

MECHANICAL ENGINEERING

Requirements

Master of Mechanical Engineering (p. 1)

Master of Science Mechanical Engineering (p. 1)

Master of Mechanical Engineering (MME)

Requirements

- 20 credits of core course work
- 8 credits of Mathematics course work
- 20 credits of elective course work

Core Coursework (20 credits)

Choose from the following (other classes may be substituted for core requirements with the approval of the ME graduate study committee):

- Any 500-level Mechanical Engineering class.
- Any 500-level Engineering Mechanics class.
- CHE 502 Transport Phenomena.

Mathematics Course work (8 credits)

Required: MA 538 Advanced Engineering Mathematics

Choose one other mathematics class from the list of Mathematics graduate studies approved courses. From the approved classes, we particularly recommend:

Code	Title	Hours
MA 439	Mathematical Methods of Image Processing	4
MA 485	Applied Linear Regression	4
MA 487	Design of Experiments	4
MA 431	Calculus of Variations ¹	4
MA 435	Finite Difference Methods ¹	4
MA 436	Introduction to Partial Differential Equations ¹	4
MA 444	Deterministic Models in Operations Research ¹	4

¹ Check with the instructor. Your background may be sufficient for these classes even if you do not currently satisfy the prerequisites.

Elective Course Work (20 credits)

- Electives must be listed as ME, BE, BIO, BMTH, CE, CHE, CHEM, CSSE, ECE, EM, EMGT, EP, MA, or OE.
- Up to 8 credits of Mathematics graduate studies approved courses may be taken (in addition to the required 8 credits of Mathematics course work).
- Up to 8 credits of Engineering Management graduate studies approved courses.
- No more than 12 credits of 400-level coursework is allowed to count toward the degree requirements. Approved 400-level mathematics courses are excluded from this 12 hour limit.

- No courses below the 400-level may be applied to the Master's degree.

Exceptions to these rules may be granted by permission of the ME graduate study committee.

Master of Science Mechanical Engineering (MSME)

Requirements

- 36 credits of formal coursework
- 12 credits of thesis coursework

The 36 credits of formal coursework are broken down as follows:

Required

Code	Title	Hours
MA 538	Advanced Engineering Mathematics	4

Electives (32 credits)

- Electives must be listed as ME, BE, BIO, BMTH, CE, CHE, CHEM, CSSE, ECE, EM, EMGT, EP, MA, or OE.
- Not less than 20 credits of approved Mechanical Engineering graduate studies approved courses.
- Up to 8 credits of Mathematics graduate studies approved courses may be taken (in addition to the required 4 credits of MA538).
- Up to 8 credits of approved Engineering Management graduate studies approved courses.
- No more than 12 credits of 400-level coursework is allowed to count toward the degree requirements. Approved 400-level mathematics courses are excluded from this 12 credit limit.
- No courses below the 400-level may be applied to the Master's degree.

Exceptions to these rules may be granted by permission of the ME graduate study committee.