Sustainable Energy Technology Minor

Return to Department

Minor Requirements:

Before beginning these courses, the student must meet the required course prerequisites. Minimum grade of C- required.

Three of the following:

- CIEG 351 - Transportation Engineering Credit(s): 3  UL Tech Elective or Extra Tech
- CIEG 402 - Introduction to Sustainability Principles in Civil Engineering Credit(s): 3
- CIEG 403 - Sustainability Applications in Infrastructure Credit(s): 3
- CIEG 465 - Global Sustainable Engineering Credit(s): 3 (Three-credit version only)  UL Tech Elective or Extra Tech
- CHEG 612 - Applied Process Heat Transfer
- CHEG 613 - Energy and the Environment  CHEG Elective
- CHEG 614 - Special Topics in Energy
- CHEG 616 - Chemistry and Physics of Surfaces and Interfaces
- CHEG 624 - Bio-Based Materials
- CHEG 625 - Green Engineering  CHEG Elective
- CHEG 632 - Electrochemical Energy Engineering  CHEG Elective

- ELEG 415 - Electric Power Systems Credit(s): 3  UL Tech Elective or Extra Tech
  or
- ELEG 615 - Electric Power and Renewable Energy Systems  UL Tech Elective or Extra Tech

- ELEG 417 - The Smart Grid Credit(s): 3
  or
- ELEG 617 - The Smart Grid

- ELEG 428 - Solar Electric Technology & Applications Credit(s): 3
  or
- ELEG 628 - Solar Energy Technology and Applications  Has previously been approved by Undergrad Studies Committee to count as a tech elective
- **ELEG 437 - Energy Systems** Credit(s): 3
  or
  - ELEG 637 - Energy Systems

- **ELEG 456 - Electric Power II** Credit(s): 3
  or
  - ELEG 656 - Electric Power II

- **ELEG 457 - Design & Operation of Renewable Energy Microgrid** Credit(s): 3
  or
  - ELEG 657 - Design & Operations of Renewable Energy Microgrid

- **ELEG 493 - Electric Motors and Generators** Credit(s): 3
  or
  - ELEG 693 - Electric Motors and Generators

- **MAST 484 - Electric Vehicles and the Grid** Credit(s): 3
  - UL Tech Elective or Extra Tech
- **MEEG 425 - Automotive Powertrain Theory** Credit(s): 3
  - UL Tech Elective or Extra Tech
- **MEEG 435 - Wind Power Engineering** Credit(s): 3
  - UL Tech Elective or Extra Tech
- **MEEG 442 - Introduction to Fuel Cells** Credit(s): 3
  - UL Tech Elective or Extra Tech
- Three-credit Undergraduate Research in Energy

**One of the following:**

- **ENEP 250 - Introduction to Energy and Environmental Policy** Credit(s): 3
  - UL Univ breadth Social & Behavioral
- **ENEP 425 - Energy Policy and Administration** Credit(s): 3
  or
  - ENEP 625 - Energy Policy and Administration
  - UL Univ Breadth Social & Behavioral or COE Breadth (Fall)

**One of the following:**

- **ENEP 485 - Senior Seminar in Energy and Environmental Policy** Credit(s): 3
- **APEC 343 - Environmental Economics** Credit(s): 3
- CIEG 650 - Urban Transportation Systems
- **ECON 320 - Energy Economics** Credit(s): 3
- **ENEP 402 - Electricity Policy and Planning** Credit(s): 3  
  UL COE Breadth
- **ENEP 426 - Climate Change Policy** Credit(s): 3
- **ENEP 427 - Sustainable Energy: Economics and Policy Analysis** Credit(s): 3
- **GEOG 235 - Conservation of Natural Resources** Credit(s): 3  
  LL Univ Breadth Social & Behavioral
- **GEOG 236 - Humans and Environmental Sustainability** Credit(s): 3

- **GEOG 422 - Resources, Development and the Environment** Credit(s): 3  
  LL COE Breadth
  
  or
  
  GEOG 622 - Resources, Development and the Environment

- MAST 628 - Offshore Wind Power: Science, Engineering, and Policy
- MAST 662 - Conservation and Renewable Energy Policy
- MAST 675 - Economics of Natural Resources
- MAST 676 - Environmental Economics (prereq: ECON 300)
- **PHYS 143 - Energy Technology and Society** Credit(s): 3
- **POSC 220 - Introduction to Public Policy** Credit(s): 3  
  LL Univ Breadth Social & Behavioral
- **POSC 350 - Politics and the Environment** Credit(s): 3  
  UL COE Breadth
- Other courses may be included upon approval of the minor administration committee.

**Credits to Total a Minimum of 15**

**Last Revised for 2021-2022 Academic Year**