MSE Graduate Handbook Overview: Break-out Room Session

August 22, 2022 | University of Florida

UF Herbert Wertheim College of Engineering
Department of Materials Science & Engineering
UNIVERSITY *of* FLORIDA

Self-Assessment Exam Overview

Simon Phillpot, PhD

MSE Self-Assessment Exam

- In order to help you select the appropriate registration for the Fall semester, we are administering a diagnostic examination for all incoming graduate students. The examination is to help you identify your knowledge of Materials Science and Engineering. It is a graded examination but will not be recorded on your transcript. If you score less than 75% on the test, we recommend you register for EMA 6001 – (graduate level) Introduction to Materials Science and Engineering before registering for EMA 6313. EMA 6001 is considered a technical elective which counts towards your degree. If you score greater than 75% we recommend you register for EMA 6313 – Structure and Mechanical Properties of Materials. In either case, you should register for EMA 6316 – Thermodynamics of Materials and an elective course.
- The examination will consist of 55 questions based on Introduction to Materials Science & Engineering texts, e.g., by William D. Callister. The exam is available online at any time until August 18th. You may need about 1 to 2 hours; the time limit is about 12 hours.

Graduate Handbook Review

Simon Phillpot, PhD

Graduate Handbook

- https://mse.ufl.edu/academics/handbooks/

Curriculum Overview

SCH (Semester Credits Hours) Requirements	Master (Thesis)	Master (Non-thesis)	Doctor of Philosophy
Total SCH	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] Supervisory Chair only
[e] Technical paper graded by Graduate Coordinator
[f] From admission to Ph.D. Candidacy, passing Qualifying Exam.

Core Courses

The core courses for the MSE program are:

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

Common Curriculum

- A minimum of 6 credits of MSE elective graduate level-5000/6000 courses are taken based upon a student's specific interests and committee requirements for minor studies.
- A maximum of 6 credits of 3000-4999 (undergraduate level) coursework may count towards the Graduate Degree. This coursework must be taken outside of the major and can't have a graduate level equivalent. In addition, registration must be approved by the Graduate Coordinator. As its coursework taken outside of the major, it will count towards the 9-credit maximum of non-MSE coursework.
- Graduate students in our department (EDGE students excluded) are required to register for "EMA6936: Seminar in Materials Science and Engineering" (1 credit) each semester, unless a student has registered for 9 credits of graded courses in that semester, or is an EDGE student, or in the final semester before graduation and has received a waiver from the Academic Services Office.

First Semester Registration

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)

- EDGE students may register for 1 course per semester. It is recommended to finish the core courses in the first 2 years (at 1 course per semester)

- All students welcome and encouraged to attend seminar even if not registered.

Research Advisor and Supervisory Committee

- PhD
  - Comprises at least four members selected from Graduate Faculty
    - At least three members, including the chair, must be MSE Faculty or Affiliate Faculty
    - At least one member must serve as an external faculty member, with no affiliation to MSE
- Master's Thesis
  - Comprises at least three members selected from Graduate Faculty
    - The committee consists of the research advisor and two additional faculty members, all of whom need to be Graduate Faculty in MSE
- Non-Thesis Master's/EDGE
  - The Graduate Coordinator is designated as the Graduate Studies Chair. There is no committee.

PhD Specific Requirements

- Requires 90 credits of course work.
- In addition to the four core courses, a one-credit course EMA 6920 Professional Development, and four credits of EMA 6941 Supervised Teaching are required.
- Individual Development Plan (IDP)
  - Required to be completed annually via Canvas Modules.

PhD Specific Requirements Cont.

Degree Timeline and Deadlines

The following table illustrates a typical timeline to the PhD degree

Time	Milestone	Completed
1st semester	Select PhD Advisor Complete EMA 6316, EMA 6001 and/or EMA 6313	☐
2nd semester	Complete EMA 6114 and EMA 6136 Form supervisory committee	☐
4th semester	Complete EMA 6920 and EMA 6313 (if needed)	☐
5th semester	Pass graduate qualifying examination/admission to candidacy	☐
Annually after qualifying exam	Annual research update with supervisory committee	
Within 6 months of defense	Sufficiency meeting with supervisory committee	☐
4th – 5th year	PhD dissertation defense	

All graduate students are required to register for EMA 6936: Seminar in Material Science and Engineering (1 credit) each semester, unless a student has registered for 9 credits of graded courses in that semester, in the EDGE program, or in the final semester before graduation and has received a waiver from the Academics Services Office.

All PhD students are required to complete a yearly Individual Development Plan (IDP).

All academic and departmental guidelines can be found in the Graduate Student Handbook

Final Semester Registration

- During the final semester, the student must be registered for at least 3 credits in fall or spring and 2 credits in the summer in the following courses for each degree option:
  - 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
  - Doctoral students must enroll in EMA 7980.
- This minimum final semester registration is applicable to all graduate students. The Graduate School will not accept petitions to this policy. Note that graduate assistants may be required to register for more credits and should see their letter of appointment for guidance.

Questions:

- MSE Grad coordination (Dr. Simon Phillpot)
  - mse-gradccordinator@mse.ufl.edu
- Academic Services Office (Tahara, Ade, Lorraine)
  - advising@mse.ufl.edu

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