

ENVIRONMENTAL PLANNING AND MANAGEMENT, MASTER OF SCIENCE

The degree and certificates offered under this program emphasizes the relationship between environmental engineering, science and public policy analysis. Students will also focus on the role of economic factors in the planning and management of environmental recourses using proven decision-making tools.

Admission Requirements

Applicants (degree seeking and special student) must meet the general requirements for admission to graduate study, as outlined in the Admission Requirements (<http://e-catalog.jhu.edu/engineering/engineering-professionals/admission-requirements/>) section. The applicant's prior education must include:

1. an undergraduate degree from a regionally accredited four-year college or university and
2. successful completion of one year of college-level calculus

Successful completion of college-level courses in physics, chemistry, biology, geology, and statistics is strongly recommended.

Applicants whose prior education does not include the prerequisites listed above may still enroll under provisional status, followed by full admission status once they have completed the missing prerequisites. Missing prerequisites may be completed with Johns Hopkins Engineering or at another regionally accredited institution. Applicants typically have earned a grade point average of at least 3.0 on a 4.0 scale (B or above) in their undergraduate studies. Transcripts from all college studies must be submitted. When reviewing an application, the candidate's academic and professional background will be considered.

Program Requirements

Ten courses must be completed within five years. The curriculum consists of five courses from the Environmental Planning and Management program and five electives.

Electives may be selected from any of the three environmental areas of study: Environmental Engineering (<http://e-catalog.jhu.edu/engineering/engineering-professionals/environmental-engineering-science-management-programs/environmental-engineering-master/#requirementstext>), Environmental Engineering and Science ([http://e-catalog.jhu.edu/engineering/engineering-professionals/environmental-engineering-science-master/#requirementstext](http://e-catalog.jhu.edu/engineering/engineering-professionals/environmental-engineering-science-management-programs/environmental-engineering-science-master/#requirementstext)), or Environmental Planning and Management (p. 1), subject to prerequisite restrictions. Only one C-range grade (C+, C, or C-) can count toward the master's degree.

All course selections are subject to advisor approval. Except for the Focus Areas, any deviation from this program, including transfer of courses and any other requisites specified in the student's admission letter, will not be approved by the program chair.

Courses

Code	Title	Credits
Environmental Planning and Management		
Select a minimum of five of the following:		
EN.575.608	Optimization Methods for Public Decision Making	3
EN.575.611	Economic Foundations for Public Decision Making	3
EN.575.628	Business Law For Engineers	3
EN.575.635	Environmental Law for Engineers & Scientists	3
EN.575.637	Environmental Impact Assessment	3
EN.575.640	Geographic Information Systems (GIS) and Remote Sensing for Environmental Applications	3
EN.575.658	Natural Disaster Risk Modeling	3
EN.575.707	Environmental Compliance Management	3
EN.575.710	Financing Environmental Projects	3
EN.575.711	Climate Change and Global Environmental Sustainability	3
EN.575.714	Water Resources Management	3
EN.575.723	Sustainable Development and Next-Generation Buildings	3
EN.575.731	Water Resources Planning	3
EN.575.733	Energy and the Environment	3
EN.575.734	Smart Growth Strategies for Sustainable Urban Development and Revitalization	3
EN.575.735	Energy Policy and Planning Modeling	3
EN.575.736	Designing for Sustainability: Applying a Decision Framework	3
EN.575.737	Environmental Security with Applied Decision Analysis Tools	3
EN.575.747	Environmental Project Management	3
EN.575.750	Environmental Policy Needs in Developing Countries	3
EN.575.752	Environmental Justice and Ethics Incorporated into Environmental Decision-Making	3
EN.575.753	Communication of Environmental Information and Stakeholder Engagement	3
EN.575.759	Environmental Policy Analysis	3
EN.575.801	Independent Project	3

Optional Focus Areas:

Focus areas are not available for students pursuing certificates.

Code	Title	Credits
Focus Areas		
	Environmental and Occupational Health (p.)	
	Energy Policy and Climate (p.)	
	Energy Sciences and Policy (p.)	
	Ocean and Coastal Engineering (Only available in the Master of Environmental Engineering)	

Environmental and Occupational Health

To accommodate students interested in the human health aspects of the environment, a focus area in "Environmental and Occupational Health" is offered within all three EP environmental master's degree programs—the Master of Environmental Engineering, the Master of Science in Environmental Engineering and Science, and the Master of Science in

Environmental Planning and Management. Students must take at least 14 BSPH "term" credits from the EHE courses listed below to substitute for an equivalent of 9 EP semester credits (three semester courses) of their elective courses required for the designated 30-credit EP master's degree program. Please note that 1 EP semester credit equals 1.5 BSPH term credits.

AS.420.624	Ocean Stewardship and Sustainability	3
AS.420.643	U.S. Environmental History	3
AS.420.650	International Environmental Policy	3

Please refer to the course schedule (ep.jhu.edu/schedule (<https://apps.ep.jhu.edu/schedule/search/>)) published each term for exact dates, times, locations, fees, and instructors.

Focus areas are not available for students pursuing certificates.

Code	Title	Credits
Bloomberg School of Public Health Courses		
PH.180.601	Environmental Health	5
PH.182.622	Ventilation and Hazard Control	4
PH.182.623	Occupational Health Management	3
PH.182.625	Principles of Occupational and Environmental Hygiene	4
PH.182.637	Noise and Other Physical Agents in the Environment	4
PH.187.610	Public Health Toxicology	4
PH.188.680	Fundamentals of Occupational Health	3

Energy Policy and Climate

To attain this focus area students must take at least 9 credits (3 courses) in the Advanced Academic Programs - Energy Policy and Climate Program - from the core courses listed below to substitute for an equivalent of 9 EP credits (3 courses) of their elective courses required for the designated 30-credit (10 courses) EP master's degree program. Homepage: <https://advanced.jhu.edu/academics/graduate-degree-programs/energy-policy-and-climate/>

Focus areas are not available for students pursuing certificates.

Code	Title	Credits
<i>Energy Policy and Climate Focus Area</i>		
AS.425.615	Understanding Public Attitudes for the Communication of Climate and Energy Policy	3
AS.425.624	Wind Energy: Science, Technology and Policy	3
AS.425.625	Solar Energy: Science, Technology & Policy	3
AS.425.628	Renewable Energy Project Development and Finance	3
AS.425.636	Emerging Energy Technologies and Applications	3

ENERGY Sciences and POLICY

To attain this focus area, students must take at least 9 credits (3 courses) in the Advanced Academic Programs - Environmental Sciences and Policy Program - from the core courses listed above to substitute for an equivalent of 9 EP credits (3 courses) of their elective courses required for the designated 30-credit (10 courses) EP master's degree program. Homepage: <https://advanced.jhu.edu/academics/graduate-degree-programs/environmental-sciences-and-policy/>

Focus areas are not available for students pursuing certificates.

Code	Title	Credits
<i>Environmental Sciences and Policy Focus Area</i>		
AS.420.605	Maritime Law and the Environment	3
AS.420.666	Community Development and Sustainability in developing countries	3
AS.420.609	Agroecology	3