ENGINEERING: AUTONOMY AND ROBOTICS, MENG

for the degree of Master of Engineering in Engineering, Autonomy and Robotics Concentration

The Master of Engineering (MEng) in Engineering, Autonomy and Robotics Concentration is a professionally oriented degree program for students whose primary intent is a career in industry or government. This degree differs from the Master of Science (MS) degree in that it is a professionally oriented master's degree that is not a pathway to a doctoral program. The Major in Engineering for the M.Eng. degree requires the selection of an interdisciplinary concentration, which must be identified at the time of application.

Available concentrations are: Aerospace Systems Engineering (http://catalog.illinois.edu/graduate/engineering/engineering-meng/aerospace-systems/), Autonomy and Robotics (p. 1), Digital Agriculture (http://catalog.illinois.edu/graduate/engineering/engineering-meng/digital-agriculture/), Energy Systems (http://catalog.illinois.edu/graduate/engineering/engineering-meng/energy-systems/), Instrumentation and Applied Physics (http://catalog.illinois.edu/graduate/engineering/engineering-meng/instrumentation-applied-physics/), Plasma Engineering (http://catalog.illinois.edu/graduate/engineering/engineering-meng/plasma-engineering/), and Railway Engineering (http://catalog.illinois.edu/graduate/engineering/engineering-meng/railway/).

Admission

Students with bachelor's or master's degrees in engineering or related fields will be considered for admission if they have a grade point average of at least 3.00 (A = 4.00) for the last two years of undergraduate study. Admission is possible for the spring term, but most admissions are for the fall term. Full details of admission requirements are on the Autonomy and Robotics (https://autonomy.illinois.edu/meng/) concentration website.

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.

Financial Aid

Students in concentrations under the MEng in Engineering major are not eligible for Board of Trustees (BOT) tuition-waiver generating assistantships at the University of Illinois.

Concentration Requirements

For additional details and requirements, refer to the department's website (https://autonomyandrobotics.grainger.illinois.edu/) and the Graduate College Handbook (https://grad.illinois.edu/gradhandbook/).

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ME 445</td>
<td>Introduction to Robotics</td>
<td>12</td>
</tr>
<tr>
<td>ECE 484</td>
<td>Principles of Safe Autonomy</td>
<td></td>
</tr>
<tr>
<td>CS 588</td>
<td>Autonomous Vehicle System Engineering</td>
<td></td>
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</tbody>
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Select one of the following: 4

- Control and Dynamics
  - ECE 486: Control Systems
  - SE 422: Robot Dynamics and Control

- Optimization
  - AE 504: Optimal Aerospace Systems
  - ECE 490: Introduction to Optimization

- Hardware Systems
  - ME 451: Computer-Aided Mfg Systems

- Artificial Intelligence and Perception
  - CS 440: Artificial Intelligence
  - CS 543: Computer Vision
  - ECE 544: Topics in Signal Processing

- Design and Applications

Information listed in this catalog is current as of 08/2022
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<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CS 465</td>
<td>User Interface Design</td>
</tr>
<tr>
<td>ENG 573</td>
<td>Capstone Project</td>
</tr>
<tr>
<td>ENG 572</td>
<td>Professional Practicum</td>
</tr>
</tbody>
</table>

Other advisor-approved courses.

Additional Coursework

Electives may be selected from the course list, with advisor approval. This list includes courses in Control and Dynamics, Optimization, Hardware Systems, Artificial Intelligence and Perception, Design and Applications.

Total Hours 32

Other Requirements and Conditions (may overlap)

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Description</th>
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<tbody>
<tr>
<td>A minimum of 20 credit hours must be taken from the University of Illinois</td>
<td>Urbana-Champaign campus.</td>
</tr>
<tr>
<td>A minimum of 12 500-level credit hours.</td>
<td></td>
</tr>
<tr>
<td>No courses used to fulfill any degree requirement may be taken using the</td>
<td>&quot;Credit/No Credit&quot; option.</td>
</tr>
<tr>
<td>Minimum GPA: 3.0</td>
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Program Director: Geir E. Dullerud

Overview of Autonomy and Robotics MEng Admissions & Requirements
Graduate College Admissions & Requirements (https://grad.illinois.edu/admissions/apply/)

Autonomy Center Website (https://autonomy.illinois.edu/)
Autonomy MEng Program Website (https://autonomy.illinois.edu/meng/)

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

Admissions Contact: Laura Reiter (jennar@illinois.edu)
address: 403-A2 Engineering Hall, 1308 W Green St, Urbana, Illinois 61801
phone: (217) 300-6574
e-mail: lreite2@illinois.edu

Advising Contact: Pat Grenda (jennar@illinois.edu)
Address: 1308 W. Main Street, Urbana, Illinois 61801
Phone: (217) 265-6265
email: jpgrenda@illinois.edu

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