

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.