ENERGY ENGINEERING - MINOR

The energy engineering minor provides energy-minded students with a foundational understanding of energy technologies and the energy industry, including technological, policy, and economic considerations related to conventional and renewable energy systems.

Required courses include a fundamentals-based energy course, an energy policy/society focused course, and 12 credits of energy-focused technical elective courses. Elective courses, selected from across the CU campus, allow students to specialize according to their specific interest in the energy field.

The energy engineering minor has strong connections with industry through an industry advisory panel and guest speakers.

For more information, visit the college’s Energy Engineering Minor (http://www.colorado.edu/engineering/energy-engineering-minor/) webpage.

Requirements

Students must complete 18 credit hours for the minor: one fundamentals-based course, one policy/society course, and four electives chosen from a list of approved courses. A cumulative GPA of 2.250 or better is required for courses used to satisfy the requirements of this minor. For an up-to-date listing of elective courses, visit the Energy Engineering Minor Technical Electives (https://www.colorado.edu/engineering/academics/guide-degrees-certificates/minors/energy-engineering-minor/energy-engineering-minor-0/) webpage.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td></td>
<td><strong>Required Courses</strong></td>
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<tr>
<td></td>
<td><strong>Fundamentals Course</strong></td>
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<td></td>
<td>Choose one course (3 credits) from the following:</td>
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<tr>
<td>AREN 3010</td>
<td>Energy Efficient Buildings</td>
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<tr>
<td>CHEN 2120</td>
<td>Chemical Engineering Material and Energy Balances</td>
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<tr>
<td>ECEN 3170</td>
<td>Electromagnetic Energy Conversion 1</td>
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<tr>
<td>MCEN 3032</td>
<td>Thermodynamics 2</td>
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<td></td>
<td><strong>Policy Course</strong></td>
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<td>Choose one course (3 credits) from the following:</td>
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<tr>
<td>MCEN 4032/5032</td>
<td>Sustainable Energy (or EVEN 3650 Sustainable Energy)</td>
<td>3</td>
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<tr>
<td>ENVS 3621</td>
<td>Energy Policy and Society</td>
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<td>ENVS 3070</td>
<td>Energy and the Environment</td>
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<td></td>
<td><strong>Electives</strong></td>
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<td>Choose four courses (12 credits) from the following:</td>
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<tr>
<td>AREN 3040</td>
<td>Circuits for Architectural Engineers</td>
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<tr>
<td>AREN 4010</td>
<td>Energy System Modeling and Control</td>
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<tr>
<td>AREN 4890/5890</td>
<td>Sustainable Building Design</td>
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<tr>
<td>CHEN 4520</td>
<td>Chemical Process Synthesis</td>
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<tr>
<td>CHEN 3660</td>
<td>Energy Fundamentals</td>
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<td>CHEN 4803</td>
<td>Metabolic Engineering</td>
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<tr>
<td>CHEN 5360</td>
<td>Catalysis and Kinetics</td>
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<tr>
<td>CVEN 3698</td>
<td>Engineering Geology</td>
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<tr>
<td>MCEN 4135/5135</td>
<td>Wind Energy and Wind Turbine Design</td>
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<tr>
<td>MCEN 4152/5152</td>
<td>Introduction to Combustion</td>
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<tr>
<td>MCEN 4194/5194</td>
<td>Electrochemical Energy Conversion and Storage</td>
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</tbody>
</table>

Total Credit Hours

18

1 There may be special topics or other elective courses offered that are suitable for the requirements of this minor. Contact the energy engineering minor faculty director (https://www.colorado.edu/engineering/academics/guide-degrees-certificates/minors/energy-engineering-minor/) for information about whether a specific course can serve as a technical elective for the minor.

2 Courses on the required list may be taken as technical electives.