



The John Knoblock
Faculty Senate Office
Ashe Administration Building, #325
1252 Memorial Drive
Coral Gables, FL 33146

facsen@miami.edu
web site: www.miami.edu/fs
P: 305-284-3721
F: 305-284-5515

MEMORANDUM

To: Julio Frenk
University President

From: Tomás A. Salerno
Chair, Faculty Senate

Date: April 21, 2017

Subject: Faculty Senate Legislation #2016-50(B) – Establish a *Masters of Arts* (MA) and *Masters of Professional Science* (MPS) in Environment, Culture, and Media (ECM); Leonard and Jane Abess Center for Ecosystem Science and Policy

The Faculty Senate, at its April 19, 2017 meeting, voted unanimously to approve the proposal to establish two new Masters in Environment, Culture and Media (ECM) for the Master of Arts (MA) and Master of Professional Sciences (MPS) in the Leonard and Jayne Abess Center for Ecosystem Science and Policy. The programs will provide students with a foundation in the science that underlies in environmental issues and the ability to integrate media theory with practical use.

The programs will be comprised of currently existing courses in the Abess Center's Environmental Science and Policy PhD program, four new specialized courses in Media and the Environment, and elective courses from various departments and schools at the University.

This legislation is now forwarded to you for your action.

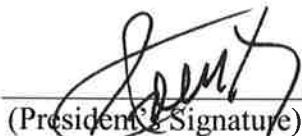
TAS/rh

Enclosure

cc: Thomas LeBlanc, Executive Vice President and Provost
Guillermo Prado, Dean, Graduate School
Kenneth Broad, Director, Leonard and Jayne Abess Center for Ecosystem Science and Policy
Meryl Shriver-Rice, Director, Environmental Media, Leonard and Jayne Abess Center for Ecosystem Science and Policy

CAPSULE: Faculty Senate Legislation #2016-50(B) – Establish a *Masters of Arts* (MA) and *Masters of Professional Science* (MPS) in Environment, Culture, and Media (ECM); Leonard and Jane Abess Center for Ecosystem Science and Policy

PRESIDENT'S RESPONSE

APPROVED:  DATE: 5/8/17
(President's Signature)

OFFICE OR INDIVIDUAL TO IMPLEMENT: Dean Guillermo J. Prado

EFFECTIVE DATE OF LEGISLATION: IMMEDIATELY
(if other than June 1 next following)

NOT APPROVED AND REFERRED TO: _____

REMARKS (IF NOT APPROVED): _____

**Abstract of Proposal for a Masters of Arts and Masters of Professional
Science in Environment, Culture, & Media
Leonard and Jayne Abess Center for Ecosystem Science & Policy**

We propose a program for the Masters of Arts and Masters of Professional Science degrees in Environment, Culture, & Media (ECM). The curriculum emphasizes new fields of environmental studies, focusing on emerging intersections between the environment, digital culture, visual anthropology, and social justice ethics. 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. The ECM Master's degree program will be aimed at a diverse range of students, offering scientific insights to those with social science or humanities backgrounds, and anthropological perspectives to those with scientific backgrounds. 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. This innovative program will be the first graduate degree of its kind intersecting environmental studies, emerging screen technology, and cultural studies.

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, whereas students in the MA track will have a research thesis requirement. Both degree tracks are suitable for practicing professionals with Bachelor's degrees who want to upgrade applicable skill sets and advance within their field. The program is designed to prepare graduates of both the MPS and MA 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). Graduates of the MA program will be prepared to go on to doctoral studies and other research related employment.

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 design of digital content for engaging an increasingly participatory media culture to address these challenges.

Submitted by: Dr. Meryl Shriver-Rice
Director of Environmental Media
shriverrice@miami.edu
(305) 394-1246

UNIVERSITY
OF MIAMI



Thomas J. LeBlanc, Ph.D.
Executive Vice President & Provost


P.O. Box 248033
Coral Gables, Florida 33124-4628

Ph: 305-284-3356
Fax: 305-284-6758

MEMORANDUM

April 6, 2017

To: Dr. Tomas Salerno
Chair, Faculty Senate

From: Thomas J. LeBlanc, PhD 
Executive Vice President and Provost

Subject: Approval of the Graduate School's two proposed master's programs and the transfer of credit policy

{ The ADPC unanimously approved the proposal for the two new master's programs- Master of Arts and Master of Professional Science in Environment, Culture, and Media as well as the change in policy regarding the transfer of online credits from other institutions as follows:

Upon recommendation of the major program and the approval of the Graduate School, a maximum of 6 credit hours of graduate credit hour, with grades of B or above, may be transferred from another accredited graduate institution, in partial satisfaction of a master's degree requiring less than 36 credit hours. 9 credit hours of graduate credit hour may be approved for transfer to a degree program requiring 36 credit hours or more. Work taken more than six years prior to transfer will not be accepted. All work transferred is subject to examination by the program. The satisfaction of the requirements of another university does not relieve the student from the University of Miami's requirements. An official transcript of work to be transferred must be on file in the Graduate Office. Credit hours that pertain to or have been counted toward another degree cannot be transferred. Students enrolled in the Master of Business Administration program are not eligible for credit hour transfers.

TJL/bf

Enclosure

cc: Faculty Senate Office

UNIVERSITY OF MIAMI

CENTER for
COMMUNICATION,
CULTURE & CHANGE



University of Miami
Center for Communication,
Culture and Change
5100 Brunson Drive
Coral Gables, FL 33124

Ph: 305-284-2265
semorgan@miami.edu
com.miami.edu

December 16th, 2016

To Whom it May Concern:

I write to express my support for the Abess Center's creation of a Master's program in Media, Culture, and the Environment. This new program is consistent with the President Frenk's recent call to arms for both interdisciplinary research and a focus on issues of climate change, and will provide an excellent touchstone of collaboration with the School of Communication's Center for Communication, Culture, and Change. The MCE program will be a welcome addition to the current constellation of centers and programs dedicated to scholarship and practice in emerging areas of media and communication, and how they impact both large societal issues and also our everyday lives.

Furthermore, the School of Communication is considering the development of a graduate certificate in Science Communication for MA and PhD students; the proposed MCE courses in science communication and environmental media would be very likely to be included among the eligible electives for this certificate. As other departments and schools grow towards these two merging academic focal points (media and the environment), the MCE program will be an invaluable site of support and collaboration.

I wholeheartedly support the Abess Center's new MCE program, and look forward to working with them to empower our students, faculty, and university in the twenty-first century understanding and use of media technology and scientific communication towards social and environmental progress.

Sincerely,

Susan E. Morgan, Ph.D.
Associate Dean for Research, School of Communication
Director, Center for Communication, Culture, and Change
Professor, Department of Communication Studies
University of Miami
Communication International Building, Room 5051D
Coral Gables, FL 33124
office: (305) 284-3752
semorgan@miami.edu
www.susanemorgan.com

UNIVERSITY
OF MIAMI



Department of Anthropology Ph: 305-284-2535
P.O. Box 248106 305-284-2380
Coral Gables, Florida 33124-2005 Fax: 305-284-2110
January 5, 2017

To Whom It May Concern:

I am writing to extend support from the Department of Anthropology for the Abess Center's new Master's program in Media, Culture, and the Environment (MCE). We look forward to a fruitful exchange of graduate students from the Anthropology department's new Master's program interested in taking MCE media courses as electives, with MCE students interested in furthering their anthropological knowledge by taking our department's graduate courses. The MCE program will fill an important gap at the university by examining both the role that media plays on the transfer of environmental knowledge, and how this transfer interacts with notions of cultural capital and identity.

At a time when news is widely disseminated through digital channels, it is critical that academia provide the skills necessary to enter a media-saturated professional atmosphere in which communication formats are rapidly changing. The MCE program will prepare the Abess Center's graduate students for career paths at the forefront of the discussion on climate change adaptation, sustainability, and environmental justice.

Sincerely,

Traci Ardren
Professor and Chair

UNIVERSITY OF MIAMI
ABESS CENTER
for ECOSYSTEM
SCIENCE & POLICY



January 1, 2017

To Whom It May Concern:

Over the past two decades, screen technology and media have become increasingly integral to everyday life. Screens affect our daily ability to learn about things beyond us, they allow our self-expression to others, they aid our documentation and analysis of the natural world, and they steer our policy and rhetoric. The Abess Center has been dedicated to improving our student's ability to understand how screen technologies mediate the natural world and believes this investigation is central to any twenty-first century academic approach to dealing with the human dimensions of our grand environmental challenges.

The Master's program in Media, Culture, and the Environment (MCE) will be the first of its kind in the United States, and will be filling a much needed academic space at the University of Miami. The creation of this program is openly supported by both the School of Communication and the Department of Anthropology, and will offer courses that will double as electives for graduate students in both fields. This program will provide a needed Master's degree offering to complement our successful undergraduate and PhD programs, and it will help make us competitive with elite universities according to today's academic and professional turn towards both media and the environment as touch-points for a wide range of sciences, social sciences, arts, and humanities.

For all of these reasons, the MCE program promises to be both influential in shaping the future of environmental studies and quite successful in its appeal to media-savvy contemporary graduate students. Beyond positioning the Abess Center in the vanguard of interdisciplinary environmental science and scholarship, and in addition to offering a unique training ground that connects the two dominant paradigms of the twenty-first century for the next generation of environmental scientists, activists, and educators, this program is important for what it stands for: breaking down disciplinary and professional boundaries in pursuit of harnessing today's human technology in order to protect our natural world.

Sincerely,

Kenneth Broad

Director, Leonard and Jayne Abess Center for Ecosystem Science and Policy, University of Miami

Professor, Marine Ecosystems and Society, University of Miami

Co-Director, Center for Research on Environmental Decisions, Columbia University

UNIVERSITY OF MIAMI
ABESS CENTER
for ECOSYSTEM
SCIENCE & POLICY



P.O. Box 248203
Coral Gables, Florida 33124

Phone: 305.284.8259
www.abess.miami.edu

MEMORANDUM

To: Tomás Salerno, Chair
General Welfare Committee

From: Kenneth Broad, Director *KB*
Abess Center for Ecosystem Science and Policy

Date: February 28, 2017

Re: Abess Center support for proposed Master's program

The proposal for the Master's degree in Environment, Culture, & Media has my full support and the full support of all faculty and staff members at the Abess Center.

**UNIVERSITY
OF MIAMI**



MEMORANDUM

DATE: February 27, 2017

TO: Dr. Meryl Shriver-Rice, Director, Environmental Media
The Leonard and Jayne Abess Center for Ecosystem Science & Policy

FROM: Dr. Patricia Murphy, Executive Director *PBM*
Office of Assessment and Accreditation

SUBJECT: New Concentration in Environment, Culture and Media (ECM) for the Master of Arts (MA) and Master of Professional Sciences (MPS)

On February 25, 2017, the Leonard and Jayne Abess Center for Ecosystem Science and Policy submitted a proposal notifying our office of its intent to offer the Master of Arts (MA) and Master of Professional Sciences (MPS) programs in Environment, Culture and Media (ECM) effective fall 2017.

The new ECM master's degree programs will be 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. The programs will provide students with a foundation in the science that underlies environmental issues and the ability to integrate media theory with practical use. Students in the programs will benefit from the Abess Center's affiliated faculty across departments and schools at the University, in disciplines such as geology, marine conservation, biology, archaeology, and ecology.

The ECS programs will be comprised of presently existing courses in the Abess Center's Environmental Science and Policy PhD program, four new specialized courses in Media and the Environment, and elective courses from numerous departments and schools at the University. Students in the MA program will be required to take six credits of advanced thesis research and writing (ECS 810) and write a research thesis. The Master of Professional Science students will be required to undertake a professional internship and complete an internship report.

Based on the details of the proposal, implementation of these new programs is not considered substantive. Although a letter of notification will be submitted to the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC), formal approval will not be required in order to proceed with implementation.

Please feel free to contact our office should you have any questions or need additional guidance (305) 284-9431.

cc: Faculty Senate
Dr. Guillermo Prado, Dean, Graduate School
Dr. Kenneth Broad, Director, Leonard and Jayne Abess Center for Ecosystem Science and Policy

UNIVERSITY OF MIAMI
GRADUATE SCHOOL



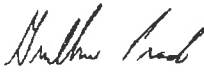
Graduate School
P.O. Box 248125
Coral Gables, FL 33124-3220

Phone: 305-284-4154
Fax: 305-284-5441
graduateschool@miami.edu

MEMORANDUM

DATE: February 27, 2017

TO: Tomas Salerno
Chair, Faculty Senate

FROM: Guillermo ("Willy") Prado 
Dean, The Graduate School

SUBJECT: MA and MPS in Environment, Culture and Media

The Abess Center submitted a proposal for a Master of Arts (MA) and Master of Professional Science (MPS) degrees in Environment, Culture and Media. The proposal was discussed at the meeting of the Graduate Council on Tuesday, February 21, 2017, and was approved by those present.

cc: Kenny Broad, Director, Leonard and Jayne Abess Center for Ecosystem Science and Policy
Meryl Shriver-Rice, Director, Environmental Media, Leonard and Jayne Abess Center for Ecosystem Science and Policy
Office of Planning, Institutional Research and Assessment

Leonard and Jayne Abess Center for Ecosystem Science & Policy
Proposal to Offer the Degrees:
Master of Arts and Master of Professional Science in
Environment, Culture, and Media

1. **Rationale:** Give a summary of the intellectual and academic need for each proposed degree/certificate program.

a. Give the exact title of the degree/certificate

The Master of Arts (MA) and Master of Professional Science (MPS) in Environment, Culture, and Media.

b. Discuss the purpose and goals of the degree/certificate

This graduate program is the realization of a component of the original 2007 Abess Center graduate doctoral program proposal entitled "Environment & the Media." This Master's program complements the Abess doctoral program and expands its interdisciplinary aims and curricular offers. The 2007 proposal specifies:

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 cross-cultural 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. This concentration will 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.

The current proposal outlines the infrastructure to realize this original 2007 vision, and the dynamic potential of this graduate program will define the future growth of the Abess Center by merging media and environmental studies and developing new links to other departments and colleges across the university. The Master of Professional Science and Master of Arts degree 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. 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 will examine the ways in which various forms of visual media such as ethnographic film, Internet blogging, 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.

c. Describe the level of demand for the program, and what the local, regional, national and international job market outlook is for students who have obtained the proposed degree. Include existing programs at other universities, if there are any, that are similar to the one being proposed and briefly clarify how the proposed program is different. You will be asked to provide greater detail regarding other institution's programs in item #8 of these guidelines.

This program is proposed in response to: (1) Increasing societal demand for academicians and practitioners at the graduate level with interdisciplinary training aimed at addressing complex problems concerning the impact of media on the perception of the environment and all that the concept of the 'Environment' entails: climate change, sustainability, sea-level rise, environmental justice, pollution, water use, petro-culture, emerging renewable energy technologies, environmental policy, endangerment and species extinction. (2) The current inability within the University of Miami to provide Masters level training in this newly emerging academic field. (3) The opportunity to take advantage of existing expertise at UM, as well as the unique advantages of South Florida's position relative to issues of: risk perceptions of sea-level rise, agricultural practices, invasive species, freshwater use and perception, fishing industries, National Park management and policy (Everglades National Park, Biscayne National Seashore, Dry Tortugas National Park, Big Cypress National Preserve), land-use rights with indigenous communities such as the Miccosukee and Seminoles, and tourism and resort/cruise liner culture in Miami and surrounding environmentally-sensitive areas in the Caribbean. (4) An increasing number of inquiries from undergraduate students from top-tier universities about an Abess Center graduate program that engages with 21-st century media. (5) New understandings of the role that cultural modes of expression play in environmental awareness and behavior. In a now-celebrated communications guide *The Psychology of Climate Change Communication* (Debika Shome, Sabine Marx, 2009), Columbia

University's Center for Research on Environmental Decisions (CRED) concluded that appealing to emotion and personal connection is essential for comprehensive reception when communicating environmental issues. The case for -- and the fate of -- environmental education and change hinges on more than mere access to scientific data. CRED research shows that, "in order for climate science information to be fully absorbed by audiences, it must be actively communicated with appropriate language, metaphor, and analogy; combined with narrative storytelling; made vivid through visual imagery and experiential scenarios; balanced with scientific information; and delivered by trusted messengers . . ." (Shome & Marx, 2009: 2). As most forms of environmental communication are now screen-based, it is imperative to equip future professionals with the skills to analyze the ways in which screen media tell environmental narratives. These skills include methods that address problems of media rhetoric, cultural ethics, philosophy of science, and critical theories of visual aesthetics and representation.

As of yet there are no existing Master's programs in the United States that intersect Environment, Culture, and Media. The most similar English-speaking programs include Georgetown's Master of Arts in Communication, Culture, and Technology (CCT), New York University's Master of Arts in Communication, Culture, and Media (CCM), University of Pennsylvania's interdisciplinary Master of Environmental Studies, Imperial College in London's Master of Science degree in Science Communication, and University College of London's Master of Science in Digital Anthropology. The directors of all five graduate programs were visited by the Abess Center's Director of Environmental Media/director of this proposed MA/MPS, Dr. Meryl Shriver-Rice. The directors of these five programs reported extraordinarily high employment among their graduating cohorts in diverse areas such as the non-profit sector, corporate marketing, medical industries, media studios, digital journalism, and public arts and education (e.g. museums, science centers). These administrators and faculty were also united by their unanimous acknowledgement of the extreme popularity of interdisciplinary media studies at the graduate level, which for each institution led to rapid programmatic growth. They also unanimously highlighted the critical need for an interdisciplinary program that specifically combines media studies and the environment. Three of the five directors reported having received applications for incoming students with environmental media interests that they did not accept due to their inability to offer faculty and programmatic support for this disciplinary intersection. All five program's curricula focus on theoretical media analysis integrating such disciplines as philosophy, anthropology, social theory, psychology, and film and media studies (see item 8 for further details). These programs acknowledge and support their student's abilities to produce digital media content (podcasts, mobile applications, short form documentaries); however they do not require courses in production. In this same vein, it is the aim of this MA/MPS program to develop students' critical understanding of *what media is doing and how it is used*, rather than focusing on methods of production. Students in this program will learn about the foundations of production, but will not be required to take any specific production courses.

This MA/MPS 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. The local significance of environmental issues such as sea-level rise and water use in south Florida provides an immediate local job market at the city, county, and state level. As environmental concerns increasingly shape the corporate initiatives and public image of major industries and companies across the world, and as environmental policies become more central to non-profit organizations (e.g. Rand Corporation) and governmental institutions (e.g. National Parks Foundation, EPA), there is increasing demand in both the

private and public sectors for graduates with skill sets that connect screen media with environmental studies. In the last fifteen years, most major private global corporations have developed new employment positions to launch research and marketing campaigns to re-brand themselves as sustainable and "green" (e.g. Toyota, Bank of America, McDonald's, Sony Pictures, Apple). While on the public education front, communication of environmental concerns has become prioritized by: museums (e.g. Smithsonian Museum of Natural History, Field Museum), digital content centers (e.g. Science Media Centre UK, Science Media Center US is launching in 2017), global multi-platform social media outlets (Huffington Post, Mashable, BuzzFeed, The Guardian), conservation non-profits (e.g. Jane Goodall Institute, Nature Conservancy, Oceana, National Resources Defense Council, World Wildlife Federation), and independent think-tanks (e.g. Resources for the Future, World Resources Institute).

The Director of Environmental Media will develop an ECM Advisory Board consisting of institutions and organizations that desire and facilitate internships and employment opportunities for students with the skill set developed by the ECM program. The Advisory Board will be surveyed every Spring for input regarding in-demand skill sets in this rapidly evolving field in order to adjust curriculum and learning outcomes accordingly for the following year. Also, the ECM MA/MPS will annually offer a weekend 'Tech Tour', alternating between New York and Washington D.C., to visit and network with representatives and staff (including members of the Advisory Board) of museums, digital tech companies, environmental non-profits, and independent think-tanks.

Students who complete the Master of Professional Science degree will be employment ready, having had media internship experience, while the Master of Arts degree is intended for graduate students wishing to develop their research skills either for immediate employment or for continuing on to a PhD program. Evidence of the emergence of this new academic track includes relevant post-doctoral positions being mainstreamed at top universities (e.g. 2017 Postdoctoral position in Environmental Humanities at Northwestern University).

d. Discuss the relationship of the proposed program to other cognate fields. Are there potential interactions with other programs/departments?

UM's interdisciplinary strengths are distributed in disparate schools and departments, which are brought together through ongoing research initiatives that will be fostered even further by President Frenck's new Road Map, entitled "Problem-based Interdisciplinary Inquiry." From its inception, the Abess Center has drawn together faculty from across the University including: the College of Arts & Sciences, the Rosenstiel School, the Miller School of Medicine, the School of Law, School of Communication, School of Architecture, and the College of Engineering. The Master's in Environment, Culture, and Media will fill a gap in the University's ability to accommodate scholarly and practical connections between visual culture and environmental studies. Aside from three faculty members appointed as organizers for the Interdisciplinary Research Group 'Animal Studies & Environmental Humanities' at the Center for Humanities (which is self-described as primarily "concerned with the treatment of animals in farming, experimentation, and moral claims"), there is no current home for Master's level graduate students interested in Environmental Humanities.

Highly ranked universities across the United States have demonstrated a pressing demand at the graduate level for both critical screen studies and environmental humanities, with the intersection between them a burgeoning field (see the new Scholarly Interest Group 'Media and the Environment' at the most

prominent international scholarly media organization: The Society for Cinema and Media Studies: http://www.cmstudies.org/default.asp?page=groups_environment). This MA/MPS program will provide a physical home and core curriculum for these students. In addition, faculty from this program will offer media support and analytic methods to assist Abess PhD students interested in expanding their dissertation projects to include media outreach (e.g. National Geographic Young Explorer Media Grants), that includes interpreting and analyzing digital platforms of science communications in their field.

This graduate program will benefit greatly from the Abess Center's affiliated faculty across departments and schools, in disciplines such as geology, marine conservation, biology, archaeology, ecology. In the process of conceptualizing creative modes of science communication (e.g. infographics, short video content, social media campaigns) students will gain familiarity with interviewing scientists and condensing complex research findings from well-funded interdisciplinary research projects (see www.cesp.miami.edu) into comprehensible forms of media aimed at influencing forward-thinking policy and cultural change. In this unique program, students can tailor their graduate work to best fit their personal interests in any of the Abess Center's partnerships, and thus will not rely on any one department or series of external courses for its curriculum. In addition, the core courses for this MA/MPS ECM program will also serve as electives for the School of Communication's plans to develop a Certificate in Science Communication (see letter from Dr. Susan Morgan, Director of the Center for Communication, Culture, and Change) and the Department of Anthropology's new Master of Arts program in the Professional Practice of Anthropology program that commences in Spring of 2017 (see letter of support from Dr. Traci Ardren).

e. Discuss the relationship of the proposed program to undergraduate and professional programs.

A first-rate university must address the intellectual challenges of the coming decades. Environmental issues will continue to gain prominence on the international research agenda, and the University of Miami is poised to be a leader in training the next generation of twenty-first century environmentalists. The proposed graduate program will educate these top students in cross-disciplinary subjects that require specialized training. Graduate students in the Abess Center program will in many cases have linkages to one or more departments and centers at UM. This is a distinct advantage because they will benefit from interactions with diverse faculty and student colleagues. They will participate in seminar series and special events hosted by these departments and centers. The ECM program's focus on issues of environmental ethics and justice will strengthen our students' commitment and ability to work dynamically with current PhD and faculty projects at the intersection of ecology, conservation, and national politics.

For example, specific linkages will be made with the following well-established centers at UM:

Institute for Cuban and Cuban-American Studies

Given recent changes in the political climate between Cuba and the United States (and the recent death of Fidel Castro), it is critical to study and monitor the environmental impact of the economic growth of post-Castro Cuba. Cuba has a unique and sensitive environmental situation, and due to its historical separation from capitalist exploitation it has avoided the environmental destruction that accompanies modernization. This ecosystem is in many ways just now becoming available to researchers, including one of the Abess PhD students, who is studying the relationship between tourism growth and coral reef

loss. The coming transformation of the U.S.-Cuba relationship will be particularly felt in Miami, which has deep historical ties to Cuba and a large and vocal Cuban population. This is a time sensitive moment in studying the ecological shifts that will occur with advanced urbanization, and Abess Center graduate students, both PhD and ECM Master's, will build upon the current relationship with the ICCS to promote lectures and seminars on such issues, tying our media focus to their screening space and interest in film events as a means for community outreach and political awareness.

Center for Communication, Culture, and Change

The Center for Communication, Culture, and Change is interested in addressing "pressing social, environmental, and health issues" and developing "interventions that go well beyond traditional communication campaigns." From its very inception, the Center has engaged in international issues related to the environment, such as 'Climate Change Resiliency Gaming' and 'Perceptions of Drinking Water Quality in Cuba.' In the past the Abess Center's advisory committee members have worked on collaborative research projects with the Knight Center for International Media. A MA/MPS graduate program in Environment, Culture, and Media would considerably enhance collaborations between the Abess Center and the Center for CCC, providing interactions with graduate students with environmental studies perspectives interested in innovative media strategies/use.

The Sue and Leonard Miller Center for Contemporary Judaic Studies

This Center is engaged in outreach activities to explore issues and trends that have affected Jewish people over the last 100 years. The Center has programs in the Middle East that include several projects dealing with water, health, and the environment. The director of the Center continues to keep linkages with the Abess Center to further develop science to policy activities for the Jordan Valley.

From the start of their graduate programs, our Master's students will have the opportunity to become involved with these and other centers at the University. The impact will be three-fold. These centers will provide our students with unique opportunities and resources that will strengthen their overall experience at UM. Secondly, the involvement of our students in such programs will engage interested faculty in our Abess Center core activities and have an overall net effect of broadening and strengthening our program. Thirdly, the involvement of the centers will help our program identify and leverage further external support for the Abess Center training programs. In addition to its impact on graduate students and programs, the Abess Center has over 100 undergraduate students, who will benefit greatly from this new diversification of research directions, visiting speakers, and events. The planned annual lecture series will be open to undergraduates, and the range of popular media topics will attract new undergraduates to the Center. The MPS and MA students will benefit from this undergraduate student body by the opportunity to act as graduate assistants, forging a larger student community for the Center.

2. Resources: List and evaluate all of the resources currently available to the program and describe what will be needed in addition to implement the proposed program.

a. Library: A survey that assesses all pertinent library print and electronic resources, collections, documents, major sets, data, and tools in all formats, should be part of the proposal.

A UM library collection survey was conducted with librarians Lisa Baker, Terri Robar, Vanessa Rodriguez, Abraham Parrish, William Jacobs, Lauren Fralinger, Angela Clark-Hughes, and Lisa Fish. The overview is included below:

The University of Miami Libraries offer access to an array of journals, monographs, databases and expert services that will address the needs of the ECM program. Upon review of a reading list compiled by the program designers, 76% of the recommended books were found in the Libraries' collections, and 100% of the recommended journals. In addition to these resources, the Library owns/subscribes to a variety of other monographs and journals that would support this proposed program. Similarly, the UML have a substantial collection of DVDs on topics related to the environment. Once the program is underway and additional resources are identified, the Libraries will endeavor to add these materials to our collection as well.

The Libraries subscribe to a rich assortment of article and report databases to aid in the discovery of research materials. Especially relevant for the proposed degree are AnthroSource, Communication and Mass Media Complete, Compendex, Environmental Sciences and Communication Management, Environmental Studies and Policy, GreenFILE, ProQuest Congressional, ProQuest Research Library, Social Science Citation Index, Science Citation Index, and Statista.

In addition to providing access to print and electronic resources for the University community, UML has expert librarians who can work with students and faculty in the ECM program. These librarians are available for one-on-one consultations or for classes and workshops in their areas of specialization:

- Vanessa Rodriguez, E-Learning and Emerging Technologies Librarian, Head of the Digital Media Lab, vrodrigu@miami.edu
- Lauren Fralinger, Anthropology Librarian, l.fralinger@miami.edu
- Abraham Parrish, GIS Librarian, Head of the GIS Lab, aparrish@miami.edu
- Terri Robar, Communication Librarian, trobar@miami.edu
- William Jacobs, Science and Engineering Librarian, billjac@miami.edu
- Lisa Baker, Political Science and International Studies Librarian, Head of Richter Library Learning and Research Services, lbaker@miami.edu
- Angela Clark-Hughes, RSMAS Librarian, aclark@rsmas.miami.edu

Otto G. Richter Library is located in close proximity to the Abess Center and, along with the Marine Library on the Rosenstiel campus, houses the majority of print materials to support the ECM program. 2016 is the inaugural year of the UML Learning Commons at Otto G. Richter Library library.miami.edu/learningcommons/, a collaborative initiative that helps students in all disciplines pursue their intellectual goals in conversation with peers and experts and with access to scholarly and creative resources. These resources include: research support, the GIS Lab, the Writing Center, the Camner Academic Resource Center, the Digital Media Lab, and the Student Technology Help Desk.

b. Laboratory Facilities, Equipment, and Space: Describe existing laboratory facilities and equipment.

Abess Center Lecture Hall (230 C/D)

The Abess Center possesses a sizable lecture hall (230 C/D) capable of large-scale screenings for the Environmental Media Series, and for hosting visiting lecturers and workshops.

Abess Center Computer Lab (210P)

The computer suite at the Abess Center is up-to-date with a projector, and computers for every student in the room for lectures that require interactive internet searches and in-class digital curation.

Exploration Science Lab/Equipment

Students interested in marine-related topics can take electives with the Exploration Science MPS that is joint RSMAS and Abess graduate program. The Exploration Science Lab is equipped with various electronic equipment and tools for developing small, remotely operated vehicles (ROVs), operating aerial kite and balloon mapping and some small drones used as instructional devices, but not operational. The lab provides a workspace for using these tools and technologies and is where additional types of hardware will be housed and built in the future as appropriate. The lab space is physically located at the RSMAS campus, however the Director of Exploration Science, Dr Keene Haywood, is full-time faculty at the Abess Center.

Anthropology Lab

The Department of Anthropology maintains a wet and dry research laboratory with comparative reference collections for the study of paleoenvironmental change and adaptation. Human and artifactual materials from Little Salt Spring, a Paleolithic occupational site in south Florida owned by the University of Miami, are curated and available for research purposes along with work and storage space for graduate students.

UX Lab

The UX Lab is located in the School of Communication is a research facility that supports interdisciplinary research on understanding how people use information systems. Its main function is to inform web, mobile, gaming, and software interface design based on human attitudes, emotions, and performance data. A variety of research methods are used to collect and analyze findings, including focus groups, ethnography, participatory design, heuristic and expert reviews, usability testing, eye tracking, and other physiological measures. The UX Lab possesses a Tobii X60 eye tracker, Tobii Studio software, Morae event logging, professional audio/video control and recording equipment, mobile observation equipment (camera and platform), observation room with one-way mirror and multiple monitors to display participants' screen, live eye gaze views, and other video feeds to facilitate observation.

Underwater Archaeology Lab and Equipment

Students interested in underwater archaeology related topics can take electives with the Underwater Archaeology MPS track in conjunction with other courses through RSMAS and Abess. While encouraged to have and use their own diving equipment, students may use gear checked out from the Diving Office. The underwater archaeology lab is equipped with the tools and technology to carry out marine geophysical survey in order to locate submerged cultural resources and to document them through photo and video documentation techniques. The lab also has the software and hardware for post-processing data acquired in the field. In the future, the lab will also have the capacity to conserve and

treat water-logged artifacts. The lab space is physically located at the RSMAS campus.

c. *Other Resources:* List any other resources, such office equipment and student support services, that are necessary to the proposal. Estimate the cost of the addition of such resources.

General support and resources (classroom space, computers, administrative support, etc.) are already provided by the Abess Center. Additional start-up resources are listed below in the line-by-line budget.

3. Curriculum:

a. List the major division or divisions of the discipline in which the proposed graduate work will be offered.

The Abess Center and the proposed graduate program in Environment, Culture, and Media are implicitly integrative and interdisciplinary. The proposed coursework will provide a comprehensive introduction to theoretical approaches to the study of environmental media.

b. Evaluate the adequacy of your present undergraduate and graduate curricular structure for the proposed program.

The current undergraduate and doctoral curriculum provides a base set of themes and readings, and teaching and research assistant opportunities for graduate students. Additional graduate classes for advanced undergraduates and the opportunity to observe and interact with high quality graduate students will benefit the existing undergraduate program. Furthermore, PhD students will benefit from the availability of graduate level courses that examine the relationship between media and public perceptions of the environment.

c. List any anticipated additions, deletions, and changes in your current curricular structure resulting from the new program. For each item, list the faculty involved.

At present, the Abess Center offers graduate courses for the Center's Environmental Science & Policy PhD students. To support the Master's program, a comprehensive curriculum in Media and the Environment will be developed. It will consist of four core courses, specialized electives to be taught by Abess Center faculty, and electives drawn from numerous departments and schools.

d. List any current, anticipated, or agreed upon cooperative or interdisciplinary work with other components of the University or with any extramural agency as pertinent to the proposed program.

The proposed program will not require any formal cooperative agreements with other components within the University.

e. Provide a detailed description of the proposed program including:
Degree Requirements for the Masters

Prerequisite

Students will be required to have a bachelor's degree in an appropriate field.

Courses

Students must complete 12 credits worth of coursework in the following core courses:

ECS 501 -- Contemporary Media Representations of the Environment

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.

ECS 502 -- Technology and Human Behavior

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.

ECS 503 -- Nature, the Anthropocene, and Visual Anthropology

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.

ECS 504 -- Environmental Communication, New Media & Policy

From the political ramifications of echo chambers on 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.

Examinations

All Master's students will be assessed via final written projects following the conclusion of the core series of courses. A failure to receive a passing grade on the written project will require the student to retake and receive a passing grade within one calendar year.

Internship or Thesis

Students will apply to either the MA or MPS track. Master of Arts students will be required to take 6 credits of advanced thesis research and writing (ECS 810) and write a research thesis. Students should form a 4-person thesis committee by January of their second semester and write and defend their thesis by the end of the third semester. Master of Professional Science students will undertake an internship and complete an extensive internship report, also due at the end of the third semester.

Specific Track for Master's Degree:

MPS or MA in Environment, Culture, and Media (30 credits)

ECS Core (12 credits) – see above

Graduate Level Electives (12 credits) – see Appendix B

Thesis Research (6 Credits) or Internship (6 credits)

Sample Schedule for a full-time Master's student

Semester	Credit	Course Description	Department and #
<i>Year 1, Fall</i>	3	Contemporary Media Representations of the Environment	501
	3	Technology and Human Behavior	502
	3	Elective	
	3	Elective	
Total	12		
<i>Year 1, Spring</i>	3	Nature, the Anthropocene, and Visual Anthropology	503
	3	Environmental Communication, New Media, & Policy	504
	3	Elective	
	3	Elective	
Total	12		
<i>Semester 3, Fall</i>			
	6	Research or Internship	
Total	30		

Below is a sample curriculum schedule for the first year of the program. No faculty member will serve as primary advisor for more than 5 students.

Core Curriculum Sample 2017/18

First Semester	Second Semester	Third Semester
ECS 501 – G. Maranto/Shriver-Rice	ECS 503 – M. Shriver-Rice	MPS Internship
ECS 502 – K. Broad/M. Shriver-Rice	ECS 504 – M. Shriver-Rice/G. Maranto	MA Thesis

f. *Teaching: What kinds of teaching will prevail in the program, i.e., clinical, classroom, independent research, seminars, online, etc., and in what proportion?*

The core courses ECS 501-504 will be taught largely in the lecture/discussion format. Independent study or directed research courses will involve a student working one-on-one with a faculty advisor in directed readings and research.

g. *Describe the expected distribution of graduate students among advisors.*

This program will be modeled on an advisor-student relationship, with each student working closely with the advisor on their specific research interest. No faculty member will serve as primary advisor for more than 5 students at any one time.

h. *Describe any colloquia series, special seminars, or conferences that will be held.*

The Abess Center regularly hosts conferences bringing together national and international experts in various environmental fields. Students will participate in the planning and hosting of these meetings, will help organize and lead discussions, and will work in conference follow-up projects. Starting with the launch of this graduate program, there will be an Environmental Media Series, which will showcase work and research by innovative and creative figures working in digital media. Additionally, the ECM program will hold a one-day annual symposium in February of each year for all Abess Center graduate students and faculty, as well as the wider campus community. The symposium will include keynote talks from faculty and leading practitioners from our Advisory Board, presentations of team projects, a professionalization workshop, a 'town-hall' meeting to discuss successes and future directions for the program, and opportunities for informal discussions among faculty and graduate students.

i. *Include Learning Outcomes Assessment Plan*

At the end of the MPS internship or Master's thesis defense, the Graduate Studies Committee will assess student achievement of the Abess Center's learning outcomes as follows:

Outcome 1: Thorough understanding of the theories, processes, and interactions of media and environmental studies, policy, and justice.

Assessment Measure 1: Successful demonstration of skills in interdisciplinary theoretical writing that includes environmental media analysis.

Assessment Measure 2: Successful completion of appropriate coursework in student's chosen area of concentration.

Assessment Measure 3: Successful demonstration of ability in writing to create a viable research agenda, and create a literature review of material germane to the topic.

Outcome 2: Completion of internship report or defense of thesis based on program of study.

Assessment Measure 1: Evaluative scoring of the written product by members of MA thesis committee or evaluative scoring of the written internship report by MPS advisor for evidence of scholarship, clarity, and appropriateness, including the ability to effectively communicate culturally sensitive material.

Professional Outcome 3: Admission to graduate program for further study in media or environmental studies or employment in related field.

Assessment Measure 1: Yearly rates of ECM graduates' admission to doctoral programs and/or yearly rates of alumni employment.

4. Faculty:

a. Overview

Faculty involved in the Abess Center's graduate program will have earned an advanced degree and continue to be active scholars. The Center's Graduate Studies Committee will consist of five faculty members appointed by the Center's Advisory Committee, a majority of whom are also members of the University's Graduate Faculty. Criteria for admission to Graduate Faculty status will conform to policies established by the Graduate School of the University.

Abess Center Affiliated Faculty who are eligible to participate in the proposed Master's program as teaching faculty for electives and Master's examination committee members are listed here:

<http://www.cesp.miami.edu/ccsp/people/affiliated-faculty/>

b. Estimate the need for additional faculty

Research of equivalent graduate programs in the United States and England indicates that an interdisciplinary media studies graduate program of this type should expect rapid growth in annual cohort numbers. To date, the Abess Center has proceeded cautiously in building up its faculty and staff to the minimum level required to develop the undergraduate major and PhD program. This program will eventually require (in year three, see budget) an additional hire for administration, advisement of students, and teaching support for both the Master of Arts and the Master of Professional Science degrees. This new hire (Administrative line – non-tenure/tenure tack line, as the Abess Center is not a department) must be a leading scholar and notable figure in the newly burgeoning interdisciplinary field of Media and the Environment (see full description below). As the program grows in size by year three, the new hire will be responsible for aiding with advisement of the MA theses and organizing the Environmental Media Series. Both the Director of Environmental Media and the new hire will serve on all MA thesis committees, and will be available as Graduate committee members of relevant Abess PhD committees. The new hire must be capable of covering any of the four core courses as needed, and will be responsible for developing and teaching two Graduate Seminars as well as specialized course electives, that include:

ECS 505 Graduate Seminar 1 -- Formal Analysis of Screen Culture

This course uses methods of screen aesthetics and theory, natural philosophy, and environmental justice ethics to develop skills in close textual analysis, aesthetic criticism, and interdisciplinary theorization.

ECS 506 Greening the Media

A course devoted to questions of green media industry study, in particular exploring sustainable and environmentally responsible methods and practices of screen and communications media production, distribution, and exhibition.

ECS 507 Graduate Seminar 2 -- Environmental Justice: Issues of Race, Class, and Gender

A survey of local, national, and global problems of identity politics and the environment, in particular looking at how technology mediates the effects of climate change and resource use on different communities and persons according to facets of social difference.

ECS 508 History of Environmental Communication

This course will look at how environmental science, politics, and activism have evolved over time in relation to the evolution of geopolitical structures and the advent of different visual and non-visual media practices.

- *_Specialization desired.*

The new hire will be responsible for expanding the program and teaching additional specialty seminars and courses. The additional hire will need to have teaching and service experience, as well as a publication record in Media and the Environment. This position requires teaching Green Media Industries, Formal Screen Textual Analysis, as well as courses in Environmental Humanities that provide philosophical, ethical, and sociological approaches to Environmental Justice.

- *_Degree of experience desired.*

The new hire must have an interdisciplinary background that includes a PhD in screen studies and media ethics. Furthermore, the new hire should have extensive teaching experience (approximately ten years), that includes intersections between Environment, Culture, and Media; and a proven scholarship/publication record in this emerging field. Due to the curricular and administrative needs, the new hire should have experience working with graduate students, and/or experience supervising independent studies. For the program's growth, institutional interactivity, international reputation, and student recruitment, the new hire should already be active and notable in the field's scholarly community. In addition, this position requires experience working across departments and colleges, and the suitable candidate must possess a track record of attracting international scholars and artists in the field for ECM's Environmental Media Series. The candidate should also have experience organizing interdisciplinary Environmental Humanities colloquia and conferences that have included a visual culture component.

- *_Salary anticipated.*

At the level of experience desired for this position, the salary will be set to match the desired level (approx. 10 years of teaching) of experience.

c. Describe the interaction of the proposed program with other graduate programs, e.g., thesis and dissertation committees.

Students in the ECM track will collaborate with Abess Center PhD students who can benefit from advanced media analysis and creative development skills (eg. media campaign concepts for ongoing dissertation projects that benefit from visibility, or advising on media narratives for science communication). Collaboration opportunities also exist with RSMAS's Exploration Science MPS students who often create video footage of exploration methods but do not have the training to develop the conceptual projects to share such footage. Additionally, the Underwater Archaeology MPS track has recently been renewed at RSMAS, which creates multiple opportunities for ECM Master's students to work with historical conservation efforts that overlap with conservation biology (e.g. sea turtles nesting on sunken shipwrecks). With regards to other graduate programs at the University, the Abess Center has affiliated faculty from across a range of departments and schools, each of which possess their own graduate programs; these affiliated faculty, who will serve as ECM committee members, are experienced

in serving on both thesis and dissertation committees. Furthermore, ECM faculty members will be available to serve on relevant graduate thesis/dissertation committees across the University.

5. Students:

a. Estimate the number of students in the program and the pool from which they will be selected

The intellectual and motivational pieces are in place at UM for creating a top-tier, internationally recognized graduate program that combines environmental studies with visual culture studies. Critical components for the success of the proposed program include: targeted student recruitment, post-degree job placement, a solid business model, estimating faculty, and other resources. Below is a brief sketch of the plan to create the graduate program (details are addressed in the remaining sections of the proposal).

Recruiting of students will take place (i) through the two core ECM staff/faculty, who will develop ongoing collaborative relationships with Advisory Board institutions and other international experts in the field who participate in the annual Environmental Media Series, and who will be attending the leading conferences in Media and the Environment on an annual basis, (ii) through the extensive networks of Abess Center-affiliated faculty, many of whom are involved in large, multi-institutional, interdisciplinary projects that involve graduates, (iii) through targeted promotion of the program at top-ranked undergraduate environmental and media departments worldwide -- as it is the only graduate program of its kind, (iv) through promotion of the ECM program through the Abess supported University of California Press's Journal of Environment & Media which launches in Fall 2018 (v) from within the pool of finest UM undergraduate students with environmental and media interests.

Completion of the Master of Professional Science and the Master of Arts will take three semesters. The Master of Professional Science degree students will be required to take two semesters of coursework, which includes four core courses, selected electives, and one semester of internship. An internship report will be required at the completion of the program. Master of Arts students will take two semesters of coursework, like the MPS track this includes four core courses, selected electives, one semester of thesis credit, and are required to write a full-length MA thesis by the end of 18 months. Given the lessening of the ideological resistance to acknowledging the critical role of the environment in human health, socioeconomic development, and cultural survival, environment-related positions within and outside of academia will continue to increase, and Abess Center Masters graduates will be attractive candidates for academic, government, and private sector positions. In order to assure high quality of the program, a formal evaluation process will be put in place from the start.

To maintain the highest pedagogical standards, qualitative and quantitative feedback regarding the student's progress toward the MA/MPS degree, and the student's opinions about the program, will be gathered annually. Both the MA and MPS degrees will take the same four core courses, and all further courses (electives) will be selected based on each student's personal interests. During the first year of the program's existence, it is envisioned that the enrollment will be approximately two to three students. In its second year, the program anticipates doubling this number. By year three, it is estimated that the program will enroll between eight and twelve Master's students, and in this case a new hire will be required to aid with advisement and teaching. As the only program of its kind in the U.S., the MA/MPS ECM anticipates immediate growth that will offset all costs of the program.

b. Describe requirements for admission to and expected retention of students in the proposed program

Requirements for admission include:

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).

GRE minimum score of 1100 (tests prior to August 1st, 2011) or a score of 302 on tests after that date.

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.

Students who have been admitted to the program must maintain a minimum grade point average of 3.0 (on a 4.0 scale) in all graduate work. Any student who fails to maintain an overall quality average of 3.0 will be placed on academic probation and will be given one semester to bring the average to a minimum 3.0. A student on probation who fails to achieve a minimum of overall 3.0 by the end of the probationary semester will be dismissed from the program.

c. Describe the anticipated need for and specific use of teaching assistants and research assistants in the program. Include the number and estimated stipends for each assistant (indicate stipend level and whether 9-month or 12-month).

At the start of the program the Abess Center will not award assistantships to Master's students. After approximately five years, the Center anticipates creating competitive assistantships for Teaching Assistants to contribute support to the Abess Center undergraduate curriculum. Primary responsibilities for TAs include assisting in areas of teaching. The goal of the assistantships (\$3,000/9 months) is to facilitate the development of the MA students interested in pursuing teaching and doctoral work after the completion of the MA program.

6. Administration:

a. Estimate the anticipated administrative increments imposed by addition of this program, i.e.

- *Need for additional secretarial help.*

There will be no need for hiring additional secretarial help.

- *Need for additional office equipment and supplies.*

There will be no need for additional office equipment.

- *Need for additional travel, publication costs, and other funds.*

The Abess Center will match all funds for media equipment, guest speakers, and recruitment.

b. Describe the arrangements for administration and for academic direction of the program as it pertains to

- *The day-to-day administration of the program.*

The day-to-day administration of the graduate program will be handled by the Director of Environmental Media Dr. Meryl Shriver-Rice with assistance from the current Abess Center Administrative staff member Andee Holzman.

- *The academic policy-making mechanisms used to implement the program, including criteria for membership in the faculty of the program.*

The Abess Center has a Graduate Admissions Committee composed of affiliated faculty formed on a rotating basis. Subject to the oversight of the Center's director Kenny Broad, the Graduate Admissions Committee will also advise on the selection of course work and academic policies for the program. Abess Center faculty involved in the program's course teaching and program participation include Gina Maranto, Dr. Kenny Broad, and Dr. Meryl Shriver-Rice. The list of Affiliated Abess Faculty can be found in Appendix A.

8. Comparisons: *Compare the proposed program at the University of Miami with five high-quality, established programs at comparable universities. In the comparisons, include only the sections and subsections from items #1 through #7 above that are appropriate.*

The proposed interdisciplinary Master's program is entirely unique, comparing favorably with other Environmental, Media, Science Communication, and Digital Anthropology programs, tying together issues of media, the environment, cultural studies, and ethics in a way that does not yet exist. It is comparable to other Master's programs in terms of curricular structure and requirements, anticipated time to graduation, and opportunities for diverse learning outcomes and professionalization (e.g. internships). The proposed graduate program further provides a disciplinary integration, not found in any other program, which includes dynamic and complex links between environmental studies and media culture studies. Five established programs are compared in detail to the proposed Abess Center Master's program.

These five programs at five major international universities span a range of approaches to either the media-focused or environmentally-focused Master's degree, with respect to the diversity of their focal areas, programmatic flexibility, departmental/disciplinary integration, and locally/regionally relevant research-education. Through its two degree tracks, the proposed Abess Center MA/MPS in Environment, Culture, and Media builds media, science, and policy integration in a systematic manner, building on nationally and internationally recognized strengths of its faculty, the University, and the Center's affiliated connections to other departments and schools. Furthermore, the program facilitates research and training in locally relevant environmental topics, building strong opportunities for field-based analysis, professionalization opportunities, as well as faculty and student research. In doing so, the proposed program aims for both flexibility and rigor through interdisciplinary theory and methods training in core and elective courses. The ECM program offers an integrated media/cultural studies/social justice approach to interdisciplinary environmental education that the other environmental studies programs presented here do not, and an environmental science and policy facet offered by no other program in media, culture, communication, and anthropology.

NEW YORK UNIVERSITY, MA Media, Culture, and Communication
GEORGETOWN UNIVERSITY, MA Communication, Culture, and Technology
UNIVERSITY OF PENNSYLVANIA, Master of Environmental Studies
IMPERIAL COLLEGE, LONDON, MSc Science Communication
UNIVERSITY COLLEGE, LONDON, MSc Digital Anthropology

NEW YORK UNIVERSITY, Department of Media, Culture, and Communication
 Tracks: Global and transcultural studies, Technology and society, Visual culture and cultural studies,
 Persuasion and politics, Interaction and social processes.

<http://steinhardt.nyu.edu/mcc/masters/>

Degree(s)/ Tracks	Coursework Requirement	Coursework Time Frame	Internship	Thesis
Master of Media, Culture and Communication	<p><u>Overall:</u> 36 Credits</p> <p><u>Core:</u></p> <p>Research Methods</p> <p>Media, Culture, and Comm. Core Seminar</p>	Three semesters with an Exam or Four Semesters with a thesis.	Yes.	Not required. Students choose from: Thesis, Exam Option, or Professional Writing Option

GEORGETOWN UNIVERSITY, Department of Communication, Culture, and Technology
 Tracks: Cultural Studies; Globalization Studies; Media and Politics; Art, Media, and Representation;
 Technology and Society; Technology, Information, and Innovation Policy; Technology, Business, and
 the Economy.

<https://cct.georgetown.edu/academics/cct-ma-degree-requirements>

Degree(s)/ Tracks	Coursework Requirements	Coursework Time Frame	Internship	Thesis
Master of Arts	<p>Overall: 33 credits for coursework/39 credits for thesis.</p> <p>Core: CCTP-506 Interdisciplinary Problems and Methods CCTP-505 Social Network Analysis</p> <p>Complete at least one core required course in research methods.</p>	Three to four semesters.	Not required.	<p>Complete one of two degree options, "thesis" or "coursework"</p> <p>Students must receive approval from CCT Faculty and receive a certain grade point average in Research Methods to be allowed to pursue a thesis.</p>

UNIVERSITY OF PENNSYLVANIA, College of Liberal and Professional Studies
 Tracks: Personally tailored. Examples include: Sustainability, Environmental Advocacy and Education,
 Environmental Policy, Urban Environment.

<http://www.sas.upenn.edu/lps/graduate/mes>

Degree(s)/ Tracks	Coursework Requirements	Coursework Time Frame	Internship	Thesis
Master of Environmental Studies	<p><u>Overall:</u> 12 cu (equiv. 36 Credits)</p> <p><u>Core:</u></p> <p>Pro Seminar</p> <p>Contemporary Issues in Environmental Studies</p> <p>Research Methods</p> <p>Capstone Project</p>	Two years.	Not required	<p>Capstone Project. Varies widely from research papers to videos, business plans, photojournal, and websites.</p>

IMPERIAL COLLEGE, LONDON, Centre for Languages, Culture and Communication
 Tracks: New media work, Public affairs and public relations, Museums/galleries and festivals, Science policy work, Academic research and development, and teaching.

<http://www.imperial.ac.uk/science-communication-unit/msc-programme/msc-science-communication/>

Degree(s)/ Tracks	Coursework Requirements	Coursework Time Frame	Internship	Thesis
Master of Science in Science Communication	<p>Overall: 7 modules plus dissertation (equiv. 30 credits).</p> <p>Core: Module 1: Science and its Social Contexts</p> <p>Module 2: The Media Representation of Science</p> <p>Group Project</p> <p>Elect one of 7 options.</p>	Three semesters.	Not required.	Yes.

UNIVERSITY COLLEGE, LONDON, Department of Anthropology
 Tracks: Digital Identities. Anthropology of Social Media, Material and Visual Culture, Anthropology of Media and Consumption, Ethnographic perspectives on digital technologies

<http://www.ucl.ac.uk/anthropology/studying/msc-digital-anthropology>

Degree(s)/ Tracks	Coursework Requirements	Coursework Time Frame	Internship	Thesis
Master of Science in Digital Anthropology	<p><u>Overall:</u> Five modules and a dissertation (equiv. 29 credits)</p> <p><u>Core:</u> Two semesters of Digital Anthropology Core Practical</p>	Three Semesters.	Not required.	Yes.

Appendix A

Abess Center Affiliated Faculty

Name	Field	Terminal degree	Rank
Afkhami, Michelle	Ecology	Ph.D.	Asst. Professor
Alfieri, Anthony	Law	J.D.	Professor
Ardren, Traci	Anthropology	Ph.D.	Professor
Baker, Andrew	Marine Biology and Ecology	Ph.D.	Assoc. Professor
Broad, Kenneth	Environmental Anthropology	Ph.D.	Professor
Cardoso da Silva, José Maria	Geography	Ph.D.	Professor
Clement, Amy C	Meteorology and Physical Oceanography	Ph.D.	Professor
Cosner, G. Chris	Mathematics	Ph.D.	Professor
Drennan, William	Applied Marine Physics	Ph.D.	Professor
Fuller, Douglas O	Geography	Ph.D.	Professor
Hammerschlag, Neil	Marine Conservation	Ph.D.	Res. Asst. Professor
Haus, Brian	Applied Marine Physics	Ph.D.	Professor
Hitchcock, Gary	Marine Biology	Ph.D.	Assoc. Professor
Hood, Teresa	Geological Sciences	Ph.D.	Senior Lecturer
Haywood, Keene	Geography	Ph.D.	Dir. Education
Hector, Denis	Architecture	M.Arch.	Assoc. Professor
Klaus, James	Geological Sciences	Ph.D.	Asst. Professor
Kumar, Naresh	Environmental Health	Ph.D.	Assoc. Professor
Letson, David	Marine Ecosys. & Policy	Ph.D.	Professor
Lombard, Joanna	Architecture	M.Arch.	Professor
Maranto, Gina	Ecosystem Sci. & Policy	MFA.	Senior Lecturer
Moise, Imelda	Geography	Ph.D.	Asst. Professor
Mormann, Felix	Law	J.S.D.	Assoc. Professor
Mormann, Milica	Decision Science	Ph.D.	Res. Asst. Professor
Olson, Donald	Marine & Atmos. Science	Ph.D.	Professor
Sealey, Kathleen S	Biology	Ph.D.	Assoc. Professor
Searcy, Chris	Biology	Ph.D.	Asst. Professor
Shriver-Rice, Meryl	Archaeology/Film Studies	Ph.D.	Dir. Environ. Media
Stoler, Justin B	Geography	Ph.D.	Asst. Professor
Swart, Peter K	Marine Geol. & Geophys.	Ph.D.	Professor
Van Leer, John	Meteorology and Physical Oceanography	Ph.D.	Assoc. Professor
Uy, Albert	Biology	Ph.D.	Assoc. Professor

Appendix B

Abess ECM MA/MPS Course Elective List

Our students will come from both science and social science backgrounds and this will dictate which electives will interest them. Course descriptions where available are included.

Sociology

For students interested in Social Theory and Critical Race and Ethnic Relations Theory:

SOC 601. Classical Sociological Theory (Intro class for students with science backgrounds who want to beef up their social sciences.) Major orientations of modern sociology with emphasis upon structural and functional theories.

SOC 602. Contemporary Sociological Theory (For students with advanced social sciences background.) Recent developments in sociological theory. Exchange theory, structural functionalism, symbolic interactionism, neopositivism phenomenological sociology, ethnomethodology, sociobiology, neo-Marxism and conflict theory. Current issues relevant to the development of future sociological theory

SOC 616. Social Psychology: Sociological Perspectives
Sociological theories and research explaining the influence of human groups and social processes on personality and human social behavior.

SOC 652. Theories of Race and Ethnic Relations
Micro- and macro-level theories of race and ethnic relations.

Education

For students interested in applying environmental media in Secondary Ed:

TAL 627. Understanding Culture in the Classroom
This course explores the conflicts and the strategies for resolution between the patterns of culture in the classroom and the patterns of culture that school children bring to the classroom - patterns which are learned in their families and communities.

TAL 617. Science in the Elementary School

From the Community & Social Change Master's program (targets future non-profit leaders):

EPS 626. Multicultural Communities in a Globalized Society
This course examines the relationship between multiculturalism and globalization and

how these concepts impact education and the world at large. Topics include dimensions of human diversity, identities and acculturation; race and class; gender and power; children and youth; social inclusion and social justice; health disparities; poverty and work; racism and inequality.

EPS 622. Community Well-being and Change: Theory and Practice

This course is designed to promote an understanding of the factors associated with healthy communities. It provides a comprehensive overview of the relevant skills and theories including: ecological/systems theory/models; community theories (sense of community, social capital, environmental psychology); and critical social theory, social justice, and social determinants of well-being.

EPS 623. Development & Change in Community Organizations: Theory & Practice

This course focuses on the unique role of non-profit, community-based organizations in promoting human and community development. Students will engage in an analysis of the range of functions that organizations serve and the various organizational strategies used in community settings.

EPS 624. Essentials of Research in Social and Behavioral Sciences

Study of the standards methods and techniques of research in the behavioral and social sciences. Brief orientation to quantitative and qualitative procedures used in the analysis and interpretation of research data are emphasized.

Modern Language & Literature

For students interested in further theoretical grounding in Cultural Studies:

MLL 611. Introduction to Critical Theory An introduction to the major concepts, issues, and debates that inform contemporary literary criticism.

MLL 614. Readings in Critical Theory

Representative works of critical theory as related to philosophy, sociology of culture, psychoanalysis, hermeneutics, deconstruction, etc. May be repeated for credit if topics are different.

English

For students interested in Cultural Theory and Animal Studies:

ENG 682. Contemporary Theory/ Animalities

This course will investigate ways in which recent challenges to understanding "animals" and "humans" as separate, fixed, and hierarchical categories are re-orienting current work in literary studies, philosophy, and visual culture.

ENG 682. Contemporary Criticism and Theory

This class will be a survey of some key developments in contemporary literary and cultural studies.

Art History

For students interested in Aesthetics and Visual Culture in Museum Studies:

ARH 607. Museum Studies Seminar

The museum as an institution and as a site for the construction of knowledge. Students will also explore the relationship between museums and academia.

ARH 660. Seminar in Nineteenth and Twentieth Century Art

Special topics including museum practices and theory, women's art and contemporary issues.

ARH 698. Seminar in Contemporary Art

Issues in Art since 1960: Aesthetic theories and ideological issues generated in contemporary art as expressed in the writing of artists and art critics.

Philosophy

For students interested in Philosophy and Film/Science:

PHI 546. Evidence and Knowledge in Medicine

This course is primarily about the philosophical foundations of evidence-based medicine. Some of the questions to be discussed are: What is evidence-based medicine? What constitutes evidence? Which inductive rules are valid? Are placebo trials epistemically and ethically justified? Is meta-analysis valid and reliable? What are the foundations for the GRADE standards for rating the quality of medical evidence?

PHI 653. Philosophy and Film

Combining readings in philosophy and film theory and criticism with close analysis of selected films, this course is premised on a conviction in the potential fruitfulness, both for film studies and philosophy, of thinking philosophically about the ontology of the medium, the history and the art of film, the ways we experience movies, and their impact on our lives.

PHI 748. Philosophy of Science

This seminar will cover recent work on rational credence. In particular, we will look at Dutch book and accuracy-based arguments that you should conform your degrees of belief to the probability axioms and update your beliefs via conditionalization on new evidence. We will examine the prospects for a general measure of the accuracy of your beliefs, and look at applications of such measures to the analysis of misleading evidence and deception. We will consider the connections between measures of accuracy and measures of information content, and compare various proposed measures of evidential support.

PHI 591. Special Topics

Communication Studies:

CIM 644. Media Activism

In this course, students will examine the role of media in shaping social reform to document social issues such as poverty, human rights, social inequities, the environment, and powerless groups. We will review the philosophy and history of media as activism ranging from photography, documentary, cinema, the Internet, social media and newer forms of media. Emphasis is placed on developing a critical understanding of current media advocacy practices with a conscious goal; awareness, change minds, to affect policy, and action. At the end of the semester, students will have a fully developed project concept.

JMM 510. Comparative Media Systems

This course deals with issues in international news gathering and distribution, giving special attention to Latin America and the Caribbean. The class takes a comparative approach, looking at media systems in the United States and other nations.

JMM 533. Social Media for Journalists

Examination of best practices for use of social media for gathering, disseminating, and promoting information.

JMM 622. Infographics and Data Visualization

This course is an introduction to the visual display of information in digital and interactive media, with a special focus on the encoding of data by means of statistical charts, maps, and diagrams.

For the rare tech savvy student interested in Mobile App or Doc production (However, students interested in production alone will be directed towards the MFA in Cinema & Interactive Media):

CIM 658. Documentary Production An introduction to the documentary genre including the production of a documentary from start to finish.

CIM 613. Mobile Application Development

This course will provide students the ability to conceptualize, design, and develop a mobile application of their choosing

Anthropology

**For students interested in ancient world/environment, further Cultural Studies,
or Medical Anthropology:**

APY 518. Advanced Seminar in Anthropology

APY 506. Workshop in Anthropology

This course is designed for graduate students to participate in special topics in Anthropology and related fields.

APY 601. Advanced Seminar in Archaeology, Theory and Practice

APY 602. Advanced Seminar in Cultural Anthropology

APY 612. Advanced Medical Anthropology

Applications of theories and methods of medical anthropology to problems in human health and disease.

APY 604. Advanced Seminar in Linguistic Anthropology

APY 611. Methods of Anthropological Research

Concentration on research methods for Cultural, Archaeological, Linguistic, and/or Biological Anthropology.

APY 605. Museum Internship

Others at RSMAS

This will depend on specific student interests:

MES 664. Citizen Participatory Science

MES 665. Exploration Technology and Media

MES 674. From Gold to Glory: The Evolving History and Ethics of Exploration

MES 672 A History of Seafaring

ATM 554. Climate Variability

RSM 620. Climate and Society

RSM 670. Carbon and Climate

MES 673. Marine Conservation Outreach