

M.P.S. IN ENVIRONMENT, CULTURE, & MEDIA

The Abess Center's MPS in Environment, Culture, & Media enables students to tap into synergistic research networks across a range of schools and colleges at the University of Miami, including the College of Arts and Sciences, the Rosenstiel School of Marine and Atmospheric Science, the Miller School of Medicine, the School of Law, School of Education, School of Communication, School of Architecture, and the College of Engineering. This graduate programs draw upon existing interdisciplinary collaborations that have been created by the Abess Center. **For more information:** <http://abess.miami.edu/cesp/academics/ecm/>

The Master of Professional Science in Environment, Culture, and Media (ECM) integrates the study of the environment with emerging screen technologies, digital culture, cultural theory, and ethics. For new scientists, the defining creative and intellectual challenge of the 21st century exists in the use and design of digital content aimed at engaging an increasingly participatory media culture. Comparable in its cultural complexity and historical significance to the invention of the book, interactive digital content has become the dominant means of contemporary communication. In today's leading 21st century career fields, theoretical proficiency with digital and visual culture has become a necessary skill. The proliferation of screen technologies has opened new opportunities and challenges for communicating environmental information. Governmental, non-profit and private sector organizations that deal with a range of scientific issues are scrambling to develop an effective digital presence. Responding to this demand, the ECM program has been designed to address the practical and theoretical aspects of this new environmental culture, preparing students for an expanded and innovative sector of employment opportunities.

This innovative program is the first and only graduate degree of its kind intersecting environmental studies, emerging screen technology, and cultural studies. Surveying public perspectives of the environment across cultures, the ECM program will investigate how societies have perceived natural phenomena in differing ways, and the implications this has had on popular thought and the comprehension of scientific issues. Students in the program will benefit from the Abess Center's affiliated faculty across UM's schools, in disciplines such as biology, geology, marine conservation, computer science, archaeology, ecology, and communication.

Students will examine the ways in which various forms of visual media such as Internet blogging, ethnographic film, television, social media, documentary video, user generated content [YouTube], reality TV and so forth affect the reception of scientific media messages in popular culture, international politics, education, and law. The goal of the program is to advance and innovate societal engagement through understanding visual forms of scientific communication, research strategies, public outreach, and education concerning ecosystem science and issues of sustainability.

Practical aspects will vary based on personal goals, but may include: negotiating problems in representation of cultures and environments through media, digital media curation, understanding the political economy shaping the production and distribution of environmental media worldwide, designing innovative forms of science communication, research into the social practice of screen use across cultures (from western iPhone addiction to viral videos in South Korea), and analyzing the practical consequences of the media's representation of specific scientific issues.

This unique program is aimed at a diverse range of students, offering scientific insights to those with social science or humanities backgrounds, and anthropological perspectives to those with science backgrounds. This graduate program will provide students with a foundation in the science that underlies environmental issues, and the ability to integrate media theory with practical use. Students will evaluate the histories and limitations of both analog and digital visual culture as tools of research and communication. By investigating various media forms, students will explore emerging theoretical debates around digital culture and the role of visual artifacts in shaping societal values and perceptions of the environment. Students will be exposed to ethical issues through an anthropological lens that examines and contextualizes how knowledge and culture are created, transmitted, and maintained through visual culture.

Employment opportunities in this field require an advanced degree, and most require participatory field experience in the form of an internship. Students in the MPS track will be required to complete an internship and submit an internship report. The program is designed to prepare graduates of the MPS for a range of careers, including for example: environmental media consultant (Google), digital content curator (U.S. National Parks), climate and energy campaigner (Greenpeace), and director of green initiatives campaigns (Toyota).

One of the central challenges we face as a society is an array of complex, large scale environmental problems. The ECM program will train students with diverse backgrounds in the use and conceptual design of visual and digital content for engaging an increasingly participatory media culture to address these challenges.

Admission Requirements

- A completed bachelor's degree in an appropriate field from an accredited institution.
- A minimum overall undergraduate grade point average of 3.0 (on a 4.0 scale).
- A score of at least 80 on the TOEFL for international students.
- Three current letters of recommendation.
- A 1000-word statement of academic and professional goals.

Curriculum Requirements

Code	Title	Credit Hours
Core Courses		
ECS 609	Contemporary Representations of the Environment	3
ECS 610	Technology and Human Behavior	3
ECS 611	Nature, the Anthropocene, and Visual Culture	3
ECS 612	Environmental Communication, New Media, and Policy	3
Electives		12
Electives are chosen to align with each student's interest		
Internship		
ECS 615	Environment, Culture, and Media Internship	6
Total Credit Hours		30

Sample Plan of Study

Year One		
Fall		Credit Hours
ECS 609	Contemporary Representations of the Environment	3
ECS 610	Technology and Human Behavior	3
Elective		3
Elective		3
Credit Hours		12
Spring		
ECS 611	Nature, the Anthropocene, and Visual Culture	3
ECS 612	Environmental Communication, New Media, and Policy	3
Elective		3
Elective		3
Credit Hours		12
Year Two		
Fall		
ECS 615	Environment, Culture, and Media Internship	6
Credit Hours		6
Total Credit Hours		30

Mission

The media play a major role in influencing public perception of environmental problems and solutions. Effective understanding of the global and local drivers of consumption and risk perception require crosscultural understanding of the interpretation of print and visual media. Complementing an understanding of the media's influence in environmental issues is a pressing need to create effective communication strategies, and products for education, entertainment, and warning. Successfully communicating probabilistic scientific information is a particularly critical and challenging endeavor. The mission of this program is to prepare a new generation of students for the hybrid role of science-communicator, a position for which the current generation of academics is under-equipped.

Goals

The MPA degree will provide excellent preparation for employment on local, regional, and international levels in areas of interactive media curation, sustainability awareness, science education, government and non-profit work, and corporate marketing strategies.

Student Learning Outcomes

- Thorough understanding of the theories, processes, and interactions of media and environmental studies, policy, and justice.

ECS 601. Interdisciplinary Environmental Research: Introduction to the Why and the How. 3 Credit Hours.

The why and the how of developing and implementing interdisciplinary environmental research; research objectives and design choices informed by philosophies of knowledge and policy relevance. Assignments include development of research questions, a preliminary literature review, a draft dissertation proposal, and oral communication of research. Course is structured around peer critique and discussion of work in progress.

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 and 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 oversight 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: GRD.

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.. 1-3 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 609. Contemporary Representations of the Environment. 3 Credit Hours.

This course will combine media studies, environmental studies, and critical theory to give students a broad introduction to ways in which screen media are used today to represent both the natural world and also environmental issues such as climate change, animal extinction, and natural resource use. From more conventional media such as feature fiction films (e.g. Wall-e, The Day After Tomorrow, Avatar), documentary films (e.g. An Inconvenient Truth, HBO's Gasland), and television news coverage, to more niche formats like Google Earth's global mapping and in-dash monitors that depict miles-per-gallon, screen technology has long been and is increasingly used to mediate our relationship with surrounding ecosystems. Students will look at mainstream television channels (e.g. Discover, National Geographic, and the Weather Channel) alongside the digital campaigns of agencies and institutions directly aimed at conservation efforts, including the ecotourism industry, non-profit environmental groups, and governmental bodies such as the National Parks Service. In addition, this course will investigate the increasing role of interactive media in museums and science centers, as well as the rising power of social media in disseminating news regarding environmental issues.

Components: LEC.

Grading: GRD.

Typically Offered: Fall.

ECS 610. Technology and Human Behavior. 3 Credit Hours.

This course will explore the social aspects of technology use and cultural adaptation through cross-cultural ethnographic research on science and traditional beliefs. From the adoption of chainsaws in Amazonian forestry to the use of smart watches in Japanese cities, technological choice will be examined through psychological theories of behavior, socio-cultural perspectives, and institutional and economic forces. Reflecting the rising social, cultural, scientific, and political importance of emerging digital culture (e.g. virtual reality, smart devices, artificial intelligence), a key focus of the second half of the course will focus on philosophical notions of post-human cyborgism. Students will be introduced to recent research on the cognitive issues of social media use and consumption, including social media addiction and other neurological impacts of chronic screen use. Coursework will connect historical understandings and larger social analysis of digital media use and encourage students to participate in an ongoing exploration of their own technological choices and media practices. Students will also be exposed to multidisciplinary theories and research on risk perception and the psychology and effectiveness of environmental messaging in order to address how various media technologies impact individual and collective thinking and action.

Components: LEC.

Grading: GRD.

Typically Offered: Fall.

ECS 611. Nature, the Anthropocene, and Visual Culture. 3 Credit Hours.

Different cultural and historical contexts have conceived of humanity's relationship to the natural world in vastly different ways, from 'sacred and part of' to 'separate from' and 'steward over.' A culture's techniques of representation, use of imagery, and ways of seeing are a key part of the shaping of its worldview and cognitive framework of shared ideas and beliefs. This course is an opportunity for students to use an anthropologist's eye to actively engage with the human production of knowledge about the natural world through visual culture. Rather than approaching visual anthropology with its usual divide between 'anthropological content' and 'aesthetic composition,' this course will foster both approaches as it examines human perceptions of the environment from prehistoric cave paintings to modern day street art. Key elements of visual anthropology will be introduced, including symbols and symbolism, reflexivity, visual data of everyday life, art analysis, ethics, society-as-text paradigm, urban visual data, and ways of conceiving systems of visual representation. Representations of Other will be analyzed through theories of the exotic, gender, race, post-colonialism, nationalism, and heritage studies.

Components: LEC.

Grading: GRD.

Typically Offered: Spring.

ECS 612. Environmental Communication, New Media, and Policy. 3 Credit Hours.

Facebook and Twitter to the rhetorical film essay documentaries that have waged ideological wars over the past twenty years, screen and new media are an increasingly powerful force in the shaping of policy, political awareness, and popular ideological views of the environment. This course will draw on critical approaches of media theory, rhetoric, and political science to study and interpret the political use of visual media. Just as FDR's WPA used film to propagandize the agricultural importance of public works, and Hollywood has been harnessed for ecological causes from natural conservation to climate change, today screen and digital media (e.g. television commercials, podcasts, social media blasts) are the driving force of PR campaigns for both governmental bodies and private companies that greatly impact environmental understanding and policy. From information to misinformation, viral content streams constantly onto screens across the world, whose apps are also used for activism and citizen science—students will look at what strategies of circulation and rhetoric are used to wage digital campaigns to communicate and shape ecological values and policy.

Components: LEC.

Grading: GRD.

Typically Offered: Spring.

ECS 615. Environment, Culture, and Media Internship. 3-6 Credit Hours.

This course is for hands-on experience and research culminating in a final Master's internship report. Students will enroll in 3-6 credits while completing their internship and researching their final project for the ECM Masters of Professional Science.

Components: THI.

Grading: SUS.

Typically Offered: Fall, Spring, & Summer.

ECS 672. Special Topics in ECS. 0-3 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 Environmental 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 814. Environment, Culture, and Media Thesis. 3-6 Credit Hours.

This course is for research culminating in a Master's thesis. Students will enroll in 3-6 credits while researching and writing their final project for the ECM Masters of Arts.

Components: THI.

Grading: SUS.

Typically Offered: Fall, Spring, & Summer.

ECS 820. Master's Research. 0-9 Credit Hours.

Individual study for students exiting the doctoral program without a successful dissertation proposal.

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. 1-12 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.