



# 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 and certificates)  
 Delete Existing  
 Modify Existing (check all that apply)  
 Title (SCHEV approval required except for minors, certificates)  
 **Concentration** (Choose one):  Add  Delete  Modify  
 Degree Requirements  
 Admission Standards  
 Application Requirements  
 Other Changes: \_\_\_\_\_

**Type** (Check one):

B.A.  B.S.  Minor  
 Undergraduate Certificate  
 M.A.  M.S.  M.Ed.  
 Ph.D.  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)

**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
MS in Environmental Science and Policy	MS in Environmental Science and Policy
	Aquatic Ecology
	See attached catalog copy
33-37	33

## Approval Signatures

Department \_\_\_\_\_ Date \_\_\_\_\_ College/School \_\_\_\_\_ Date \_\_\_\_\_ Provost's Office \_\_\_\_\_ Date \_\_\_\_\_  
*Interdisciplinary Council Use Only*

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 \_\_\_\_\_

## MS in Environmental Science and Policy

### Aquatic Ecology Concentration - Catalog Copy

This concentration will provide students with a well-grounded MS in the study of aquatic environments such as lakes, streams, watersheds, and estuaries. Emphasis is placed on food webs, biogeochemical cycles, water quality, habitat characteristics, and life histories of aquatic organisms. Students will become proficient with research tools including literature review, field and laboratory methods, and analytical tools as well as applications to management issues.

Course selection should also support the research component of the student's degree program and should be developed in close consultation with the advisor and committee members. The advisor and thesis committee approve the course work program individually for each student.

#### **Aquatic Science (12 credits)**

Required Core courses (6 credits):

EVPP 550 – Waterscape Ecology and Management Credits: 3

EVPP 581 – Estuarine and Coastal Ecology Credits: 3

The remaining 6 credits can include:

EVPP 519 – Marine Mammal Biology and Conservation Credits: 3

EVPP 521 – Marine Conservation: Credits: 3

EVPP 505 – Field Biology (aquatic ecology topics) Credits: 1-4

EVPP 536 – Ichthyology Credits: 3

EVPP 563 – Coastal Morphology and Processes 4 credits

EVPP 641 – Environmental Science and Public Policy Credits: 3

EVPP 643 – Microbial Ecology Credits: 4

EVPP 645 – Freshwater Ecology Credits: 3

EVPP 646 – Wetland Ecology and Management Credits: 3

EVPP 648 – Population Ecology Credits: 3

EVPP 652 – The Hydrosphere Credits: 3

EVPP 741 – Advanced Topics in Environmental Science and Public Policy (aquatic ecology topics) Credits: 1-4

EVPP 745 – Environmental Toxicology: Credits: 3

(CHEM 527 – Aquatic Environmental Chemistry: 3 credits)\*new course, proposal submitted to CHEM

#### **Public Policy (6 credits):**

At least 6 credits are required in environmental law, human ecology, environmental ethics, environmental conflict resolution, environmental planning, or public affairs.

#### **Aquatic Methods (6 credits):**

At least 6 credits are required to include statistics, research design, multivariate data analysis (EVPP 651), geographic information systems, lab and field classes (EVPP 555, EVPP 582, EVPP 647)

**Seminar (1 credit):** EVPP 692: Master's Seminar in Environmental Science and Public Policy

**Research:** (2-6 credits):

Project Option

-At least 2 credits of EVPP 798 Master's Research Project in Environmental Science and Public Policy

Thesis Option

-At least 3 credits of EVPP 799 Master's Thesis in Environmental Science and Public Policy

#### **Electives**

-If necessary, students take additional electives to bring the total to 33 credits.

**Total: 33 Credits**

**MS in Environmental Science and Policy**

**Aquatic Ecology Concentration**

**Justification**

A new concentration in Aquatic Ecology within the MS in Environmental Science and Policy is justified for several reasons. First, aquatic ecology has long been a focus of graduate education in the Department of Environmental Science and Policy (and before that, the Department of Biology). Second, the College of Science is devoting significant resources to a new building on the tidal Potomac River near Woodbridge – Potomac Science Center – whose largest tenant, the Potomac Environmental Research and Education Center, will have Aquatic Ecology as its research focus. With 8 faculty lines, this new center is expected to generate a greatly increased interest in graduate studies in this area. Third, several other concentrations now exist in the MS in Environmental Science and Policy. These have raised the expectation among prospective students that the subject areas available to graduate students will be represented by concentrations. While we have a general concentration in the MS degree – Environmental Science and Policy concentration – increasingly students are focusing on the more specific concentrations which provide a more structured program. For these reasons we feel that a concentration in Aquatic Ecology within the MS in Environmental Science and Policy will be successful in attracting students and raising the profile of this field within the College of Science.

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