Requirements for PhD students

• Regular courses and 590 units should total to 4 each quarter.

• Completion of Gen Eng 519 Responsible Conduct in Research *within first academic year* is required.

• 15 courses must be taken for a grade
  – 5 core courses
  – At least 4 400 level courses, 3 of which must be MSE courses
  – 2 minor courses (must be related and outside research specialty).
  – 5 other graduate level electives (see TGS website listing)

• Students may waive core courses with permission of instructor, but total number of courses remains the same.
Fall course selection- brief guidelines

• Course #1: 401: Thermo (or waiver form)
• Course #2: 400 level MSE elective (often 451)
• Course #3: grad level elective (300 or 400)
• Enroll in MSE 590 (in case one course is dropped, the student remains full time).
• Enroll in Gen Eng 519 (RCR) if available.

Resources:

Schedule: http://www.matsci.northwestern.edu/courses/index.html
Comments: http://www.registrar.northwestern.edu/courses/index.html#CTEC
MSE grad electives Fall 2016:

- 337 Conductive Polymers (Huang)
- 357 Magnetic Properties of Materials (Petford-Long)
- 360 Intro to Electron Microscopy (Marks)- for BS & MS students
- 381 Energy Materials (Dunand)
- 391 Process Design (Chung)

- 415 Fundamentals of Thin Film Materials (Barnett)
- 445 Polymer Physics (Olvera)
- 451 Physics of Materials (Hersam)
Background Courses

• Applied Math 311-1 and 2 may be useful for some students to strengthen background in linear algebra, ODEs, PDEs, series.

For Non-MSE majors with gaps in MSE knowledge:
• 332 Mechanical Behavior of Solids is recommended for students with insufficient background in mechanical behavior for 406.
• 351-1 Introductory Physics of Materials: recommended for students with insufficient background in elementary quantum mechanics for 405 and insufficient background for 451.

• 315 Phase Equilibria and Diffusion in Materials
• 316-1, 2 Microstructural Dynamics
Registration

• Registration starts Sept 15 (Thur) at 9:00 AM
• Last day to add a class: Sept 26
• Last day to drop a class: Oct 28