

WATER SCIENCE AND SOCIETY CERTIFICATE

The Water Science and Society Certificate provides students from a range of majors with foundational knowledge in water science and policy. Students take courses in the biological, physical, and policy sciences, and courses focused on skills relevant to understanding and managing water. The certificate culminates in a capstone experience that enables students to apply conceptual water knowledge to a project.

Post-Secondary Certificate - Water Science and Society

Summary

Code	Title	Hours
Social/Policy		3
Physical		3
Biological/Ecological		3
Skills		3
Capstone		3
Total Hours		15

Degree Specific Credits: 15

Required Cumulative GPA: 2.0

Social/Policy

Code	Title	Hours
Complete one of the following courses:		3
NRSM 427	Water Policy	
GPHY 335	Water and Sustainability	
Total Hours		3

Minimum Required Grade: C-

Physical

Code	Title	Hours
Complete one of the following courses:		3
ERTH 303N	Weather and Climate	
GEO 202	The Water Planet	
GEO 320	Global Water	
GEO 420	Hydrogeology	
GEO 421	Hydrology	
NRSM 385	Watershed Hydrology	
Total Hours		3

Minimum Required Grade: C-

Biological/Ecological

Code	Title	Hours
Complete one of the following courses:		3
BIOE 428	Freshwater Ecology	
BIOE 439	Stream Ecology	
BIOE 453	Lake Ecology	
BIOO 340	Biology and Management of Fishes	
WILD 485	Aquatic Invertebrate Ecology	
Total Hours		3

Minimum Required Grade: C-

Skills

Code	Title	Hours
Complete one of the following courses:		3
CSCI 444	Data Visualization	
ECNS 201S	Principles of Microeconomics	
ECNS 433	Economics of the Environment	
ECNS 445	Introduction to Environmental Economics & Climate Change	
GPHY 284	Intro to GIS and Cartography	
GPHY 385	Field Techniques	
GPHY 465	Planning Principles & Processes	
GPHY 466	Environmental Planning	
GPHY 468	Community & Regional Analysis	
GPHY 482	Spatial Analysis & GIS	
GPHY 487	Remote Sensing/Raster GIS	
NRSM 379	Collaborations in Natural Resource Decisions	
PSCI 361	Public Administration	
PSCI 491	Special Topics (Agency Policy-Making)	
PTRM 310	Natural Resource Interpretation and Communication	
Total Hours		3

Minimum Required Grade: C-

Capstone

Note: The course that satisfies this requirement must include a substantive project that is focused on water. To meet this requirement, students can complete a thesis, an internship, or a field course. Alternatively, they can complete one of the art courses listed below. In all cases, the project needs to be focused on water.

Code	Title	Hours
Complete one of the following courses:		3
ARTZ 314A	Environmental Drawing	
ARTZ 321	Painting II	
A thesis or internship course in the student's home department.		

A field course with a project or research component.

Total Hours	3
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Minimum Required Grade: C-