

# 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

M. S. Ahamed (Department of Biological & Agricultural 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/>).

| Code                                      | Title                                                 | Units     |
|-------------------------------------------|-------------------------------------------------------|-----------|
| <b>Required Courses:</b>                  |                                                       | <b>8</b>  |
| ENG 105<br>or ECH 152B                    | Thermodynamics<br>Chemical Engineering Thermodynamics |           |
| ENG 188                                   | Science & Technology of Sustainable Power Generation  |           |
| <b>Elective Courses; choose 12 units:</b> |                                                       | <b>12</b> |
| ABT/HYD 182                               | Environmental Analysis Using GIS                      |           |
| ARE/ESP 175                               | Natural Resource Economics                            |           |
| ATM 116                                   | Modern Climate Change                                 |           |
| EBS 161                                   | Kinetics & Bioreactor Design                          |           |
| ECH 158C                                  | Plant Design Project                                  |           |
| ECH 161A                                  | (Discontinued for winter 2024) **                     |           |
| ECH 161B                                  | (Discontinued for spring 2024) **                     |           |
| ECH 161L                                  | Bioprocess Engineering Laboratory                     |           |
| ECH 166                                   | Catalysis                                             |           |
| ECI 125                                   | (Discontinued for summer 2024) **                     |           |
| ECI/ESP 163                               | Energy & Environmental Aspects of Transportation      |           |
| EME 161                                   | Combustion & the Environment                          |           |
| FST 123                                   | Introduction to Enzymology                            |           |
| ESP 167                                   | Energy Policy                                         |           |

PLS 101 Agriculture & the Environment

**Total Units 20**

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Course(s) discontinued; see your advisor for course options.