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 Mechanical Engineering offers two distinct master of science (M.S.) degree programs in Engineering Mechanics:

- Engineering Mechanics M.S., Research (http://guide.wisc.edu/graduate/mechanical-engineering/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/mechanical-engineering/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

ADMISSIONS

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

- Research (http://guide.wisc.edu/graduate/mechanical-engineering/engineering-mechanics-ms/engineering-mechanics-research-ms/)
- Aerospace Engineering (http://guide.wisc.edu/graduate/mechanical-engineering/engineering-mechanics-ms/engineering-mechanics-aerospace-engineering-ms/)

Admissions to the Fundamentals of Applied Mechanics (http://guide.wisc.edu/graduate/mechanical-engineering/engineering-mechanics-ms/engineering-mechanics-fundamentals-applied-mechanics-ms/) named option were suspended as of fall 2022 and will be discontinued as of fall 2024. If you have any questions, please contact the department.

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 (http://guide.wisc.edu/graduate/mechanical-engineering/engineering-mechanics-ms/engineering-mechanics-research-ms/)
- Aerospace Engineering (http://guide.wisc.edu/graduate/mechanical-engineering/engineering-mechanics-ms/engineering-mechanics-aerospace-engineering-ms/)

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

Requirement	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. This program follows the Graduate School's policy: https://policy.wisc.edu/library/UW-1203 (https://policy.wisc.edu/library/UW-1203/).
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. 1) 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/MECHANICAL-ENGINEERING/ENGINEERING-MECHANICS-MS/ENGINEERING-MECHANICS-AEROSPACE-ENGINEERING-MS/**)**
- ENGINEERING MECHANICS: FUNDAMENTALS OF APPLIED MECHANICS, M.S. **(**HTTP://GUIDE.WISC.EDU/GRADUATE/MECHANICAL-ENGINEERING/ENGINEERING-MECHANICS-MS/ENGINEERING-MECHANICS-FUNDAMENTALS-APPLIED-MECHANICS-MS/**)**
- ENGINEERING MECHANICS: RESEARCH, M.S. **(**HTTP://GUIDE.WISC.EDU/GRADUATE/MECHANICAL-ENGINEERING/ENGINEERING-MECHANICS-MS/ENGINEERING-MECHANICS-RESEARCH-MS/**)**

POLICIES

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

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

PROFESSORS

Darryl Thelen (Chair)
Peter Adamczyk
Mark Anderson
Riccardo Bonazza
Wendy Crone
Christian Franck
Jaal Ghandhi
Sage Kokjohn
Roderic Lakes
Dan Negrut
Gregory F. Nellis
Tim Osswald
Frank Pfefferkorn
Xiaoping Qian
Douglas Reindl
David Rothamer
Scott T. Sanders
Krishnan Suresh
Mario F. Trujillo
Lih-sheng Turng
Fabian Waleffe

ASSOCIATE PROFESSORS

Lianyi Chen
Melih Eriten
Katherine Fu
Tom N. Krupenkin
Ying Li
Franklin Miller
Sangkee Min
Wenxiao Pan
James Pikul
Pavana Prabhakar
Alejandro Roldan-Alzate
Michael Zinn

ASSISTANT PROFESSORS

Joseph Andrews
Jennifer Franck
Corinne Henak
Eric Kazyak
Allison Mahvi
Luca Mastropasqua
Jacob Notbohm
Josh Roth
Shiva Rudraraju
Stephan Rudykh
Eric Tervo
Ramathasan Thevamaran
Dakotah Thompson
Michael Wagner
Wei Wang
Michael Wehner
Jinlong Wu
Xiaobin Xiong
Xiangru Xu
Lei Zhou

See also Mechanical Engineering Faculty Directory **(**https://directory.engr.wisc.edu/me/faculty/**).**