

Sustainable Energy Minor

The Sustainable Energy minor is restricted to the following majors: chemistry, BS in environmental science, BS in geological sciences, architectural engineering, chemical engineering, civil engineering, electrical and computer engineering, environmental engineering, geosystems engineering and hydrogeology, mechanical engineering, or petroleum engineering.

Students pursuing an integrated undergraduate/graduate program must complete the requirements for the minor within one year after completing the undergraduate requirements of their program. For more information regarding the requirements for achieving a minor, including a comprehensive list of minors, please visit the Minors and Certificate Programs section of the Undergraduate Catalog. Details about the minor in Sustainable Energy are available at <https://pge.utexas.edu/academics/undergraduate/sustainable-energy-minor/>.

Admissions

To be considered for admission into the Minor Program for Sustainable Energy, students must meet the following requirements:

- The minor is restricted to the following majors: chemistry, BS in environmental science, BS in geological sciences, architectural engineering, chemical engineering, civil engineering, electrical and computer engineering, environmental engineering, geosystems engineering, mechanical engineering, or petroleum engineering.
- Students must have completed M 408C, M 408D, M 427J, CH 301, PHY 303K and PHY 303L (PHY 317K and PHY 317L), or equivalent with a grade of C- or higher.
- Students who have completed 30 to 60 hours will be encouraged to apply online at the earliest possible date. Application deadlines are March 1 for summer or fall and October 1 for spring.

Total Hours Required: 18

Requirements

Requirements are listed in the table below. Additional requirements may follow the table, so be sure to read the entire page. Some required courses listed below may also satisfy [General Education](#) requirements, including [Core Curriculum](#). Students should also review the [University's Undergraduate Minor and Certificate Requirements and Policies](#).

Code	Title	Hours
E S 369N	Sustainability Issues in Energy	3
M E 363M	Energy Technology and Policy	3
GEO 302C	Climate: Past, Present, and Future	3
Hours chosen from:		9
ARE 346N	Building Environmental Systems	
ARE 371	Energy Simulation in Building Design	
CH 353	Physical Chemistry I	
CH 367C	Materials Chemistry	
C E 341	Introduction to Environmental Engineering	
C E 367R	Optimization Techniques for Transportation Engineers	
C E 369L	Air Pollution Engineering	
C E 370L	Climate Change Mitigation	
CHE 341	Design for Environment	

CHE 346F	Atmospheric Chemistry and Physics
ECE 339S	Solar Energy Conversion Devices
ECE 362G	Smart Grids
ECE 369	Power Systems Engineering
ECE 462L	Power Electronics Laboratory
EVE 310	Sustainable Systems Engineering
EVE 312	Environmental Engineering and Science
GEO 330K	Energy Exploration
GEO 341	Mineral Resources, Society, and the Environment
GEO 347D	Global Warming
M E 336P	Concepts in Nuclear and Radiation Engineering
M E 374T	Renewable Energy Technology
M E 378E	Nanotechnology for Sustainable Energy
PGE 379.5	Energy and the Environment
PGE 379.3	Geothermal and Sustainable Energy Resources
PGE 379.4	Carbon Capture and Storage
PGE 379.22	Global Carbon Monitoring Systems
PGE 379.23	Subsurface Energy Storage

Total Hours

18

Additional Requirements and Policy

- The following nine hours are required for all students: E S 369N, M E 363M, and GEO 302C. The remaining nine credit hours consist of six credit hours from students' major field of study and three credit hours from outside.
- If students are interested in additional coursework, they can select additional electives from this list. Courses beyond 18 credit hours are not required for the completion of the minor.
- All classes must be taken on the letter-grade basis. The student must earn a combined grade points average of at least 2.00 in these courses selected for their program of study.

Code	Title	Hours
Hours chosen from:		9

Eligible courses for all majors:

ARC 384G	Environmental Control: Light, Sound, and Electricity
ARC 386M.11	Energy Modeling and the Design Process
ARC 386M.13	Light and Sustainable Design
ARC 386M.19	Solar Geometry and Energy Flow
ARC 386M.33	Regenerative Architecture
ARC 386M.34	Sustainable Architectural Design
ARC 386M.35	Sustainability: Why This Way
ARC 386M.35	Sustainability: Why This Way
ARC 386M.36	Introduction to Urban Ecology
ARC 380D.1	Twenty-Second-Century Materials

The following courses may not be counted toward MS Sustainable Design degree requirements:

ARC 386M.44	Biogenic Materials
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Total Hours

9