SUSTAINABLE ENERGY INTERDISCIPLINARY MINOR

108 Johnson Hall
(970) 492-4215
Coordinated by the School of Global Environmental Sustainability (http://sustainability.colostate.edu/).

The Sustainable Energy Interdisciplinary Minor offers undergraduate students, regardless of their major, an opportunity to gain a deeper knowledge of the many dimensions of sustainable energy. Students will complete 21 credits (at least 12 upper-division credits) in core and elective courses that are relevant to the technical, environmental, and social science issues as we transition to a sustainable energy future.

Effective Fall 2023

Students must satisfactorily complete the total credits required for the minor. Minors and interdisciplinary minors require 12 or more upper-division (300- to 400-level) credits.

Additional coursework may be required due to prerequisites.

Code	Title	Credits
Required Core Courses		
GES 101	Foundations of Environmental Sustainability	3
GES 141	Introduction to Sustainable Energy	3
GES 441	Analysis of Sustainable Energy Solutions	3
Social and Economic Issues Course List (3-6 credits must be upper-division – see list below) [1]		6
Science and Technology Course List (3-6 credits must be upper-division – see list below) [1]		6
Program Total Credits:		**21**

Social and Economic Issues Course List [1]

Code	Title	Credits
Lower Division:		
AREC 202	Agricultural and Resource Economics (GT-SS1)	3
or ECON 202	Principles of Microeconomics (GT-SS1)	
AREC 240/ECON 240	Issues in Environmental Economics (GT-SS1)	3
POLS 101	American Government and Politics (GT-SS1)	3
Upper Division:		
ECON 444/AREC 444	Economics of Energy Resources	3
ESS 542	Greenhouse Gas Policies	2
NR 320	Natural Resources History and Policy	3
POLS 364	Air, Climate, and Energy Policy Analysis	3

Science and Technology Course List [1]

Code	Title	Credits
Lower Division:		
ATS 150	Science of Global Climate Change	3
May select one option from the following:		
BZ 104 & BZ 105	Basic Concepts of Plant Life (GT-SC2) and Basic Concepts of Plant Life Laboratory (GT-SC1)	
BZ 120	Principles of Plant Biology (GT-SC1)	
LIFE 102	Attributes of Living Systems (GT-SC1)	
CBE 210	Thermodynamic Process Analysis	3
CHEM 103	Chemistry in Context (GT-SC2)	3
May select one course from the following:		
CHEM 107	Fundamentals of Chemistry (GT-SC2)	
CHEM 111	General Chemistry I (GT-SC2)	
CHEM 117	General Chemistry I for Chemistry Majors	
ESS 210/GR 210	Physical Geography	3
May select one course from the following:		
GEOL 120	Exploring Earth - Physical Geology (GT-SC2)	
GEOL 122	The Blue Planet - Geology of Our Environment (GT-SC2)	
GEOL 150	Physical Geology for Scientists and Engineers	
May select one course from the following:		
PH 110	Physics of Everyday Phenomena (GT-SC2)	
PH 121	General Physics I (GT-SC1)	
PH 141	Physics for Scientists and Engineers I (GT-SC1)	
Upper Division:		
ATS 350	Introduction to Weather and Climate	2
ATS 351	Introduction to Weather and Climate Lab	1
ATS 555	Air Pollution	3
BZ 440	Plant Physiology	3
CON 476	Sustainable Practice-Design and Construction	3
ECE 465	Electrical Energy Generation Technologies	3
ESS 311	Ecosystem Ecology	3
ESS 353	Global Change Impacts, Adaptation, Mitigation	3
ESS 524	Foundations for Carbon/Greenhouse Gas Mgmt	3
LIFE 320	Ecology	3
MECH 337	Thermodynamics	4
MECH 403	Energy Engineering	3
MECH 463	Building Energy Systems	3
MECH 575	Solar and Alternative Energies	3
PH 361	Physical Thermodynamics	3
SYSE 530	Overview of Systems Engineering Processes	3
SYSE 532/ECE 532	Dynamics of Complex Engineering Systems	3

[1] At least 9 of the 12 credits required between the two Course Lists must be upper-division (300- to 400- level) credits.