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
- [x] Modify Existing (check all that apply)
  - [ ] Title (SCHEV approval required except for minors)
  - [ ] **Concentration** (Choose one): [ ] *Add* [ ] *Delete* [ ] *Modify*
  - [x] Degree Requirements
  - [ ] Admission Standards/ Application Requirements
  - [ ] Other Changes: _____

Type (Check one):

- [ ] B.A. [ ] B.S. [ ] Minor
- [ ] M.A. [x] M.S. [ ] M.Ed.
- [ ] Ph.D.
- [ ] Undergraduate Certificate*
- [ ] Graduate Certificate*
- [ ] Other:

College/School:	COS	**Department:**	ESP		
Submitted by:	Ingrid Visseren-Hamakers	**Ext:**	35805	**Email:**	ivissere@gmu.edu

Effective Term: Fall 2016

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)

The M.S. program Environmental Science and Policy lacked an introductory course for the social sciences. The course EVPP 608 "Introduction to Environmental Social Science" (ESS) will fill this gap. It will serve as the social science equivalent to the class "Fundamentals of Ecology" (EVPP 607), which is required for students with little experience in the natural sciences. The course EVPP 608 should become required for M.S. students who have no or little social scientific experience at the undergraduate and/or graduate level, as it provides a basis for the social sciences for the whole program.

	Existing	New/Modified
Program Title: (Required) Title must identify subject matter. Do not include name of college/school/dept.	Environmental Science and Policy MS	
Concentration(s):	all	
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		See attached document.
Courses offered via distance: (if applicable)		
TOTAL CREDITS REQUIRED:		

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

Approval Signatures

[redacted] ege/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 and Policy MS

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: add EVPP 608 as required course for students with no or little social science background.

- Text before Modification (title, degree requirements, etc.):

See attached document.

- Text after Modification (title, degree requirements, etc.):

See attached document.

- Reason for the Modification:

The M.S. program Environmental Science and Policy lacked an introductory course for the social sciences. The course EVPP 608 "Introduction to Environmental Social Science" (ESS) will fill this gap. It will serve as the social science equivalent to the class "Fundamentals of Ecology" (EVPP 607), which is required for students with little experience in the natural sciences. The course EVPP 608 should become required for M.S. students who have no or little social scientific experience at the undergraduate and/or graduate level, as it provides a basis for the social sciences for the whole program.

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 and Policy, MS

Banner Code: SC-MS-EVSP

This program of study is offered by the Department of Environmental Science and Policy in the College of Science.
The Environmental Science and Policy, MS meets the increasing need for trained environmental professionals who can address the problems of land and water management, land use and urbanization, wetland loss, microbial ecology, bioremediation, conservation biology, and ecosystem preservation. These professionals will also contribute to the analysis and resolution of global problems, such as deforestation, insufficient world food supplies, acid deposition, population growth and public health, global climate change/warming, and depletion of the stratospheric ozone. Areas of specific departmental focus include ecosystems; conservation; environmental biocomplexity; molecular ecology; sustainability science; environmental policy and management and human/environmental interactions.

Environmental problems are defined in the real world and do not necessarily conform to traditional academic disciplines. As such, solutions require creative combinations of diverse interests and subjects. Effective training requires rigorous, problem-focused interdisciplinary action in a setting in which research is an essential element supporting instruction.

Six concentrations are available in the master's program: aquatic ecology, environmental science and policy, conservation science and policy, environmental biocomplexity, Earth surface processes and environmental geochemistry, and environmental management. The first five concentrations, designed for students who wish to obtain a research oriented master's degree, can serve as a training ground for students wishing to further their education by pursuing the Environmental Science and Public Policy, PhD at Mason or doctoral programs at other universities. The environmental science and policy concentration is the largest and serves as a home for a broad array of research foci. The conservation science and policy concentration is designed to be an interdisciplinary, research-oriented degree focusing on the conservation of threatened species and habitats, integrating biological

sciences and the human dimensions of conservation practice. The environmental biocomplexity concentration is designed for students who wish to obtain a research-oriented master's degree in population genetics, microbial ecology, and molecular systematics. The concentration in Earth surface processes and environmental geochemistry provides a specific research focus in the Earth science area.

The environmental management concentration serves as a terminal professional master's degree for individuals working in or aspiring to work as managers in the environmental field in government or private industry. It combines the managerial and administrative skills developed in a traditional master of public administration degree program with the scientific knowledge and understanding normally found in a master of science degree.

This has been designated a Green Leaf program. For further information, please visit Green Leaf Programs and Courses.

Admission Requirements

Persons interested in graduate programs at George Mason University must meet the admission standards and application requirements for graduate study, as specified in the Graduate Admission Policies section of this catalog. Applicants must complete the Mason Graduate Application. Applicants should hold a bachelor's degree with a GPA of 3.00 in natural or Earth sciences, engineering, resource planning, environmental studies, or a field that leads to an environmental focus from a regionally accredited institution. Applicants should have taken at least two semesters of chemistry and three semesters of biology, including a course in ecology. Applicants who lack the prerequisite college-level coursework in biology and chemistry should contact the graduate coordinator's office for advice. Successful completion of a two-semester sequence of introductory graduate level environmental chemistry and biology courses, offered by the Department of Environmental Science and Policy, can be used to satisfy the biology and chemistry prerequisites for admission. These introductory courses would be in addition to the degree requirements listed below.

Applicants should submit the following:

- Three letters of recommendation, including at least one from a former professor or, if not available, from someone with a PhD.
- The aptitude portion of the GRE is required, and successful applicants usually have achieved a minimum score of 1100 (or the equivalent using the new ETS scale) for verbal and quantitative combined.
- Applicants must also submit a statement of interest to the program, which should include the concentration to which they are applying, potential areas of environmental focus and research interest, a statement of interactions with potential faculty advisors, and an explanation of career goals.
- Prospective students must contact potential faculty advisors appropriate to their interests during the application process. In

addition, the potential advisor must send a letter of endorsement to the graduate office to include why the student would be a good fit for the advisor's research program. The availability of an advisor in the student's area of interest is a prerequisite for final admission.

Degree Requirements

Students will complete 33-37 credits of a concentration according to requirements described below to earn the Environmental Science and Policy, MS. Students must form a supervisory committee and submit a program of study to the graduate coordinator for approval within the first 9 credits of coursework or by the end of the second semester, whichever comes first. The supervisory committee consists of the advisor and at least two other members, chosen in consultation with the advisor and conforming to Mason's Requirements for Master's Degrees. Course requirements may be fulfilled by completing courses from a variety of academic units at Mason. The program requires a minimum of 33 graduate credits distributed in selected categories to provide a breadth of knowledge appropriate for addressing current environmental issues. Course selection should reflect a coherent individual program focus, which is stated and briefly described in the program of study and support the research component of the student's degree program (if appropriate) and should be developed in close consultation with the advisor and committee members. The advisor and thesis committee approve the coursework program individually for each student.

This research requirement may be satisfied in one of two ways. Students may complete a research project (EVPP 798) or produce a formal thesis (EVPP 799). The depth and sophistication of the research differs between the two options. The thesis normally involves original research with independent acquisition and interpretation of data, with the goal of peer-reviewed publication. Projects are generally less extensive and can include a broader range of activities.

Students fulfilling the research requirement with EVPP 798 are required to take a comprehensive examination covering knowledge mastered through the program of study, administered by their supervisory committee. This includes both a written and oral component. Students choosing to do a thesis and completing EVPP 799 will present their results in a public seminar and defend their thesis before their supervisory committee. Students will be graded pass/no credit on the research component.

For the concentration in environmental management, there is no supervisory committee. The graduate program director serves as the advisor for students in this concentration.

▲ Aquatic Ecology Concentration (AQEC)

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 coursework program individually for each student.

Aquatic Science (12 credits)

Required Core Courses:

Course Name	Credits:	Term Taken	Grade	Gen Ed
EVPP 550 - Waterscape Ecology and Management	Credits: 3			
EVPP 581 - Estuarine and Coastal Ecology	Credits: 3			
Remaining 6 credits chosen from the following:				
EVPP 505 - Selected Topics in Environmental Science	Credits: 0-4			
EVPP 519 - Marine Mammal Biology and Conservation	Credits: 3			
EVPP 521 - Marine Conservation	Credits: 3			
EVPP 536 - The Diversity of Fishes	Credits: 3			
EVPP 563 - Coastal Morphology and Processes	Credits: 4			
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	Credits: 0-4			
EVPP 745 - Environmental Toxicology	Credits: 3			

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. EVPP 608 is required for students with limited previous coursework in the social sciences and can be included within the 6 credits.

Aquatic Methods (6 credits)

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

Seminar (1 credit)

Course Name	Credits:	Term Taken	Grade	Gen Ed
EVPP 692 - Master's Seminar in Environmental Science and Public Policy	Credits: 1			

Research (1-6 credits)

Course Name	Credits:	Term Taken	Grade	Gen Ed
Project Option:				
At least 1 credit of EVPP 798 - Master's Research Project in Environmental Science and Public Policy	Credits: 1-3			
Thesis Option:				
At least 3 credits of EVPP 799 - Master's Thesis in Environmental Science and Public Policy	Credits: 1-6			

Electives

If necessary, students can take additional electives in consultation with their advisor to bring the total to 33 credits.

Degree with AQEC Concentration Total: 33 credits

▲ Conservation Science and Policy Concentration (COSP)

This concentration is for students desiring an Environmental Science and Policy, MS with an interdisciplinary approach to the conservation of species and habitats. Students may take courses offered by ESP and other departments on the Fairfax campus as

well as CONS courses which are offered through the Smithsonian Mason School of Conservation. This unique partnership with the Smithsonian Conservation Biology Institute (SCBI) in Front Royal, Virginia offers students hands-on education in cutting-edge conservation science and human dimensions through residential, intensive classes. SCBI is renowned for its conservation research and training of conservation practitioners around the world and instructors for these classes are drawn from SCBI's conservation scientists and other experts from around the world.

Requirements may be fulfilled by completing courses from a variety of academic units at Mason. The program requires a minimum of 33 graduate credits distributed in five categories and provides a breadth of knowledge appropriate for addressing current conservation issues. Course selection should support the research component of the student's degree program developed in close consultation with the advisor and the committee members. The advisor and thesis committee approve the coursework program individually for each student.

Conservation Science (6 credits)

At least 6 credits are required from conservation science courses. Suggested courses include:

Course Name	Credits:	Term Taken	Grade	Gen Ed
EVPP 518 - Conservation Biology	Credits: 3			
EVPP 519 - Marine Mammal Biology and Conservation	Credits: 3			
EVPP 543 - Tropical Ecosystems	Credits: 4			
EVPP 550 - Waterscape Ecology and Management	Credits: 3			
EVPP 607 - Fundamentals of Ecology (is required for those students without previous coursework in ecology and can be included within the 6 credits.)	Credits: 3			
EVPP 621 - Overview of Biodiversity Conservation	Credits: 3			
CONS 630 - Species Monitoring & Conservation (variable topics, may be taken more than once if different topic)	Credits: 3			

Conservation Policy and Human Dimensions of Conservation (6 credits)

At least 6 credits are required in conservation policy or social science courses. EVPP 608 is required for students with limited previous coursework in the social sciences and can be included within the 6 credits. Suggested courses include:

Course Name	Credits:	Term Taken	Grade	Gen Ed
EVPP 521 - Marine Conservation	Credits: 3			
EVPP 608 – Environmental Social Science	Credits: 3			
EVPP 622 - Management of Wild Living Resources	Credits: 3			
EVPP 642 - Environmental Policy	Credits: 3			
CONS 660 - Effective Conservation Leadership	Credits: 3			
CONS 665 - Conservation Conflict Resolution	Credits: 3			

Conservation Methods (6 credits)

At least 6 credits are required in relevant experimental methods, statistics or conservation techniques courses. Suggested courses include:

Course Name	Credits:	Term Taken	Grade	Gen Ed
EVPP 555 - Lab in Waterscape Ecology	Credits: 1			
CONS 620 - Spatial Ecology, Geospatial Analysis & Remote Sensing for Conservation	Credits: 3			
CONS 625 - Statistics for Ecology and Conservation Biology	Credits: 3			

Seminar (1 credit)

At least 1 credit on an appropriate topic is required:

Course Name	Credits:	Term Taken	Grade	Gen Ed
EVPP 692 - Master's Seminar in Environmental Science and Public Policy	Credits: 1			

Research (1-6 credits)

Course Name	Credits:	Term Taken	Grade	Gen Ed
Project Option:				

At least 1 credit of EVPP 798 - Master's Research Project in Environmental Science and Public Policy	Credits: 1-3			
Thesis Option:				
At least 3 credits of EVPP 799 - Master's Thesis in Environmental Science and Public Policy	Credits: 1-6			

Electives

If necessary, students take additional, relevant, elective courses, approved by the supervisory committee to bring the total to 33 credits.

Degree with COSP Concentration Total: 33 credits

▲ Earth Surface Processes and Environmental Geochemistry Concentration (ESEG)

This concentration offers a specific research focus in the earth science area and is designed for students desiring an Environmental Science and Policy, MS with an earth science geology theme.

Requirements may be fulfilled by completing courses from a variety of academic units at Mason. The program requires a minimum of 33 graduate credits distributed in the categories listed below. Course selection should support the research component of the student's degree program and be developed in close consultation with the advisor and the committee members. The advisor and thesis committee approve the coursework program individually for each student.

Natural Sciences (16 credits)

Students select at least one course (totaling 10 of the 16 required credits) from each of the following areas: Soils science, hydrogeology, and geochemistry.

The remaining courses (6 credits) may be chosen from a list of applicable EVPP, CHEM, and GEOL graduate courses, including:

Course Name	Credits:	Term Taken	Grade	Gen Ed
EVPP 503 - Field Mapping Techniques	Credits: 3			
EVPP 505 - Selected Topics in Environmental Science	Credits: 0-4			
EVPP 543 - Tropical Ecosystems	Credits: 4			
EVPP 550 - Waterscape Ecology and Management	Credits: 3			

EVPP 563 - Coastal Morphology and Processes	Credits: 4			
EVPP 577 - Biogeochemistry: A Global Perspective	Credits: 3			
EVPP 607 - Fundamentals of Ecology (is required for those students without previous coursework in ecology and can be included with the 6 credits)	Credits: 3			
EVPP 610 - Bioremediation: Theory and Applications	Credits: 3			
EVPP 643 - Microbial Ecology	Credits: 4			
EVPP 745 - Environmental Toxicology	Credits: 3			
CHEM 633 - Chemical Thermodynamics and Kinetics	Credits: 3			
CHEM 651 - Environmental Chemistry of Organic Substances	Credits: 3			
CHEM 728 - Introduction to Solid Surfaces	Credits: 3			
GEOL 500 - Selected Topics in Modern Geology	Credits: 1-3			
GEOL 501 - Selected Topics in Modern Geology	Credits: 1-3			
GEOL 601 - The Lithosphere	Credits: 3			

Public Policy (6 credits)

At least 6 credits are required in environmental law, human dimension of global change, environmental ethics, human ecology, or planning. EVPP 608 is required for students with limited previous coursework in the social sciences and can be included within the 6 credits.

Methods (6 credits)

At least 6 credits are required in remote sensing, GIS, statistics, instrumentation, or modeling.

Seminar (1 credit)

At least 1 credit on an appropriate topic is required:

Course Name	Credits:	Term Taken	Grade	Gen Ed
EVPP 692 - Master's Seminar in Environmental Science and Public Policy	Credits: 1			

Research (1-6 credits)

Course Name	Credits:	Term Taken	Grade	Gen Ed
Project Option:				
At least 1 credit of EVPP 798 - Master's Research Project in Environmental Science and Public Policy	Credits: 1-3			
Thesis Option:				
At least 3 credits of EVPP 799 - Master's Thesis in Environmental Science and Public Policy	Credits: 1-6			

Electives

If necessary, students take additional elective courses to bring the total to 33 credits.

Degree with ESEG Concentration Total: 33 credits

▲ Environmental Biocomplexity Concentration (EVBC)

The environmental biocomplexity concentration is designed for students desiring an Environmental Science and Policy, MS with an environmental biocomplexity theme encompassing the disciplines of population genetics, microbial ecology, and/or molecular systematics.

Requirements may be fulfilled by completing courses from a variety of academic units at Mason. The program requires a minimum of 33 graduate credits distributed in the categories listed below. Course selection should support the research component of the student's degree program and be developed in close consultation with the advisor and the committee members. The advisor and thesis committee approve the coursework program individually for each student.

Students are encouraged to complete at least 1 credit of directed studies (EVPP 693) as a laboratory rotation to enhance their mastery of experimental techniques.

Natural Sciences (6 credits)

At least 6 credits are required in courses that can be drawn from offerings in ecology, biogeochemistry, biochemistry, population genetics, molecular biology, molecular systematics, molecular evolution, microbial ecology, microbial diversity, quantitative genetics, and population biology.

Course Name	Credits:	Term Taken	Gra	Gen Ed

			de	
EVPP 607 - Fundamentals of Ecology (is required for those students without previous coursework in ecology and can be included within the 6 credits)	Credits: 3			
Public Policy (6 credits) At least 6 credits are required in environmental law, human ecology, environmental ethics, patent law, or legal and ethical issues in science. EVPP 608 is required for students with limited previous coursework in the social sciences and can be included within the 6 credits.				
Methods and Statistics (9 credits) At least 9 credits are required in statistics, bioinformatics, information systems, instrumental analysis, microbiological techniques, molecular methods, or phylogenetic methods.				
Seminar (1 credit) At least 1 credit on an appropriate topic is required:				
Course Name	**Credits:**	**Term Taken**	**Grade**	**Gen Ed**
EVPP 692 - Master's Seminar in Environmental Science and Public Policy	Credits: 1			
Research (1-6 credits)				
Course Name	**Credits:**	**Term Taken**	**Grade**	**Gen Ed**
Project Option:				
At least 1 credit of EVPP 798 - Master's Research Project in Environmental Science and Public Policy	Credits: 1-3			
Thesis Option:				
At least 3 credits of EVPP 799 - Master's Thesis in Environmental Science and Public Policy	Credits: 1-6			
Electives				

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

Degree with EVBC Concentration Total: 33 credits

▲ Environmental Management Concentration (EVMG)

The environmental management concentration combines the managerial and administrative skills developed in a traditional master of public administration degree program with the scientific knowledge and understanding normally found in a master of science degree.

Students must complete 37 credits for the environmental management concentration. Students in this concentration have the graduate program director as their advisor upon admission. Full-time students can complete this degree in three semesters; part-time students can take six semesters. Coursework must include the following:

Core Courses (18-19 credits)

Course Name	Credits:	Term Taken	Grade	Gen Ed
EVPP 638 - Corporate Environmental Management and Policy	Credits: 3			
EVPP 641 - Environmental Science and Public Policy	Credits: 3			
EVPP 642 - Environmental Policy	Credits: 3			
PUAD 502 - Administration in Public and Nonprofit Organizations	Credits: 3			
PUAD 540 - Public Policy Process	Credits: 3			
And one of the following methods courses:				
EVPP 650 - Environmental Analysis and Modeling	Credits: 4			
GGS 550 - Geospatial Science Fundamentals	Credits: 3			
GGS 553 - Geographic Information System	Credits: 3			
GGS 579 - Remote Sensing	Credits: 3			
PUAD 511 - Problem Solving and Data Analysis I	Credits: 3			
SOCI 636 - Statistical Reasoning	Credits: 3			

Environmental Law (3 credits)

At least 3 credits are required, chosen from the following:				
Course Name	**Credits:**	**Term Taken**	**Grade**	**Gen Ed**
EVPP 670 - Environmental Law	Credits: 3			
CEIE 556 - Environmental Law	Credits: 3			
PRLS 501 - Introduction to Natural Resources Law	Credits: 3			
Field Ecology (4 credits) At least 4 credits are required, chosen from the following:				
Course Name	**Credits:**	**Term Taken**	**Grade**	**Gen Ed**
EVPP 550 - Waterscape Ecology and Management	Credits: 3			
EVPP 555 - Lab in Waterscape Ecology	Credits: 1			
or				
EVPP 646 - Wetland Ecology and Management	Credits: 3			
EVPP 647 - Wetland Ecology Lab and Field	Credits: 1			
or other approved 4-credit field ecology course				
Capstone (3 credits)				
Course Name	**Credits:**	**Term Taken**	**Grade**	**Gen Ed**
EVPP 677 - Applied Ecology and Ecosystem Management	Credits: 3			
Electives (9 credits) Students may choose 9 credits (or more) to complete 37 credits from the following list of approved electives. Other courses may be used subject to approval of the graduate program director.				
Course Name	**Credits:**	**Term Taken**	**Grade**	**Gen Ed**
EVPP 524 - Introduction to Environmental and Resource Economics	Credits: 3			

EVPP 525 - Economics of Human/Environment Interactions	Credits: 3			
EVPP 550 - Waterscape Ecology and Management	Credits: 3			
EVPP 607 - Fundamentals of Ecology (is required for those students without previous coursework in ecology)	Credits: 3			
EVPP 608 – Introduction to Environmental Social Science (is required for those students with limited previous coursework in the social sciences)	Credits: 3			
EVPP 620 - Development of U.S. Environmental Policies	Credits: 3			
EVPP 621 - Overview of Biodiversity Conservation	Credits: 3			
EVPP 622 - Management of Wild Living Resources	Credits: 3			
EVPP 626 - Environment and Development in Asia	Credits: 3			
EVPP 627 - Environmental Policy in Latin America	Credits: 3			
EVPP 628 - Environment and Development in Africa	Credits: 3			
EVPP 630 - Methods and Logic of Social Inquiry	Credits: 3			
EVPP 635 - Environment and Society	Credits: 3			
EVPP 638 - Corporate Environmental Management and Policy	Credits: 3			
EVPP 646 - Wetland Ecology and Management	Credits: 3			
EVPP 650 - Environmental Analysis and Modeling	Credits: 4			
EVPP 675 - Environmental Planning and Administration	Credits: 3			
CLIM 690 - Scientific Basis of Climate Change	Credits: 3			
GGS 550 - Geospatial Science Fundamentals (only if not taken as part of the core courses above)	Credits: 3			
PUAD 509 - Justice Organizations and Processes	Credits: 3			
PUAD 615 - Administrative Law	Credits: 3			
PUAD 622 - Program Planning and Implementation	Credits: 3			
PUAD 645 - Policy Analysis	Credits: 3			
PUAD 646 - Program Evaluation	Credits: 3			

PUAD 657 - Association Management	Credits: 3			
PUAD 729 - Issues in Public Management	Credits: 3			
MBA 623 - Marketing Management	Credits: 0-3			
MBA 712 - Project Management	Credits: 0-3			
MBA 724 - Marketing Communications	Credits: 0-3			
MBA 725 - Leadership	Credits: 0-3			

Degree with EVMG Concentration Total: 37 credits

Note: In special cases, the graduate program director may permit at his or her discretion, the substitution of an alternative course in place of a required one.

▲ Environmental Science and Policy Concentration (EVSP)

The environmental science and policy concentration is a home for a broad array of research foci. It encourages an independent and creative approach to the development of curricula that reside in the general field of environmental science and policy. Requirements may be fulfilled by completing courses from a variety of academic units at Mason. The program requires a minimum of 33 graduate credits distributed in the categories below and provide a breadth of knowledge appropriate for addressing current environmental policy issues. Course selection should support the research component of the student's degree program and be developed in close consultation with the advisor and the supervisory committee members. The advisor and supervisory committee approve the coursework program individually for each student.

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 coursework program individually for each student.

Natural Sciences (6 credits)

At least 6 credits are required in biology, geology, geography, chemistry, or environmental engineering.

- EVPP 607 - Fundamentals of Ecology Credits: 3 (is required for those students without previous coursework in ecology and can be included within the 6 credits)

Public Policy (6 credits)

At least 6 credits are required in environmental law, human ecology, environmental ethics, planning, or public affairs. EVPP 608 is

required for students with limited previous coursework in the social sciences and can be included within the 6 credits.

Methods and Statistics (6 credits)

At least 6 credits are required in statistics, remote sensing, information systems, instrumental analysis, or modeling. A course in statistics is highly recommended.

Seminar (1 credit)

At least 1 credit on an appropriate topic is required:

Course Name	Credits:	Term Taken	Grade	Gen Ed
EVPP 692 - Master's Seminar in Environmental Science and Public Policy	Credits: 1			

Research (1-6 credits)

Course Name	Credits:	Term Taken	Grade	Gen Ed
Project Option:				
At least 1 credit of EVPP 798 - Master's Research Project in Environmental Science and Public Policy	Credits: 1-3			
Thesis Option:				
At least 3 credits of EVPP 799 - Master's Thesis in Environmental Science and Public Policy	Credits: 1-6			

Electives

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

Degree with EVSP Concentration Total: 33 credits

Degree Total: 33-37 credits

Notes: