ENVIRONMENTAL SCIENCE AND POLICY

Dept. Code: ECSD

Through the Graduate School, The Abess Center for Ecosystem Science and Policy offers an interdisciplinary course of study leading to a Ph.D. Details regarding areas of specialization can be found at the Abess Center website at http://www.cesp.miami.edu/. In most cases, doctoral students are supported by research assistantships which include tuition remission and a monthly stipend. All students are also required to serve satisfactorily for one term as teaching assistants in the Abess Center undergraduate program.

Prerequisite

Students admitted to the program must have earned a Bachelor’s or Master’s degree and should display a strong interest in the interdisciplinary study of ecosystem science and policy.

Ph.D. Degree Requirements

Completion of the Ph.D. will take approximately five years. All students are also required to:

- Complete a minimum of 60 credit hours, of which at least 26 must be for coursework taken while in residence at the University of Miami. (Students entering the program with a Master’s degree in a related field may be given credit hour for up to 24 course credit hours.)
- Complete 12 credit hours worth of coursework in the following core courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
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<tr>
<td>ECS 601</td>
<td>Interdisciplinary Environmental Theory</td>
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<td>ECS 603</td>
<td>Interdisciplinary Environmental Methods</td>
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<td>ECS 605</td>
<td>Interdisciplinary Environmental Law &amp; Policy</td>
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<td>ECS 607</td>
<td>Interdisciplinary Environmental Decision</td>
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- Submit, by the end of their second semester, a proposed group of additional courses, totaling at least 18 credit hours, related to their research interest and intended dissertation research area. This group of courses requires approval of both the student’s advisor and the Director of Graduate Studies.
- Accrue at least 13 credit hours worth of dissertation research.
- Pass written and oral comprehensive examinations following the conclusion of the core series of courses, usually at the end of the first year. A majority of the examination committee must be members of the Graduate Faculty of the University. In the event of failing to pass an examination, students are required to retake and pass the examination within one calendar year. By the end of the second year, students must present and defend a research proposal. Following successful completion of the comprehensive examination and research proposal defense, the student may apply to candidacy for the degree. Any student who fails to be admitted to candidacy for the degree within this two-year period can be dismissed from the program.
- Convene a 4-member dissertation committee by the end of the first year.
- Write and defend a dissertation research proposal by the end of the second year. Students may proceed with the dissertation after the dissertation committee has been appointed and the Director of Graduate Studies and the Graduate School have accepted the dissertation proposal. The dissertation must be an investigation of a substantial scholarly topic and bridge both scientific and policy aspects of the topic area.
- Successfully complete an oral defense of the dissertation.

Courses

ECS 601. Interdisciplinary Environmental Theory. 3 Credit Hours. Theoretical approaches in environmental and social science fields, including conservation biology, ecology, geography, economics, sociology, anthropology, philosophy, and interdisciplinary approaches. Themes include human ecology, historical ecology, landscape ecology, environmental law and ethics, perception of risk and uncertainty, vulnerability and adaptation, and environmental valuation. Requisite: Plan of Ecosystem Science and Policy.

Components: DIS.

Grading: GRD.

Typically Offered: Fall.

ECS 603. Interdisciplinary Environmental Methods. 3 Credit Hours. Environmental methods related to core programmatic themes of Urban Ecology, Global Public Health, Climate and Society, Environment and the Media, Integrated Marine and Terrestrial Management, and Regulatory Regimes. The course focuses on the application of Interdisciplinary approaches and methods for addressing complex environmental problems. Students will learn to design and employ interdisciplinary approaches, using qualitative and quantitative methods and analysis, through lectures, reading assignments, discussion sessions, and assignments.

Requisite: Plan of Ecosystem Science and Policy.

Components: SEM.

Grading: GRD.

Typically Offered: Fall.

ECS 605. Interdisciplinary Environmental Law & Policy. 3 Credit Hours. Analysis of science-based environmental decision-making and policy implementation at the federal and state levels in the United States, with comparative international perspectives, and an introduction to international institutions that fashion and carry out environmental policy. Case studies will cover authorization, appropriations and over-sight functions of Congress and state legislatures; the role of the executive, federal and state, in initiating and implementing statutes by regulation and other means; and the role of negotiation, litigation, mediation and consensus-building in resolving disputes and advancing or thwarting environmental policy.

Components: LEC.

Grading: LEC.

Typically Offered: Fall & Spring.
ECS 607. Interdisciplinary Environmental Decision Analysis. 3 Credit Hours.
Approaches to studying and interpreting human behavior related to a range of decision making at the level of individual, group, and firm. Multidisciplinary theories and methods informing work in the decision sciences will be covered from fields of psychology, business, economics, political science, and anthropology.
Requisite: Plan of Ecosystem Science and Policy.
Components: LEC.
Grading: GRD.
Typically Offered: Fall.

ECS 608. Interdisciplinary ECS Seminar .. 2 Credit Hours.
Seminar centering on research and case studies illustrating cutting edge human-environment research, and including both qualitative and quantitative methods. Intensive reading and writing related to relevant topics in the field.
Components: SEM.
Grading: GRD.
Typically Offered: Fall.

ECS 672. Special Topics in ECS. 3.00 Credit Hours.
Content varies by semester and is indicated in parentheses following course number and title in class schedule.
Components: LEC.
Grading: GRD.
Typically Offered: Fall, Spring, & Summer.

ECS 680. Field Studies. 1-4 Credit Hours.
This course will provide participants with the opportunity for intensive field research geared toward an interdisciplinary understanding of environmental issues and conservation concerns.
Components: LEC.
Grading: GRD.
Typically Offered: Spring & Summer.

ECS 725. Problems in Enviromental Science and Policy. 1-6 Credit Hours.
Content and prerequisites announced when offered. Course may be repeated for credit if content varies.
Requisite: Plan of Ecosystem Science and Policy.
Components: LEC.
Grading: GRD.
Typically Offered: Fall, Spring, & Summer.

ECS 790. Directed Readings. 1-3 Credit Hours.
Individually supervised readings on special topics. Offered by arrangement with the instructor. May be retaken for credit.
Components: THI.
Grading: GRD.
Typically Offered: Fall & Spring.

ECS 820. Master's Research. 9.00 Credit Hours.
Components: THI.
Grading: SUS.
Typically Offered: Fall & Spring.

ECS 830. Pre-Candidacy Research. 1-9 Credit Hours.
Research for ECS Ph.D. students who have not attained candidacy.
Components: THI.
Grading: GRD.
Typically Offered: Fall, Spring, & Summer.

ECS 840. Doctoral Dissertation. 1-6 Credit Hours.
Required for all candidates for the Ph.D. The student will enroll for credit as determined by his/her advisor but not for less than a total of 13 credits total. No more than 12 hours of ECS 730 may be taken in a regular semester, nor more than six in a summer session.
Components: THI.
Grading: SUS.
Typically Offered: Fall, Spring, & Summer.

ECS 850. Research In Residence. 1 Credit Hour.
Used to establish research in residence for the Ph.D., after the student has been enrolled for the permissible cumulative total in appropriate doctoral research. May be regarded as full-time residence as determined by the Dean of the Graduate School.
Components: THI.
Grading: SUS.
Typically Offered: Fall, Spring, & Summer.