SUSTAINABILITY MINOR

Overview of The minor in sustainability

Sustainability is often defined as "meeting the needs of today without compromising the ability of future generations to meet their own needs." The minor in sustainability at Iowa State University is available to any ISU student who wants to further learn about sustainability issues affecting humans today and in the future.

The interdisciplinary minor in sustainability exposes students to ideas and issues related to a sustainable, balanced and ethical future for the planet and its inhabitants. The minor is at the interplay between environmental, social and economic factors in improving the quality of human life within the capacity of supporting ecosystems.

The minor will help students understand the dynamics of biological population growth and decline in the natural world, predator-prey models, over-exploitation of natural resources, energy balances, and much more. Students also will study how human behavior affects the natural world and the ability of earth to sustain life and understand how the decisions they make as consumers, workers, resource owners, citizens and policymakers affect human welfare in this and future generations.

Student Learning Outcomes

As a result of their coursework for the sustainability program students will be able to:

- articulate why some environmental, social and economic profiles are sustainable and others are not.
- apply sustainable practices in their personal and professional lives.

The colleges of Agriculture and Life Sciences, Design, Engineering, and Liberal Arts and Sciences sponsor the minor in sustainability.

Requirements for the minor in sustainability

The minor in sustainability may be earned by completing a total of 15 credits including two required courses and nine elective credits from an approved list. Of the nine elective credits, at least six credits must be at the 300 level or higher. The minor must include at least 9 credits that are not used to meet any other department, college, or university requirement.

Required courses:

SOC 220	Globalization and Sustainability	3
ANTHR 230	Globalization and the Human Condition	3

Emphasis Electives:

A B E 325	Biorenewable Systems	3
A B E 380	Principles of Biological Systems Engineering	3
A B E 388	Sustainable Engineering and International Development	3
A B E 480	Engineering Analysis of Biological Systems	3
AGRON 120	Introduction to Renewable Resources	3
AGRON 160	Water Resources of the World	3
AGRON 342	World Food Issues: Past and Present	3
AGRON 404	Global Change	3
AGRON 450	Issues in Sustainable Agriculture	3
ANTHR 336	Global Development	3
ARCH 345	Building Science and Technology I	2
ARCH 346	Building Science and Technology II	3
ARCH 346L	Building Science and Technology II Lab	2
ARCH 347	Building Science and Technology III	3
ARCH 347L	Building Science and Technology III Lab	2
ARCH 348	Building Science and Technology IV	3
ARCH 348L	Building Science and Technology IV Lab	2
ARCH 445	Building Science and Technology V	2
ARCH 558	Sustainability and Green Architecture	3
ARCH 575	Contemporary Urban Design Theory	3
ARCH 597	Seminar on the Built Environment III: Theory	3
ARTIS 460	Sustainable Design and Fabrication of Furniture	3
ARTIS 465	Artists, Designers and Sustainable Development	3
ARTIS 466	Studio Abroad: Africa	3
BIOL 204	Biodiversity	2
BIOL 355	Plants and People	3
BIOL 381	Environmental Systems I: Introduction to Environmental Systems	3-4
BIOL 382	Environmental Systems II: Analysis of Environmental Systems	3
BIOL 471	Introductory Conservation Biology	3
BIOL 472	Community Ecology	3
BIOL 484	Ecosystem Ecology	3
C E 388	Sustainable Engineering and International Development	3
C R P 201	The North American Metropolis	3
C R P 291	World Cities and Globalization	3
C R P 293	Environmental Planning	3
C R P 320	Urban Geography	3
C R P 417	Urban Revitalization	3
C R P 429	Planning in Developing Countries	3
C R P 445	Transportation Policy and Planning	3
C R P 484	Sustainable Communities	3
C R P 491	Environmental Law and Planning	3

ECON 380	Energy, Environmental and Resource Economics	3
ECON 385	Economic Development	3
ECON 480	Intermediate Environmental and Resource Economics	3
E E 388	Sustainable Engineering and International Development	3
ENGL 355	Literature and the Environment	3
ENT 471	Insect Ecology	3
ENSCI 201	Introduction to Environmental Issues	2
ENSCI 381	Environmental Systems I: Introduction to Environmental Systems	3-4
ENSCI 382	Environmental Systems II: Analysis of Environmental Systems	3
ENSCI 402	Watershed Hydrology	3
ENSCI 404	Global Change	3
ENSCI 480	Engineering Analysis of Biological Systems	3
ENSCI 484	Ecosystem Ecology	3
ENV S 101	Environmental Geology: Earth in Crisis	3
ENV S 108	Introduction to Oceanography	3
ENV S 120	Introduction to Renewable Resources	3
ENV S 160	Water Resources of the World	3
ENV S 201	Introduction to Environmental Issues	2
ENV S 204	Biodiversity	2
ENV S 270	Foundations in Natural Resource Policy and History	3
ENV S 293	Environmental Planning	3
ENV S 324	Energy and the Environment	3
ENV S 334	Environmental Ethics	3
ENV S 342	World Food Issues: Past and Present	3
ENV S 345	Population and Society	3
ENV S 355	Literature and the Environment	3
ENV S 380	Energy, Environmental and Resource Economics	3
ENV S 381	Environmental Systems I: Introduction to Environmental Systems	3-4
ENV S 382	Environmental Sociology	3
ENV S 404	Global Change	3
ENV S 424	Sustainable and Environmental Horticulture Systems	3
ENV S 450	Issues in Sustainable Agriculture	3
ENV S 484	Sustainable Communities	3
ENV S 491	Environmental Law and Planning	3
FS HN 242	The US Food System	3
FS HN 342	World Food Issues: Past and Present	3
FOR 452	Ecosystem Management	3
GEOL 101	Environmental Geology: Earth in Crisis	3
GEOL 108	Introduction to Oceanography	3
GEOL 160	Water Resources of the World	3
GEOL 324	Energy and the Environment	3
GEOL 402	Watershed Hydrology	3
GLOBE 201	Introduction to Global Resource Systems	3
GLOBE 385	Economic Development	3
GLOBE 402	Responses to Global Resource System Challenges	3
HORT 424	Sustainable and Environmental Horticulture Systems	3
JL MC 347	Science Communication	3
JL MC 474	Communication Technology and Social Change	3
L A 270	Foundations in Natural Resource Policy and History	3
L A 302	Ecological Design	6
L A 491	Environmental Law and Planning	3
M E 433	Alternative Energy	3
M E 484	Technology, Globalization and Culture	3
MTEOR 160	Water Resources of the World	3
MTEOR 324	Energy and the Environment	3
MTEOR 402	Watershed Hydrology	3
MTEOR 404	Global Change	3
NREM 120	Introduction to Renewable Resources	3
NREM 270	Foundations in Natural Resource Policy and History	3
NREM 402	Watershed Hydrology	3
NREM 452	Ecosystem Management	3
NREM 471	Agroforestry Systems	3
PHIL 334	Environmental Ethics	3
PHIL 343	Philosophy of Technology	3
RUS 375	Russia Today	3
SOC 345	Population and Society	3
SOC 348	Global Poverty, Resources and Sustainable Development	3
SOC 382	Environmental Sociology	3
SOC 411	Social Change in Developing Countries	3
SUS E 501	Sustainable Design in Communities	5
SUS E 511	Sustainable Design Colloquium I	3
SUS E 521	Foundation of Sustainable Design	3
SUS E 531	Human Dimensions of Sustainability	3
SUS E 540	Methods for Sustainable Design	3
SUS E 550	Making Resilient Environments	3

TSM 324	Soil and Water Conservation Management	3
TSM 325	Biorenewable Systems	3
WLC 484	Technology, Globalization and Culture	3