MASTER of SCIENCE in MECHANICAL ENGINEERING (MSME)

The Master of Science in Mechanical Engineering (MSME) program may be pursued under either a Thesis Option, or a Non-Thesis Option. The MSME program requires 30 credit hours of graduate level coursework, 6 of which must be Master’s Thesis credits under the Thesis Option. Coursework must be completed with a grade point average of 3.0 or higher (see Graduate Catalog for relevant details). The course requirements are designed both to provide a balanced program in Mechanical Engineering, and to allow for a degree of specialization. Students should be able to complete all degree requirements, including the thesis if chosen, in 18 to 24 months of full-time study.

Requirements

A. The following four courses are required (12 credits):
   a. MEEG 690 Intermediate Engineering Mathematics
   b. Three from the following list:
      i. MEEG 610 Intermediate Solid Mechanics
      ii. MEEG 620 Intermediate Dynamics
      iii. MEEG 630 Intermediate Fluid Mechanics
      iv. MEEG 640 Intermediate Heat Transfer
      v. MEEG 683 Orthopedic Biomechanics
      vi. MEEG 621 Linear Systems
      Students may petition the Graduate Committee to substitute a more advanced (e.g., 800-level) course on the same topic for one of these required courses.

B. Three additional graduate level mechanical engineering electives (9 credits).
   Under the Thesis Option, 6 credits of MEEG 869 Master’s Thesis must be completed toward requirement B. The Thesis will have to be defended in front of a committee of at least two MEEG faculty members, chaired by the graduate advisor and including either a third full-time faculty or an external member with the prior approval of the graduate committee. Under the Non-Thesis option 6 credits of MEEG 868 Research or Independent Study may be taken. Any course listed in A.b above, excluding those used to fulfill requirement A, can be used toward requirement B.

C. Three additional graduate level courses (9 credits):
   in engineering, mathematics, science, or another field related to the student’s academic concentration. Courses must be selected with the documented approval of the department’s Graduate Committee.

D. At least one semester of MEEG 600 Seminar (0 credits):
   Special arrangements can be made for part-time or online students to fulfill this requirement.

Students receiving departmental financial support (fellowship or teaching assistantship) cannot participate in the MSME program.