

MS IN ENVIRONMENTAL SCIENCES AND POLICY/ GEOGRAPHIC INFORMATION SYSTEMS, CERTIFICATE

MS in Environmental Sciences and Policy / Certificate in Geographic Information Systems

The use of geographic information systems (GIS) has become standard for many environmental professionals. At the same time, during environmental investigations, GIS remains one of the most popular and powerful applications. To enable students to exploit the complementary nature of the fields, we have eliminated the overlap between the MS in Environmental Science and Policy and the graduate certificate in GIS. This enables students to earn both the MS degree and the Graduate Certificate by completion of a total of 13 courses rather than the 15 courses that would be required to complete the programs separately. Interested students, including those already enrolled in either program, should apply to the combined MS in ESP/Graduate Certificate in GIS program.

Admissions Criteria for all Advanced Academic Programs (<http://e-catalog.jhu.edu/arts-sciences/advanced-academic-programs/enrollment-services/admission/>)

Program Specific Requirements

- One semester of undergraduate quantitative methods, programming, or equivalent experience.

B.A./M.S. Option for Johns Hopkins ENVS Majors

Undergraduates majoring in Environmental Science or Environmental Studies (ENVS) may apply for accelerated status toward an M.S. in Geographic Information Systems (GIS) through the JHU Krieger School of Arts & Sciences' Advanced Academic Programs. Interested students should speak with their advisor and the Director of the GIS Program, Jerry Burgess (jerry.burgess@jhu.edu), in their senior year. ENVS students may apply up to two courses toward the M.S. in GIS, thereby leaving only eight more courses to complete the M.S. following receipt of their bachelor's degree. ENVS students will receive two separate degrees, so the requirements of both degrees must be fulfilled. Students cannot earn the M.S. degree without completion of the B.A. or B.S., however, students who do not complete the M.S. retain their B.A. or B.S.

Admission Requirements

ENVS students may apply for the B.A./M.S. anytime during the senior year or after conferral of their undergraduate degree. The application procedure is the same as that for other AAP applicants. Details are found online at: <http://advanced.jhu.edu/>. Students admitted to the B.A./M.S. program will be assigned a graduate advisor but will also continue to be advised by their ENVS advisor for all matters concerning the bachelor's degree.

Courses for the B.A./M.S. in Environmental Sciences and Policy

Up to three courses completed while an undergraduate can count toward the ten courses required for the M.S. Two of the following courses can be

used to satisfy the corresponding core course requirements for the M.S. in Environmental Sciences and Policy.

Code	Title	Credits
AS.270.202	Introduction to Ecology ¹	3
	or AS.270.308 Population/Community Ecology	
AS.270.224	Oceans & Atmospheres ²	3
AS.271.403	Environmental Policymaking and Policy Analysis ³	3

¹ Substitutes for AS.420.611 Principles & Methods of Ecology

² Substitutes for AS.420.608 Oceanic & Atmospheric Processes

³ Taught as a combined course with AS.420.614 Environmental Policymaking and Policy Analysis

Courses for the B.A./M.S. in Geographic Information Systems

Up to two courses completed while an undergraduate can count toward the ten courses required for the M.S. The following courses completed while an undergraduate can be used to satisfy the corresponding core and elective course requirements for the M.S. in Geographic Information Systems.

Code	Title	Credits
AS.270.205	Introduction to Geographic Information Systems and Geospatial Analysis ¹	3
AS.270.318	Remote Sensing of the Environment ²	3

¹ Substitutes for AS.430.601 Geographic Information Systems (GIS)

² Substitutes for AS.430.602 Remote Sensing: Systems and Applications

Program Requirements

Code	Title	Credits
Select one of the following:		15
Five ESP core courses		
Four ESP core courses plus an internship or independent research project		
Electives		
Five elective courses in total to include both:		
AS.430.601	Geographic Information Systems (GIS)	4
	or AS.430.603 Geospatial Statistics	
AS.430.602	Remote Sensing: Systems and Applications	4
And any three of the following:		
AS.420.603	Environmental Applications of GIS	3
AS.420.703	Open Source GIScience for Environmental Research	3
AS.430.600	Web GIS	
AS.430.603	Geospatial Statistics	
AS.430.604	Spatial Analytics	
AS.430.605	Development and Management of GIS Projects	
AS.430.606	Programming in GIS	
AS.430.608	GIS and Spatial Decision Support Systems	
AS.430.609	Spatial Data Management: Quality and Control	
Total Credits		29

Substitution of other GIS courses allowed with approval of the Program Director.