Undergraduate Handbook
2023-2024
Effective from Summer B, 2023

This Guide contains information that supplements the University’s Undergraduate 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**
   - 1.1. *Department Education Mission* 3
   - 1.2. *MSE Undergraduate Program Objectives* 3

2. **Faculty**
   - 2.1. *Department Administration* 4
   - 2.2. *MSE Faculty* 4

3. **Undergraduate Programs**
   - 3.1. *B.S. Degree Program and Requirements* 5
     - 3.1.1. *Curriculum Overview* 5
     - 3.1.2. *Course Requirements and Model Semester Plan* 6
     - 3.1.3. *Technical Electives* 6
     - 3.1.4. *Flowchart of Courses and Dependencies* 8
     - 3.1.5. *Out-of-Program Courses for MSE Technical Electives* 8
   - 3.2. *Combination B.S./M.S. Degree Program and Requirements* 9
     - 3.2.1. *Admission Requirements for the Combination B.S./M.S. Program* 9
     - 3.2.2. *Course Requirements* 9
   - 3.3. *Minors* 10
   - 3.4. *Certificates* 10
   - 3.5. *Internships* 11
   - 3.6. *Senior Research* 11
   - 3.7. *Graduating with Honors* 12

4. **Courses and Registration**
   - 4.1. *Registration Requirements* 13
   - 4.2. *Grades* 14
   - 4.3. *Transfer Credit* 14
   - 4.4. *Add/Drop* 14
   - 4.5. *Retaking Courses* 14
   - 4.6. *ABET Accreditation* 15
   - 4.7. *Academic Petitions* 15

5. **Research**
   - 5.1. *Safety* 15
   - 5.2. *Responsible Conduct in Research (RCR)* 15

6. **General Information**
   - 6.1. *Undergraduate Coordinator* 16
   - 6.2. *Academic Services Office* 16
   - 6.3. *MSE Program Committees* 16
   - 6.4. *Student Societies* 16
   - 6.5. *Graduation Guidelines and Catalog Year* 17
   - 6.6. *Assistantships, Fellowships, Awards, and On-campus Jobs* 17

7. **Academic Honesty**

8. **Satisfactory Progress and Scholarship**

9. **Correspondence and Forms**
10. Preparation for Final Semester 18
11. Student Responsibility 18
1. Introduction

The Department of Materials Science & Engineering (MSE) offers undergraduate students the opportunity for state-of-the-art instruction and laboratory experience under the supervision of faculty while pursuing a MSE Bachelor of Science degree. The UF Undergraduate Catalog is the University of Florida’s official record of undergraduate policies, critical dates, deadlines, and course descriptions for faculty members and bachelor’s degree students. It is the student’s responsibility to know and understand these rules. The current academic catalog can be found at [http://catalog.ufl.edu/](http://catalog.ufl.edu/) and the Undergraduate Student Handbook of the Herbert-Wertheim College of Engineering at [https://www.eng.ufl.edu/students/wp-content/uploads/sites/5/2022/03/Undergraduate-Student-Handbook-1.pdf](https://www.eng.ufl.edu/students/wp-content/uploads/sites/5/2022/03/Undergraduate-Student-Handbook-1.pdf).

The MSE Undergraduate Handbook is provided to all MSE undergraduate students to serve as a companion resource to the University of Florida Catalog. It is the responsibility of the student to be familiar with both publications and to adhere to the stated rules.

1.1. Department Education Mission

The mission of the 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. MSE Undergraduate Program Objectives

The objectives of the MSE Undergraduate Program are to:

- Provide students with a strong foundation of MSE knowledge, and the opportunity to focus their study via specialized electives.
- Provide students with the ability to apply fundamental engineering principles to identify, analyze, and solve scientific and engineering problems for the design and application of materials.
- Provide students with the ability to design and conduct scientific and engineering experiments, 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.
- Provide students with the skills needed to communicate effectively, work collaboratively, and understand their professional and ethical responsibilities and the impact of significant engineering solutions in a societal and economic context.

The field of MSE is highly interdisciplinary and collaborative, with interactions with other engineering and science disciplines and with professional, engineering, and clinical practice. As such, the undergraduate program in MSE benefits from different departments and institutes 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 scientists and engineers.
2. Faculty

2.1. Department Administration

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

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

Prof. John J. Mecholsky, Jr.  
Undergraduate Coordinator  
206 Rhines Hall  
mse-ugradcoordinator@mse.ufl.edu  
(352) 846-3306

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

2.2. MSE Faculty

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/.
3. Undergraduate Programs

The University of Florida’s MSE undergraduate program offers students a world-class education in a cutting-edge research environment. We offer a Bachelor’s (B.S.) degree, a combination of Bachelor and Master’s (B.S./M.S.) degree, and a Minor in MSE.

Our MSE undergraduate program involves many faculty members who conduct multi-disciplinary research with scientists across many departments and institutions. This diversity provides our undergraduate students an exposure to a broad spectrum of concepts and skills, access to state-of-the-art research tools, and the experience of a vibrant, collaborative culture.

MSE undergraduate students master a set of core concepts and principles critical to a fundamental understanding of MSE, but also have flexibility in designing a specific sequence of coursework and participating in research opportunities.

3.1. B.S. Degree Program and Requirements

3.1.1. Curriculum Overview

Science and Math Core (8 courses). The MSE curriculum builds on a solid foundation in mathematics, physics, and chemistry. The mathematical foundation is provided by the four mathematics courses Calculus 1, 2, 3, and Differential Equations. The physics and chemistry foundation is covered by the 2 course sequences of Physics with Calculus and General Chemistry.

Engineering Core (5 courses). The engineering core gives students a thorough understanding of how engineers approach problems. It also serves to introduce the major engineering disciplines to the student so that they have the needed background for the wide variety of problems to be encountered over a career.

MSE Core (12 courses). The MSE core provides the student with basic understanding of prominent problems and methodologies used in the materials science and engineering profession. This set of courses includes two introductory materials courses, error analysis and optimization, organic and inorganic materials, thermodynamics and kinetics of materials, and electronic and mechanical properties.

Engineering Design (8 courses). The engineering design training is provided throughout the curriculum. In the sophomore year this includes one introductory design course and lab focusing on the materials tetrahedron and sustainable engineering design. In the junior year, characterization techniques are taught in a two-lab sequence supporting design thinking and applications, and a course is taught on reverse engineering that utilizes the characterization skills from the lab experience. In the senior year, the students apply their design and materials skills in senior research and design courses.

Technical Electives (5 courses). Technical electives are designed to build upon the materials science and engineering foundation courses and allow students to explore emerging and specialization areas in MSE. The students can complete a certificate by selecting specific sequences of technical elective courses.

General Education (3 courses). The MSE program includes standard general education according to UF requirements: technical writing, diversity, humanities, international and social science. These are essential elements of a well-rounded education.
Total UG Credit hours required: 125.

3.1.2. Course Requirements and Model Semester Plan

The MSE Department offers a Bachelor of Science (B.S.) degree in MSE, which requires 125 credit hours of course work. Students can also obtain certificates along with the B.S. degree. Certificates can be obtained in Advanced Engineering Ceramics, Metallurgical Engineering, Semiconductor Materials, Polymer Science and Engineering, and Biomaterials. Each of these certificates require 10 credit hours in specialized course work that counts as 4 out of the 5 technical elective courses.

Critical Tracking Criteria. There are 9 critical tracking courses required by the university that must be successfully completed with a minimum grade of C for each course (based on a maximum of two attempts, including withdrawals). Students may repeat a maximum of three critical tracking courses. A minimum 2.5 critical-tracking GPA, and an overall GPA of 2.0, is required for students to continue to the upper-division MSE program courses. Students are expected to complete all critical tracking courses by the fifth semester. The critical tracking courses are indicated by an asterisk (*) in Table 1.

International and Diversity Requirement. Students must complete the general education International (GE-N) and Diversity (GE-D) requirements. This is often done concurrently with another general education requirement, typically Humanities or Social and Behavioral Sciences. More information can be found here: https://catalog.ufl.edu/UGRD/academic-programs/general-education/#text.

Writing Requirement. The University of Florida requires all students to complete a writing requirement. AICE, AP, CLEP, and IB examination credit, as well as dual enrollment or transfer credit, may count toward this requirement. To graduate, students must complete courses that involve substantial writing for a total of 24,000 words.

The required junior lab courses EMA 3080C and EMA3013C fulfill 4000 and 2000 words, respectively, of the writing requirement.

Civic Literacy Requirement. The University of Florida requires all incoming students for the 2018-2019 academic year and beyond, to meet the Civic Literacy requirement. UF students can meet this State requirement in a number of ways. More information can be found here: http://undergrad.aa.ufl.edu/for-students/civic-literacy-requirement/.

A model semester plan can be found here: https://catalog.ufl.edu/UGRD/colleges-schools/UGENG/MSE_BSMS/#modelsemesterplantext.

3.1.3. Technical Electives

Students must take 4 technical electives to meet their degree requirements. 3 credits minimum of technical electives must be from one of our processing courses:

- EMA 4614 Production of Electronic Materials
- EMA 4062 Biopolymers: Manufacture, Stability and Biocompatibility
- EMA 4623 Process Metallurgy
- EMA 4645 Processing of Ceramics
- EMA 4666 Processing of Polymers

The MSE electives and the semester during which they are offered are shown in the table, below. 3 credits maximum (1 course) of technical electives can be from a course outside of the MSE program (not listed on the table), as discussed in more detail in Section 3.1.5, though this is not required.

<table>
<thead>
<tr>
<th>Technical Electives Offered in the Fall</th>
<th>Technical Electives Offered in the Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMA 4061 Biomaterials: Structure &amp; Properties</td>
<td>EMA 4062 Biopolymers: Manufacture, Stability and Biocompatibility</td>
</tr>
<tr>
<td>EMA 4120 Physical Metallurgy 1</td>
<td></td>
</tr>
<tr>
<td>EMA 4144 Physical Ceramics 1</td>
<td>EMA 4224 Physical Metallurgy 2</td>
</tr>
<tr>
<td>EMA 4161 Physical Properties of Polymers</td>
<td></td>
</tr>
<tr>
<td>EMA 4614 Production of Electronic Materials</td>
<td>EMA 4615 Compound Semiconductors</td>
</tr>
<tr>
<td></td>
<td>EMA 4623 Process Metallurgy</td>
</tr>
<tr>
<td></td>
<td>EMA 4645 Processing of Ceramics</td>
</tr>
<tr>
<td></td>
<td>EMA 4666 Processing of Polymers</td>
</tr>
<tr>
<td></td>
<td>ENU 4800 Nuclear materials</td>
</tr>
</tbody>
</table>

In addition, students are required to take one elective lab. The electives labs that can be selected, the semester they are offered, and their corequisite elective courses are shown in the table, below.

<table>
<thead>
<tr>
<th>Laboratory Elective</th>
<th>Semester</th>
<th>Corequisite</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMA 4041L Advanced Ceramics Lab 1</td>
<td>Spring</td>
<td>EMA 4645</td>
</tr>
<tr>
<td>EMA 4020L Metallurgy Lab</td>
<td>Spring</td>
<td>EMA 4623</td>
</tr>
<tr>
<td>EMA 4161L Polymers Lab</td>
<td>Fall</td>
<td>EMA 4161</td>
</tr>
<tr>
<td>EMA 4061L Biomaterials Lab</td>
<td>Fall</td>
<td>EMA 4061</td>
</tr>
<tr>
<td>EMA 4414L Electronic Materials Lab</td>
<td>Spring</td>
<td>EMA 4614</td>
</tr>
</tbody>
</table>

Students can choose to specialize in a specific area of materials by earning a certificate. The certificates specify 3 of the 4 elective courses and the elective lab. Certificates are discussed in more detail in Section 3.4.
3.1.4. Flowchart of Courses and Dependencies

**Major: Materials Science and Engineering (MSE)**

**Requirements for Major Affiliation:**
- Minimum grade of C for each critical tracking course, combined GPA for all critical tracking courses of 3.5, and overall GPA of 2.0 before advancing to the MSE program courses.

### Table of Courses

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Semester 2</th>
<th>Semester 3</th>
<th>Semester 4</th>
<th>Semester 5</th>
<th>Semester 6</th>
<th>Semester 7</th>
<th>Semester 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAC 2311</td>
<td>MAC 2112</td>
<td>MAC 2313</td>
<td>MAP 2302</td>
<td>EMA 4314</td>
<td>EMA 425</td>
<td>EMA 4324</td>
<td>EMA 4714</td>
</tr>
<tr>
<td>CHM 2045/L</td>
<td>CHM 2046/L</td>
<td>CHM 2099/L</td>
<td>PHY 2048</td>
<td>EEL 3063</td>
<td>EMA 4223</td>
<td>EMA 4913</td>
<td>EMA 4914</td>
</tr>
<tr>
<td>General Chemistry I</td>
<td>General Chemistry II</td>
<td>General Chemistry forEng I</td>
<td>Magnetic Biomaterials</td>
<td>Elements of Electrical Engineering</td>
<td>Mechanical Behavior of Materials</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENC 1101</td>
<td>ENC 3246</td>
<td>ENC 1102</td>
<td>EGM 2511</td>
<td>EGM 3520</td>
<td>EMA 3513C</td>
<td>Elective</td>
<td>Elective</td>
</tr>
<tr>
<td>Social and Behavioral Sciences</td>
<td>Social and Behavioral Sciences</td>
<td>IDS 1161</td>
<td>COP 2271</td>
<td>EMA 3011</td>
<td>EMA 3010</td>
<td>Elective</td>
<td>Elective</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Study Skills for the Gold Life</td>
<td>Metals</td>
<td>Materials Processing</td>
<td>Elective</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humansites</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Key

- **Common curriculum**
- **Critical Tracking**
- **State Core General Education**
- **Prerequisite**
- **Elective**
- **Prerequisite or corequisite**

### Out-of-Program Courses for MSE Technical Electives

Three credits (1 course) of technical electives can be taken from approved courses from other programs at the University of Florida. In general, these courses should primarily cover new material that the student has not already learned in their required courses. For example, the student could not take BME 3101: Biomedical Materials, since the majority of the course covers topics already covered in other MSE courses. Also, the courses should primarily be 4000 or 5000 level, though some 3000 level courses are acceptable.

Out-of-program courses must be approved by the Petitions Committee. Some have already been approved, and they are listed below. If a student wishes to use a course that has not already been approved, they must submit an academic petition before registering for the course.

The following out-of-program courses have already been approved:

- BCH 4024: Introduction to Biochemistry and Molecular Biology
- BME 4160: Magnetic Biomaterials
3.2. **Combination B.S./M.S. Degree Program and Requirements**

The MSE Department offers a combination B.S./M.S. degree program. The combination B.S./M.S. degree program allows qualified students to apply for graduate admissions to pursue both a Bachelor’s degree in MSE and a Master’s degree in MSE concurrently.

3.2.1. **Admission Requirements for the Combination B.S./M.S. Program**

Students need to satisfy both [MSE admission requirements](#) and [Graduate School admissions requirements](#) for admission to the combination M.S./B.S. degree program. Applicants to the graduate program must have completed a minimum of 18 credit hours of EMA courses and have an overall GPA of at least 3.0.

3.2.2. **Course Requirements**
Admitted students begin M.S. degree course work while working towards their B.S. degree and double-count up to 12 credit hours of specific graduate courses for both their undergraduate and graduate degree requirements. The list of possible courses that can be double counted is provided in Table 2. All graduate coursework taken during the B.S. degree program must be completed with grades of B or better to transfer into the M.S. program. The M.S. degree is designed to be completed within two to three semesters after completing the B.S. requirements. All M.S. degree requirements must be satisfied as described in the graduate handbook.

Table 2: Graduate courses counting for undergraduate course requirements as part of the combination B.S./M.S. degree program.

<table>
<thead>
<tr>
<th>Undergraduate Requirement</th>
<th>Graduate Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMA 3800</td>
<td>EMA 6808</td>
</tr>
<tr>
<td>EMA 3413</td>
<td>EMA 6114</td>
</tr>
<tr>
<td>EMA 4314</td>
<td>EMA 6316</td>
</tr>
<tr>
<td>EMA 4125</td>
<td>EMA 6136</td>
</tr>
<tr>
<td>EMA 4061</td>
<td>EMA 6580</td>
</tr>
<tr>
<td>EMA 4062</td>
<td>EMA 6581</td>
</tr>
<tr>
<td>EMA 4161</td>
<td>EMA 6165</td>
</tr>
<tr>
<td>EMA 4462</td>
<td>EMA 6461</td>
</tr>
<tr>
<td>EMA 4614</td>
<td>EMA 6616</td>
</tr>
<tr>
<td>EMA 4615</td>
<td>EMA 6412</td>
</tr>
<tr>
<td>EMA 4645</td>
<td>EMA 6448</td>
</tr>
<tr>
<td>EMA 4623</td>
<td>EMA 6625</td>
</tr>
</tbody>
</table>

3.3. Minors

The MSE Program offers a minor in Materials Science and Engineering. Students from other B.S. programs can apply for this minor. They must have at least 45 credit hours completed and cannot be on college probation. The MSE minor requires EMA 3010 and 12 credits of other EMA courses (including IDS 2935-Impacts of Materials on Society), all with a C or better and a minimum overall GPA of 2.0.

3.4. Certificates

Students majoring in materials science have an option to get a certificate. This provides students with the opportunity to gain specialized knowledge in a specialized area of materials science and engineering that is related to future academic or job goals. Certificates are earned by taking specific senior technical and lab electives and are available for: Advanced Engineering Ceramics,
Metallurgical Engineering, Semiconductor Materials, Polymer Science and Engineering, and Biomaterials. Certificate requirements are usually completed in the senior year, and so certificate specialization should be decided at the end of the junior year. The specific requirements can be found here: https://catalog.ufl.edu/UGRD/programs/#filter=.filter_24&.filter_97.

3.5. Internships

As part of the undergraduate MSE program, Students can take an internship, e.g. in industry or national laboratories over the summer, and receive course credit for EMA 4949. To receive this credit, the student needs to notify the Academic Services Office (advising@mse.ufl.edu). If the student is being funded, they need to inform Human Resources (mse-hr@eng.ufl.edu) about any internship they plan to accept. 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 the Undergraduate Coordinator (mse-ugradcoordinator@mse.ufl.edu). The Academic Services Office will review the form and notify the student via email if the registration is approved or not. If approved the Academic Services Office will register the student for EMA 4949.

Once registered for EMA 4949, the following two forms need to be submitted to the Academic Services Office electronically no later than a week before classes end for the term registered to receive a grade:

- EMA 4949 Employer’s Student Evaluation Form,
- EMA 4949 Student’s Evaluation of Employer.

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

3.6. Senior Research

Senior undergraduate students are expected to either register for two semesters of senior research (EMA 4913/14) or Integrated Product and Process Design (EMA 4915/16). With approval by the undergraduate coordinator, an internship may be substituted for the research portion of EMA 4913 and EMA 4914.

EMA 4913/14 Requirements/Alternatives. The requirements for EMA 4913/14 consist of the MSE student working with a faculty advisor at UF in a scientific or engineering field. The research will result in a progress report at the end of EMA 4913 and a final technical report at the end of EMA 4914. **You will generally work on the same project both semesters.** There is a class component in EMA 4913 but not in EMA 4914. The specific project depends on the student and the professor with whom the student will work with mutual consent between the two. There is a form that will be filled out at the beginning of EMA 4913 to verify the planned work. If you want to perform research with someone outside the MSE Program, the EMA 4913/14 research project needs to be approved by the EMA 4913 instructor. EMA 4913 is one credit, and it has one hour of lecture a week; the expectation is that students will spend a minimum of 3 hours per week doing supervised research. EMA 4914 is three credits and has no class, so students are expected to spend a minimum of 9 hours a week on research. The specific guidelines for research expectations and grading are provided in the syllabi for EMA 4913/14.

Integrated Product and Processing Design (IPPD). IPPD is a two-course sequence in which multidisciplinary teams of engineering and business students partner with industry sponsors to
design and build authentic products and processes-on time and within budget. Working closely
with industry liaison engineers and a faculty coach, students gain practical experience in teamwork
and communication, problem solving and engineering design, and develop leadership,
management and people skills. Students must apply to the IPPD program and there is a limited
number of spots for MSE students each year. More information can be found here: https://www.ippd.ufl.edu/.

Procedure for Internship/Research Substitute for the research portion of EMA 4913/4914.
A student can count an internship the summer before their Senior year that is related to materials
for the research portion of EMA 4913/1914. The student will be required to submit a technical
report to the Undergraduate Coordinator at the end of the internship.

To substitute an internship or summer research at another institution (such as an REU program) for
the research portion of EMA 4913/4914, students need to:

1. Get approval from the Undergraduate Coordinator during the Spring semester of their
   Junior year prior to starting the internship. To get approval, send notification of your
   internship and an outline of your duties during your internship to the Undergraduate
   Coordinator and the Academic Services Office. The undergraduate coordinator will let you
   know if the internship is approved to cover the research portion of EMA 4913/4914.

2. Decide whether they will register for EMA 4914 in the summer term, while they are
   completing the internship or in the Spring semester of their Senior year.

3. Register for EMA 4913 in the Fall semester of their Senior year.

4. Write an 8- to 10-page technical report summarizing the work that they did for the
   internship or other research activity, with a focus on the technical achievements and
   objectives. They will need to submit a first draft of the report to the Undergraduate
   Coordinator in the first week of the Fall semester. They will submit the final draft halfway
   through the Fall semester, once technical writing has been discussed in EMA 4913.

5. Write a paragraph summarizing how the co-op experience compared with your
   expectations.

6. Submit a paragraph evaluation from your supervisor discussing your performance.

The technical report is similar to the report written for senior research. It should address questions
such as: What type of work did you do? What type of materials did you work on? What were the
results? You need to make sure that you are not presenting anything that is proprietary, so discuss
the report with your employer and follow any internal procedures they may have for the public
release of internal information. You should include tables, figures, equations, and references.

3.7. Graduating with Honors

Students can graduate cum laude (with honors) if they have a major GPA of 3.30.

Students can graduate magna cum laude (with high honors) or summa cum laude (with highest
honors) if they fulfill the following two requirements: (1) They must have an upper division GPA
of 3.50 or higher for magna cum laude and 3.80 or higher for summa cum laude. (2) They need to
complete and defend a thesis, research project, or other approved body of original work, which is
submitted for evaluation according to the rules of the UF Honors Office, the Herbert Wertheim College of Engineering, and the MSE department.

The upper division GPA is calculated from the grades in the semesters after which you have earned 60 college credits from any mechanism, including AP, IB, etc. Thus, grades count that are earned from the first semester shown as “3EG” on the transcript.

For the Senior thesis, a student will need to complete a research project with a faculty mentor, typically from the MSE department. This is often their Senior Research project. The student will need to write a thesis and pass a thesis defense with their undergraduate thesis committee. The committee is selected with the help of the faculty mentor and the Appointment of Supervisory Committee Form must be completed and submitted to the Academic Services Office. The committee is required to have at least three members, one of whom must be from outside the MSE department. If the faculty mentor is not from the MSE department, a co-chair must be selected who is from the MSE department.

The thesis defense should be scheduled at least a week in advance and the thesis document should be given to the committee members at least three business days before the defense. The thesis document should summarize the objective of the project, the approach used to achieve the objective, the results obtained by the research, and to what extent the results achieved the objective. The student should work with their faculty mentor on the document before submitting it to the rest of the committee. The student will give a presentation summarizing their research to the committee at the defense. The presentation should be no more than 30 minutes long. The entire defense typically takes no longer than 1 hour. Note that the thesis defense must occur by the last day of classes (i.e.; before reading days) in the term in which the student graduates.

For more detail, please see: https://www.eng.ufl.edu/students/resources/undergraduate-student-handbook/graduating-with-honors/

4. Courses and Registration

4.1. Registration Requirements

When deciding on courses, students should follow the model semester plan described in Sec. 3.1.3 and the flowchart in Sec. 3.1.4 to ensure all pre-requisites are met and the degree is obtained in four years.

Full-time registration is a minimum of 12 credits. The recommended number of credits varies between 14 and 19.

Students can register for courses on the registrar’s website, https://one.ufl.edu/. Students are required to see advisors to remove registration holds prior to being able to register and should seek advice from academic advising before registration. Guidance will be provided for the 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://catalog.ufl.edu/UGRD/dates-deadlines/. Students need to pay any fees by the fee payment deadline. Registration may be restricted. To check for record holds, registration holds, and late registration fees, go to Student Self Service at https://one.ufl.edu/.

To review the anticipated schedule of courses for an upcoming semester, students should go to
Students have access to their degree audit online at [https://one.uf.edu/](https://one.uf.edu/). Students are ultimately responsible for ensuring they are on track to finish their degrees. A Tuition and Fee Calculator is provided by UF [https://npc.collegeboard.org/app/ufl](https://npc.collegeboard.org/app/ufl).

### 4.2. Grades

The passing grades for students are A, A-, B+, B, B-, C+, C, C-, D+, D, D-, and S. Grades of E and U are not passing grades. All letter-graded courses are used in calculating the cumulative grade point average. Grade points are not designated for S and U grades and are not used in calculating the grade point average. A grade of I (incomplete) will convert to a grade of E and 0.0 grade point if not changed within 1 semester. There is an overall GPA, an MSE major GPA, an upper division GPA (see Sec. 3.6), and, if elected, a minor GPA.

A student is considered in good academic standing if a student’s overall, major, and minor GPA is above 2.0 (truncated). If any of these GPA’s drops below these limits the student is in academic probation, which triggers limitations in course selection for registration and students cannot graduate.

### 4.3. Transfer Credit

It is the department’s policy to admit the best-qualified transfer applicants as demonstrated by academic achievement. Transfer students can apply once 6 of 8 Critical Tracking courses have been completed (not including EMA 3010). Application must include up-to-date transcripts that show “in progress” for the final two Critical Tracking courses. All Critical Tracking courses must be completed prior to enrollment at UF, and students applying from State of Florida Universities must have earned AA degree prior to enrolling at UF or the conditional terms of admission will not be considered met.

A detailed description of the transfer process and requirements can be found at:
- [https://mse.ufl.edu/admissions/undergraduate/transfer-students/](https://mse.ufl.edu/admissions/undergraduate/transfer-students/)
- [https://registrar.ufl.edu/registration/transfercredit](https://registrar.ufl.edu/registration/transfercredit).

### 4.4. Add/Drop

Courses may be dropped or added during the drop/add period without penalty. 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://catalog.ufl.edu/UGRD/dates-deadlines/](https://catalog.ufl.edu/UGRD/dates-deadlines/)). 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. If a course is dropped after the add/drop period, and a W will appear on the transcript and the student remains financially liable for the course tuition and an additional fee may apply. If a course is added after the add/drop period, an additional fee applies. For details, see [https://catalog.ufl.edu/UGRD/academic-regulations/dropping-courses-withdrawals/](https://catalog.ufl.edu/UGRD/academic-regulations/dropping-courses-withdrawals/).

### 4.5. Retaking Courses

Students may only repeat a course once in which they earn a failing grade. 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.

4.6. **ABET Accreditation**

The MSE program is accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org. ABET Accreditation supports your entry to a technical profession through licensure, registration, and certification—all of which often require graduation from an ABET-accredited program as a minimum qualification. Details about the ABET Accreditation of the MSE program can be found at https://mse.ufl.edu/academics/accreditation/mse-program-accreditation/.

4.7. **Academic Petitions**

A student may petition regarding academic issues by submitting a formal request via the Academic Services Office. Petitions must be formally approved or disapproved by the petitions committee. The Academic Services Office should be consulted by students before submitting a petition.

5. **Research**

All students conducting research in a laboratory must be registered for EGN 4912: Engineering Undergraduate Research or on a paid OPS appointment. All researchers must follow appropriate MSE policies for laboratory access (see your Research Mentor for guidance).

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 supported by NSF, NIH, and USDA awards.

5.1. **Safety**

The MSE 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. Sustaining a culture of excellent laboratory safety starts with rigorous training. The Department is committed to providing a safe working environment, ensuring adequate safety training of their personnel, and maintaining appropriate safety records for the labs. Also, given the highly specific research conducted and often process-specific risks that will be encountered in the work, lab-specific training will be provided by the Supervisory Chair, Lab Safety Manager, or a senior member of the research group. Most required training that is provided by UF Environmental Health and Safety (EHS) is annual, so it must be updated if a student is working in a lab for more than one calendar year. To further promote a culture of safety, our department has an MSE Student Safety Council (SSC), which is comprised of graduate and undergraduate students, faculty, and the MSE Laboratory and Safety Manager; 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 the Supervisory Chair, the MSE Lab and Safety Manager, the HWCOE Director of Laboratory Safety, the SSC, or UF Environmental Health and Safety (http://www.ehs.ufl.edu/).

5.2. **Responsible Conduct in Research (RCR)**

Responsible conduct in research (RCR) is expected for all University of Florida students. Students
will be expected to follow ethical standards while 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/.

6. General Information

6.1. Undergraduate Coordinator

The Undergraduate Coordinator is the advisor to all admitted and present UF MSE undergraduate students in the MSE Department. The Undergraduate Coordinator helps in planning the courses, advises on certificates, minors, and majors, and guides the students with regards to the major and future careers. They also assist in processing transfer credits. The Undergraduate Coordinator is also in charge of recruiting undergraduates into the MSE major. The Undergraduate Coordinator is assisted by the Academic Services Office.

6.2. Academic Services Office

The Academic Services Office serves as the advising and administration unit and is administered by the Associate Chair of MSE. The Academic Services Office assists students in admission, deadlines, course requirements, registration, and routine administrative issues. Inquiries regarding the undergraduate program should first be made to the Academic Services Office (advising@mse.ufl.edu), which can then be forwarded to the Undergraduate Coordinator and Associate Chair, if needed. The staff of the Academic Services Office is available to meet with any student during office hours or by appointment, which can be scheduled by email to advising@mse.ufl.edu.

6.3. MSE Program Committees

The Associate Chair of MSE oversees the operation of the MSE Academic Program and is responsible for academic program administration and policy directions, ensuring policy compliance with both MSE and the University. The Curriculum Committee suggests academic policy changes. The Petitions Committee reviews student petitions.

6.4. Student Societies

Student societies provide an excellent way for students to enrich their education and experience outside of the classroom. They provide avenues to meet and interact with your peers and to take part in student activities and competitions. The list of MSE student societies is available here: http://www.mse.ufl.edu/about/societies/.

The MSE-NE Student Leadership Council is made up of student representatives from each of our student societies. Its purposes are to:

1) Provide an agency for the coordination of MSE student activities to promote common goals and interests of the MSE student body.

2) Advance and enrich the academic and educational experience of students in the UF MSE Department.
3) Improve MSE student education through active communication and representation between MSE students, faculty, and other governing bodies at the University of Florida such as the UF Student Government.

6.5. Graduation 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. 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.

6.6. Assistantships, Fellowships, Awards, and On-campus Jobs

The Department of MSE offers a number of awards for students in good academic standing. Interested students should contact the Academic Services Office regarding the availability of awards and the procedure for applying. More information and the application form for awards can be obtained from the MSE website: https://mse.ufl.edu/academics/funding-and-awards/. Students can find on-campus jobs: https://jobs.ufl.edu/. Students cannot volunteer to work in the department; they must either be compensated for their work in a laboratory or be registered for research under the faculty member’s supervision.

7. 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://www.dso.ufl.edu/sccr/process/student-conduct-honor-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: What Constitutes Plagiarism? | Harvard Guide to Using Sources.

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.

Students are required to know and follow all relevant UF, college, department, program, and course policies relating to ChatGPT and other AI assistance. As this is an emerging issue in university education, these policies may be subject to frequent updates during the coming years.

8. 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 C (2.0) or greater both cumulatively and in their major (and in the minor, if a minor is declared) and the timely completion of academic milestones, e.g. obeying the Honor Code. Students with a GPA of less than 2.0 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 program, or may be denied registration for courses. Students who fail to maintain the minimum 2.0 GPA in either the cumulative or departmental courses are placed on Academic Probation.

9. 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 Academic Services Office will use this UF account for all official communications. Students are responsible for promptly and thoroughly reading emails from their UF account, are expected to use this email account for all academic correspondence, and should communicate in a professional manner.

For hardcopy correspondence, all documents, including forms, should be fully completed and submitted directly to the Academic Services Office. To minimize paperwork burden, the Academic Services Office 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. MSE academic forms can be found at https://mse.ufl.edu/academics/forms/.

10. Preparation for Final Semester

It is a 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 Academic Services Office staff to conduct a graduation check. Students must notify the Academic Services Office of graduation plans no later than the University 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. Students must register for the appropriate credits for their degree.

If this is a terminal degree, then student must complete the Departmental Employment Questionnaire and Exit Survey. Instructions on how to complete this survey will be emailed to you by the Academic Services Office after the degree application deadline in your final term.

It is solely the student’s responsibility to ensure that all required forms are submitted in accordance with the Department and University deadlines.

11. Student Responsibility

The student is responsible for becoming informed and observing all program regulations and
procedures. The student must be familiar with the general Undergraduate Catalog regulations and requirements, specific degree program requirements, and offerings and requirements of the major academic unit. *Rules are not waived for ignorance.* Student’s must check their UF email on a regular basis. Failure to do so will not be a valid excuse for missing deadlines.