

**Graduate Study in Human Dimensions of Ecosystem Science and Management**  
**Department of Environment and Society**  
**College of Natural Resources**

The Department of Environment and Society (EnvS) at Utah State University has new M.S. and Ph.D. degrees in the *Human Dimensions of Ecosystem Science and Management* (HDESM). The HDESM degrees were created in response to a growing demand in natural resource fields for more interdisciplinary professionals with diverse skills and broader intellectual capabilities. It is being recognized, for example, that social and managerial sciences are increasingly important in helping society better understand and solve environmental problems. The HDESM program will produce students who are problem solvers because they will be able to integrate human and biophysical aspects of ecosystems, and better analyze policies and decisions that encourage both community and ecosystem sustainability.

The HDESM degrees will train students for professional positions with local, state, national, and international resource management agencies, private consulting and environmental analysis firms, and non-governmental environmental organizations. The M.S. degree will prepare students for professional practice in natural resources and environmental management and planning, policy and program analysis, public affairs, environmental education, community assessment and collaboration, conflict management, and extension/outreach positions. The Ph.D. program puts greater emphasis on basic theory and research methods in one or more social science disciplines, depending on the student's interests. The Ph.D. will prepare students for university teaching, research, and extension; conducting agency and private organization research; and for positions in formal policy and program evaluation.

The M.S. degree requires a minimum of 30 credits beyond the baccalaureate and one of two thesis options: the Plan A requires students to complete a research thesis or the Plan B, which is a non-thesis, terminal degree based largely on course work and a professional paper or project. The Ph.D. degree requires a minimum of 60 credit hours beyond the baccalaureate, a comprehensive qualifying exam, and a research dissertation. Compared to M.S., the Ph.D. degree has a greater emphasis on theory, research methods, writing research proposals, and publishing research in peer-reviewed outlets. Coursework for both the M.S. and Ph.D. students includes cores courses, seminars, and electives that allow students to select courses in a specific problem area—like water, wildlife, or recreation—and theory and methods courses in discipline areas outside Natural Resources. For example, students interested in environmental education may take electives in education or communications, students interested in attitudes and conflict management may take electives in sociology, psychology, and communications, and students interested in policy may take electives in political science, economics, or business management.

**Proposed Core Courses:**

**EnvS 6000—Theoretical Foundations in Human Dimensions of Ecosystem Science & Mngt.**

This course provides an overview of interdisciplinary theories and frameworks concerning how human societies affect, and are affected by, ecosystem processes at local, regional, and global scales. While introducing theoretical contributions from various disciplines, this course primarily focuses on systems theory, social and environmental sustainability, and methods for integrating the bio-physical and human dimensions of ecosystems. Implications for ecosystem planning, policy, and management are explored. (Fall; 3 credits)

**EnvS 6700—Research Approaches in Human Dimensions of Ecosystem Science & Mngt.**  
 This course focuses on conceptualizing natural resources and environmental problems involving interactions between human societies and ecosystems, and on assessing alternative research approaches and designs for addressing those problems. Research approaches for integrating spatial and temporal data, as well as integrating bio-physical and social data, are reviewed. The course uses model case studies that emphasize hypothesis generation and testing. (Spring; 3 credits)

**EnvS 6810—Research Techniques in Human Dimensions of Ecosystem Science and Mngt.**  
 This course focuses on an array of analytical techniques and tools that can be employed in research projects involving the human dimensions of ecosystem science and management. Techniques for gathering and analyzing quantitative and qualitative data and for statistical analysis and displaying data spatially (e.g. GIS) are covered. (Fall; 3 credits; optional for M.S.)

**EnvS 6800—Environment and Society Departmental Seminar**  
 This weekly seminar provides an opportunity for sharing current research and scholarly activity of the faculty and graduate students in the College and the Department, and provides a forum for presentations by distinguished guests on campus. Students take this seminar every semester they are registered as graduate students and give one presentation each academic year. (Fall and Spring; 1 credit)

**EnvS 68400—Graduate Introductory Seminar for Environment and Society.**  
 Each faculty member of the Department of Environment and Society meets with the first-year graduate students to discuss their academic areas of specialization. (Fall; 1 credit)

**Proposed General Course of Study:**

<u>M.S. Degree</u>	<u>Credits</u>	<u>Ph.D. Degree</u>	<u>Credits</u>
<i>Required Courses:</i>	10	<i>Required Courses:</i>	17
Theoretical Foundations (3)		Theoretical Foundations (3)	
Research Approaches (3)		Research Approaches (3)	
Seminars (4)		Research Techniques (3)	
		Seminars (8)	
<i>Electives:</i>	15-17	<i>Electives:</i>	24-39
Theory Depth (6-9)		Theory Depth (9-15)	
NR/E Problem Area (6-9)		NR/E Problem Area (9-15)	
Methods/Statistics (3-6)		Methods/Statistics (6-9)	
<i>Thesis/Project Research:</i>	3-6	<i>Dissertation Research:</i>	12-15
Plan A Thesis (6), OR			
Plan B Paper or Project (3)			
<i>TOTAL Credits:</i>	30	<i>TOTAL Credits:</i>	60

For further information on Graduate Study in Human Dimensions of Ecosystem Science and Management contact the Department of Environment and Society, Utah State University, 5215 Old Main Hill, Logan, Utah 84322-5215; Telephone (435) 797-1790.