

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.

Required courses:

| | | |
|-----------|---------------------------------------|---|
| T SC 220 | Global Sustainability | 3 |
| ANTHR 230 | Globalization and the Human Condition | 3 |

Emphasis Electives:

| | | |
|-----------|---|---|
| A B E 380 | Principles of Biological Systems Engineering | 3 |
| A B E 388 | Sustainable Engineering and International Development | 3 |
| AGRON 120 | Introduction to Renewable Resources | 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 245 | Building Science and Technology I | 3 |
| ARCH 341 | Building Science and Technology II | 5 |
| ARCH 342 | Building Science and Technology III | 5 |
| ARCH 343 | Building Science and Technology IV | 5 |
| ARCH 351 | Whole Building Energy Performance Modeling | 3 |
| ARCH 445 | Building Science and Technology V | 3 |

| | | |
|-----------|--|-----|
| ARCH 575 | Contemporary Urban Design Theory | 3 |
| ARCH 597 | Seminar on the Built Environment III: Theory | 3 |
| ARTIS 360 | Sustainable Design and Fabrication of Furniture | 3 |
| ARTIS 362 | Artists, Designer and Sustainable Development | 3 |
| BIOL 204 | Biodiversity | 2 |
| BIOL 355 | Plants and People | 3 |
| BIOL 471 | Introductory Conservation Biology | 3 |
| BIOL 472 | Community Ecology | 3 |
| BIOL 484 | Ecosystem Ecology | 3 |
| C R P 201 | The North American Metropolis | 3 |
| C R P 293 | Environmental Planning | 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 | Environmental and Resource Economics | 3 |
| ECON 385 | Economic Development | 3 |
| ENGL 355 | Literature and the Environment | 3 |
| ENSCI 381 | Environmental Systems I: Introduction to Environmental Systems | 3-4 |
| ENSCI 201 | Introduction to Environmental Issues | 2 |
| ENSCI 382 | Environmental Systems II: Analysis of Environmental Systems | 3 |
| ENV S 270 | Foundations in Natural Resource Policy and History | 3 |
| ENV S 324 | Energy and the Environment | 3 |
| ENV S 334 | Environmental Ethics | 3 |
| GEOL 160 | Water Resources of the World | 3 |
| GEOL 101 | Environmental Geology: Earth in Crisis | 3 |
| GEOL 108 | Introduction to Oceanography | 3 |
| GLOBE 201 | Global Resource Systems | 3 |
| GLOBE 301 | Resource Systems of Industrialized Nations | 3 |
| GLOBE 302 | Resource Systems of Developing Nations | 3 |
| GLOBE 402 | Responses to Global Resource System Challenges | 3 |
| GLOBE 446 | International Issues and Challenges in Sustainable Development | 3 |
| HORT 424 | Sustainable and Environmental Horticulture Systems | 3 |
| L A 270 | Foundations in Natural Resource Policy and History | 3 |
| L A 302 | Ecological Design at the Regional Scale | 6 |
| L A 417 | Urban and Peri-urban Watershed Assessment | 3 |
| M E 433 | Alternative Energy | 3 |
| M E 479 | Sustainability Science for Engineering Design | 3 |
| M E 484 | Technology, Globalization and Culture | 3 |
| M E 486 | Appropriate Technology Design | 3 |
| NREM 120 | Introduction to Renewable Resources | 3 |
| NREM 452 | Ecosystem Management | 3 |
| NREM 471 | Agroforestry Systems; Local and Global Perspectives | 3 |
| RUS 375 | Russia Today | 3 |
| SOC 345 | Population and Society | 3 |

2 *Sustainability Minor*

| | | |
|----------|---|---|
| SOC 382 | Environmental Sociology | 3 |
| SOC 411 | Social Change in Developing Countries | 3 |
| T SC 341 | Technology: International, Social, and Human Issues | 3 |
| T SC 343 | Philosophy of Technology | 3 |