



Expectations of the Ph.D. Program in Materials Science and Engineering

(Revised by IMSE Graduate Studies Committee Sept. 3, 2015;

Approved by IMSE Core Faculty Sept. 10, 2015)

To remain in good standing and complete the IMSE Ph.D. program in Materials Science and Engineering, students must meet the following expectations:

- Successfully complete coursework requirements (minimum 36 academic credits), including:
 - 4 required core courses (12 credits)
 - MEMS 5601, *Mechanical Behavior of Materials*
 - MEMS 5608, *Introduction to Polymer Science and Engineering*
 - MEMS 5610, *Quantitative Materials Science and Engineering*
 - Phys 537, *Thermodynamics and Kinetics of Materials*
 - A solid state science course (3 credits)
 - Chem 465, *Solid State and Materials Chemistry* OR Phys 472, *Solid State Physics*
 - 3 courses from a pre-approved list of Materials Science and Engineering electives (9 credits)
 - Minimum of 2 semesters of IMSE 501, *IMSE Graduate Seminar* (min. 2 credits; max. of 3 credits)
 - IMSE 500, 1st year PhD Research Rotation (3 credits)
 - Reports must be submitted by the first day of final exams for the semester
 - Sufficient graduate elective courses from any IMSE department to reach a total of 36 credits
 - A maximum of 3 credits of IMSE 502, *Independent Study*, will be permitted toward this requirement.
 - 400 level courses not included on the pre-approved list of Materials Science and Engineering electives must be approved by the Graduate Studies Committee.
 - A maximum of 12 credits of 400 level courses may be applied to the required 36 academic credits.
- Successfully complete a minimum of 36 research credits
- Maintain a GPA of 3.0 for all 72 credits
 - Have no more than one grade below B- in a required course
- Successfully complete teaching requirement
 - Attend 2+ Teaching Center Workshops
 - Have 15 units of teaching experience (including 5 at the basic & 5 at the advanced level)
- Pass the IMSE Qualifying Examination (oral + written)
- Identify an IMSE faculty member willing and able to support their thesis research on a materials-related topic
- Maintain satisfactory research progress on a topic in materials science, as determined by the Thesis Advisor and Mentoring Committee
- Successfully complete the Thesis Proposal and Presentation, with approval from the Thesis Examination Committee
- Successfully complete and defend a Ph.D. Dissertation, with final approval from Thesis Examination Committee.

Additional requirements and expectations may be set by the Director of Graduate Studies. These will be given to the student in writing.