



Green Hall, 35 Campus Avenue, Kingston, RI 02881 USA p: 401.874.2616

Serial Number #18-19-20

TO: President David Dooley

THE

UNIVERSITY

OF RHODE ISLAND

FROM: Hillary Leonard, Chairperson of the Faculty Senate

- 1. The attached BILL titled, Curricular Report No. 2018-19-9 from the Graduate Council to the Faculty Senate: Environmental Communication track in the Master of Environmental Science and Management degree program, is forwarded for your consideration.
- 2. This BILL was adopted by vote of the Faculty Senate on March 21, 2019.
- 3. After considering this bill, will you please indicate your approval or disapproval. Return the original, completing the appropriate endorsement below.
- 4. In accordance with Section 10, paragraph 4 of the Senate's By-Laws, this bill will become effective April 11, 2019, three weeks after Senate approval, unless: (1) specific dates for implementation are written into the bill; (2) you return it disapproved; or (3) the University Faculty petitions for a referendum.

Hillary Leonard Chairperson of the Faculty Senate

March 21, 2019

ENDORSEMENT

TO: Chairperson of the Faculty Senate

FROM: President of the University

a. Approved \underline{V}

b. Approved subject to Notice of the Council on Postsecondary Education _____.

c. Disapproved ____.

Signature

THE GRADUATE SCHOOL - UNIVERSITY OF RHODE ISLAND NEW PROGRAM REPORT FROM THE GRADUATE COUNCIL TO THE FACULTY SENATE CURRICULAR REPORT 2018-19-9; 28 January 2019

At Meeting No. 520 held on 28 January 2019, the Graduate Council approved the attached proposal that is now submitted to the Faculty Senate.

SECTION I ABSTRACT AND BACKGROUND INFORMATION

ABSTRACT (modified from proposal)

Researchers and STEM professionals are increasingly expected to communicate beyond their academic and expert peers. Often this communication requires interaction with journalists, policy makers, and a wide range of public audiences. Yet URI science graduate programs do not require communication training as part of the graduate curriculum. The new Environmental Communication track in the MESM program will serve two important purposes. First, it will provide training that is especially relevant for students in the MESM program, who intend to pursue professional paths outside of academia, where communication skills are highly valued. Second, the track will provide an opportunity to evaluate broader graduate student interest in science communication training at URI.

BACKGROUND (modified from proposal)

In keeping with existing MESM requirements, the EC track would require 13 credits in communication or public engagement courses related to environmental science. The sum of all credits must meet the requirements of MESM (36 total credits)– 3 credits in quantitative courses, 6 credits in social science, 2 credits of seminar, 6-9 credits in natural science and 3 credits in a culminating experience. The remaining credits are often taken within a URI graduate certificate to further advance skills and workforce competitiveness – again this approach gives MESM a leg up over our competitors.

SECTION II RECOMMENDATION

The Graduate Council approved the proposal to create a *Master of Environmental Science and Management, Environmental Communication Track* at its Meeting No. 520 held on 28 January 2019, and forwards it to the Faculty Senate with a recommendation for approval.

REVISED 12/2016



Modified Form For New Interdisciplinary Minors, and New Tracks/Options/Sub-plans/Concentrations

A Proposal for: MESM Degree

Date: 11/19/18

A. PROGRAM INFORMATION

- **A1. Name of institution** University of Rhode Island
- A2. Name of department, division, school or college Department of Natural Resources Science College of the Environment and Life Sciences
- A3. Title of proposed program and Classification of Instructional Programs (<u>CIP</u>) code Master of Environmental Science and Management, Environmental Communication Track

Classification code (CIP)

A4. Intended initiation date of program change. Include anticipated date for granting first degrees or certificates, if appropriate.
 Initiation date: September 2019
 First degree date: May 2021

A5. Intended location of the program URI Kingston Campus

A6. Description of institutional review and approval process

Approval Date

- Department College CAC/Graduate Council Faculty Senate President of the University
- A7. Summary description of proposed program (not to exceed 2 pages) See attached

A8. Signature of the President

David M. Dooley

- A9. Person to contact during the proposal review Name: Brett Still Title: MESM Coordinator Phone: 401-874-2912 Email: bstill@uri.edu
- A10. List and attach any signed agreements for any cooperative arrangements made with other institutions/agencies or private companies in support of the program. Not applicable

B. RATIONALE: There should be a demonstrable need for the program.

B1. Why is the new program being developed?

Researchers and STEM professionals are increasingly expected to communicate beyond their academic and expert peers. Often this communication requires interaction with journalists, policy makers, and a wide range of public audiences. Yet URI science graduate programs do not require communication training as part of the graduate curriculum. The new Environmental Communication track in the MESM program will serve two important purposes. First, it will provide training that is especially relevant for students in the MESM program, who intend to pursue professional paths outside of academia, where communication skills are highly valued. Second, the track will provide an opportunity to evaluate broader graduate student interest in science communication training at URI.

B2. What is the economic need and workforce data related to the program?

a. Provide information on jobs available as a result of successfully completing the certificate or degree: job titles, job outlook/growth, and salaries.
 The National Association of Colleges and Employers' annual Job Outlook survey reports the resume attributes sought by employers. The 2018 report listed the top attributes as problem-solving skills, ability to work in a team, and written communication skills. A 2018 survey conducted by the Association of American Colleges & Universities found that employers ranked strong verbal communication skills as the most important attribute of job candidates, but the survey respondents said only 40% of recent college graduates were "well prepared to handle duties"

requiring this skill. MESM students represent a mix of recent Bachelor's degree recipients who want a suite of professional skills to advance their career outside of academia and working professionals who seek new knowledge and/or skills to advance their careers. The proposed Environmental Communication track will fill a need for both students and employers.

B3. What entities are advocating for this program? Was an advisory board used to develop the curriculum?

The primary advocates for the Environmental Communication track in MESM are: Dean John Kirby (CELS); Associate Dean for Academic Affairs Veeger (CELS); MESM Directors Gold, Still and August; MESM Track Chairs Gold, August, Paton, Wang, Gomez-Chiari, Boving, and Becker; URI SciWrite Leaders McWilliams and Karraker; and the staff of the Metcalf Institute for Environmental Journalism. The curriculum was developed by Metcalf Institute staff, URI SciWrite advisors, and MESM leadership. The Metcalf Institute for Environmental Journalism has an active advisory board. MESM alumni who are successfully working in the public and private sector (we have data on over 90 MESM alumni) frequently mention that new hires are routinely lacking in environmental communications skills and that this type of training – in conjunction with strong skills in applied environmental science will enhance job placement success.

C. INSTITUTIONAL ROLE: The program should be clearly related to the published role, scope, and mission of the institution and be compatible with other programs and activities of the institution.

C1. Explain how the program is consistent with the published role, scope, and mission of the institution and how it is related to the institution's Academic Plan. The proposed Environmental Communication track is an excellent fit with the goals of the URI Academic Plan. Specifically, it would *enhance student success* (Academic Plan Goal 1) by integrating curriculum, civic engagement, and experiential learning and *expand research, scholarship and creative work* (Goal 2) by building greater connections across disciplines and academic units (especially CELS and the College of Arts and Sciences). In addition, the track would satisfy the President's academic vision of including new, integrative approaches to outreach.

D. INTER-INSTITUTIONAL CONSIDERATIONS:

D1. What are the similar programs in the state and region?

a. If similar programs exist, how is this program different or why is duplication necessary?

There are no similar Master's level tracks within a MESM style degree in Rhode Island or New England.

b. Have you communicated with other institutions about the development of this program and have any concerns been raised related to role, scope, and mission or duplication?

Sunshine Menezes, the proposed chair for the EC track, has had informal discussions with faculty from other institutions about the track. No concerns were raised in these discussions.

D2. How do courses in this program transfer to other schools?

All classes in the Environmental Communication track are offered at the 400 or 500 level and all are approved for graduate students. Their transfer to other Universities is governed by the policies at the recipient institution. The classes comprising our proposed track are available to all students at URI.

D3. How does this program align to academic programs at other institutions?

There are no similar Master's level tracks within a MESM type degree in Rhode Island or New England. We note that both UMASS and UCONN have recently created programs similar to MESM – they are aware that our MESM degree has grown from less than 9 students to approximately 50 students over the past decade. The addition of new tracks at URI keep us ahead of our competition.

D4. Are recipients of this credential accepted into programs at the next degree level without issue?

All MESM alumni (5 students over the past few years) who have chosen to pursue advanced degrees (Ph.D, J.D.) have been accepted into the programs they aspired to study in. Since MESM can serve as a terminal professional degree, the majority of our graduates go directly into the workforce.

D5. How does this program of study interface with degree programs at the level below them?

Several of the courses available as part of this track would be available to advanced undergraduate students, helping to address the previously mentioned gaps in science education related to communication skills.

D6. Are cooperative agreements or affiliations established? If so, what? Not applicable

E. PROGRAM:

E1. Are there pre-requisite courses? If so, please explain/list?

E2. Curriculum

a. How many credit hours are required to graduate (include all general education and pre-requisites)?

The MESM degree requires 36 credits to graduate. Each MESM student is required to declare a "track" which constitutes 12-15 credits of their MESM program.

c. What courses are required for the program?

In keeping with existing MESM requirements, the EC track would require 13 credits in communication or public engagement courses related to environmental science. The sum of all credits must meet the requirements of MESM (36 total credits)– 3 credits in quantitative courses, 6 credits in social science, 2 credits of seminar, 6-9 credits in natural science and 3 credits in a culminating experience. The remaining credits are often taken within a URI graduate certificate to further advance skills and workforce competitiveness – again this approach gives MESM a leg up over our competitors.

- d. What are the new courses and descriptions that will go into the course catalog? NRS 442 – Environmental Crisis Communication: Effective environmental communication requires strategy, clarity, and an audience-centric approach. Using case studies, this course will explore crisis communication and theory through the lens of recent environmental disasters.
- **d.** Are there specializations and options? If so, please describe. Not applicable
- e. Is the program content guided by program-specific accreditation standards or other outside guidance?

No, we have developed the curriculum based on the needs of our students, feedback from professionals in the private and public sector and the availability of existing, relevant courses already being offered at URI.

e. What are the learning goals (what students are expected to gain, achieve, know, or demonstrate by completion of the program)?

The track will prepare students to:

- Understand and engage with the complexity and challenges of effective environmental communication;
- Explain and apply major theoretical concepts in the field of environmental communication to analyze real-world cases;
- Identify clear, audience-specific communication strategies;
- Analyze and critique case studies in environmental communication;

No

- Develop communication and/or public engagement strategies to inform and engage a range of stakeholders via culminating class projects;
- Develop and practice effective environmental communication and public engagement activities for varied audiences, using varied media (e.g., writing, presentations, video); and
- Identify collaborative strategies for addressing conflict and uncertainty in environmental communication and public engagement efforts.

F. FACULTY AND STAFF: The faculty and support staff for the program should be sufficient in number and demonstrate the knowledge, skills, and other attributes necessary to the success of the program.

F1. What are the number of each needed?

No new faculty hires are required for this proposed MESM track. Dr. Sunshine Menezes will provide leadership for the track and Dr. Brett Still serves as coordinator for the MESM program.

F2. Are these new positions or reassignments? Dr. Sunshine Menezes will serve as track chair as part of her positions as Clinical Associate Professor of Environmental Communication and executive director of Metcalf Institute.

F3. What are the minimal degree level and academic/technical field requirements and certifications required for teaching in this program?

We expect existing faculty to handle the teaching needs of this track within MESM. All faculty have Ph.D. degrees.

G. STUDENTS:

G1. How are students selected for the program?

Applicants to the program are reviewed by the MESM Directors (Gold, Still, August) and the track chair of the applicants stated track.

G2. Are there admission requirements?

We usually accept students who have, at minimum, a 3.0 GPA, strong letters of recommendation and a proven ability to communicate through their written statement. Successful candidates have coursework in the natural sciences or environmental studies. We welcome students who have been part of the workforce and are hoping to get a graduate degree. We actively recruit applicants who are veterans or active duty military; they have been some of our best graduates. Our proximity to the Coast Guard Academy

and the Naval War College makes this especially feasible. We welcome international students to MESM. They provide a huge amount of social and cultural diversity to our program.

G3. What is the primary source of students?

a. New students or drawn from other programs?

The majority of our students have 3-5 years of work experience prior to entering MESM. They are new students.

b. Industry sponsored students/ employees? Describe.

We do not have industry-sponsored students but we always have 2-3 students at any one time who are active duty military officers whose education is being sponsored by the Department of Defense.

G4. What is the estimated number of students in the program?

Currently, we estimate between 50- 55 students. We are not experts at URI enrollment data and we do not receive up to date report on the number of students within our MESM program.

G5. What is the estimated number of annual graduates?

20-25 students graduate from the MESM program each year. This new track will continue to build the depth and breadth of the program and add to our ability to attract new students.

H. EVALUATION:

H1. How will the program be evaluated?

a. Performance measures to evaluate the program.

MESM was one of the first graduate programs to have developed an approved assessment plan by the URI Office of Assessment. The whole program is assessed at each stage, not individual tracks. A copy of our assessment plan is attached.

b. Will the program be accredited? If so, when? How?

We do not seek, nor require accreditation

I. WHAT SPECIAL EQUIPMENT OR RESOURCES ARE NEEDED?

I1. Special instructional resources and services needed? (Clinical space, internships, proctors)

None needed

I2. Facilities and capital equipment? None needed

J. IS THE PROGRAM FINANCIALLY VIABLE?

- J1. ALL PROPOSALS: Complete the Rhode Island Office of Postsecondary Commissioner <u>Budget Form</u> demonstrating either
 - **a.** the need for additional resources or No new funds are required to add this new track to the MESM program
 - **b.** that existing funds are sufficient for carrying out the program. Existing resources are adequate to implement the Environmental Communication track in MESM

The completed proposal with Budget Form requires review by the URI Budget and Financial Planning Office. If no new funds are requested, proposers shall request a Statement of No Financial Impact from the URI Budget and Financial Planning Office.

The Budget Form has been submitted to the CELS financial officer for review and approval. Once approved we will forward the proposal, including the CELS approved Budget Form on to the URI Budget and Financial Planning Office for review.

ENVIRONMENTAL COMMUNICATION (EC) MESM TRACK

The Environment Communication track of MESM will provide graduate students advanced training, specialization, and hands-on experience in the strategies and skills needed to conduct effective communication and public engagement related to environmental science, challenges, and solutions. Students will work with faculty from Natural Resources Science, the Harrington School of Communication and Media, Oceanography, and other disciplines to gain a range of perspectives and approaches for conducting environmental communication in ways that are inclusive, relevant, and audience-centric. This track will enhance student preparedness for careers in academic, non-profit, public, and private sectors. It also creates new learning and experiential opportunities for all students enrolled in MESM.

Requirements of the MESM EC Track (36 credits)

Natural sciences: 9 credits from any of the following categories: biological and environmental sciences, geoscience, oceanography, conservation biology, hydrology, ecology and management, or remote sensing and spatial analysis.

Numerical methods: 3 credits;

Other requirements: A three credit culminating experience that entails engagement in a substantial, high-quality environmental communication and/or public engagement project (major paper or other major product (EVS 598), internship (EVS 597) or environmental leadership course (EVS 505); at least 2 credits of graduate seminar, including a terminal oral presentation; a minimum of 6 credits of electives.

Environmental Communication Track Course Offerings (13 credits)

At least 13 credits in communication or public engagement courses related to environmental science.

Catalog Changes in Environmental Science and Management section of the URI catalog

Existing Program Language

Steering committee: Professors P.V. August, and A.J. Gold, co–directors; Lecturer B. Still, coordinator. Track Chairs Professors Gomez-Chiarri, Paton, Boving, Becker and Y.Q. Wang.

Proposed Program Language

Steering committee: Professors P.V. August, and A.J. Gold, co-directors; Lecturer B. Still, coordinator. Track Chairs Professors Gomez-Chiarri, Paton, Boving, Becker, <u>Menezes</u> and Y.Q. Wang.

Existing Program Language

SPECIALIZATIONS

Conservation biology; earth and hydrologic science; environmental policy and management; remote sensing and spatial analysis; sustainable systems; wetland, watershed, and ecosystem science; and planning and design

Proposed Program Language

SPECIALIZATIONS

Conservation biology; earth and hydrologic science; environmental policy and management; remote sensing and spatial analysis; sustainable systems; wetland, watershed, and ecosystem science; <u>environmental communication;</u> and planning and design

Existing Program Language

Course requirements that are unique to each of the specializations are as follows. Conservation biology: 12-16 credits in natural sciences, including at least 3 credits in plant and animal biology, at least 3 credits in ecology, and at least 3 credits in biodiversity analysis and management; and at least 2 credits of graduate seminar from EEC, EVS, NRS, or PLS. Earth and hydrologic science: 12-16 credits in natural sciences from any or all of the following categories: earth surface processes, hydrology, solid earth materials and processes, or spatial analysis and remote sensing; and at least 2 credits of graduate seminar from EVS, GEO, MAF, or NRS. Environmental planning and design: 13 credits in planning and design including at least 4 credits in design studio and at least 9 credits in planning; 9 credits in natural sciences from any or all of the following categories or from numerical methods: geology, hydrology, and soil science; ecology and management; or remote sensing and spatial analysis. Environmental policy and management: 9 credits in social sciences from policy, planning, economics, and research methods; 9 credits in natural sciences from any or all of the following categories or from numerical methods: geology, hydrology, and soil science; ecology and management; or remote sensing and spatial analysis; and at least 2 credits of graduate seminar from CPL, EEC, EVS, GEO, MAF, or NRS. Remote sensing and spatial analysis: 12-16 credits in natural sciences, including at least 9 credits in remote sensing and spatial analysis, and 0-7 credits in earth and ecosystem science; and at least 2 credits of graduate seminar from EVS, GEO, or NRS. Sustainable systems: 12-16 credits in natural sciences, including at

least 3 credits in natural ecosystems and at least 3 credits in managed ecosystems; and at least 2 credits of graduate seminar from AFS, EEC, EVS, NRS, or PLS. Wetland, watershed, and ecosystem science: 12-16 credits in natural sciences, including at least 3 credits in each of the following topics watersheds, wetlands, and ecosystems plus 3 credits in earth science, soils, or spatial analysis; and at least 2 credits of graduate seminar from EEC, EVS, GEO, MAF, or NRS.

Proposed Program Language

Course requirements that are unique to each of the specializations are as follows. Conservation biology: 12-16 credits in natural sciences, including at least 3 credits in plant and animal biology, at least 3 credits in ecology, and at least 3 credits in biodiversity analysis and management; and at least 2 credits of graduate seminar from EEC, EVS, NRS, or PLS. Earth and hydrologic science: 12-16 credits in natural sciences from any or all of the following categories: earth surface processes, hydrology, solid earth materials and processes, or spatial analysis and remote sensing; and at least 2 credits of graduate seminar from EVS, GEO, MAF, or NRS. Environmental *communication*: 9 credits in natural sciences from any of the following categories: biological and environmental sciences, geoscience, oceanography, conservation biology, hydrology, ecology and management, or remote sensing and spatial analysis; 13 credits in communication or public engagement courses related to environmental science; a 3 credit culminating experience that entails engagement in a substantial, high-guality environmental communication and/or public engagement project (major paper or major product (EVS 598), internship (EVS 597) or environmental leadership course (EVS 505); 2 credits of graduate seminar; 3 credits in a numerical methods; and a minimum of 6 credits of electives. Environmental planning and design: 13 credits in planning and design including at least 4 credits in design studio and at least 9 credits in planning; 9 credits in natural sciences from any or all of the following categories or from numerical methods: geology, hydrology, and soil science; ecology and management; or remote sensing and spatial analysis. Environmental policy and management: 9 credits in social sciences from policy, planning, economics, and research methods; 9 credits in natural sciences from any or all of the following categories or from numerical methods: geology, hydrology, and soil science; ecology and management; or remote sensing and spatial analysis; and at least 2 credits of graduate seminar from CPL, EEC, EVS, GEO, MAF, or NRS. Remote sensing and spatial analysis: 12-16 credits in natural sciences, including at least 9 credits in remote sensing and spatial analysis, and 0-7 credits in earth and ecosystem science; and at least 2 credits of graduate seminar from EVS, GEO, or NRS. Sustainable systems: 12-16 credits in natural sciences, including at least 3 credits in natural ecosystems and at least 3 credits in managed ecosystems; and at least 2 credits of graduate seminar from AFS, EEC, EVS, NRS, or PLS. Wetland, watershed, and ecosystem science: 12-16 credits in natural sciences, including at least 3 credits in each of the following topics watersheds, wetlands, and ecosystems plus 3 credits in earth science, soils, or spatial analysis; and at least 2 credits of graduate seminar from EEC, EVS, GEO, MAF, or NRS.

TO: CELS Curriculum Review Committee

FROM: Arthur Gold, Peter August, Brett Still

DATE: 24 February 2018

CC: Professor Sunshine Menezes

We are delighted to propose the addition of a new track -- "Environmental Communication (EC) -- to the Masters of Environmental Science and Management (MESM) graduate program. The EC track will be an exciting new addition to our portfolio of graduate programs in CELS and will attract students who wish advanced training in environmental communication. The track meshes well with the overall structure of the MESM degree and does not require any modifications in the allocation of credits.

Professor Sunshine Menezes in the Department of Natural Resources will serve as EC track chair. The new track requires no new additional resources. As the Director of the Metcalf Institute of Environmental Journalism, Dr. Menezes is uniquely well-postured to lead this exciting new track.

MESM had its Assessment Plan approved by the URI Office of Student Learning, Outcomes Assessment, and Accreditation in June 2013. The MESM assessment plan encompasses all tracks and the addition of the EC option will not require any modification of the plan.

Nancy Neff in the Faculty Senate Office instructed us in 2013 to advance the addition of MESM tracks as a "Notice of Change" and said that impact statements from the budget office and library would not be required.

If you have any questions, please contact us.

ACADEMIC PROGRAM BUDGET FORM

Use this form for programs that can be pursued on a full-time basis, part-time basis, or through a combination of full-time and part-time attendance. Page 1 of 3

Choose one:
□ Full-time
□ Part-time
□ Combination of full- and part-time

REVENUE ESTIMATES										
	Yea	ar 1	Ye	ar 2	Ye	ear 3	Yea	ur 4		
	20	20	20)21	20	022	20'	23		
Tuition: In-State	\$14,	,824	\$14	i,824	\$14	4,824	\$14,824			
Tuition: Out-State	\$27,	,452	\$27	,452	\$27	7,452	\$27,	.452		
Tuition: Regional			·····				······			
Mandatory fees per student										
FTE # of New Students: In-State	3	3		3		3	3	 }		
FTE # of New Students: Out-State	2	2		2		2	2	<u>.</u>		
# of In-State FTE students transferring										
in from the institution's existing		ļ	1	I	1	I				
programs	C)	(0		0	C)		
# of Out-State FTE students										
transferring in from the institution's		ļ	1	I	1	I				
existing programs	C)	(0		0	0) 		
TUITION AND FEES	Revenue	Revenue from existing programs	Newly Generated Revenue	Revenue from existing programs	Newly Generated Revenue	Revenue from existing programs	, Newly Generated Revenue	Revenue from existing programs		
First Year Students	[1	1			1			
In-State tuition	\$44,472.00	\$370,600.00	\$44,472.00	\$370,600.00	\$44,472.00	\$370,600.00	\$44,472.00	\$370,600.00		
Out-of-State tuition	\$54,904.00	\$686,300.00	\$54,904.00	\$686,300.00	\$54,904.00	\$686,300.00	\$54,904.00	\$686,300.00		
Regional tuition										
Mandatory fees	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		
Second Year Students										
In-State tuition			\$44,472.00	\$0.00	\$44,472.00	\$0.00	\$44,472.00	\$0.00		
Out-of-State tuition			\$54,904.00	\$0.00	\$54,904.00	\$0.00	\$54,904.00	\$0.00		
Regional tuition										
Mandatory fees			\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		
Third Year Students							,			
In-State tuition			· · · · · · · · · · · · · · · · · · ·	1						
Out-of-State tuition										
Regional tuition			1							
Mandatory fees			1							
Fourth Year Students			,							
In-State tuition										
Out-of-State tuition										
Regional tuition			·							
Mandatory fees										
Total Tuition and Fees	\$99,376.00	\$1,056,900.00	\$198,752.00	\$1,056,900.00	\$198,752.00	\$1,056,900.00	\$198,752.00	\$1,056,900.00		
GRANTS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		
CONTRACTS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		
OTHER (Specify)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		
Total Grants, Contracts, Other	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		
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TOTAL	\$99,376.00	\$1,056,900.00	\$198,752.00	\$1,056,900.00	\$198,752.00	\$1,056,900.00	\$198,752.00	\$1,056,900.00		

NOTE: All of the above figures are estimates based on projections made by the institution submitting the proposal.

Note from submitter: Tuition was not increased over the 4 year period. Number of students approximated from total number of MESM students and our experience with the distribution of students in the various tracks

Note from Submitter: Please note that these tracks help to market the breadth and depth of the MESM program. We do not add faculty or staff or admininsters when we add a track

Note from Submitter: MESM has grown from 9 total students in 2008 to between 45-50 in 2018-- bringing in a huge amount of extra tuition -- and URI has added a 1/3rd time lecturer for this position.

		ACADEMIC	PROGRAM	/I BUDGET F	ORM			
Use this form for programs	that can be pu	irsued on a full-ti	me basis, pa	rt-time basis, o	or through a d	combination o	f full-time an	d part-time
		at	tendance. P a	age 2 of 3				
EXPENDITURE ESTIMATES								
	V	/ear 1	Ve	ar 2	Vo	ar 3	Ve	ar /
		2020	2	021	20	177 177	2	023
	Additional resources	Expenditures from	Additional resources	Expenditures	Additional resources	Expenditures	Additional resources	Expenditures
	required for	current resources	required for	from current resources	required for	from current resources	required for	from current resources
PERSONNEL SERVICES	program		program		program		program	
Administrators		¢7 565 00		Ć7 754 10		ć7 0 47 09		<u> </u>
Faculty		\$7,505.00		\$7,754.13		\$7,947.98		\$8,140.08
Support Stan								
Criego Donofito (44%)		ć2 220 CO		ća 411.00		¢2 407 11		
Fringe Benefits (44%)		\$3,328.60		\$3,411.82		\$3,497.11		\$3,584.54
Total Personnel	\$0.00	\$10,893.60	\$0.00	\$11,165.94	\$0.00	\$11,445.09	\$0.00	\$11,731.22
OPERATING EXPENSES								
Instructional Resources								
Other (specify)								
Total Operating Expenses	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
CAPITAL								
Facilities								
Equipment								
Other								
Total Capital	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
NET STUDENT ASSISTANCE								
Assistantships								
Fellowships								
Stipends/Scholarships								
Total Student Assistance	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
TOTAL EXPENDITURES	\$0.00	\$10,893.60	\$0.00	\$11,165.94	\$0.00	\$11,445.09	\$0.00	\$11,731.22

NOTE: All of the above figures are estimates based on projections made by the institution submitting the proposal. Note: This is track within the MESM program. We are adding zero faculty and staff.

ACADEMIC PROGRAM BUDGET FORM Use this form for programs that can be pursued on a full-time basis, part-time basis, or through a combination of full-time and part-time attendance. Page 3 of 3											
	Year 1	Year 2	Year 3	Year 4							
	2020	2021	2022	2023							
BUDGET SUMMARY OF COMBIN	NED EXISTING AND NEW P	ROGRAM									
Total Revenue	\$1,156,276.00	\$1,255,652.00	\$1,255,652.00	\$1,255,652.00							
Total Expenses	\$10,893.60	\$11,165.94	\$11,445.09	\$11,731.22							
Excess/Defeciency	\$1,145,382.40	\$1,244,486.06	\$1,244,206.91	\$1,243,920.78							
BUDGET SUMMARY OF EXISTIN	IG PROGRAM ONLY										
Total Revenue	\$1,056,900.00	\$1,056,900.00	\$1,056,900.00	\$1,056,900.00							
Total Expenses	\$10,893.60	\$11,165.94	\$11,445.09	\$11,731.22							
Excess/Defeciency	\$1,046,006.40	\$1,045,734.06	\$1,045,454.91	\$1,045,168.78							
BUDGET SUMMARY OF NEW PF	ROGRAM ONLY										
Total of Newly Generated	¢00.276.00	¢108 752 00	\$108 7E2 00	\$108 7E2 00							
Total of Additional	\$99,370.00	\$198,752.00	\$198,752.00	\$198,752.00							
Resources Required for	\$0.00	\$0.00	\$0.00	\$0.00							
Excess/Deficiency	\$99,376.00	\$198,752.00	\$198,752.00	\$198,752.00							

NOTE: All of the above figures are estimates based on projections made by the institution submitting the proposal.





BUDGET AND FINANCIAL PLANNING Adams House, 85 Upper College Road, Kingston, RI 02881 USA p: 401.874.2509 web.uri.edu/budget

DATE: November 29, 2018

TO: Nasser Zawia Dean, Graduate School

FROM: Linda Barrett Director, Budget and Filipapetal Planning

SUBJECT: Proposal for MS Environmental Science and Management (MESM)

As requested in an email from Brett Still, Lecturer and Master of Environmental Science & Management (MESM) Coordinator in the Department of Natural Resources Science, dated November 26, 2018, the Budget and Financial Planning Office has reviewed the proposal for the MS Environmental Science and Management (MESM).

Farres

According to the proposal, the MS of Environmental Science and Management (MESM) will require no new funding by the University. The program utilizes existing resources and has the potential to contribute positively to the University's revenue in future years. The proposal indicates that the new program will provide training relevant to many different professional paths, as well as an opportunity to evaluate broader graduate student interests in science communication training. This Master's track within the MESM style would be unique throughout Rhode Island and New England.

Please let us know if you require any further information.

cc: Donald DeHayes Matthew Bodah Anne Veeger Brett Still Cheryl Hinkson Arthur Gold Dean Libutti John Kirby Margaret Benz Joanne Lawrence Colleen Robillard Peter August

Office/Budget Impact statements/MS Environmental Science and Management/MS Environmental Science and Management Budget Impact Statement

The University of Rhode Island is an equal opportunity employer committed to community, equity, and diversity and to the principles of affirmative action.

Graduate Program Student Learning Outcomes Assessment Plan For Accredited and Non-Accredited Programs

The Graduate School requests that each program have clearly articulated program goals (Section I) and student learning outcomes statements linked to curriculum and course experiences/requirements (Section II). This assessment plan will help programs determine the extent to which these outcomes are successfully being met through courses and other program requirements. As part of the plan, each program will also create an assessment timeline (Section III) indicating when and how learning outcomes assessment will take place.^{i ii}

Program:	Masters of Environmental Science and Management (MESM)
Academic year plan submitted:	2013
Degree(s):	M.S.
Department Chair:	John Kirby, Dean, CELS
Program Director:	Arthur Gold, Peter August
Accredited Program:	No Yes, next accreditation report due:
Published learning outcomes (provide URL):	http://web.uri.edu/gradprograms/mesm/

I. Program Goals: Broad, general statements of what it means to be an effective program in terms of student learning outcomes; what the program wants students to know and be able to do upon completion of the program. Goals should relate to the mission of the department, college, and university in which the program resides. Success in achieving Goals is evaluated directly or indirectly by measuring specific outcomes (Section II) related to the goal

#1	Graduates know the fundamental principles of environmental science and how human activities affect environmental condition.
#2	Graduates evaluate multidisciplinary aspects of real-world environmental problems and create practical, viable solutions to those problems.
#3	Graduates can determine the current state of scientific knowledge of an environmental issue and effectively communicate the scientific problem and possible solutions to diverse audiences.

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Graduate Program Student Learning Outcomes Assessment Plan For Accredited and Non-Accredited Programs

II. Curriculum Mapping:

4. Across the top of the matrix, list courses and other requirements for the program. Order the requirements from right to left in rough chronological sequence, and append a standard description of your program requirements. Down the side, list programmatic student learning outcomes associated with goals. Using the map key below, indicate the degree to which an outcome will be taught and assessed in relevant courses and by other program requirements.

Program:														
Map Key I = Outcome Introduced R = Outcome Reinforced E = Outcome Emphasized Student Learning Outcomes (Competencies) by Goal: Statements of observable, measurable results of the educational experience, linked to program goals (Section I), that specify what a student is expected to know or be able to do throughout a program; these must be detailed and meaningful enough to guide decisions in program planning, improvement, pedagogy, and practice.			Course Numbers/Program Requirements: In addition to specific courses, this can include internships, portfolios, and other requirements not associated with a course number, such as thesis/dissertation proposals, thesis/dissertation defenses, and comprehensive examinations.											
			Courses in Natural Sciences	Courses in Social Sciences	Quantitative Methods Course	Special Projects, Internships	Comprehensive Exam	Major Paper	Self Assessment					
Goal #1	1.1 Students demonstrate technical capacity and knowledge in core principles of the natural sciences associated with their professional goals.	I	I, R			R	E	E	E					
	1.2 Students demonstrate technical capacity and knowledge in core principles of the social sciences associated with their professional goals.	I		I, R		R	E	E	E					
	1.3 Students are able to evaluate or apply statistical procedures to describe quantitative data, discern patterns and trends in data, or perform inferential tests of hypotheses.		R	R	I, R	R	E	E	E					

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Graduate Program Student Learning Outcomes Assessment Plan For Accredited and Non-Accredited Programs

Goal #2	2.1 Students demonstrate the ability to work with real- world environmental problems and create effective, practical solutions to those problems.	I	R	R	R	R, E		E	E				
Goal #3	3.1 Students demonstrate an ability to discover the state of scientific knowledge of an environmental problem and develop a practical solution to an environmental problem.	I, R	R	R	R	R, E	E	E	E				
	3.2 Students demonstrate the ability to effectively communicate scientific solutions to multiple audiences including the public, decision-makers, stakeholders, and scientists.	I	R	R		E	E	E	Ε				

*Add lines as necessary

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Graduate Program Student Learning Outcomes Assessment Plan For Accredited and Non-Accredited Programs

III. Assessment Timeline: Indicates when and how student learning will be assessed based on clear statements of learning outcomes and expectations. Refer to the curriculum map to draft a student learning outcomes assessment timeline. Specify a 6-year plan for assessment (3 two-year periods) in which you will assess all of your program's Goals with at least one student learning outcome representing each Goal.

Academic	Outcome(s)	Course(s) and Other Program	Assessment Evidence	Assessment Method
Years		Requirements	(direct/indirect)	
	WHICH outcome(s) will you examine in each period (by number, i.e. 1.1 etc.)?	WHERE will you look for evidence of student learning (i.e., what course(s)/program requirements)? Designate for each outcome.	WHAT student work or other evidence will you examine in order to generate conclusions and recommendations? Designate for each requirement.	HOW will you look at the evidence; what means will you use to quantify the evidence? Designate for each source of evidence.
Assessment Period 1 20 <u>12</u> - <u>14</u>	1.1	Core courses in natural sciences elective courses, self-assessment questionnaire in final semester, Major Paper, comprehensive examination.	Major Paper Proposal	Program approved rubric completed and evaluated by Program Directors.
	1.2	Core courses in social sciences, quantitative methods, elective courses, self-assessment questionnaire in final semester, Major Paper, comprehensive examination.	Major Paper Proposal	Program approved rubric completed and evaluated by Program Directors.
	1.3	Core courses in quantitative methods, elective courses, self-assessment questionnaire in final semester, Major Paper, comprehensive examination.	Major Paper Proposal	Program approved rubric completed and evaluated by Program Directors.
Assessment Period 2 20 <u>14</u> - <u>16</u>	2.1	Internship reports, special project products, Major Paper.	Assessment statement by internship hosts and faculty mentors on special projects, Major	Program approved rubric completed and evaluated by Track Chair and Program Directors.

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Graduate Program Student Learning Outcomes Assessment Plan For Accredited and Non-Accredited Programs

GRADUATE SCHOOL

			Paper.	
Assessment Period 3 20 <u>16</u> - <u>18</u>	3.1	Core courses in natural and social sciences, elective courses, self- assessment questionnaire in final semester, Major Paper, internship, comprehensive examination.	Assessment statement by internship hosts and faculty mentors on special projects , Major Paper, comprehensive examination.	Program approved rubric completed and evaluated by Track Chair and Program Directors.
	3.2	EVS 501 and 502 seminar, courses in natural and social sciences, elective courses, self-assessment questionnaire in final semester, Major Paper, internship, comprehensive examination.	Seminar presentations, internship reports, special project reports, Major Paper, comprehensive examination.	Program approved rubric completed and evaluated by Track Chair and Program Directors.

ⁱ If you have questions or need assistance, please contact: Office of Student Learning, Outcome Assessment, and Accreditation 874-9517; 874-9379

ⁱⁱ Accredited programs can provide supplemental documents that indicate the answers to these questions as long as specific page references are provided in each cell of the tables in this form. When the answers are not accessible in that way, cutting and pasting will be required.