

2025-2026 Environmental Engineering Sustainability Electives

Students must take one of the courses listed below.

NOTES:

1. Courses that appear on multiple lists, shown below with yellow shading, may NOT be double counted.
2. The student is responsible for checking and abiding by the ISU catalog regarding official course details. Students may propose a course not on this list by petitioning the ENVE Curriculum Committee. The course must involve applying the concepts of sustainability and using sustainability tools and indicators.
3. Appropriate learning outcomes for sustainability electives include:
 - Explain the effect of human activity on food, energy, environment, etc.
 - Define and discuss sustainability, sustainable development, and sustainable engineering
 - Identify and explain sustainability actions such as Earth Summit, Rio Declaration, Brundtland Report, and Kyoto Protocol.
 - Explain appropriate technology and global engineering principles
 - Apply sustainability tools such as life cycle analysis and techno-economic analysis
 - Apply sustainability indicators such as Human Development Index and greenhouse gas emissions
 - Implement sustainability principles such as LEED and the triple bottom line in engineering design
 - Evaluate sustainability of systems involving energy, agriculture, infrastructure, or water and waste

Course	CR	Title	Typically Offered*	Pre-requisites
ABE 3250 TSM 3250	3	Biorenewable Systems	F	CHEM 1630 or higher, MATH 1400 or higher
ABE 3880 CE 3880 EE 3880	3	Sustainable Engineering and International Development	F	Junior classification in an Engineering major
AGRON 4040/5040 ENSCI 4040/5040 ENVS 4040 MTEOR 4040/5040	3	Global Change	F, S	
CRP 4550/5550	3	Smart and Sustainable Cities		
CRP 4840/5840 ENVS 4840	3	Sustainable Communities	S	Junior classification
ECON 3800 ENVS 3800	3	Energy, Environmental and Resource Economics		ECON 1010
ENSCI 3240 ENVS 3240 GEOL 3240 MTEOR 3240	3	Energy and the Environment	S	
GLOBE 4020	3	Responses to Global Resource System Challenges	S	

ME 4840/5840 MKT 4840/5840 WLC 4840/5840	3	Technology, Globalization and Culture	F	Junior or Senior classification
SOC 3480 SUSE 5010	3	Global Poverty, Resources and Sustainable Development		

*F = Fall, S = Spring

*Approved by the ENVE Curriculum Committee
Updated 8/20/25*