

# Graduate Certificate in Society and Sustainability

Understanding the complex and dynamic interactions between human activities and the natural environment is essential for achieving sustainable development. Developing this understanding in the next generation of scientists, educators and resource management professionals is the primary goal of the University of Missouri's interdisciplinary graduate certificate program in Society and Sustainability.

The Society and Sustainability Program (SSP) is a unique interdisciplinary program that prepares students for careers with private and public organizations through advanced graduate level training and research. The certificate program is designed for students with undergraduate-graduate training in agriculture, biology, business administration, economics, engineering, fisheries and wildlife, forestry, geography, geology, sociology and related disciplines. Students who are in a graduate or professional program in their area of specialization take four integrated courses and complete a thesis or dissertation that applies more than one discipline. The program is designed to enhance the student's familiarity with disciplinary and interdisciplinary concepts and principles from the social and natural sciences and humanities.

The goal of the program is to develop critical thinking and analytical skills related to:

- sustainable natural resource and environmental management and planning,
- dynamic interactions between social, economic and ecological systems,
- · quantitative-qualitative analysis of individual and social behavior,
- cultural interpretations of natural resource and environmental issues, and
- application of knowledge gained in the above areas to the evaluation of public policy.

# Requirements

All students are required to take the following core courses: a) a three-credit interdisciplinary course on sustainability and sustainable development, b) a three-credit research seminar in Society and Sustainability, and c) six credits of approved elective courses.

The interdisciplinary course examines the sociocultural, economic, ethical and biophysical aspects of sustainability with emphasis on the human dimension. It is normally taken during the student's first year. The primary objective of this course is to develop a student's appreciation of: a) major issues in the society-sustainability nexus, b) roles of various disciplines in understanding and resolving socioeconomic-ecological issues, and c) integrative analysis. A course requirement is for students to work in interdisciplinary teams to evaluate human effects on and responses to contemporary societal-environmental issues at the local, regional and global scales.

The research seminar exposes students to interdisciplinary research on the interactions between social, economic and ecological systems. Emphasis is placed on the complexity and multiplicity of sustainability and sustainable development. Speakers for the research seminar include faculty, students, visiting scholars, and private and public officials.

Students are expected to present their thesis or dissertation research at the research seminar. Thesis and dissertation research must be conducted on a topic related to the social, economic, environmental, and policy aspects of sustainability. Students completing the SSP receive a certificate in Society and Sustainability. Recognition of the certificate appears on the student's transcript.

Program requirements: 12 credit hours of coursework, all of which may double count toward a student's primary degree program.

### Interdisciplinary Seminar (3 hours): Choose one of the following

| FOREST 8530               | Ecosystem Management: The Human Dimension                 | 3 |
|---------------------------|---|---|
| AAE 7370                  | Society, Environment and Natural<br>Resources             | 3 |
| or NAT_R 7370             | Society, Environment and Natural Resources                |   |
| or SOCIOL 7370            | Society, Environment and Natural Resources                |   |
| AAE 8436                  | Community, Natural Resources and<br>Sustainability        | 3 |
| AAE 8510                  | Interdisciplinary Quantitative and Mixed Research Methods | 3 |
| or NAT_R 8510             | Interdisciplinary Quantitative and Mixed Research Methods |   |
| Research Seminar (3 hour  | rs): Choose one of the following                          |   |
| AAE 8287                  | Seminar on Sustainable Development                        | 3 |
| or NAT_R 8287             | Seminar on Sustainable Development                        |   |
| or SOCIOL 8287            | Seminar on Sustainable Development                        |   |
| AAE 8448                  | Society and Ecosystems Research<br>Seminar                | 3 |
| or NAT_R 8448             | Society and Ecosystems Research Seminar                   |   |
| Elective Courses (6 hours | :): Choose two of the following                           |   |
| AAE 8410                  | Natural Resource and Environmental Economics              | 3 |
| AAE 8430                  | International Agricultural Development Policy             | 3 |
| AAE 8444                  | Agriculture, Food and Community                           | 3 |
| AAE 8610                  | Economic and Sociological Approaches to Collective Action | 3 |
| ARCHST 7323               | Sustainable Technologies and Systems                      | 3 |
| ARCHST 8887               | Environment and Behavior II                               | 3 |
| BIOL_EN 7050              | Zero Hunger Challenge                                     | 3 |
| or F_S 7050               | Zero Hunger Challenge                                     |   |
| BIOL_EN 7560              | Observing the Earth from Space                            | 3 |
| CV_ENG 7286               | Environmental Sustainability                              | 3 |
| ENV_SC 7400               | Environmental Law, Policy, and Justice                    | 3 |
| F_W 7220                  | Human Dimensions of Fish and Wildlife Conservation        | 3 |
| FOREST 7385               | Agroforestry I: Theory, Practice and Adoption             | 3 |
| GEOG 7770                 | Migration and Immigration                                 | 3 |
| GEOG 7560                 | Resources and Indigenous Peoples                          | 3 |
| ISE 7720                  | Introduction to Life Cycle Analysis                       | 3 |
| JOURN 8044                | Strategic Conflict Management                             | 3 |
| MAE 7355                  | Industrial Energy Analysis                                | 3 |
| NAT_R 7024                | Foundations of Environmental Education                    | 3 |
| NAT_R 7353                | Natural Resource Policy/Administration                    | 3 |
| NAT_R 8500                | Qualitative Analysis for Environment-<br>Society Inquiry  | 3 |
| PRST 7250                 | Parks, Health and Wellness                                | 3 |
|                           |   |   |



|  | PRST 7260                  | Sustainable Tourism                                      | 3 |
|--|----------------------------|--|---|
|  | PRST 8436                  | Visitor Behavior and Policy                              | 3 |
|  | PUB_AF 7340                | Regional and Economic Development Policy                 | 3 |
|  | SOCIOL 7335                | Social Change and Development                            | 3 |
|  | SOCIOL 9350                | Graduate Seminar in Environmental Discourses             | 3 |
|  | T_A_M 8130                 | Supply Chain Management in the Global Softgoods Industry | 3 |
|  | Select Departments 7001/80 | 01 Advanced Topics Courses                               | 3 |

# Admission

Admission to the SSP is open to degree-seeking and non-degree seeking students who have undergraduate-graduate training in natural and/ or social sciences and have interest in interdisciplinary studies. The admissions process varies by whether a student enrolls in a degree program and seeks a certificate to enhance his or her degree program experience or whether the student is a certificate-only student. The University of Missouri Graduate School facilitates the admissions process.

Persons interested in the SSP should contact:

### Hua Qin, Ph.D.

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# **Advisory Committee**

The student's plan of study and research topic are selected in collaboration with an advisory committee established in accordance with the requirements of the student's department/unit and the Graduate School. The advisory committee includes at least one faculty member affiliated with the SSP. Graduate school permission is required in cases where it is highly desirable for the three faculty members comprising a master's student advisory committee to be from different departments/units.