

# SUSTAINABILITY MINOR

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 learn how human behavior affects the natural world and the ability of earth to sustain life.

In addition, students in the minor will understand how the decisions they make as consumers, workers, resource owners, citizens and policymakers affect human welfare in this and future generations. Students also will be able to articulate why some environmental, social and economic profiles are sustainable and others are not.

The minor will provide students knowledge sufficient to 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 342H	World Food Issues: Past and Present, Honors	3
AGRON 404	Global Change	3
AGRON 446	International Issues and Challenges in Sustainable Development	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	FS HN 342	World Food Issues: Past and Present	3
ECON 380	Energy, Environmental and Resource Economics	3	FOR 452	Ecosystem Management	3
ECON 385	Economic Development	3	GEOL 101	Environmental Geology: Earth in Crisis	3
ECON 480	Intermediate Environmental and Resource Economics	3	GEOL 108	Introduction to Oceanography	3
E E 388	Sustainable Engineering and International Development	3	GEOL 160	Water Resources of the World	3
ENGL 355	Literature and the Environment	3	GEOL 324	Energy and the Environment	3
ENT 471	Insect Ecology	3	GEOL 402	Watershed Hydrology	3
ENSCI 201	Introduction to Environmental Issues	2	GLOBE 201	Introduction to Global Resource Systems	3
ENSCI 381	Environmental Systems I: Introduction to Environmental Systems	3-4	GLOBE 385	Economic Development	3
ENSCI 382	Environmental Systems II: Analysis of Environmental Systems	3	GLOBE 402	Responses to Global Resource System Challenges	3
ENSCI 402	Watershed Hydrology	3	GLOBE 446	International Issues and Challenges in Sustainable Development	3
ENSCI 404	Global Change	3	HORT 424	Sustainable and Environmental Horticulture Systems	3
ENSCI 480	Engineering Analysis of Biological Systems	3	INTST 446	International Issues and Challenges in Sustainable Development	3
ENSCI 484	Ecosystem Ecology	3	JL MC 347	Science Communication	3
ENV S 101	Environmental Geology: Earth in Crisis	3	JL MC 474	Communication Technology and Social Change	3
ENV S 108	Introduction to Oceanography	3	L A 270	Foundations in Natural Resource Policy and History	3
ENV S 120	Introduction to Renewable Resources	3	L A 302	Ecological Design	6
ENV S 160	Water Resources of the World	3	L A 491	Environmental Law and Planning	3
ENV S 201	Introduction to Environmental Issues	2	M E 433	Alternative Energy	3
ENV S 204	Biodiversity	2	M E 484	Technology, Globalization and Culture	3
ENV S 270	Foundations in Natural Resource Policy and History	3	MTEOR 160	Water Resources of the World	3
ENV S 293	Environmental Planning	3	MTEOR 324	Energy and the Environment	3
ENV S 324	Energy and the Environment	3	MTEOR 402	Watershed Hydrology	3
ENV S 334	Environmental Ethics	3	MTEOR 404	Global Change	3
ENV S 342	World Food Issues: Past and Present	3	NREM 120	Introduction to Renewable Resources	3
ENV S 345	Population and Society	3	NREM 270	Foundations in Natural Resource Policy and History	3
ENV S 355	Literature and the Environment	3	NREM 402	Watershed Hydrology	3
ENV S 380	Energy, Environmental and Resource Economics	3	NREM 452	Ecosystem Management	3
ENV S 381	Environmental Systems I: Introduction to Environmental Systems	3-4	PHIL 334	Environmental Ethics	3
ENV S 382	Environmental Sociology	3	PHIL 343	Philosophy of Technology	3
ENV S 404	Global Change	3	RUS 375	Russia Today	3
ENV S 424	Sustainable and Environmental Horticulture Systems	3	SOC 345	Population and Society	3
ENV S 450	Issues in Sustainable Agriculture	3	SOC 348	Global Poverty, Resources and Sustainable Development	3
ENV S 484	Sustainable Communities	3	SOC 382	Environmental Sociology	3
ENV S 491	Environmental Law and Planning	3	SOC 411	Social Change in Developing Countries	3
FS HN 242	The US Food System	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