INTERDISCIPLINARY MINORS

Minor in Sustainable Energy Systems
Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

REQUIREMENTS

• Chemical engineering students and mechanical engineering students may not count CHME 2320 or ME 2380 toward the sustainable energy systems minor since these courses are required in their respective majors.

• Chemical engineering students may not count CHME 2308 toward the sustainable energy systems minor since this course is required in their major.

• Industrial engineering students may not count IE 4512 toward the sustainable energy systems minor since this course is required in their major.

Core Energy Science/Technology Courses
Complete two of the following courses:

CHME 2320 Chemical Engineering Thermodynamics 1 4 SH
or ME 2380 Thermodynamics 4 SH
ENGR 3XXX Introduction to Energy Systems and Sustainability (pending approval) 4 SH
ENGR 5670 Sustainable Energy: Materials, Conversion, Storage, and Usage 4 SH
ENSY 5000 Fundamentals of Energy System Integration 4 SH

Environmental/Economics/Policy Courses
Complete one of the following courses:

CIVE 5699 Special Topics in Civil Engineering 2 or 4 SH
ECON 3423 Environmental Economics 4 SH
ECON 3425 Energy Economics 4 SH
ENTR 3325 Sustainable Innovation 4 SH
ENTR 3336 Resource Management and Renewable Energy in Iceland 4 SH
ENVR 4515 Sustainable Development 4 SH
FINA 2720 Sustainability in the Business Environment 4 SH
ME 5645 Environmental Issues in Manufacturing and Product Use 4 SH
POLS 3410 Nontraditional Security Issues 4 SH
SOCL 3485 Environment, Technology, and Society 4 SH

Electives
Complete two of the following courses:

CHME 2308 Conservation Principles in Chemical Engineering 4 SH

CHME 5630 Biochemical Engineering 4 SH
CHME 5699 Special Topics in Chemical Engineering 4 SH
CIVE 4566 Design for Sustainable Transportation: European and U.S. Perspectives 4 SH
CIVE 5699 Special Topics in Civil Engineering 2 or 4 SH
EECE 5680 Electric Drives 4 SH
EECE 5682 Power Systems Analysis 1 4 SH
EECE 5684 Power Electronics 4 SH
EECE 5686 Electrical Machines 4 SH
EECE 5688 Analysis of Unbalanced Power Grids 4 SH
EECE 5696 Energy Harvesting Systems 4 SH
ENGR 3XXX Introduction to Energy Systems and Sustainability (pending approval) 4 SH
ENGR 5670 Sustainable Energy: Materials, Conversion, Storage, and Usage 4 SH
ENSY 5000 Fundamentals of Energy System Integration 4 SH
IE 4512 Engineering Economy 4 SH
IE 4600 Systems Design for Sustainability 4 SH
ME 2380 Thermodynamics 4 SH
ME 4680 Energy Systems 4 SH
ME 5645 Environmental Issues in Manufacturing and Product Use 4 SH
ME 5685 Solar Thermal Engineering 4 SH
SBYS 5100 Sustainable Design and Technologies in Construction 4 SH
SBYS 5200 Sustainable Engineering Systems for Buildings 4 SH

GPA REQUIREMENT
2.000 GPA required in the minor