ENERGY SCIENCE & TECHNOLOGY, MINOR

College of Engineering

Energy Minor Programs
There is an urgent need to develop and commercialize technologies for the sustainable conversion and use of energy. This minor prepares students for careers that require training in energy science and technology, efficiency, and policy. Clean technologies and green technologies including energy are some of the fastest-growing markets for new investments. Well-trained individuals in all related fields are needed to provide the level of expertise required to advance technology and policy and to satisfy national and global objectives for greater energy sustainability. The minor accommodates persons of diverse backgrounds with educational interests in areas that may include engineering, science, policy, economics, planning, and management.

All courses must be taken for a letter grade. A grade of C- or better is required for all courses used to satisfy minor requirements with an overall GPA in the required minor courses of 2.000 or better. Only one course overlap is allowed between major and minor.

Minor Faculty Advisors
B. Jenkins (Department of Biological & Agricultural Engineering), K. McDonald (Department of Chemical Engineering)

Minor Staff Advising
The Biological & Agricultural Engineering staff advisor is available to help students create academic plans for this minor and submit minor declarations. More information can be found on the departmental website (https://bae.ucdavis.edu/undergraduate/undergraduate-advising/).

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
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<tbody>
<tr>
<td>ENG 105</td>
<td>Thermodynamics</td>
<td>4</td>
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<tr>
<td>or ECH 152B</td>
<td>Chemical Engineering Thermodynamics</td>
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<tr>
<td>ENG 188</td>
<td>Science &amp; Technology of Sustainable Power Generation</td>
<td>4</td>
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Choose 12 units:

- EBS 161  | Kinetics & Bioreactor Design |
- ECH 158C | Plant Design Project         |
- ECH 161A | Biochemical Engineering Fundamentals |
- ECH 161B | Bioseparations                |
- ECH 161L | Bioprocess Engineering Laboratory |
- ECH 166  | Catalysis                     |
- ECI 125  | Building Energy Performance    |
- ECI 163/ESP 175 | Energy & Environmental Aspects of Transportation |
- EME 161  | Combustion & the Environment   |
- ARE/ESP 175 | Natural Resource Economics   |
- FST 123  | Introduction to Enzymology     |
- ABT/HYD 182 | Environmental Analysis Using GIS |
- ATM 116  | Modern Climate Change          |
- PLS 101  | Agriculture & the Environment  |

Total Units 20