ENGINEERING MECHANICS, M.S.

The master of science and doctor of philosophy degrees in engineering mechanics are offered within a graduate program covering contemporary areas in both theoretical and applied mechanics. With the guidance of a major professor, a program can be designed to meet an individual student's needs and interests.

The Department of Engineering Physics offers three distinct master of science (M.S.) degree programs in Engineering Mechanics:

- Engineering Mechanics M.S., Research (http://guide.wisc.edu/graduate/engineering-physics/engineering-mechanics-ms/engineering-mechanics-research-ms/) – traditional master's program culminating in a thesis for students with an undergraduate background in mechanics
- Engineering Mechanics M.S., Aerospace Engineering Option (http://guide.wisc.edu/graduate/engineering-physics/engineering-mechanics-ms/engineering-mechanics-aerospace-engineering-ms/) - an accelerated coursework-only program, where students will learn advanced mechanics topics pertaining to the aerospace field
- Engineering Mechanics M.S., Fundamentals of Applied Mechanics Option (http://guide.wisc.edu/graduate/engineering-physics/engineering-mechanics-ms/engineering-mechanics-fundamentals-applied-mechanics-ms/) – accelerated, for students with an undergraduate background in science, who would like to transition into engineering

ADMISSIONS

Students apply to the Master of Science in Engineering Mechanics through one of the named options:

- Research (https://guide.wisc.edu/graduate/engineering-physics/engineering-mechanics-ms/engineering-mechanics-research-ms/)
- Aerospace Engineering (http://guide.wisc.edu/graduate/engineering-physics/engineering-mechanics-ms/engineering-mechanics-aerospace-engineering-ms/)
- Fundamentals of Applied Mechanics (https://guide.wisc.edu/graduate/engineering-physics/engineering-mechanics-ms/engineering-mechanics-fundamentals-applied-mechanics-ms/)

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (https://grad.wisc.edu/funding/) is available from the Graduate School. Be sure to check with your program for individual policies and restrictions related to funding.

PROGRAM RESOURCES

Program specific funding information may be reviewed through one of the named options:

- Research (https://guide.wisc.edu/graduate/engineering-physics/engineering-mechanics-ms/engineering-mechanics-research-ms/)
- Aerospace Engineering (http://guide.wisc.edu/graduate/engineering-physics/engineering-mechanics-ms/engineering-mechanics-aerospace-engineering-ms/)
- Fundamentals of Applied Mechanics (https://guide.wisc.edu/graduate/engineering-physics/engineering-mechanics-ms/engineering-mechanics-fundamentals-applied-mechanics-ms/)

See the program website (https://www.engr.wisc.edu/department/engineering-physics/academics/ms-engineering-mechanics/) for additional information.

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (http://guide.wisc.edu/graduate/#policiesandrequirementstext), in addition to the program requirements listed below.

MAJOR REQUIREMENTS

CURRICULAR REQUIREMENTS

Requirements	Detail
Minimum Credit Requirement	30 credits
Minimum Residence Credit Requirement	16 credits
Minimum Graduate Coursework Requirement	See Named Options for policy information.
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	Courses in which grades of BC, C, or below are received cannot be counted toward the degree except as follows: 1) Credits of C will be allowed provided they are balanced by twice as many credits of A or by four times as many credits of AB, 2) Credits of BC will be allowed provided they are balanced by twice as many credits of AB or by an equal number of credits of A.
Assessments and Examinations	See Named Options for policy information.
Language Requirements	No language requirements.

REQUIRED COURSES

Select a Named Option (p. 2) for courses required.

NAMED OPTIONS

A named option is a formally documented sub-major within an academic major program. Named options appear on the transcript with degree conferral. Students pursuing the Master of Science in Engineering Mechanics must select one of the following named options:

View as listView as grid

- ENGINEERING MECHANICS: AEROSPACE ENGINEERING, M.S. (HTTP://GUIDE.WISC.EDU/GRADUATE/ENGINEERING-PHYSICS/ENGINEERING-MECHANICS-MS/ENGINEERING-MECHANICS-AEROSPACE-ENGINEERING-MS/)
- ENGINEERING MECHANICS: FUNDAMENTALS OF APPLIED MECHANICS, M.S. (HTTP://GUIDE.WISC.EDU/GRADUATE/ENGINEERING-PHYSICS/ENGINEERING-MECHANICS-MS/ENGINEERING-MECHANICS-FUNDAMENTALS-APPLIED-MECHANICS-MS/)
- ENGINEERING MECHANICS: RESEARCH, M.S. (HTTP://GUIDE.WISC.EDU/GRADUATE/ENGINEERING-PHYSICS/ENGINEERING-MECHANICS-MS/ENGINEERING-MECHANICS-RESEARCH-MS/)

POLICIES

Students should refer to one of the named options for policy information:

- Research (https://guide.wisc.edu/graduate/engineering-physics/engineering-mechanics-ms/engineering-mechanics-research-ms/)
- Aerospace Engineering (http://guide.wisc.edu/graduate/engineering-physics/engineering-mechanics-ms/engineering-mechanics-aerospace-engineering-ms/)
- Fundamentals of Applied Mechanics (https://guide.wisc.edu/graduate/engineering-physics/engineering-mechanics-ms/engineering-mechanics-fundamentals-applied-mechanics-ms/)

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (https://grad.wisc.edu/pd/) to build skills, thrive academically, and launch your career.

LEARNING OUTCOMES

1. Demonstrate a strong understanding of mathematical, scientific, and engineering principles in the field.
2. Demonstrate an ability to formulate, analyze, and independently solve advanced engineering problems.
3. Apply the relevant scientific and technological advancements, techniques, and engineering tools to address these problems.
4. Recognize and apply principles of ethical and professional conduct.

PEOPLE

FACULTY

PROFESSORS

Paul Wilson (Chair)
Matt Allen
Riccardo Bonazza
Curt A. Bronkhorst
Wendy Crone
Chris Hegna
Douglass Henderson
Roderic Lakes
Oliver Schmitz
Carl Sovinec
Kumar Sridharan
Fabian Waleffe

ASSISTANT PROFESSORS

Jennifer Choy
Adrien Couet
Stephanie Diem
Jennifer Franck
Benedikt Geiger
Ben Lindley
Jacob Notbohm
Ramathasan Thevamaran
Yongfeng Zhang

See also Engineering Physics Faculty Directory (https://directory.engr.wisc.edu/ep/faculty/).