MECHANICAL ENGINEERING, MENG

for the degree of Master of Engineering in Mechanical Engineering (on campus & online)

The MEng in Mechanical Engineering is a professionally-oriented degree that provides advanced knowledge and experiential opportunities beyond that of a bachelor's degree. Students may choose to design their curriculum around three tracks of study: Design, Energy, and Control & Manufacturing. Alternate tracks of study may be pursued with the approval and guidance of the director of the MEng program.

Opportunity exists for specializing in i) biomechanics via the Biomechanics (http://catalog.illinois.edu/graduate/engineering/concentration/biomechanics/) optional graduate concentration and ii) cancer nanotechnology via the Cancer Nanotechnology (http://catalog.illinois.edu/graduate/engineering/concentration/cancer-nanotechnology/) optional graduate concentration.

Admission Requirements
An applicant for admission to the MEng program at the Department of Mechanical Science and Engineering must:

1. Be a graduate of an institution awarding a baccalaureate degree equivalent to that granted by the University of Illinois at Urbana-Champaign in engineering or a related field;
2. Be adequately prepared for advanced study as demonstrated by his or her previous program of study and scholastic record; and
3. Be recommended for admission by the Department of Mechanical Science and Engineering. A minimum grade point average of 3.00 (A = 4.00) for the last two years of undergraduate study is required.

Due to COVID 19 the department of Mechanical Science and Engineering is waiving the GRE requirement for the Fall 2021 cycle.

All applicants whose native language is not English are required to submit TOEFL (http://www.toefl.org/) or International English Language Testing System (IELTS) (http://www.ielts.org/) scores as evidence of English proficiency. Minimum admission requirements (https://grad.illinois.edu/admissions/instructions/04c/) are set by the Graduate College. Students applying to the online program must satisfy the full status admissions requirement.

The Department of Mechanical Science and Engineering accepts MEng applications for both Spring and Fall terms.

Financial Aid
Students in the MEng in Mechanical Engineering program are not eligible for Board of Trustees (BOT) tuition-waiver generating assistantships at the University of Illinois.

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For additional details and requirements refer to the department’s graduate program requirements (http://mechanical.illinois.edu/graduate/) and the Graduate College Handbook (http://grad.illinois.edu/gradhandbook/).

Degree Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>ME or TAM course work</td>
<td>12-20</td>
<td></td>
</tr>
<tr>
<td>Applied math/computational science requirement (choose from approved list) (<a href="https://mechse.illinois.edu/graduate/graduate-degree-programs/master-engineering-mechanical-engineering/">https://mechse.illinois.edu/graduate/graduate-degree-programs/master-engineering-mechanical-engineering/</a>)</td>
<td>3-4</td>
<td></td>
</tr>
<tr>
<td>Elective courses chosen in consultation with advisor</td>
<td>4-8</td>
<td></td>
</tr>
<tr>
<td>Professional development</td>
<td>4-8</td>
<td></td>
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</tbody>
</table>

Total required hours 32

Other Requirements

<table>
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<tr>
<th>Requirement</th>
<th>Description</th>
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<tbody>
<tr>
<td>A minimum of 4 elective hours must be completed outside of the major department.</td>
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<tr>
<td>A minimum of 12 500-level credit hours applied toward the degree, 8 of which must be in ME or TAM.</td>
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</table>
A maximum of 4 hours of independent study may be applied toward degree requirements.

Elective course category may include a maximum of 4 hours of special topics credit.

Professional development category may include a maximum of 4 hours of special topics credit.

The minimum program GPA is 3.0.

Requirements and conditions may overlap.

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Illinois MechSE MEng graduates will have:

1. A solid understanding of one or more core areas of Mechanical engineering and technology entrepreneurship (e.g., mechanics of materials, combustion, controls and dynamics, manufacturing, fluid mechanics, solid mechanics).

2. Familiarity with applied math/computational science concepts relevant to Mechanical Engineering.

3. Familiarity with technical concepts in physics, math, and/or other engineering disciplines.

4. Working knowledge of how select business concepts can be applied to Mechanical Engineering.

Other Graduate Programs in the Department of Mechanical Science & Engineering

- degree programs:
  - Mechanical Engineering, MS (http://catalog.illinois.edu/graduate/engineering/mechanical-engineering-ms/)
  - Mechanical Engineering, PhD (http://catalog.illinois.edu/graduate/engineering/mechanical-engineering-phd/)
  - Theoretical & Applied Mechanics, MS (http://catalog.illinois.edu/graduate/engineering/theoretical-applied-mechanics-ms/)
  - Theoretical & Applied Mechanics, PhD (http://catalog.illinois.edu/graduate/engineering/theoretical-applied-mechanics-phd/)

- optional concentrations available for MS and PhD programs:
  - Biomechanics (http://catalog.illinois.edu/graduate/engineering/concentration/biomechanics/)
  - Cancer Nanotechnology (http://catalog.illinois.edu/graduate/engineering/concentration/cancer-nanotechnology/)
  - Computational Science & Engineering (http://catalog.illinois.edu/graduate/engineering/concentration/computational-science-engineering/)

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Department of Mechanical Science & Engineering
Department Head: Anthony Jacobi (a-jacobi@illinois.edu)
Director of Graduate Studies: Petros Sofronis
Director of M.Eng. Program: Jiajun He (jiajunhe@illinois.edu)
Contact: Susan Roughton (roughton@illinois.edu)
Department of Mechanical Science & Engineering Department website (https://mechanical.illinois.edu/)
Program website (https://mechanical.illinois.edu/graduate/graduate-degree-programs/master-engineering-mechanical-engineering/)
Mechanical Science & Engineering Department faculty (https://mechanical.illinois.edu/people/)
168 Mechanical Engineering Building, 1206 West Green Street, Urbana, IL 61801
(217) 300-3319
Mechanical Science & Engineering M.Eng. email (mechse-meng@illinois.edu)

Grainger College of Engineering
Grainger College of Engineering website (https://grainger.illinois.edu/)

Admissions
Mechanical Science & Engineering Department Overview of Admissions & Requirements (https://mechse.illinois.edu/graduate/graduate-degree-programs/master-engineering-mechanical-engineering/things-know-when/)
Graduate College Admissions & Requirements (https://grad.illinois.edu/admissions/apply/)

Information listed in this catalog is current as of 12/2022