

ENVIRONMENTAL SCIENCE AND PUBLIC POLICY, PHD

Banner Code: SC-PHD-EVPP

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Our graduates contribute to the solution of complex environmental problems, which require the development of knowledge and skills in the collection, analysis, and interpretation of scientific data, as well as in the integration of scientific understanding into the public policy process.

Advisors/Committee Chairs are drawn from faculty in the Department of Environmental Science and Policy (<http://catalog.gmu.edu/colleges-schools/science/environmental-policy/>) as well as other departments in the College of Science (<http://catalog.gmu.edu/colleges-schools/science/>) and from the School of Integrative Studies (<http://catalog.gmu.edu/colleges-schools/humanities-social-sciences/integrative-studies/>).

This has been designated a Green Leaf program (<http://catalog.gmu.edu/student-services/green-leaf-programs-courses/>).

Admissions & Policies

Admissions

University-wide admissions policies can be found in the Graduate Admissions Policies (<http://catalog.gmu.edu/admissions/graduate-policies/>) section of this catalog. International students and students having earned international degrees should also refer to Admission of International Students (<https://catalog.gmu.edu/admissions/international-students/>) for additional requirements.

Eligibility

Applicants should have a bachelor's degree with an overall GPA of at least 3.00 from an institution of higher education accredited by a Mason-recognized U.S. institutional accrediting agency or international equivalent. Applicants should have taken at least two semesters of chemistry and three semesters of biology, including a course in ecology.

It is advantageous for applicants to have an advanced degree (e.g. MA, MS, veterinary, or law) in a relevant field.

For applicants who apply with a bachelor's degree or Licentiate (i.e. *Licenciatura*), they should possess exceptional undergraduate academic and research accomplishments.

Science Background

Biology and Chemistry Background

Applicants who lack college-level coursework in biology and chemistry (two semesters of each) should complete a two-semester sequence of introductory graduate-level environmental chemistry and biology courses as follows:

Code	Title	Credits
EVPP 506	Science of the Environment I	3
EVPP 507	Science of the Environment II	3
Total Credits		6

These introductory courses cannot be added to the graduate program of study, they will be additional credits to the degree's 72 credit total.

Ecology Background

Students without previous coursework in general ecology will be required to take the following introductory graduate course, which may be included in the graduate program of study.

Code	Title	Credits
EVPP 607	Fundamentals of Ecology	3

Application Requirements

To apply for this program/certificate, prospective students should submit the George Mason University Admissions Application (<https://www2.gmu.edu/admissions-aid/apply-now/>) and its required supplemental documentation, and:

- Three letters of recommendation with at least two from individuals with doctorates.
- Substantial statement of interest that includes a description of the specific area of proposed dissertation research, the potential focus (environmental science or environmental public policy), contacts that have been made with potential faculty advisors, and an explanation of career and research goals.
- Prospective Advisor Form completed by a faculty member who has similar research interests to yours and will mentor you during your degree program. Information on faculty members eligible to serve as advisors/committee chairs can be found by contacting the department via phone (703-993-3187) or via email (espgrad@gmu.edu).
 - All students must obtain the consent of a faculty member willing to serve as an advisor prior to being fully admitted to the program. Admission decisions are based on the student's qualifications and the availability of a faculty advisor. An advisor may be changed by mutual consent of student and advisor, or by petition to the graduate program director and the associate dean for undergraduate and graduate student affairs in the College of Science (<http://catalog.gmu.edu/colleges-schools/science/>).

The GRE is not required for admission into this program.

Policies

For policies governing all graduate programs, see AP.6 Graduate Policies (<http://catalog.gmu.edu/policies/academic/graduate-policies/>).

Transferring Previous Graduate Credit into this Program

Previously earned and relevant graduate credits may be eligible for transfer into this program; details can be found in the Credit by Exam or Transfer (<https://catalog.gmu.edu/policies/academic/graduate-policies/>) section of this catalog.

Requirements

Degree Requirements

Total credits: 72

This is a Green Leaf program.

Students should refer to the Admissions & Policies tab for specific policies related to this program.

Students are required to complete a coursework proposal by the end of their second semester. The coursework proposal must be approved by the student's advisor and the graduate program director. In keeping with the general philosophy inherent in a PhD degree, students adopt an individual program that focuses on a specific area of research. The student's coursework must provide the knowledge base from which an original research project in their specific areas of interest can be successfully completed.

Doctoral Core

Code	Title	Credits
Select at least one course from each of the following categories:		
Natural Science		3
EVPP 518	Conservation Biology	
EVPP 527	Conservation Medicine	
EVPP 550	Waterscape Ecology and Management	
EVPP 581	Estuarine and Coastal Ecology	
Policy and Social Science		3
EVPP 530	Evidence-Based Environmental Policymaking	
EVPP 534	Food-Energy-Water Nexus	
Methods		3
EVPP 585	Quantitative Data Analysis for Environmental Scientists	
EVPP 632	Qualitative Research Methods for Environmental Scientists	
EVPP 651	Multivariate Data Analysis for Ecology and Environmental Science	
Transdisciplinarity and Professionalization		3
EVPP 505	Selected Topics in Environmental Science (when the topic is "Career Development for Environmental Scientists")	
Doctoral Seminar		4
EVPP 692	Master's Seminar in Environmental Science and Public Policy	
EVPP 991	Advanced Seminar in Environmental Science (taken at least once)	
Total Credits		16

Natural Sciences

Code	Title	Credits
Select at least 9 additional credits in biology, chemistry, environmental science, geology, geography, or environmental engineering		
Total Credits		9

Public Policy

Code	Title	Credits
Select at least 9 additional credits in public affairs, economics, sociology, and/or business.		
Total Credits		9

Research Methods and Technology

Code	Title	Credits
Select at least 3 additional credits in statistics, remote sensing, geographic information systems, analytical chemistry, molecular biology, modeling, or information technology. Students should carefully choose coursework to ensure they have the necessary skills to support dissertation research.		
Total Credits		3

Program of Study Emphasis

Code	Title	Credits
Students select a Program of Study Emphasis within one of two areas of focus. Previous thesis research courses may not be applied to fulfill the Program of Study Emphasis; see advisor for further details.		
Environmental Science		
Select 12 credits in natural science coursework		
Environmental Public Policy		
Select 12 credits of public policy coursework		
Total Credits		12

Electives

Code	Title	Credits
If necessary, students select elective courses in order to reach a total of 72 credits.		
Total Credits		0-11

Dissertation Committee

Before the end of the fourth semester of coursework, in consultation with their advisor, the student forms a dissertation committee of at least four members. Details on dissertation committee formation can be found in the AP.6.10.5 section of this catalog (<http://catalog.gmu.edu/policies/academic/graduate-policies/#ap-6-10-5>). The dissertation committee must be approved by the college's associate dean for undergraduate and graduate student affairs.

Program of Study

After reviewing the student's coursework proposal, progress to date, and area of research, the committee makes final recommendations concerning coursework that will be codified in the program of study to be signed by all committee members and the graduate program director. Students are advised to work closely with their advisor and committee to develop the coursework program in order to facilitate the process of course selection. During the duration of graduate study, a student must meet with the full dissertation committee at least once a year.

Qualifying Exams

On completion of all or nearly all coursework, students may request to take the qualifying or candidacy exam. The qualifying exam has both written and oral components. The written portion consists of questions submitted by each member of the dissertation committee. Successful completion of the written exam should be followed by the oral portion within one month. The qualifying exam may be repeated once at the discretion of the student's committee.

Advancement to Candidacy

Upon approval of the program of study, completion of all or nearly all coursework, successful completion of the qualifying exam, and the approval of the dissertation proposal by the dissertation committee, the student is recommended for advancement to candidacy by the graduate program director. Students must advance to candidacy within six years of admission to the program.

Dissertation Research, Dissertation Defense, and Graduation

Students must complete a dissertation. The dissertation is an original written work, demonstrating mastery of subject matter, methodologies, and conceptual foundations on a specific problem in the general field of environmental science and public policy. The dissertation generally involves collection and analysis of original data or the substantially new analysis and reinterpretation of existing data.

Dissertation completion may be accomplished by taking EVPP 999 Doctoral Dissertation Research alone, or in combination with EVPP 998 Doctoral Dissertation Proposal. However, at least six of these credits must be taken as EVPP 999 Doctoral Dissertation Research.

Before students may enroll in EVPP 999 Doctoral Dissertation Research, they must have advanced to candidacy and have a dissertation proposal approved by the dissertation committee, graduate program director, department chairperson, and the dean of the College of Science. Students working on dissertation research must register for a minimum of 3 credits of EVPP 999 Doctoral Dissertation Research per semester (excluding summers) until they have completed the minimum number of dissertation research credits. Then, they must register for 1 credit of EVPP 999 Doctoral Dissertation Research until the dissertation is complete and has been officially submitted to the library.

Students must present the completed dissertation in a public seminar and defend the work before the dissertation committee and others who wish to attend. Awarding of the degree is contingent on approval of the dissertation by the dissertation committee, graduate program director, department chairperson, and the dean of the College of Science. The dissertation and defense must be completed a total of nine years from the date of first enrollment in the doctoral program.

Code	Title	Credits
Select 12-24 credits from the following:		12-24
EVPP 998	Doctoral Dissertation Proposal	
EVPP 999	Doctoral Dissertation Research (at least 6 credits)	
Total Credits		12-24