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Viewing: SC-MS-EVSP : Environmental Science and Policy, MS

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Catalog Pages

Using this Program

[Environmental Science and Policy, MS](#)

History

1. Nov 8, 2017 by clmig-jwehrheim
2. Feb 28, 2018 by Rebekah Zacharias (rzachari)
3. Mar 8, 2018 by Rebekah Zacharias (rzachari)
4. Mar 16, 2018 by Rebekah Zacharias (rzachari)
5. Mar 19, 2018 by Rebekah Zacharias (rzachari)
6. Mar 7, 2019 by Susan Cheselka (scheselk)

Are you completing this form on someone else's behalf?

Yes

Requestor:

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Effective Catalog: 2020-2021

Program Level: Graduate

Program Type: Master's

Degree Type: Master of Science

Title: Environmental Science and Policy, MS

Banner Title: ~~MS~~ Environmental **Sci & Policy**
MS ~~Sci/Policy~~

Registrar/OAPI Use Only – SCHEV Status: Approved

Registrar’s Office Use Only – Program Start Term:

**Registrar/OAPI Use
Only – SCHEV
Letter**

Concentration(s):

	Associated Concentrations	Registrar's Office Use Only: Concentration Code
1	Aquatic Ecology	AQEC
2	Conservation Science and Policy	COSP
3	Earth Surface Processes and Environmental Geochemistry	ESEG
4	Environmental Biocomplexity	EVBC
3 5	Environmental Science and Policy	EVSP
4 6	Environmental Science Communication	ESCM
5 7	Environment and Management	EVM

**Registrar/IRR Use
Only –
Concentration CIP
Code**

College/School: College of Science
Department / Academic Unit: Environmental Science & Policy
Jointly Owned Program? No

Justification

Reworking the curriculum to provide students with a common foundation of environmental science and policy courses. The concentrations Earth Surface Processes and Environmental Geochemistry and Environmental Biocomplexity are also being discontinued due to few students pursuing these concentrations.

Total Credits Required: Total credits: 33

Registrar's Office Use Only - Program Code:
SC-MS-EVSP

**Registrar/IRR Use
Only – Program CIP
Code**

Admission Requirements:

Admissions

University-wide admissions policies can be found in [Graduate Admissions Policies](#). Additionally, information on the admission of international students can be found in [Admission of International Students](#).

To apply for this program, please complete the [George Mason University Admissions Application](#).

Eligibility

Applicants should hold a bachelor's degree from a regionally-accredited institution 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.

Applicants should have taken at least two semesters of chemistry and three semesters of biology, including a course in ecology. Applicants who lack this coursework 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 can be used to satisfy the biology and chemistry prerequisites for admission. These introductory courses would be in addition to the requirements for the degree.

Application Requirements

Applicants should submit the following:

- Completed George Mason University [George Mason University Admissions Application](#).
- Three letters of recommendation, including at least one from a former professor or, if not available, from someone with a PhD.
- The GRE is required. Successful applicants usually have achieved a minimum score of 235/336 (70%) for verbal and quantitative combined.
- Statement of interest indicating: **Desired** ~~desired~~ concentration, potential areas of environmental focus/research interest, interactions with potential faculty advisors, and career goals.
- Contact a potential George Mason faculty advisor (appropriate for research interests). An endorsement letter from the potential advisor must be sent to the [Department of Environmental Science and Policy](#)'s graduate office; the availability of an advisor in the student's area of interest is a prerequisite for admission.

Program-Specific Policies:

Policies

For policies governing all graduate programs, see [AP.6 Graduate Policies](#).

Course Selections

Some program requirements may be fulfilled by completing courses from a variety of academic units at Mason. A student's course selections should reflect a coherent individual program focus, which is stated and briefly described in the program of study. Course selections should also support the research component of the student's degree program (if applicable) and should be developed in close consultation with the supervisory committee. The supervisory committee approves a coursework program (the program of study) individually for each student.

In special cases, the graduate program director may permit the substitution of an alternative course in place of a required one.

Supervisory Committee

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 must conform to [AP.6.9 Requirements for Master's Degrees](#).

Degree Requirements:

This is a Green Leaf program.

Students should refer to [Admissions & Policies](#) for specific policies related to this program.

Students may select for their degree to culminate in either a research project (3 credits) or a thesis (3-6 credits). The concentration credit amount requirements below are directly related to this selection of either a research project or thesis.

Students in all of the concentrations will complete the concentration's **requirements and requirements**, the research **requirement with requirement, the seminar requirement, and electives as outlined below (for a minimum total of 33 credits. credits).**

Core Courses

Code	Course List Title	Credits
Science Courses		
Choose 3 credits from the following:		3
<u>EVPP 518</u>	Conservation Biology	
<u>EVPP 607</u>	Fundamentals of Ecology	
<u>EVPP 648</u>	Population Ecology	
Statistics Courses		
Choose 3 credits from the following:		3
<u>EVPP 632</u>	Qualitative Research Methods for Environmental Scientists	
<u>EVPP 651</u>	Multivariate Data Analysis for Ecology and Environmental Science	
<u>SOCI 620</u>	Methods and Logic of Social Inquiry	
<u>STAT 554</u>	Applied Statistics I	
Policy Courses		

Code	Title	Credits
Choose 3 credits from the following:		3
<u>EVPP 524</u>	Introduction to Environmental and Resource Economics	
<u>EVPP 608</u>	Introduction to Environmental Social Science	
<u>EVPP 635</u>	Environment and Society	
<u>EVPP 642</u>	Environmental Policy	
Science and Policy Courses		
Choose 3 credits from the following:		3
<u>EVPP 505</u>	Selected Topics in Environmental Science (When the topic is "Evidence-based Policymaking: Using the Environmental Sciences for Governance")	
<u>EVPP 670</u>	Environmental Law	
Seminar Courses		
<u>EVPP 692</u>	Master's Seminar in Environmental Science and Public Policy	1
<u>EVPP 991</u>	Advanced Seminar in Environmental Science (When the topic is: Experimental Design 2 for Environmental Scientists)	
Research Requirement		3-6
<p>The research requirement may be satisfied in one of two ways: A research project or a formal thesis. 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. Choose from one of the following:</p>		
Research Project Option		
<p>Students fulfilling the research requirement with the project option register for <u>EVPP 798</u> Master's Research Project in Environmental Science and Public Policy and are required to take a comprehensive examination covering knowledge mastered throughout the program of study. This examination includes both a written and an oral component and is administered by the student's supervisory committee.</p>		
<u>EVPP 798</u>	Master's Research Project in Environmental Science and Public Policy (3 credits)	
Thesis Option		
<p>Students fulfilling the research requirement with the thesis option register for <u>EVPP 799</u> Master's Thesis in Environmental Science and Public Policy, present their results in a public seminar, and defend their thesis before their supervisory committee. Students will be graded "Satisfactory/No Credit" on the research requirement.</p>		
<u>EVPP 799</u>	Master's Thesis in Environmental Science and Public Policy (3-6 credits)	
Electives		
<p>If necessary, students must take additional electives or concentration courses to bring the degree total to 33 credits. These courses must be approved by the student's supervisory committee and outlined on the student's program of study.</p>		
Total Credits		18-21

Aquatic Ecology Concentration (AQEC)

This concentration will provide students with a well-grounded master's 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.

~~Aquatic Science Public Policy Select from courses in environmental law, human ecology, environmental ethics, environmental conflict resolution, environmental planning, or public affairs.~~

~~Aquatic Methods Select from statistics, research design, multivariate data analysis, geographic information systems, lab and field classes.~~

~~Additional Requirements See the Additional Requirements section below for details on the research requirement, the seminar requirement,~~

~~and elective.~~ **Aquatic Conservation Science**

Course List		
Code	Title	Credits
Select at least 6 credits from the following:		
EVPP-555	Lab in Waterscape Ecology	6
EVPP-582	Estuarine and Coastal Ecology Laboratory	
EVPP-615	Molecular Environmental Biology II	
EVPP-647	Wetland Ecology Lab and Field	
EVPP-650	Ecosystem Analysis and Modeling	
EVPP-651	Multivariate Data Analysis for Ecology and Environmental Science	
CLIM-512	Physical Oceanography	
CSS-600	Introduction to Computational Social Science	
CSS-645	Spatial Agent-Based Models of Human-Environment Interactions	
GGG-653	Geographic Information Analysis	
SOCI-636	Statistical Reasoning	
Total Credits		0

~~1 Required for those with limited coursework in the social sciences. Can be included within the 6 credits.~~

Course List		
Code	Title	Credits
Select at least 6 credits from the following:		
EVPP-505	Selected Topics in Environmental Science	6
EVPP-521	Marine Conservation	
EVPP-608	Introduction to Environmental Social Science-1	
EVPP-619	The Challenge of Biodiversity	
EVPP-623	Translating Environmental Policy into Action	
EVPP-635	Environment and Society	
EVPP-642	Environmental Policy	
EVPP-670	Environmental Law	

Code	Title	Credits
EVPP 675	Environmental Planning and Administration	
EVPP 741	Advanced Topics in Environmental Science and Public Policy	
Total Credits		0

Course List

Code	Title	Credits
<u>EVPP 550</u>	Waterscape Ecology and Management	3
<u>EVPP 581</u>	Estuarine and Coastal Ecology	3
Select 6 credits from the following:		6

~~EVPP 505 Selected Topics in Environmental Science~~

Choose 3-6 credits from the following: 3-6

EVPP 519 Marine Mammal Biology and Conservation

EVPP 521 Marine Conservation

EVPP 536 The Diversity of Fishes

EVPP 545 **Principles of Environmental Toxicology**

EVPP 549 **Marine Ecology**

EVPP 563 Coastal Morphology and Processes

EVPP 608 **Introduction to Environmental Social Science**

EVPP 619 **The Challenge of Biodiversity**

EVPP 623 **Translating Environmental Policy into Action**

EVPP 635 **Environment and Society**

EVPP 641 Environmental Science and Public Policy

EVPP 642 **Environmental Policy**

EVPP 643 Microbial Ecology

~~EVPP 645 Freshwater Ecology~~

EVPP 646 Wetland Ecology and Management

EVPP 648 Population Ecology

~~EVPP 652 The Hydrosphere~~

~~EVPP 741 Advanced Topics in Environmental Science and Public Policy~~

~~EVPP 745 Environmental Toxicology~~

CLIM 512 Physical Oceanography

Choose 3 credits from the following: 3

EVPP 515 **Molecular Environmental Biology I**

EVPP 555 **Lab in Waterscape Ecology**

EVPP 582 **Estuarine and Coastal Ecology Laboratory**

EVPP 615 **Molecular Environmental Biology II**

EVPP 647 **Wetland Ecology Lab and Field**

EVPP 651 **Multivariate Data Analysis for Ecology and Environmental Science**

GG5 653 **Geographic Information Analysis**

STAT 554 **Applied Statistics I**

Code	Title	Credits
Total Credits		12-15

Conservation Science and Policy Concentration (COSP)

This concentration is designed to foster an interdisciplinary, research-oriented degree focusing on the conservation of threatened species and habitats, integrating biological sciences and the human dimensions of conservation practice.

Students may take courses offered by the [Department of Environmental Science and Policy](#) and other departments, including CONS courses which are offered through the [Smithsonian Mason School of Conservation](#). This unique partnership with the Smithsonian-Mason School of Conservation (SMSC) in Front Royal, Virginia offers students hands-on education in cutting-edge conservation science and human dimensions through residential, intensive classes. SMSC is renowned for its conservation research and training of conservation practitioners around the world and instructors for these classes are drawn from SMSC's conservation scientists and other experts from around the world.

Course List

Code	Title	Credits
Select at least 6 credits of conservation science courses. Suggested courses include:		6
<u>EVPP 637</u>	Human Dimensions of Climate Change	3
Choose 3 credits from the following:		3
<u>EVPP 518</u>	Conservation Biology	
EVPP 519	Marine Mammal Biology and Conservation	
EVPP 520	Marine Mammal Biology and Conservation Field Course	
EVPP 543	Tropical Ecosystems	
EVPP 550	Waterscape Ecology and Management	
<u>EVPP 619</u>	The Challenge of Biodiversity	
<u>EVPP 621</u>	Overview of Biodiversity Conservation	
CONS 630	Species Monitoring Conservation 2	
Choose 3 credits from the following:		3
<u>EVPP 505</u>	Selected Topics in Environmental Science (When the topic is "Evidence-based Policymaking: Using the Environmental Sciences for Governance")	
<u>EVPP 529</u>	Environmental Science Communication	
Choose 3-6 credits from the following:		3-6
<u>EVPP 515</u>	Molecular Environmental Biology I	
<u>EVPP 527</u>	Disease Ecology and Conservation	
<u>EVPP 607</u>	Fundamentals of Ecology	
<u>EVPP 615</u>	Molecular Environmental Biology II	
<u>EVPP 620</u>	Development of U.S. Environmental Policies	
<u>EVPP 623</u>	Translating Environmental Policy into Action	
<u>EVPP 648</u>	Population Ecology	
<u>GG5 553</u>	Geographic Information Systems	

Code	Title	Credits
Total Credits		12-15

~~Conservation Science Conservation Policy and Human Dimensions of Conservation Select from the following courses in conservation policy or social science courses. Conservation Methods Additional Requirements See the Additional Requirements section below for details on the research requirement, the seminar requirement, and electives. 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 a master's with an Earth science geology theme. Natural Sciences Of the required 16 credits, select at least one course from each of the following areas: soils science, hydrogeology, and geochemistry (totaling 10 of the 16 required credits). Public Policy Select from the following courses in environmental law, human dimension of global change, environmental ethics, human ecology, or planning. Methods Select from the following courses in remote sensing, GIS, statistics, instrumentation, or modeling. Additional Requirements See the Additional Requirements section below for details on the research requirement, the seminar requirement, and electives. Environmental Biocomplexity Concentration (EVBC) This concentration is designed for students desiring a master's with an environmental biocomplexity theme encompassing the disciplines of population genetics, microbial ecology, and/or molecular systematics. Students are encouraged to complete at least 1 credit of directed studies (EVPP 693 Directed Studies in Environmental Science and Public Policy) as a laboratory rotation to enhance their mastery of~~

~~experimental techniques. Natural Sciences Select from the following courses with topics 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. Public Policy Select from the following courses in environmental law, human ecology, environmental ethics, patent law, or legal and ethical issues in science. Methods and Statistics Select from the following courses in statistics, bioinformatics, information systems, instrumental analysis, microbiological techniques, molecular methods, or phylogenetic methods. Additional Requirements See the Additional Requirements section below for details on the research requirement, the seminar requirement, and electives.~~ **Environmental Science and Policy Concentration (EVSP)**

Course List		
Code	Title	Credits
Select at least 9 credits from the following:		9
EVPP-615	Molecular Environmental Biology II	
EVPP-632	Qualitative Research Methods for Environmental Scientists	
EVPP-650	Ecosystem Analysis and Modeling	
EVPP-651	Multivariate Data Analysis for Ecology and Environmental Science	
EVPP-745	Environmental Toxicology	
GG5-553	Geographic Information Systems	
GG5-563	Advanced Geographic Information Systems	
GG5-653	Geographic Information Analysis	

~~1 Required for those with limited coursework in the social sciences. Can be included within the 6 credits.~~

Course List		
Code	Title	Credits
Select at least 6 credits from the following:		6
EVPP-505	Selected Topics in Environmental Science	
EVPP-520	Marine Mammal Biology and Conservation Field Course	

Code	Title	Credits
EVPP-521	Marine Conservation	
EVPP-524	Introduction to Environmental and Resource Economics	
EVPP-608	Introduction to Environmental Social Science ¹	
EVPP-619	The Challenge of Biodiversity	
EVPP-620	Development of U.S. Environmental Policies	
EVPP-621	Overview of Biodiversity Conservation	
EVPP-623	Translating Environmental Policy into Action	
EVPP-635	Environment and Society	
EVPP-642	Environmental Policy	
EVPP-643	Microbial Ecology	
EVPP-670	Environmental Law	
EVPP-741	Advanced Topics in Environmental Science and Public Policy	

¹Required for those without previous coursework in ecology. Can be included within the 6 credits.

Course List

Code	Title	Credits
Select at least 6 credits from the following:		6
EVPP-505	Selected Topics in Environmental Science	
EVPP-515	Molecular Environmental Biology I	
EVPP-518	Conservation Biology	
EVPP-519	Marine Mammal Biology and Conservation	
EVPP-520	Marine Mammal Biology and Conservation Field Course	
EVPP-521	Marine Conservation	
EVPP-536	The Diversity of Fishes	
EVPP-550	Waterscape Ecology and Management	
EVPP-551	Fungi and Ecosystems	
EVPP-563	Coastal Morphology and Processes	
EVPP-581	Estuarine and Coastal Ecology	
EVPP-607	Fundamentals of Ecology ¹	
EVPP-615	Molecular Environmental Biology II	
EVPP-641	Environmental Science and Public Policy	
EVPP-643	Microbial Ecology	
EVPP-646	Wetland Ecology and Management	
EVPP-745	Environmental Toxicology	
Total Credits		0

Course List

Code	Title	Credits
Select at least 6 credits from the following:		6
EVPP-503	Field Mapping Techniques	
EVPP-531	Land-use Modeling Techniques and Applications	

Code	Title	Credits
EVPP-615	Molecular Environmental Biology II	
EVPP-631	Spatial Agent-based Models of Human-Environment Interactions	
EVPP-632	Qualitative Research Methods for Environmental Scientists	
EVPP-650	Ecosystem Analysis and Modeling	
EVPP-651	Multivariate Data Analysis for Ecology and Environmental Science	
GG5-531	Land-Use Modeling Techniques and Applications	
GG5-550	Geospatial Science Fundamentals	
GG5-553	Geographic Information Systems	
GG5-560	Quantitative Methods	
GG5-563	Advanced Geographic Information Systems	
GG5-579	Remote Sensing	
GG5-653	Geographic Information Analysis	

¹Required for those with limited coursework in the social sciences. Can be included within the 6 credits.

Course List

Code	Title	Credits
Select at least 6 credits from the following:		6
EVPP-505	Selected Topics in Environmental Science	
EVPP-524	Introduction to Environmental and Resource Economics	
EVPP-608	Introduction to Environmental Social Science ¹	
EVPP-619	The Challenge of Biodiversity	
EVPP-620	Development of U.S. Environmental Policies	
EVPP-621	Overview of Biodiversity Conservation	
EVPP-623	Translating Environmental Policy into Action	
EVPP-635	Environment and Society	
EVPP-642	Environmental Policy	
EVPP-670	Environmental Law	

¹Required for those without previous coursework in ecology. Can be included within the 6 credits.

Course List

Code	Title	Credits
Select 16 credits from the following:		16
EVPP-503	Field Mapping Techniques	
EVPP-505	Selected Topics in Environmental Science	
EVPP-543	Tropical Ecosystems	
EVPP-550	Waterscape Ecology and Management	
EVPP-563	Coastal Morphology and Processes	
EVPP-577	Biogeochemistry: A Global Perspective	
EVPP-607	Fundamentals of Ecology ¹	
EVPP-610	Bioremediation: Theory and Applications	
EVPP-643	Microbial Ecology	

Code	Title	Credits
EVPP-745	Environmental Toxicology	
CHEM-633	Chemical Thermodynamics and Kinetics	
CHEM-651	Environmental Chemistry of Organic Substances	
CHEM-728	Introduction to Solid Surfaces	
GEO-500	Selected Topics in Modern Geology	
GEO-501	Selected Topics in Modern Geology	
GEO-601	The Lithosphere	
Total Credits		0

Course List

Code	Title	Credits
Select at least 6 credits in relevant experimental methods, statistics, or conservation techniques courses. Suggested courses include:		6
EVPP-555	Lab in Waterscape Ecology	
CONS-625	Statistics for Ecology and Conservation Biology	
Total Credits		0

~~1Required for those with limited coursework in the social sciences. Can be included within the 6 credits.~~

Course List

Code	Title	Credits
Select at least 6 credits from the following:		6
EVPP-521	Marine Conservation	
EVPP-575	Global Biodiversity Governance	
EVPP-608	Introduction to Environmental Social Science ¹	
EVPP-622	Management of Wild Living Resources	
EVPP-642	Environmental Policy	
EVPP-643	Microbial Ecology	
Total Credits		0

~~1Required for those without previous coursework in ecology. Can be included within the 6 credits.~~

~~2Variable topics, may be taken more than once if the topic is different.~~

The Environmental Science and Policy concentration is the largest within the master's and serves as 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.

Course List

Code	Title	Credits
Select at least 6 credits from the following:		6
EVPP-515	Molecular Environmental Biology ¹	
EVPP-518	Conservation Biology	
EVPP-519	Marine Mammal Biology and Conservation	
EVPP-520	Marine Mammal Biology and Conservation Field Course	
Choose at least 3 credits from the following:		3

Code	Title	Credits
EVPP 527	Disease Ecology and Conservation	
EVPP 532	Animal Behavior	
EVPP 543	Tropical Ecosystems	
EVPP 648	Population Ecology	
Choose at least 3 credits from the following:		3
EVPP 531	Land-use Modeling Techniques and Applications	
EVPP 650	Ecosystem Analysis and Modeling	
STAT 525	Nonparametric Statistics and Categorical Data Analysis	
STAT 535	Analysis of Experimental Data	
Choose 6-9 credits from the following:		6-9
EVPP 521	Marine Conservation	
EVPP 533	Energy Policy	
EVPP 542	Urban Ecosystems Processes	
EVPP 550	Waterscape Ecology and Management	
EVPP 551	Fungi and Ecosystems	
EVPP 581	Estuarine and Coastal Ecology	
EVPP 607	Fundamentals of Ecology 1	
EVPP 619	The Challenge of Biodiversity	
EVPP 622	Management of Wild Living Resources	
EVPP 623	Translating Environmental Policy into Action	
EVPP 641	Environmental Science and Public Policy	
EVPP 643	Microbial Ecology	
EVPP 677	Applied Ecology and Ecosystem Management	
EVPP 745	Environmental Toxicology	
Total Credits		12-15

~~The concentration's requirements may be fulfilled by completing courses from a variety of academic units at Mason as outlined below. Natural Sciences Select from the following courses in biology, geology, geography, chemistry, or environmental engineering. Public Policy Select from the following courses in environmental law, human ecology, environmental ethics, planning, or public affairs. Methods and Statistics Select from the following courses in statistics, remote sensing, information systems, instrumental analysis, or modeling. A course in statistics is highly recommended.~~

~~Additional Requirements See the Additional Requirements section below for details on the research requirement, the seminar requirement, and electives.~~ **Environmental Science Communication Concentration (ESCM)**

Code	Course List Title	Credits
Select at least 6 credits from the following:		6
EVPP-503	Field Mapping Techniques	
EVPP-505	Selected Topics in Environmental Science	
EVPP-524	Introduction to Environmental and Resource Economics	
EVPP-531	Land-use Modeling Techniques and Applications	
EVPP-615	Molecular Environmental Biology II	
EVPP-632	Qualitative Research Methods for Environmental Scientists	
EVPP-650	Ecosystem Analysis and Modeling	
EVPP-651	Multivariate Data Analysis for Ecology and Environmental Science	
EVPP-745	Environmental Toxicology	
GGS-560	Quantitative Methods	
GGS-653	Geographic Information Analysis	
GGS-756	Physical Principles of Remote Sensing	
SOCI-631	Survey Research	

~~1 Required for those with limited coursework in the social sciences. Can be included within the 6 credits.~~

Code	Course List Title	Credits
Select at least 6 credits from the following:		
EVPP-505	Selected Topics in Environmental Science	
EVPP-519	Marine Mammal Biology and Conservation	
EVPP-520	Marine Mammal Biology and Conservation Field Course	
EVPP-521	Marine Conservation	
EVPP-608	Introduction to Environmental Social Science 1	
EVPP-619	The Challenge of Biodiversity	
EVPP-621	Overview of Biodiversity Conservation	
EVPP-622	Management of Wild Living Resources	
EVPP-623	Translating Environmental Policy into Action	
EVPP-635	Environment and Society	
EVPP-642	Environmental Policy	
EVPP-643	Microbial Ecology	
EVPP-670	Environmental Law	

~~1 Required for those without previous coursework in ecology. Can be included within the 6 credits.~~

A key to environmental action and behavior change is an ability to communicate environmental science and policy. This concentration is for students desiring a master's degree with an interdisciplinary approach to communicating environmental issues and solutions.

Course List

Code	Title	Credits
<u>EVPP 505</u>	Selected Topics in Environmental Science (When the topic is "Evidence-based Policymaking: Using the Environmental Sciences for Governance")	3
<u>EVPP 529</u>	Environmental Science Communication	3
Choose 3-6 credits from one of the following groupings:		3-6
Policy and Governance Grouping		
<u>EVPP 575</u>	Global Biodiversity Governance	
<u>COMM 637</u>	Risk Communication	
<u>COMM 640</u>	Controversies in Science Communication	
<u>COMM 641</u>	Advanced Communication Skills for STEM	
<u>GOVT 510</u>	American Government and Politics	
<u>PUAD 540</u>	Public Policy Process	
Behavior Change Grouping		
<u>COMM 637</u>	Risk Communication	
<u>COMM 660</u>	Climate Change and Sustainability Communication Campaigns	
<u>COMM 670</u>	Social Marketing	
<u>COMM 706</u>	Strategic Communication	
Science in Society Grouping		
<u>EVPP 542</u>	Urban Ecosystems Processes	
<u>COMM 602</u>	Theories and Research of Mass Communication	
<u>COMM 639</u>	Science Communication	
Select 6 credits of science communication courses; suggestion include, but are not limited to:		6
<u>COMM 642</u>	Science and the Public	
<u>COMM 644</u>	Analysis and Criticism of Science Journalism	
<u>COMM 735</u>	Crisis Communication	
Choose at least 3 credits from the following:		3
<u>GG5 553</u>	Geographic Information Systems	
<u>GG5 681</u>	Social Media Analysis	
<u>COMM 650</u>	Research Methodologies in Communication	
<u>COMM 775</u>	Media Content Analysis	
<u>EDRS 811</u>	Quantitative Methods in Educational Research	
<u>EDRS 827</u>	Introduction to Measurement and Survey Development	
<u>POGO 511</u>	Introductory Data Analysis for Policy and Government	
<u>POGO 646</u>	Policy and Program Evaluation	
<u>PSYC 557</u>	Psychometric Methods	
<u>PSYC 611</u>	Advanced Statistics	

Code	Title	Credits
SOCI 620	Methods and Logic of Social Inquiry	
SOCI 631	Survey Research	
Total Credits		12-15

~~Environmental Science Science Communication Research Methods~~
~~Additional Requirements See the Additional Requirements section~~
~~below for details on the research requirement, the seminar~~
~~requirement, and electives.~~ **Environment and Management**
Concentration (EVM)

Course List		
Code	Title	Credits
Select 6 credits of courses in relevant experimental methods, statistics, or communication techniques.		6
Suggested courses include, but are not limited to:		
EVPP-631	Spatial Agent-based Models of Human-Environment Interactions	
EVPP-683	Environmental Conflict Resolution: Situation Assessment, Process Design and Best Practices	
COMM-725	Qualitative Methods	
COMM-775	Media Content Analysis	
PUAD-613	Economic Analysis in Public Administration	
SOCI-620	Methods and Logic of Social Inquiry	
SOCI-631	Survey Research	
SOCI-634	Qualitative Research Methods	
SOCI-636	Statistical Reasoning	
Total Credits		0

~~1 Required for those without previous coursework in ecology. Can be included within the 6 credits.~~

Course List		
Code	Title	Credits
Select 6 credits from EVPP graduate courses, suggestions include:		6
EVPP-521	Marine Conservation	
EVPP-543	Tropical Ecosystems	
EVPP-607	Fundamentals of Ecology 1	
EVPP-621	Overview of Biodiversity Conservation	
EVPP-641	Environmental Science and Public Policy	
EVPP-677	Applied Ecology and Ecosystem Management	
Total Credits		0

This 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. It is especially meant for individuals working in or aspiring to work as managers in the environmental field in government or private industry.

Code	Course List Title	Credits
Select at least 6 credits from the following:		6
EVPP 515	Molecular Environmental Biology I	
EVPP 518	Conservation Biology	
EVPP 519	Marine Mammal Biology and Conservation	
EVPP 520	Marine Mammal Biology and Conservation Field Course	
EVPP 543	Tropical Ecosystems	
<u>EVPP 641</u>	Environmental Science and Public Policy	3
EVPP 643	Microbial Ecology	
<u>EVPP 677</u>	Applied Ecology and Ecosystem Management	3
EVPP 745	Environmental Toxicology	
Choose 3 credits from the following:		3
<u>EVPP 638</u>	Corporate Environmental Management and Policy	
<u>PUAD 502</u>	Administration in Public and Nonprofit Organizations	
Choose 3-6 credits from the following:		3-6
<u>EVPP 505</u>	Selected Topics in Environmental Science (When the topic is "Evidence-based Policymaking: Using the Environmental Sciences for Governance")	
<u>EVPP 524</u>	Introduction to Environmental and Resource Economics	
<u>EVPP 525</u>	Economics of Human/Environment Interactions	
<u>EVPP 529</u>	Environmental Science Communication	
<u>EVPP 533</u>	Energy Policy	
<u>EVPP 542</u>	Urban Ecosystems Processes	
<u>EVPP 545</u>	Principles of Environmental Toxicology	
<u>EVPP 550</u>	Waterscape Ecology and Management	
EVPP 555	Lab in Waterscape Ecology	
EVPP 581	Estuarine and Coastal Ecology	
EVPP 607	Fundamentals of Ecology I	
EVPP 622	Management of Wild Living Resources	
<u>EVPP 620</u>	Development of U.S. Environmental Policies	
<u>EVPP 646</u>	Wetland Ecology and Management	
EVPP 647	Wetland Ecology Lab and Field	
EVPP 648	Population Ecology	
<u>GGG 553</u>	Geographic Information Systems	
Total Credits		12-15
Natural Science Public Policy Methods and Statistics Additional Requirements See the Additional Requirements section below for details on the research requirement, the seminar requirement, and electives. Additional Requirements for all Concentrations: Research Requirement The research requirement may be satisfied in one		

of two ways: a research project or a formal thesis. 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. Project Option Students fulfilling the research requirement with the project option register for EVPP-798 Master's Research Project in Environmental Science and Public Policy and are required to take a comprehensive examination covering knowledge mastered throughout the program of study. This examination includes both a written and an oral component and is administered by the student's supervisory committee. EVPP-798 Thesis Option Students fulfilling the research requirement with the thesis option register for EVPP-799 Master's Thesis in Environmental Science and Public Policy, present their results in a public seminar, and defend their thesis before their supervisory committee. Students will be graded "Satisfactory/No Credit" on the research requirement. Seminar Requirement An appropriate course topic must be taken in order to fulfill this requirement. Electives If necessary, students take additional electives to bring the degree total to 33 credits. These courses must be approved by the student's supervisory committee and outlined on the student's program of study.

Course List		
Code	Title	Credits
EVPP-692	Master's Seminar in Environmental Science and Public Policy (at least 1 credit)	

Course List		
Code	Title	Credits
EVPP-799	Master's Thesis in Environmental Science and Public Policy (at least 3 credits)	

Course List		
Code	Title	Credits
EVPP-798	Master's Research Project in Environmental Science and Public Policy (at least 1 credit)	

Course List		
Code	Title	Credits
Select at least 6 credits from the following:		6
EVPP-582	Estuarine and Coastal Ecology Laboratory	
EVPP-650	Ecosystem Analysis and Modeling	
GGS-550	Geospatial Science Fundamentals	
GGS-553	Geographic Information Systems	
GGS-579	Remote Sensing	
SOCI-636	Statistical Reasoning	
Total Credits		0

Course List		
Code	Title	Credits
Select at least 12 credits from the following:		12
EVPP-638	Corporate Environmental Management and Policy	
EVPP-641	Environmental Science and Public Policy	
EVPP-642	Environmental Policy	
EVPP-670	Environmental Law	

Code	Title	Credits
CEIE-556	Environmental Law	
PRLS-501	Introduction to Natural Resources Law	
PUAD-502	Administration in Public and Nonprofit Organizations	
PUAD-540	Public Policy Process	
Total Credits		0

~~1 Required for those without previous coursework in ecology. Can be included within the 6 credits.~~

**Retroactive
Requirements
Updates:**

Plan of Study:

Additional Program Information

This information is required by the Office of Accreditation and Program Integrity.

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

**What is the
primary delivery
format for the
program?**
Face-to-Face Only

Does any portion of this program occur off-campus?
Yes

Off-campus details:

~~If Smithsonian courses are chosen.~~

Are you working with a vendor / other collaborators to offer your program?
Yes

Please explain:

~~Smithsonian.~~

**Related
Departments**

**Could this program prepare students for any type of professional licensure, in
Virginia or elsewhere?**

No

Are you adding or removing a licensure component?

No

Additional SCHEV & SACSCOC Information

Are you changing the total number of credits required for this program?

Are you changing the delivery format in any way (e.g adding an online option)?

Are you adding/removing a licensure option which was approved by SCHEV?

Will any portion of this program be offered at an off-campus location?

Are you adding significant new content areas to the program?

Will this program change affect any specialized accreditation?

Green Leaf Program Designation

Is this a Green Leaf program? Yes

Green Leaf Designation Sustainability-focused designation

Sustainability-focused academic programs require at least one green leaf course. Either that course is itself sustainability-focused or else the program requires a set of sustainability-related courses with aggregated substance equivalent to a sustainability-focused course.

Relationship to Existing Courses

Relationship to Existing Programs

List sustainability-focused courses

currently required
in the degree
program:

Does this program cover material which crosses into another department?

No

Additional
Attachments

SCHEV Proposal

Executive
Summary

Reviewer
Comments

Additional
Comments

Is this course required of all students in this degree program?

%wi_required.eshtml%

Key: 189