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:

http://research.ufl.edu/faculty-and-staff/research- compliance/responsible-conduct-in-research-rcr-training/navigation-to-citi-for-rcr-responsible- conduct-of-research-training.html.

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. Simon Phillpot) 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.

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 email to advising@mse.ufl.edu.

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 with academic issues by submitting a formal request via the MSE website with the Academic Services Office. Petitions must be formally approved or disapproved 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. 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 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. 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.

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. 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 toward 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

Students are required to notify ASO about any internship they plan to accept at least 20 business days prior to starting the internship.

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.

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/gradadvancegraduateschoolufledu/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, and obey 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.

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. ASO will use this UF account for all official communications. *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 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.uf.edu) and the MSE department.

Prior to the semester of graduation, students should meet with ASO staff 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.uf.edu/) and must meet minimum registration requirements. Master's Thesis and PhD students should obtain the checklist (http://graduateschool.ufl.edu/graduate-life/graduation/graduation-checklist/) for their relevant degrees from the Graduate School website to ensure compliance with MSE and Graduate School requirements and final examination deadlines posted at http://graduateschool.ufl.edu/graduation/thesis-and-dissertation.

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, see http://www.mse.ufl.edu/masters-non-thesis/.

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. Appendix

14.1. Course Checklists

Checklist M.S. (non-thesis) Program

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

MSE Electives (9 credits minimum)[a]	Credits	Semester/Year	Grade
☐ EMA			
☐ EMA			
☐ EMA			
☐ EMA			
☐ EMA			

[a] Graduate-level EMA-prefix course. At least 6 credits must be lecture (letter graded) coursework.

Non-MSE Electives (9 credits maximum)[b]	Credits	Semester/Year	Grade
☐			
☐			
☐			
☐			

[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

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

MSE Electives (9 credits minimum)[a]	Credits	Semester/Year	Grade
☐ EMA			
☐ EMA			
☐ EMA			
☐ EMA			
☐ EMA			

[a] Graduate-level EMA-prefix course. At least 6 credits must be lecture (letter graded) coursework.

Non-MSE Electives (9 credits maximum)[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

MSE Core: 13 credits total with grade B or better in graded classes and S in 6920	Credits	Semester/Year	Grade
☐ EMA 6313 Materials Structure and Mechanical Properties	3		
☐ EMA 6114 Functional Properties of Materials	3		
☐ EMA 6316 Materials Thermodynamics	3		
☐ EMA 6136 Diffusion, Kinetics, & Transport	3		
☐ EMA 6920 Professional Development (S/U)	1		
Supervised Teaching: 4 credits, graded S)	**Credits**	**Semester/Year**	**Grade**
☐ EMA 6941 Supervised Teaching	2		
☐ EMA 6941 Supervised Teaching	2		

MSE Electives (6 credits minimum)[a]	Credits	Semester/Year	Grade
☐ EMA			
☐ EMA			
☐ EMA			

[a] Any graduate-level course that has an EMA-prefix or is advisor approved. Excludes S/U graded courses.

Non-MSE Electives (variable credits)[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.

14.2. 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)
1st semester	Select a doctoral advisor. Complete 2 core courses (B or better) or EMA 6001 and EMA 6316
2nd semester	Establish Ph.D. supervisory committee Complete 2 core courses (B or better)
4th semester	Complete EMA 6920 Deadline to complete all core courses
5th semester	Pass graduate qualifying examination / admission to candidacy
2nd-3rd year	Complete the Supervised Teaching Requirement
Annually after qualifying exam	Present annual research update with supervisory committee
Within 6 months of defense	Meet with ASO to discuss defense requirements and deadlines
4th-5th 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 contract (https://mse.ufl.edu/wp-content/uploads/MSE-Minor-Contract-Form.pdf) 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.

A minimum of one core course of MSE is required. The other two courses can be MSE 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 MSE Core (3 credits)	Credits	Semester/Year	Grade
☐ EMA 6313 Materials Structure and Mechanical Properties	3		
☐ EMA 6114 Functional Properties of Materials	3		
☐ EMA 6316 Materials Thermodynamics	3		
☐ EMA 6136 Diffusion, Kinetics, & Transport	3		

Other EMA6xxx non-S/U courses to select from to complete a total of 9 or 12 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. 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 classes 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: http://graduateschool.ufl.edu/faculty--staff/forms/. Students must contact the academic services office at advising@mse.ufl.edu to generate and submit the correct form.

Transfer students who move to UF

Students who transfer to the M.S. or Ph.D. program in MSE have to establish a GPA before they are allowed to take only S/U coursework. A minimum of 12 credit hours of letter grade courses at UF have to be taken to establish a GPA.

14.3. Representative Class Schedules

PhD: Years 1 and 2

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

Year 1 Fall (9 credits)

EMA 6313* Materials Structure and Mechanical Properties (3)

EMA 6316 Materials Thermodynamics (3)

and either

EMA xxxx Other MSE Class (3)

or

EMA7979 (2 credits) and EMA 6936 (1 credit)

*If students take EMA 6001, they should delay registration in EMA 6313 to Fall of the second year. Completion of the placement exam prior to registering for EMA 6313 is strongly advised to assist students in deciding if they need to take EMA 6001.

Year 1 Spring (9 credits)

EMA 6114 Functional Properties of Materials (3)

EMA 6136 Diffusion, Kinetics and Transport (3)

and either

EMA xxxx Other MSE Class (3)

or

EMA7979 (2 credits) and EMA 6936 (1 credit)

Year 1 Summer (6 credits)

EMA 7979 Advanced Research (6)

Year 2 Fall

EMA 6920 Professional Development (1)

EMA 6941 Supervised Teaching (2)

+ 6 credits of other 6xxxx classes, including Advanced Research. Must include EMA 6936 (Seminar) unless 9 credits of graded classes.

Year 2 Spring

EMA 6941 Supervise Teaching (2)

+ 7 credits of other 6xxxx classes, including Advanced Research. Must include EMA 6936 (Seminar) unless 9 credits of graded classes.

Which Research Class?

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: Years 1 and 2

Year 1 Fall (9 credits)

- ***High Score on Placement Test***

EMA 6313 Materials Structure and Mechanical Properties (3)

EMA 6316 Materials Thermodynamics (3)

EMA xxxx Other MSE Class (3)

- ***Intermediate Score on Placement Test***

EMA 6001 Properties of Materials (3)

EMA 6313 Materials Structure and Mechanical Properties (3)

EMA 6316 Materials Thermodynamics (3)

- ***Low Score on Placement Test***

EMA 6001 Properties of Materials (3)

EMA 6316 Materials Thermodynamics (3)

EMA xxxx Other MSE Class (3)

Year 1 Spring (9 credits)

EMA 6114 Functional Properties of Materials (3)

EMA 6136 Diffusion, Kinetics and Transport (3)

EMA xxxx Other MSE Class (3)

Year 1 Summer (3 credits)

EMA 6507 Scanning Electron Microscopy (3)

Year 2 Fall

- ***High or Intermediate Score on Placement Test***

9 credits of other 6xxx classes, which may include research. Must include EMA 6936 (Seminar) unless 9 credits of graded classes.

- ***Low Score on Placement Test***

EMA 6313 Materials Structure and Mechanical Properties (3)

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

Final Term - Year 2 Spring (9 credits)

9 credits of other 6xxx classes, which may include research. EMA 6936 (Seminar) is not required in your final term.

Which Research Class?

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.

Thesis MS: Years 1 and 2

Year 1 Fall (9 credits)

- ***High Score on Placement Test***

EMA 6313 Materials Structure and Mechanical Properties (3)

EMA 6316 Materials Thermodynamics (3)

EMA xxxx Other MSE Class (3)

- ***Intermediate Score on Placement Test***

EMA 6001 Properties of Materials (3)

EMA 6313 Materials Structure and Mechanical Properties (3)

EMA 6316 Materials Thermodynamics (3)

- ***Low Score on Placement Test***

EMA 6001 Properties of Materials (3)

EMA 6316 Materials Thermodynamics (3)

EMA xxxx Other MSE Class (3)

Year 1 Spring (9 credits)

EMA 6114 Functional Properties of Materials (3)

EMA 6136 Diffusion, Kinetics and Transport (3)

EMA xxxx Other MSE Class (3)

Year 1 Summer (3 credits)

EMA 6507 Scanning Electron Microscopy (3)

Year 2 Fall

- ***High or Intermediate Score on Placement Test***

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

- ***Low Score on Placement Test***

EMA 6313 Materials Structure and Mechanical Properties (3)

+ 6 credits of other 6xxx classes, including Master's Thesis (EMA 6971). Must include EMA 6936 (Seminar) unless 9 credits of graded classes.

Final Term - Year 2 Spring (9 credits)

EMA 6971 Master's Thesis Research (3)

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

Which Research Class?

Required:

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

Optional:

EMA 6910 Supervised Research (5 credits Maximum)