

## **MINOR IN MECHANICAL ENGINEERING**

The Minor in Mechanical Engineering (ME) offers students from a variety of technical backgrounds and disciplines other than ME the opportunity to broaden their education to include topics from mechanical engineering. This broadening will allow them to pursue careers in many of the exciting interdisciplinary fields now coming to the fore, such as mechatronics, systems engineering, nanotechnology and others.

The ME minor requires 18-19 semester credit hours of coursework. Of these, 9 semester hours are required courses, and the remaining 9 or 10 are chosen from one of the three tracks selected by students:

- Thermal-Fluid Sciences
- Mechanical Systems
- Structural Analysis and Materials

Admissions requirements:

- Completion of Calculus I
- Available space in ME program
- Approval from Major Advisor

Graduation requirements:

Non-engineering majors enrolled in the ME minor must complete the following mathematics courses:

- Calc I (MATH 01.130)
- Calc II (MATH 01.131)
- Calc III (MATH 01.230)
- Linear Algebra (MATH 01.210)
- Ordinary Differential Equations (MATH 01.231)

9cr of following:

- Statics (ENGR 01.271/pre-reqs: MATH 01.231/Ordinary Differential Equations; or MATH 01.235/Math for Engineering Analysis I)
- Dynamics (ENGR 01.291)
- Strength of Materials (ENGR 01.273)
- Junior Engineering Clinic I (ENGR 01.301/must have Junior status w/in major)

The remaining 9 or 10 credits are chosen from one of three tracks selected by the student.

- Thermal-Fluid Sciences
  - Thermal-fluid Sciences (ME 10.321, 6cr/pre-req: enrolled in or completed Linear Algebra (MATH 01.210) or Math for Engineering Analysis II (MATH 01.236)
  - Thermal-fluid ME Senior Elective (ME 10.4xx, 3cr/must be taken in addition to technical electives required by student's major)
- Mechanical Systems
  - System Dynamics and Control I (ME 10.343, 3cr)
  - System Dynamics and Control II (ME 10.344, 3cr)
  - Mechanical Systems ME Senior Elective (ME10.4xx, 3cr/must be taken in addition to technical electives required by student's major)
- Structural Analysis and Materials
  - Materials Science and Manufacturing (ENGR 01.283, 3cr)
  - Machine Design (ME 10.301, 4cr)
  - Mechanical Systems ME Senior Elective (ME 10.4xx, 3cr/must be taken in addition to technical electives required by student's major)