2-18-2016

The Five Hundred and Thirtieth Report of the Curricular Affairs Committee: Curriculum Changes: Minor in Global Water Resources.

University of Rhode Island Faculty Senate

THE
UNIVERSITY
OF RHODE ISLAND
FACULTY SENATE OFFICE
Green Hall, 35 Campus Avenue, Kingston, RI 02881 USA p: 401.874.2616

THINK BIG WE DO

Serial Number #15-16—22C

TO: President David Dooley
FROM: Joëlle Rollo-Koster, Chairperson of the Faculty Senate

1. The attached BILL titled, The Five Hundred and Thirtieth Report of the Curricular Affairs Committee: Curriculum Changes: Minor in Global Water Resources, is forwarded for your consideration.

2. This BILL was adopted by vote of the Faculty Senate on February 18, 2016.

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 March 10, 2016 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.

Joëlle Rollo-Koster
Chairperson of the Faculty Senate

February 18, 2016

ENDORSEMENT

TO: Chairperson of the Faculty Senate

FROM: President of the University

a. Approved ____.

b. Approved subject to Notice of the Council on Postsecondary Education ✓. Approved 4/27/16

c. Disapproved ____.

Signature of the President

3.1.16
(date)

THE
UNIVERSITY
OF RHODE ISLAND
FACULTY SENATE OFFICE

THINK BIG WE DO™

UNIVERSITY OF RHODE ISLAND FACULTY SENATE

February 18, 2016

Faculty Senate Curricular Affairs Committee
Five Hundred and Thirtieth Report

At the February 1, 2016 meeting of the Curricular Affairs Committee and by electronic communication, the following matters were considered and are now presented to the Faculty Senate.

SECTION II
Curricular Matters Which Require Confirmation by the Faculty Senate

CURRICULAR CHANGES

2) Addition of a Minor in Global Water Resources (Appendix C).

Faculty comprising of the Water Cluster propose a minor in Global Water Resources (GWR); the effort is led by faculty from the College of Environment and Life Sciences (CELS). GWR students will take courses from across multiple departments in order to gain necessary interdisciplinary skills that are directly relevant to understanding global water issues. Todd Guilfoos, Assistant Professor in the Department of Environmental and Natural Resource Economics, and Soni Pradhanang, Assistant Professor in the Department of Geosciences will serve as the directors of this minor.

The Global Water Resources minor comprises a minimum of 18 credit hours, including three required course, GEO/NRS/EEC 234 Introduction to Water Resources, EEC 430 Water Resource Economics, and one course from a list of three hydrology courses (NRS 461 Watershed Hydrology and Management, GEO 482/582 Innovative Subsurface Remediation Technologies, GEO 484/584 Environmental Hydrogeology). The remaining credits must be taken from a list of approved elective courses. Admission to this minor requires that a student from any URI program has a cumulative grade point average of 2.70 or better after one semester at URI (or as a transfer student with same GPA). Students are responsible for meeting the prerequisite requirements for individual courses, as applicable.

THE
UNIVERSITY
OF RHODE ISLAND
Notice of Change RIBGHE

APPENDIX C

Revised 10-2009

Notice of Change for: Addition of a Minor in "Global Water Resources"

Date: December 8, 2015

A. PROGRAM INFORMATION

1. Name of institution

University of Rhode Island

2. Name of department, division, school or college

Department: Geosciences (GEO), Natural Resources Management (NRS), Environmental and Natural Resource Economics (ENRE)
College: College of the Environment and Life Sciences (CELS)

3. Intended initiation date of program change. Include anticipated date for granting first degrees or certificates, if appropriate.

Initiation date: Sept. 01, 2016
First degree date: May 2019

4. Intended location of the program

URI Main Campus, College of the Environment and Life Sciences

5. Summary description of proposed program (not to exceed 2 pages).

Minor in Global Water Resources

Faculty comprising of the Water Cluster propose a minor in Global Water Resources (GWR); the effort is led by faculty from the College of Environment and Life Sciences (CELS). GWR students will take courses from across multiple departments in order to gain necessary interdisciplinary skills that are directly relevant to understanding global water issues. Todd Guilfoos, Assistant Professor in the Department of Environmental and Natural Resource

Economics, and Soni Pradhanang, Assistant Professor in the Department of Geosciences will serve as the directors of this minor.

Water is a critical issue for societies and the environment around the world and water will continue to be one of the highest priorities for governments in the future due to the pressures exerted by climate and environmental change and population growth. The minor in Global Water Resources is designed to provide students with a strong and structured understanding of hydrological processes that affect the quantity and movement of surface and groundwater and the impacts of human activities on water supply and characteristics at a global scale.

The interdisciplinary minor in Global Water Resources is designed as a flexible program for undergraduate students to study and integrate principles of physical hydrology, geochemistry, aquatic and terrestrial ecology, natural resources management, and environmental economics and policy. This minor can include College of the Environment and Life Sciences (CELS) courses in the Departments of Geosciences (GEO), Natural Resources Management (NRS), Environmental Resources Economics (ENRE), and Biology (BIO), as well as courses in the College of Engineering, i.e., Civil and Environmental Engineering (CVE), and the College of Arts and Sciences, i.e., Landscape Architecture (LAR), and the Graduate School of Oceanography, i.e. Oceanography (OCG).

The Global Water Resources minor comprises a minimum of 18 credit hours, including three required course, GEO/NRS/EEC 234 Introduction to Water Resources, EEC 430 Water Resource Economics, and one course from a list of three hydrology courses (NRS 461 Watershed Hydrology and Management, GEO 482/582 Innovative Subsurface Remediation Technologies, GEO 484/584 Environmental Hydrogeology). The remaining credits must be taken from a list of approved elective courses. Admission to this minor requires that a student from any URI program has a cumulative grade point average of 2.70 or better after one semester at URI (or as a transfer student with same GPA). Students are responsible for meeting the prerequisite requirements for individual courses, as applicable.

Formalizing a minor in water science and management will help fulfill the vision of the URI Academic Plan [AP] which states as a goal "Internationalizing and Globalizing the University of Rhode Island." All of the required courses will include aspects of global water issues through case studies and applied examples of core concepts of the course which expands understanding of global physical and cultural differences related to water. Programmatically, GWR students will pursue a curriculum that is inherently interdisciplinary with breadth across the natural and social sciences. Specifically, a co-taught course (234: Intro to Water Resources) by Todd Guilfoos (ENRE), Soni Pradhanang (GEO), and Ali Akanda (CVE) is designed as the entry point into the Minor and exposes students to an interdisciplinary approach to water studies.

Learning Goals:

On completion of the minor in Global Water Resources, students will have the knowledge and skills to:

- Understand water resource issues in the region, the USA, and the world in the context of the complex interplay between climate, land, water, people and economic development.
- Integrate information across a range of disciplines into a comprehensive analysis of water issues.

- Appreciate the relationships between raw data and their interpretation(s), and how lack of knowledge or uncertain knowledge influence decision making relevant to water.

If applicable, please include the existing URI catalog language and proposed catalog language changes that relate to your request.

Global Water Resources

The minor in Global Water Resources is an interdisciplinary field of study and focuses on the study of the physico-chemical, social, political, and economic factors of water resources from a global perspective. It provides students with the opportunity to develop knowledge central to the understanding and management of water resources and to develop expertise relevant to the human dimensions of water quality and quantity at the global scale. Students are trained in the fundamental background and key practical skills required to address the emerging water problems in a world faced with changing climates and population growth. Opportunities exist for students to explore ecosystem interactions of water, remediation strategies of polluted water, policy and economics of water, and to better understand the linkages between water, landscape and climate. The curriculum is attractive to students from a wide range of co-curricular programs within the College of the Environment and Life Sciences and other colleges.

Students who declare a minor in Global Water Resources are required to complete a minimum of 18 credits, including three required course (GEO/NRS/EEC 234 Introduction to Water Resources, EEC 430 Water Resource Economics, and one course from a list of three hydrology courses (NRS 461 Watershed Hydrology and Management, GEO 482/582 Innovative Subsurface Remediation Technologies, GEO 484/584 Environmental Hydrogeology). The remaining credits must be taken from a list of approved elective courses. A list of water related course currently offered at URI is attached. Students accepted into the minor may have prerequisites waived in consultation with instructor.

6. Signature of the President

David M. Dooley

Required Courses:
GEO/NRS/EEC 234 Introduction to Water Resources (3)
EEC 430 Water Resource Economics (3)

1 course from the following list:
NRS 461 Watershed Hydrology and Management (4)
GEO 482/582 Innovative Subsurface Remediation Technologies (Boving; 4, Spring- odd years)
GEO 484/584 Environmental Hydrogeology (Boving; 3+1; Spring - even years)

Related Elective Courses:
GEG 101 World Geography (3) S
GCH 103 Grand Challenges in the Natural Sciences (Boving, 4, F)
NRS 100 Natural Resource Conservation (3)
NRS 300 Introduction to Global Issues in Sustainable Development (3)
NRS 461 Watershed Hydrology and Management (4)
NRS 496 Seminar in International Development (Abedon, 3 cr., Spring)
BIO/NRS 563 Biology and Ecology for Fish (4)
GEO/OCG 110 The Ocean Planet (3)
GEO 491 J-Term Indonesia (Boving, 3)
GEO 562 Aqueous Geochemistry (Cardace, 4, Spring)
GEO/NRS/CVE 535 Geospatial Watershed Modeling (Pradhanang, 3, Spring)
GEO 482/582 Innovative Subsurface Remediation Technologies (Boving; 4, Spring- odd years)
GEO 483 Hydrogeology (Veeger, 3+1; Fall)
GEO 484/584 Environmental Hydrogeology (Boving; 3+1; Spring - even years)
GEO 586 Hydro Reading Seminar (Boving, 1-3, F and S)
CVE 471 Water and Water Treatment Systems (3)
CVE 475 Water and the Environment (3)
OCG 200 Extreme Weather, (Heikes&Donohue; 3 cr, Spring)
OCG 480 Introduction To Marine Pollution (3)
CPL/LAR 434 Introduction to Environmental Law (3 crs.; Gordon)
CPL 485 Environmental Planning: (3 crs., Gordon)
EEC 310 Economics for Natural Resource Management and Policy (3)
EEC 440 Benefit-Cost Analysis (3)
PSC 422 International Political Economy (4)

Participant faculty signatures
The following faculty members express their support for the Minor in Global Water Studies

Name (alphabetical order)	College	Dept.	Signature
David Abedon	**CELS**	**NRS**	
Ali Akanda	**COE**	**CVE**	
Jose Amador	**CELS**	**NRS**	
Farhad Atash	**A&S**	**LAR**	
Thomas Boving	**CELS**	**GEO**	
Vinka Oyanedel-Craver	**COE**	**CVE**	
Art Gold	**CELS**	**NRS**	
Todd Guilfoos	**CELS**	**ENRE**	
Brian Heikes	**GSO**	**OCG**	
Kristin Johnson	**A&S**	**PSC**	
Rainer Lohmann	**GSO**	**OCG**	
Jim Opaluch	**CELS**	**ENRE**	
Soni Pradhanang	**CELS**	**GEO**	
Anne Veeger	**CELS**	**GEO**	
Dawn Cardace	**CELS**	**GEO**	

THE
UNIVERSITY
OF RHODE ISLAND
Abbreviated Proposal RIBGHE

Revised 10-2009

A Proposal for a

A. PROGRAM INFORMATION

1. **Name of institution**
   University of Rhode Island

2. **Name of department, division, school or college**
   Department: Geosciences (GEO), Natural Resources Management (NRS), Environmental and Natural Resource Economics (ENRE)
   College: College of the Environment and Life Sciences (CELS)

3. **Title of proposed program and Classification of Instructional Programs (CIP) code**

   Minor in Global Water Resources (03.0103)

4. **Intended initiation date of program change. Include anticipated date for granting first degrees or certificates, if appropriate.**
   Initiation date: Sept. 01, 2016
   First degree date: May 2019

5. **Intended location of the program**
   URI Main Campus, College of the Environment and Life Sciences

6. **Description of institutional review and approval process**

	Approval Date
Department	11/10/2015
College	12/04/2015
CAC/Graduate Council	12/04/2015
Faculty Senate	2/18/2016
President of the University	

7. **Summary description of proposed program (not to exceed 2 pages)**

Minor in Global Water Resources

Faculty comprising of the Water Cluster propose a minor in Global Water Resources (GWR); the effort is led by faculty from the College of the Environment and Life Sciences (CELS). GWR students will take courses from across multiple departments in order to gain necessary interdisciplinary skills that are directly relevant to understanding global water issues. Todd Guilfoos, Assistant Professor in the Department of Environmental and Natural Resource Economics, and Soni Pradhanang, Assistant Professor in the Department of Geosciences will serve as the directors of this minor.

Water is a critical issue for societies and the environment around the world and water will continue to be one of the highest priorities for governments in the future due to the pressures exerted by climate and environmental change and population growth. The minor in Global Water Resources is designed to provide students with a strong and structured understanding of hydrological processes that affect the quantity and movement of surface and groundwater and the impacts of human activities on water supply and characteristics at a global scale.

The interdisciplinary minor in Global Water Resources is designed as a flexible program for undergraduate students to study and integrate principles of physical hydrology, geochemistry, aquatic and terrestrial ecology, natural resources management, and environmental economics and policy. This minor can include College of the Environment and Life Sciences (CELS) courses in the Departments of Geosciences (GEO), Natural Resources Management (NRS), Environmental Resources Economics (ENRE), and Biology (BIO), as well as courses in the College of Engineering, i.e., Civil and Environmental Engineering (CVE), and the College of Arts and Sciences, i.e., Landscape Architecture (LAR), and the Graduate School of Oceanography, i.e. Oceanography (OCG).

The Global Water Resources minor comprises a minimum of 18 credit hours, including three required course, GEO/NRS/EEC 234 Introduction to Water Resources, EEC 430 Water Resource Economics, and one course from a list of three hydrology courses (NRS 461 Watershed Hydrology and Management, GEO 482 Innovative Subsurface Remediation Technologies, GEO 484 Environmental Hydrogeology). The remaining credits must be taken from a list of approved elective courses. Admission to this minor requires that a student from any URI program has a cumulative grade point average of 2.70 or better after one semester at URI (or as a transfer student with same GPA). Students are responsible for meeting the prerequisite requirements for individual courses, as applicable.

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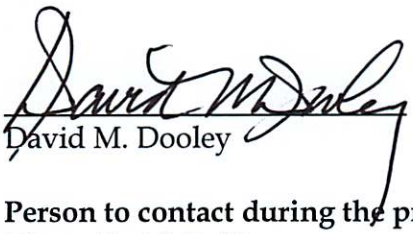
case studies and applied examples of core concepts of the course, which expands understanding of global physical and cultural differences related to water. Programmatically, GWR students will pursue a curriculum that is inherently interdisciplinary with breadth across the natural and social sciences. Specifically, a co-taught course (234: Intro to Water Resources) by Todd Guilfoos (ENRE), Soni Pradhanang (GEO), and Ali Akanda (CVE) is designed as the entry point into the Minor and exposes students to an interdisciplinary approach to water studies.

Learning Goals:

On completion of the minor in Global Water Resources, students will have the knowledge and skills to:

- Understand water resource issues in the region, the USA, and the world in the context of the complex interplay between climate, land, water, people and economic development.
- Integrate information across a range of disciplines into a comprehensive analysis of water issues.
- Appreciate the relationships between raw data and their interpretation(s), and how lack of knowledge or uncertain knowledge influence decision making relevant to water.

8. **Signature of the President**



David M. Dooley

9. **Person to contact during the proposal review**
   Name: Todd Guilfoos
   Address: 219 Coastal Institute, 1 Greenhouse Rd.
   Phone: 401-874-4398
   Email: guilfoos@uri.edu

10. **Signed agreements for any cooperative arrangements made with other institutions/agencies or private companies in support of the program.**
    None

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

1. **Explain and quantify the needs addressed by this program, and present evidence that the program fulfills these needs.**

There has been a growing interest across colleges worldwide to offer increasingly interdisciplinary approaches to teaching and researching water, for example the Water: Systems, Science, and Society program offered at Tufts University and the Water and Health Sciences program at Virginia Tech University. This program solidifies an opportunity at the undergraduate level to offer an array of courses that give students an interdisciplinary education in water studies. In addition to the broad educational aspects, there is demand for this type of education as shown by the co-taught course 234: Intro to Water Resources, which was over enrolled in Fall 2015, the first semester it was offered. This suggests there will be robust interest in this interdisciplinary minor.

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

1. **Explain how the program is consistent with the published role and mission of the institution and how it is related to the institution's academic planning.**

The program is clearly consistent with two aspects of the mission of the University of Rhode Island. As stated in the summary, the global water minor will help fulfill the vision of the URI Academic Plan [AP], which states as a goal "Internationalizing and Globalizing the University of Rhode Island." All of the required courses will include aspects of global water issues through case studies and applied examples of core concepts of the course, which expands understanding of global physical and cultural differences related to water. The second aspect is that this minor breeds independent thinking about water issues, through the lens of multiple disciplines students are actively engaged in thinking about difficult solutions to water issues from different perspectives.

D. **INTERINSTITUTIONAL CONSIDERATIONS: The program should be consistent with all policies of the Board of Governors pertaining to the coordination and collaboration between public institutions of higher education. (Consult the Board of Governors' *Coordination Plan for Academic Programs in Rhode Island Public Institutions of Higher Education* [www.ribghe.org/publicreg.htm] for guidelines and restrictions regarding the types and levels of programs the institutions are allowed to offer.)**

1. **Estimate the projected impact of program on other public higher education institutions in Rhode Island (e.g. loss of students or revenues), provide a rationale for the assumptions made in the projections, and indicate the manner in which the other public institutions were consulted in developing the projections.**

There is no projected impact to other public higher educational institutions in Rhode Island.

2. **Using the format prescribed by RIOHE, describe provisions for transfer students (into or out of the program) at other Rhode Island public institutions of higher education. Describe any transfer agreements with independent institutions. The institution must also either submit a Joint Admissions Agreement transition plan or the reason(s) the new program is not transferable. (See *Procedure for Strengthening the Articulation/Transfer Component of the Review Process for New Programs* which can be found at *www.ribghe.org/publicreg.htm*.)**

   Any transfer students would be required to fulfill all of the requirements of the global water minor. The reason that the global water minor would not be transferrable is that the core courses for the minor have specific interdisciplinary components. It would be difficult to verify that similar course work and learning experiences have been provided at other institutions.

3. **Describe any cooperative arrangements with institutions offering similar programs. (Signed copies of any agreements pertaining to use of faculty, library, equipment, and facilities should be attached.)**

   None

4. **If external affiliations are required, identify providing agencies. (Indicate the status of any arrangements made and append letters of agreement, if appropriate.)**

   None required

5. **Indicate whether the program will be available to students under the New England Board of Higher Education's (NEBHE) Regional Student Program (RSP).**

   The program will be available to all enrolled students at the University of Rhode Island.

E. **PROGRAM: The program should meet a recognized educational need and be delivered in an appropriate mode.**

1. **Prepare a typical curriculum display for one program cycle for each sub-major, specialty or option, including the following information:**

a. **Name of courses, departments, and catalog numbers and brief descriptions for new courses, preferably as these will appear in the catalog. In keeping with each institution's timetable for completion of student outcomes assessment, each institution should provide an assessment plan detailing what a student should know and be able to do at of the program and how the skills and knowledge will be assessed. For example, if a department brings forth a new program proposal but that department is not slated to have its student outcomes assessment completed until 2008, the program could be approved but with the provision that the department return no later than 2008 and present to the Academic and Student Affairs Committee its student outcomes for that particular program.**

There are no new courses proposed with this program. The required courses and electives are provided below.

b. **Required courses in area of specialization and options, if any.**

Required Courses:
GEO/NRS/EEC 234 Introduction to Water Resources (3)
EEC 430 Water Resource Economics (3)

1 course from the following list:
NRS 461 Watershed Hydrology and Management (4)
GEO 482 Innovative Subsurface Remediation Technologies (Boving; 4, Spring- odd years)
GEO 484 Environmental Hydrogeology (Boving; 3+1; Spring - even years)

b. **Course distribution requirements, if any, within program, and general education requirements.**

Related Elective Courses:
GEG 101 World Geography (3) S
GCH 103 Grand Challenges in the Natural Sciences (Boving, 4, F)
NRS 100 Natural Resource Conservation (3)
NRS 300 Introduction to Global Issues in Sustainable Development (3)
NRS 496 Seminar in International Development (Abedon, 3 cr., Spring)
GEO/OCG 110 The Ocean Planet (3)
GEO 491 J-Term Indonesia (Boving, 3)
GEO 562 Aqueous Geochemistry (Cardace, 4, Spring)
GEO 483 Hydrogeology (Veeger, 3+1; Fall)
CVE 471 Water and Water Treatment Systems (3)
CVE 475 Water in the Environment (3)

OCG 200 Extreme Weather (Heikes & Donohue; 3 cr, Spring)
OCG 480 Introduction To Marine Pollution (3)
CPL/LAR 434 Introduction to Environmental Law LEC (3 crs.; Gordon)
CPL 485 Environmental Planning (3 crs., Gordon)
EEC 310 Economics for Natural Resource Management and Policy (3)
EEC 440 Benefit-Cost Analysis (3)
PSC 422 International Political Economy (4)

d. **Total number of free electives available after specialization and general education requirements are satisfied.**

   8 credits

e. **Total number of credits required for completion of program or for graduation. Present evidence that the program is of appropriate length as illustrated by conformity with appropriate accrediting agency standards, applicable industry standards, or other credible measure, and comparability of lengths with similar programs in the state or region.**

   18 credits. This number of credits is comparable to most minors at the University of Rhode Island.

f. **Identify any courses that will be delivered or received by way of distance learning. (Refer to *www.ribghe.org/publicreg.htm* for the *Standards for Distance Learning in the Rhode Island System of Public Higher Education.*)**

   None

2. **Describe certification/licensing requirements, if any, for program graduates and the degree to which completion of the required course work meets said requirements. Indicate the agencies and timetables for graduates to meet those requirements.**

   None required

3. **Include the learning goals (what students are expected to gain, achieve, know, or demonstrate by completion of the program) and requirements for each program.**

On completion of the minor in Global Water Resources, students will have the knowledge and skills to:

- Goal I: Understand water resource issues in the region, the USA, and the world in the context of the complex interplay between climate, land, water, people and economic development.
- Goal II: Integrate information across a range of disciplines into a comprehensive analysis of water issues.
- Goal III: Appreciate the relationships between raw data and their interpretation(s), and how lack of knowledge or uncertain knowledge influence decision making relevant to water.

4. Demonstrate that student learning is assessed based on clear statements of learning outcomes and expectations.

Learning outcomes for each learning goal for the Minor are:

- Goal I Above Outcome – Students will know how to assess water resource issues in the region, the USA, and the world by collecting and evaluating data in software such as EXCEL, Surfer or Sigma Plot to achieve the results sought for the application at hand.
- Goal II Above Outcome – Students will have acquired advanced level skills in data analysis, analytical arguments, and illustrating water data to write and illustrate a comprehensive report on global water issues.
- Goal III Above Outcome - Students can critically evaluate information for data gaps and uncertainty by reporting in oral (presentation) and/or written (essay) formats.

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.

1. Describe the faculty who will be assigned to the program. Indicate total full-time equivalent (FTE) positions required for the program, the proportion of program faculty who will be in tenure-track positions, and whether faculty positions will be new positions or reassignment of existing positions.

The program will be supported by existing faculty across the College of the Environment and Life Sciences, College of Engineering, College of Arts and Sciences, and the Graduate

School of Oceanography. No additional faculty is required to facilitate the minor, which is completely contained from existing classes and existing positions.

G. **STUDENTS: The program should be designed to provide students with a course of study that will contribute to their intellectual, social and economic well-being. Students selected should have the necessary potential and commitment to complete the program successfully.**

1. **Describe the potential students for the program and the primary source of students. Indicate the extent to which the program will attract new students or will draw students from existing programs and provide a specific rationale for these assumptions. For graduate programs, indicate which undergraduate programs would be a potential source of students.**

   Most students are expected to be drawn from across departments in the College of the Environment and Life Sciences. In particular, we believe the program will draw strong interest from students in Geosciences, Natural Resource Sciences, Marine Affairs, and Environmental & Natural Resource Economics. We believe that the program will offer these students a breadth of knowledge and intellectual experience that touches on their core interest, water, but allows them to gain credit formal recognition through a minor for taking courses related to that interest but from a different disciplines perspective.

L. **EVALUATION: Appropriate criteria for evaluating the success of a program should be development and used.**

1. **List the performance measures by which the institution plans to evaluate the program. Indicate the frequency of measurement and the personnel responsible for performance measurements. Describe provisions made for external evaluation, as appropriate.**

   The measures of performance will be based on two criteria. We will gauge success of the program on the number of students that complete the minor from inception to finish and we will design a brief questionnaire that evaluates the program from the student's perspective.