ENGINEERING: ENERGY SYSTEMS, MEng

for the degree of Master of Engineering in Engineering, Energy Systems Concentration

department head: Rizwan Uddin (rizwan@illinois.edu)
overview of admissions & requirements: https://energysystemsmeng.engineering.illinois.edu/admissions/
overview of grad college admissions & requirements: https://grad.illinois.edu/admissions/apply (https://grad.illinois.edu/admissions/apply/)
department website: http://npre.illinois.edu (https://npre.illinois.edu/)
program website: https://energysystemsmeng.engineering.illinois.edu/
college website: https://grainger.illinois.edu/
contact: Amy McCullough (amcull2@illinois.edu)
address: 403 A-2 Engineering Hall, 1308 W Green St, Urbana, IL 61801
phone: (217) 300-2378
email: meng-es@illinois.edu

The MEng in Engineering, Energy Systems 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 degree in that it is a terminal degree and not a pathway to a doctoral program. Other concentrations under the MEng in Engineering major include Aerospace Systems Engineering (http://catalog.illinois.edu/graduate/engineering/engineering-meng/aerospace-systems/), Autonomy and Robotics (http://catalog.illinois.edu/graduate/engineering/engineering-meng/autonomy-robotics/), 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 Energy Systems Concentration website (https://energysystemsmeng.engineering.illinois.edu/).

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.

Other Graduate Programs in the Department of Nuclear, Plasma & Radiological Engineering

degrees:

Nuclear, Plasma, & Radiological Engineering, MS (http://catalog.illinois.edu/graduate/engineering/nuclear-plasma-radiological-engineering-ms/)
optional concentrations:
  Computational Science & Engineering (http://catalog.illinois.edu/graduate/engineering/concentration/computational-science-engineering/)
Nuclear, Plasma, & Radiological Engineering, PhD (http://catalog.illinois.edu/graduate/engineering/nuclear-plasma-radiological-engineering-phd/)
optional concentrations:
  Computational Science & Engineering (http://catalog.illinois.edu/graduate/engineering/concentration/computational-science-engineering/)

concentrations:

Plasma Engineering (http://catalog.illinois.edu/graduate/engineering-engineering-meng/plasma-engineering/)
available for:
  Engineering, MENG (http://catalog.illinois.edu/graduate/engineering-engineering-meng/)  

The Department of Nuclear, Plasma & Radiological Engineering (NPRE) offers programs leading to degrees of Master of Science and Doctor of Philosophy in Nuclear, Plasma & Radiological Engineering, as well as Master of Engineering in Engineering with a Concentration in Energy Systems or a Concentration in Plasma Engineering. The Master of Science and Doctor of Philosophy degree programs are centered around three theme areas:

  • nuclear power engineering
  • fusion and plasma science and engineering
  • radiological engineering and medical physics

Advanced course work and active research programs are offered in all of these areas.

Opportunity also exists for specializing in energy and sustainability engineering via the

Energy and Sustainability Engineering (EaSE) Graduate Certificate Option (https://energysystemsmeng.engineering.illinois.edu/graduate-certificate-option/)

for the degree of Master of Engineering, Major in Engineering, Energy Systems Concentration

For additional details and requirements refer to the program’s Website (https://energysystemsmeng.engineering.illinois.edu/curriculum/) and the Graduate College Handbook (http://grad.illinois.edu/gradhandbook/).

Information listed in this catalog is current as of 07/2021
This degree program can be completed either on campus or online; the requirements are listed below:

Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Courses</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>ENG 471</td>
<td>Seminar Energy &amp; Sustain Engrg</td>
<td></td>
</tr>
<tr>
<td>ENG 571</td>
<td>Theory Energy &amp; Sustain Engrg</td>
<td></td>
</tr>
<tr>
<td>ABE 436</td>
<td>Renewable Energy Systems</td>
<td></td>
</tr>
<tr>
<td>NPRE 480</td>
<td>Energy and Security</td>
<td></td>
</tr>
<tr>
<td>or NPRE 481</td>
<td>Writing on Technol &amp; Security</td>
<td></td>
</tr>
</tbody>
</table>

Electives (approved by academic advisor) 16

Professional Development (choose from these 3 options) 4

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 572</td>
<td>Professional Practicum (4 hours)</td>
<td></td>
</tr>
<tr>
<td>ENG 573</td>
<td>Capstone Project (4 hours)</td>
<td></td>
</tr>
</tbody>
</table>

• Select a different course with professional development components in consultation with advisor

Total Hours 32

Other Requirements

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other requirements may overlap</td>
<td></td>
</tr>
<tr>
<td>A minimum of 20 credit hours must be taken from the University of Illinois Urbana-Champaign campus.</td>
<td></td>
</tr>
<tr>
<td>A minimum of 12 500-level credit hours, with a minimum of 8 hours of ENG or NPRE 500-level coursework.</td>
<td></td>
</tr>
<tr>
<td>A maximum of one 1-credit-hour course may be applied toward the minimum 12 500-level credit-hour requirement.</td>
<td></td>
</tr>
<tr>
<td>No courses used to fulfill any degree requirement may be taken using the “Credit/No Credit” option.</td>
<td></td>
</tr>
<tr>
<td>Minimum GPA:</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Information listed in this catalog is current as of 07/2021