School of Mechanical Engineering  
Course Selection Advice for New Graduate Students

Selecting your graduate courses involves your personal career goals, the requirements of your major professor, and the ME and Graduate School requirements. Research assistants will select their courses in close collaboration with their major professor based on research needs. Non-thesis MS students, however, will select their courses primarily on their own career goals. This document is intended primarily to assist new MS students who are not research assistants, but provides information useful for all ME graduate students.

Summary of ME Course Requirements

**MS non-thesis:** 30 credit hours (usually 10 courses) that include 6 hours of applied math.

**MS thesis:** 21 credit hours (usually 7 courses) that include 6 hours of applied math plus at least 9 hours of ME 69800 MS thesis research. Funded students must register for ME 69800 MS research each semester.

**PhD:** 21 credit hours that include 9 hours of applied math. Purdue MS applied math courses count. Students must register for ME 69900 PhD research each semester.

**Direct PhD:** 36 credit hours that include 9 hours of applied math. Students must register for ME 69900 PhD research each semester.

The Plan of Study

ME requires that you complete a Plan of Study before registering for your second semester courses. The Plan of Study is a formal document required by the Purdue Graduate School that identifies your advisory committee, degree objective and your courses. It will be entered on-line. The ME Graduate Office will hold an evening help session about completing the Plan of Study.

ME requires that all courses on your Plan of Study must be “technical and quantitative in content.” They can be from schools outside of ME, e.g., from other Schools of Engineering, the School of Science and Math Department. When in doubt, check with your major professor (temporary advisor) and then with the ME Graduate Office.

It is a good idea to start drafting your Plan of Study now before you register for your first semester courses. Do not simply register for the first few courses that you find because this does not consider course timing and offering limitations. For example, you may mistakenly take a course that is offered often instead of a course that is offered only once every other year. The Plan of Study can be changed as your program needs change. However, once you have taken a course that is on your Plan of Study, it cannot be removed.

Advice on Selecting Courses

Using the myPurdue Course Catalog, prepare a list of all courses of interest to you. Select the appropriate semesters to ‘look forward’ to the next semester, and ‘look backward’ to previous semesters to get a more complete picture of all courses offered for the whole year. Read the course descriptions carefully and take note of which semester(s) the course is offered. Organize this list into a semester-by-semester table, carefully noting the semesters (Spring, Summer, Fall) when courses are offered.
Very few graduate courses are offered during the summer. This is particularly true of ME, where typically none are offered in the summer. However, a number of Math (MA) courses are offered in the summer. Factor this into your planning.

You do not have to take the applied math courses first. The ME requirement for 2 or 3 applied math courses does not mean they must be taken in any particular semester. It may be advantageous to wait to take a math course, perhaps to give you options for summer courses.

If you want to do a thesis and are interested in a professor’s research (do your homework), schedule the course(s) taught by this professor as early as possible. Typically graduate courses taught by professors are related to their research. This will give you a chance to work with the professor, for the professor to get to know you, and to prepare you for research with that professor if the opportunity arises. This also will be an opportunity to discuss your graduate program with the professor and seek advice on future courses.