ENGINEERING: RAILWAY ENGINEERING, MEng

for the Master of Engineering in Engineering, Railway Engineering Concentration

head of department: Ana Barros (https://cee.illinois.edu/directory/staff/office-department-head/)
director of graduate studies: Jeffery R Roesler (jroesler@illinois.edu)
overview of graduate studies: https://railwaymeng.engineering.illinois.edu/admissions/overview-of-graduate-studies/
overview of graduate college admissions & requirements: https://grad.illinois.edu/admissions/apply
program website: https://railwaymeng.engineering.illinois.edu/program
department faculty: https://cee.illinois.edu/directory/faculty
college website: https://grainger.illinois.edu/
contact: Meg C Griffin (mgriffin@illinois.edu)
adress: 1108 Newmark Civil Engineering Lab, 205 N Mathews Ave, Urbana, IL 61801
phone: (217) 333-3921
e-mail: meng-railway@illinois.edu

The MEng in Engineering, Railway Engineering 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/), Energy Systems (http://catalog.illinois.edu/graduate/engineering/engineering-meng/energy-systems/), and Plasma Engineering (http://catalog.illinois.edu/graduate/engineering/engineering-meng/plasma-engineering/).

This program is a collaborative effort between the Rail Transportation Center (RailTEC) and the Railway Group at KTH Royal Institute of Technology in Stockholm, Sweden.

Admission Requirements
The Department of Civil & Environmental Engineering accepts applications for admission to the graduate program for both fall and spring semesters.

Applicants must hold a bachelor’s or master’s degree in engineering or related fields equivalent to those granted by the University of Illinois at Urbana-Champaign with cumulative grade point average of at least 3.00 (A = 4.00). The Graduate Record Examination (GRE) (http://www.ets.org/portal/site/ets/menuitem.fab2360b1645a1de9b3a0779f1751509/?vgnextoid=b195e3b5f64f4010VgnVCM10000022f95190RCRD) is required.

Full details of admission requirements are on the Railway Engineering Concentration website (http://railwaymeng.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 Civil & Environmental Engineering

degrees:
- Civil Engineering, MS (http://catalog.illinois.edu/graduate/engineering/civil-engineering-ms/)
- optional concentrations:
  - Computational Science and Engineering (http://catalog.illinois.edu/graduate/engineering/concentration/computational-science-engineering/)
- Environmental Engineering in Civil Engineering, MS (http://catalog.illinois.edu/graduate/engineering/environmental-engineering-civil-engineering-ms/)
- optional concentrations:
  - Computational Science and Engineering (http://catalog.illinois.edu/graduate/engineering/concentration/computational-science-engineering/)
- Environmental Engineering in Civil Engineering, PhD (http://catalog.illinois.edu/graduate/engineering/environmental-engineering-civil-engineering-phd/)
- optional concentrations:
  - Computational Science and Engineering (http://catalog.illinois.edu/graduate/engineering/concentration/computational-science-engineering/)

joint programs:
- Civil Engineering, MS & Architecture, MARCH (http://catalog.illinois.edu/graduate/engineering_faa/joint-degree/architecture-march-civil-engineering-ms/), (Construction Management or Structures)
- Civil Engineering, MS & Urban Planning, MS (http://catalog.illinois.edu/graduate/engineering_faa/joint-degree/urban-planning-mup/)

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

- Energy and Sustainability Engineering (EaSE) Graduate Certificate Option (http://ease.illinois.edu/) for the Master of Engineering in Engineering Railway Engineering Concentration

Information listed in this catalog is current as of 11/2021
For additional details and requirements, please refer to the concentration's website (http://railwaymeng.engineering.illinois.edu/) and the Graduate College Handbook (http://grad.illinois.edu/gradhandbook/).

### Concentration Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Core Courses from Illinois</strong></td>
<td><strong>6</strong></td>
</tr>
<tr>
<td>CEE 409</td>
<td>Railroad Track Engineering</td>
<td></td>
</tr>
<tr>
<td>CEE 412</td>
<td>High-Speed Rail Engineering</td>
<td></td>
</tr>
</tbody>
</table>

Alternate Illinois course from approved list for students who have completed one or both of the required courses in previous degree

<table>
<thead>
<tr>
<th></th>
<th><strong>Core Courses from KTH</strong></th>
<th><strong>12</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>CEE 498</td>
<td>Special Topics (RTV, KTH SD2307, Rail Vehicle Technology)</td>
<td></td>
</tr>
<tr>
<td>CEE 498</td>
<td>Special Topics (TMS, KTH AK2036, Theory and Methodology of Science with Applications)</td>
<td></td>
</tr>
<tr>
<td>CEE 598</td>
<td>Special Topics (ET, KTH EJ2400, Electric Traction)</td>
<td></td>
</tr>
<tr>
<td>CEE 598</td>
<td>Special Topics (RVD, KTH SD2313, Rail Vehicle Dynamics)</td>
<td></td>
</tr>
</tbody>
</table>

**Elective Courses from Illinois**

14

Railway Elective Courses from Approved List A, minimum 6 hours

Engineering Elective Courses from Approved List B, minimum 6 hours

**Professional Development courses from approved list**

4

Total Hours

36

### Other Requirements and Conditions (may overlap)

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum of 20 credit hours must be taken at the University of Illinois at Urbana-Champaign campus</td>
<td></td>
</tr>
<tr>
<td>Minimum of 12 500-level credit hours in the concentration with at least 8 credit hours in the core concentration</td>
<td></td>
</tr>
<tr>
<td>No courses used to fill any degree requirement may be taken using the Credit/No Credit option.</td>
<td></td>
</tr>
<tr>
<td>Minimum program GPA</td>
<td>3.0</td>
</tr>
</tbody>
</table>