



# Program Approval Form

For approval of new programs and deletions or modifications to an existing program.

### Action Requested:

Create New (SCHEV approval required except for minors)  
 Inactivate Existing  
 Modify Existing (check all that apply)  
 Title (SCHEV approval required except for minors)  
 **Concentration** (Choose one):  Add  Delete  Modify  
 Degree Requirements  
 Admission Standards/ Application Requirements  
 Other Changes: \_\_\_\_\_

### Type (Check one):

B.A.  B.S.  Minor  
 M.A.  M.S.  M.Ed.  
 Ph.D.  
 Undergraduate Certificate\*  
 Graduate Certificate\*  
 Other:

**College/School:**  **Department:**   
**Submitted by:**  **Ext:**  **Email:**

**Effective Term:** Fall  **Please note:** For students to be admitted to a new degree, minor, certificate or concentration, the program must be fully approved, entered into Banner, and published in the University Catalog.

### Justification: (attach separate document if necessary)

Courses have been developed to offer our BS in ES students introductory courses covering knowledge of core concepts in molecules, cells, organisms, biodiversity, ecosystems, biomes, and human dimensions that they need before taking upper level courses in this major. These courses replace courses taught in other departments. EVPP 337 is the designated writing-intensive course now.

**Program Title: (Required)**  
 Title must identify subject matter. Do not include name of college/school/dept.

**Concentration(s):**

**Admissions Standards / Application Requirements:**  
 (Required only if different from those listed in the University Catalog)

**Degree Requirements:**  
 Consult University Catalog for models, attach separate document if necessary using track changes for modifications

**Courses offered via distance:**  
 (if applicable)

**TOTAL CREDITS REQUIRED:**

Existing	New/Modified
Environmental Science	
See attached	See attached  Delete EVPP 110, 111, BIOL 213, PHYS 101, BIOL 308  Add EVPP 210, 301, 302  EVPP 337 will be the writing-intensive course  Add EVPP 378 to synthesis courses  Delete GEOL 420, GGS 303, GGS 304, and PHIL 343 from synthesis courses

\*For Certificates Only: Indicate whether students are able to pursue on a  Full-time basis  Part-time basis

### Approval Signatures

03  
Dec  
2014

Department

Date

College/School

Date

Provost's Office

Date

*Required for Minors and Interdisciplinary Programs*

If this program may impact another unit or is in collaboration with another unit at Mason, the originating department must circulate this proposal for review by those units and obtain the necessary signatures prior to submission. Failure to do so will delay action on this proposal.

Unit Name	Unit Approval Name	Unit Approver's Signature	Date

## For Graduate Programs Only

Graduate Council Member

Provost Office

Graduate Council Approval Date

*For Registrar Office's Use Only:* Received \_\_\_\_\_ Banner \_\_\_\_\_ Catalog \_\_\_\_\_ revised 6/7/12

### **Program Proposal Submitted to the College of Science Curriculum Committee (COSCC)**

The form above is processed by the Office of the University Registrar. This second page is for the COSCC's reference. Please complete the applicable portions of this page to clearly communicate what the form above is requesting.

#### **FOR ALL PROGRAMS** (required)

Program Title: Environmental Science

**Date of Departmental Approval:**

#### **FOR INACTIVATED PROGRAMS** (required if inactivating a program)

- Reason for Inactivation:

#### **FOR MODIFIED PROGRAMS** (required if modifying a program)

- Summary of the Modification:
  - Delete EVPP 110, 111, BIOL 213, PHYS 101, BIOL 308
  - Add EVPP 210, 301, 302
  - EVPP 337 will be the writing-intensive course
  - Add EVPP 378 to synthesis courses
  - Delete GEOL 420, GGS 303, GGS 304, and PHIL 343 from synthesis courses
- Text before Modification (title, degree requirements, etc.):
  - See attached 2014-2015 Catalog Copy
- Text after Modification (title, degree requirements, etc.):
  - See attached 2014-2015 Catalog Copy markup
- Reason for the Modification: Courses have been created to provide our BS in ES students with the basic terminology and scientific and social science concepts they will need to have before taking upper-level required courses in this major. These courses replace lower level general education courses and courses taught in other departments that were not providing the environmental science perspective. We will now offer four synthesis courses to accommodate our majors.

#### **FOR NEW PROGRAMS** (required if creating a new program)

- Reason for the New Program:
- Relationship to Existing Programs:
- Relationship to Existing Courses:
- Semester of Initial Offering:
- Insert Tentative SCHEV Proposal Below

## Environmental Science, BS

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[Return to: Programs of Study](#)

**Banner Code: SC-BS-EVSC**



The BS in environmental science provides students with rigorous training in the fundamental science of the environment, and the application of the key scientific principles to the analysis of environmental processes and problems and to the development of practical responses to those problems. The program covers ecological systems, environmental policy and the fundamental techniques of environmental science and engineering, protection and improvement of environmental quality, environmental policy. Graduates of the program are prepared to undertake careers in a variety of environmental science fields, and are also qualified to pursue advanced scientific/professional education.

Students select a concentration in conservation, ecological science, environmental health, human and ecosystem response to climate change or marine, estuarine and freshwater ecology. Through the course work below, environmental science majors satisfy the university-wide requirements in natural science, quantitative reasoning, and synthesis. Students can fulfill the writing intensive requirement for this major by taking [BIOL 308](#)/[EVPP 337](#) .

Students must fulfill all requirements for bachelor's degrees including the [Mason Core](#) .

For policies governing all undergraduate degrees, see the [Academic Policies](#) section of the catalog.

This has been designated a Green Leaf program. For further information, please go to [Green Leaf Programs and Courses](#) .

This program of study is offered by the Department of Environmental Science and Policy in the [College of Science](#) .

### Degree Requirements

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### Core Requirements

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#### Environmental Science (~~3538-397~~ credits)

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- [EVPP 440-210 - The Ecosphere: An Introduction to Environmental Science I](#)/[Environmental Biology: Molecules and Cells](#) Credits: 4
- [EVPP 444-301 - The Ecosphere: An Introduction to Environmental Science II](#)/[Environmental Science: Biological Diversity and Ecosystems](#) Credits: 4
- [EVPP 302 - Environmental Science: Biomes and Human Dimensions](#) Credits: 4

- ~~of~~
- ~~BIOL 213 - Cell Structure and Function Credits: 4~~
- ~~PHYS 101 - Light and Sound in Our World Credits: 3~~
- ~~EVPP 305 - Environmental Microbiology Essentials Credits: 3~~
- ~~EVPP 306 - Environmental Microbiology Essentials Laboratory Credits: 1~~
- ~~EVPP 337 - Environmental Policy Making in Developing Countries Credits: 3~~
- ~~EVPP 361 - Introduction to Environmental Policy Credits: 3~~
- ~~EVPP 377 - Applied Ecology Credits: 3~~
- ~~EVPP 430 - Fundamentals of Environmental Geographic Information Systems Credits: 3~~
- ~~BIOL 214 - Biostatistics for Biology Majors Credits: 4~~
- ~~BIOL 308 - Foundations of Ecology and Evolution Credits: 5~~
- one of the following ~~four three~~ courses:
- ~~EVPP 336 - Human Dimensions of the Environment Credits: 3 \*~~
- ~~EVPP 337 - Environmental Policy Making in Developing Countries Credits: 3~~
- ~~EVPP 338 - Economics of Environmental Policy Credits: 3~~
- ~~EVPP 362 - Intermediate Environmental Policy Credits: 3~~
- one of the following ~~six four~~ courses which fulfill the Mason Core synthesis requirement:
- ~~EVPP 335 - People, Plants, and Culture Credits: 3~~
- ~~EVPP 378 - Ecological Sustainability Credits: 4~~
- ~~EVPP 480 - Sustainability in Action Credits: 4~~
- ~~GEOL 420 - Earth Science and Policy Credits: 3~~
- ~~GGS 303 - Conservation of Resources and Environment Credits: 3~~
- ~~GGS 304 - Populations Dimensions of Global Change Credits: 3~~
- ~~CONS 490 - Integrated Conservation Strategies Credits: 3 (only to students attending the Mason-Smithsonian semester)~~
- ~~PHIL 343 - Topics in Environmental Philosophy Credits: 3~~
- ~~\* Students in the Human and Ecosystem Response to Climate Change concentration may not take EVPP 336 to fulfill this portion of the core. They must take EVPP 337.~~

Field Code Changed

Field Code Changed

### Chemistry (8 credits)

- CHEM 211 - General Chemistry Credits: 4
- CHEM 212 - General Chemistry Credits: 4

### Mathematics (7-8 credits)

- MATH 111 - Linear Mathematical Modeling Credits: 3
- MATH 113 - Analytic Geometry and Calculus I Credits: 4
- MATH 114 - Analytic Geometry and Calculus II Credits: 4

### Geology (4 credits)

- [GEOL 102 - Introductory Geology II](#) Credits: 4

### **Information Technology (3 credits)**

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- [CDS 130 - Computing for Scientists](#) Credits: 3 (fulfills Mason Core requirement for information technology)