M.S. Mechanical Engineering

The Department of Mechanical Engineering offers a number of master of science (M.S.) degree programs in Mechanical Engineering.

- M.S. Mechanical Engineering: Research (2 tracks) (http://guide.wisc.edu/graduate/mechanical-engineering/mechanical-engineering-ms/mechanical-engineering-research-ms/)
  - Thesis
  - Independent Study
- M.S. Mechanical Engineering: Accelerated Program (http://guide.wisc.edu/graduate/mechanical-engineering/mechanical-engineering-ms/mechanical-engineering-acelerated-program-ms/)
- M.S. Mechanical Engineering: Automotive Engineering (http://guide.wisc.edu/graduate/mechanical-engineering/mechanical-engineering-ms/mechanical-engineering-automotive-engineering-ms/)
- M.S. Mechanical Engineering: Modeling and Simulation in Mechanical Engineering (http://guide.wisc.edu/graduate/mechanical-engineering/mechanical-engineering-ms/mechanical-engineering-modeling-simulation-mechanical-engineering-ms/)
- MS. Mechanical Engineering: Controls (discontinued effective Fall 2021) (http://guide.wisc.edu/graduate/mechanical-engineering/mechanical-engineering-ms/mechanical-engineering-controls-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

There are three mechanisms for Graduate Student funding through the university for Mechanical Engineering M.S. students:

1. Fellowships
2. Graduate assistantships: project assistantships, teaching assistantships, and research assistantships
3. Traineeships

Funding is awarded based on the qualifications of the student, the number of applicants, the amount of available funding, the number of continuing students receiving support, and the degree program a student is enrolled in. Fellowship and research assistantship funding is only considered for thesis-based M.S. students. You can apply for funding for research assistantships by contacting individual faculty members directly. Please check our website (http://directory.engr.wisc.edu/me/ faculty/) to look for faculty (only those listed with titles of assistant professor, associate professor, or professor can serve as graduate student advisors). Search for faculty who have research interests that align closely with your own by viewing faculty directory entries, visiting the faculty’s website (linked from the directory page), and reviewing publications by the faculty member. Once you have identified faculty with interests close to your own, you are encouraged to contact them by email to inquire regarding available research assistant positions. The admissions office does not know if a particular professor has research assistant positions available.

Students who apply to the department will be automatically considered for fellowship opportunities within the department. For information on applying for teaching assistant positions and for other information on funding please see the department website (https://www.engr.wisc.edu/department/mechanical-engineering/contact/forms/). (https://sites.google.com/wisc.edu/meapplication/?pli=1&authuser=3)

Students enrolled in the M.S. Mechanical Engineering named options in Accelerated Program, Modeling and Simulation in Mechanical Engineering, and Automotive Engineering are not eligible to receive assistantships.
ADDITIONAL RESOURCES

FEDERAL LOANS
Students who are U.S. citizens or permanent residents may be eligible to receive some level of funding through the federal direct loan program. These loans are available to qualified graduate students who are taking at least 4 credits during the fall and spring semesters, and 2 credits during summer. Private loans are also available. Learn more about financial aid at their website (https://financialaid.wisc.edu/).

INTERNATIONAL STUDENT SERVICES FUNDING AND SCHOLARSHIPS
For information on International Student Funding and Scholarships visit the ISS website (https://iss.wisc.edu/students/new-students/funding-scholarships/).

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

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Detail</th>
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<tbody>
<tr>
<td>Minimum</td>
<td>30 credits</td>
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<tr>
<td>Credit</td>
<td></td>
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<tr>
<td>Residence</td>
<td>See Named Option for policy information.</td>
</tr>
<tr>
<td>Credit</td>
<td></td>
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<tr>
<td>Requirement</td>
<td></td>
</tr>
<tr>
<td>Minimum</td>
<td>Half of degree coursework (15 out of 30 total credits) must be in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (<a href="http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle(http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle/)">http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle(http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle/)</a>).</td>
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<tr>
<td>Graduate</td>
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<td>Coursework</td>
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<td>Requirement</td>
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<tr>
<td>Overall</td>
<td>3.00 GPA required.</td>
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<td>Graduate GPA</td>
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<td>Requirement</td>
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<tr>
<td>Other Grade</td>
<td>See Named Option for policy information.</td>
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<tr>
<td>Requirements</td>
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<tr>
<td>Assessments</td>
<td>See Named Option for policy information.</td>
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<tr>
<td>and</td>
<td></td>
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<tr>
<td>Examinations</td>
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<tr>
<td>Language</td>
<td>No language requirements.</td>
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<tr>
<td>Requirements</td>
<td></td>
</tr>
</tbody>
</table>

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

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.

View as listView as grid

- MECHANICAL ENGINEERING: ACCELERATED PROGRAM, M.S. (HTTP://GUIDE.WISC.EDU/GRADUATE/MECHANICAL-ENGINEERING/MECHANICAL-ENGINEERING-MS/MECHANICAL-ENGINEERING-ACCELERATED-PROGRAM-MS/)
- MECHANICAL ENGINEERING: AUTOMOTIVE ENGINEERING, M.S. (HTTP://GUIDE.WISC.EDU/GRADUATE/MECHANICAL-ENGINEERING/MECHANICAL-ENGINEERING-MS/MECHANICAL-ENGINEERING-AUTOMOTIVE-ENGINEERING-MS/)
- MECHANICAL ENGINEERING: CONTROLS, M.S. (HTTP://GUIDE.WISC.EDU/GRADUATE/MECHANICAL-ENGINEERING/MECHANICAL-ENGINEERING-MS/MECHANICAL-ENGINEERING-CONTROLS-MS/)
- MECHANICAL ENGINEERING: MODELING AND SIMULATION IN MECHANICAL ENGINEERING, M.S. (HTTP://GUIDE.WISC.EDU/GRADUATE/MECHANICAL-ENGINEERING/MECHANICAL-ENGINEERING-MS/MECHANICAL-ENGINEERING-MODELING-SIMULATION-MECHANICAL-ENGINEERING-MS/)
- MECHANICAL ENGINEERING: RESEARCH, M.S. (HTTP://GUIDE.WISC.EDU/GRADUATE/MECHANICAL-ENGINEERING/MECHANICAL-ENGINEERING-MS/MECHANICAL-ENGINEERING-RESEARCH-MS/)

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

- M.S. Mechanical Engineering: Research (http://guide.wisc.edu/graduate/mechanical-engineering/mechanical-engineering-ms/mechanical-engineering-research-ms/)
- M.S. Mechanical Engineering: Accelerated Program (http://guide.wisc.edu/graduate/mechanical-engineering/mechanical-engineering-ms/mechanical-engineering-accelerated-program-ms/)
- M.S. Mechanical Engineering: Automotive Engineering (http://guide.wisc.edu/graduate/mechanical-engineering/mechanical-engineering-ms/mechanical-engineering-automotive-engineering-ms/)
- M.S. Mechanical Engineering: Modeling and Simulation in Mechanical Engineering (http://guide.wisc.edu/graduate/mechanical-engineering/mechanical-engineering-ms/mechanical-engineering-modeling-simulation-mechanical-engineering-ms/)
- M.S. Mechanical Engineering: Controls (discontinued effective Fall 2021) (http://guide.wisc.edu/graduate/mechanical-engineering/mechanical-engineering-ms/mechanical-engineering-controls-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)
Jaal Ghandhi
Dan Negrut
Gregory F. Nellis
Tim Osswald
Frank Pfefferkorn
John Pfotenhauer
Xiaoping Qian
Douglas Reindl
David Rothamer
Scott T. Sanders
Vadim Shapiro
Krishnan Suresh
Lih-sheng Turng

ASSOCIATE PROFESSORS
Melih Eriten
Christian Franck
Sage Kokjohn
Tom N. Krupenkin
Franklin Miller
Mario F. Trujillo
Michael Zinn

ASSISTANT PROFESSORS
Peter Adamczyk
Mark Anderson
Joseph Andrews
Lianyi Chen
Corinne Henak
Sangkee Min
Wenxiao Pan
Alejandro Roldan-Alzate
Josh Roth
Shiva Rudraraju
Stephan Rudykh
Dakota Thompson

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