

HYDROLOGY MINOR



Water is critical to all life on earth. The hydrology minor at UNC is designed to provide students with fundamental knowledge of the natural and societal processes which govern the occurrence, distribution, and biogeochemical properties of water on the Earth, and the ability to use that knowledge to address modern societal challenges. Students who complete the minor will be well-qualified to pursue careers in environmental consulting, water management and/or policy, climate services, and more.

Requirements

In addition to the program requirements listed below, students must:

- take at least nine hours of their minor "core" requirements at UNC–Chapel Hill
- earn a minimum cumulative GPA of 2.000 in the minor core requirements. Some programs may require higher standards for minor or specific courses.

For more information, please consult the degree requirements section of the catalog (<https://catalog.unc.edu/undergraduate/degree-requirements/>).

Code	Title	Hours
Core Requirements		
EMES 324 & 324L	 Water in Our World: Introduction to Hydrologic Science and Environmental Problems and  Water in Our World Laboratory	4
	Four additional courses emphasizing surface or groundwater processes, aquatic ecology or biogeochemistry, or water resources, chosen from the following list:	12
EMES 414/ ENEC 514	Flood Hydrology: Models and Data Analysis ¹	
EMES/ENEC 417	Surface Processes and Landscape Evolution ¹	
EMES 431	Major World Rivers and Global Change: From Mountains to the Sea	
EMES 433	Wetland Hydrology	
EMES/ENEC 435	Principles of Environmental Consulting: Mechanics of Groundwater Flow ¹	
EMES 436	Geochemistry of Natural Waters ¹	
EMES 460	Fluid Dynamics of the Environment ¹	
EMES 508	Global Hydrology ¹	
ENEC 581	Water Resource Planning and Policy Analysis ²	
ENEC 586	Water Quality Policies and Planning ¹	
ENVR 453	Groundwater Hydrology	
GEOG 341	Hydrology, Ecology, and Sustainability of the Humid Tropics	
GEOG 440	Earth Surface Processes ¹	
GEOG 441	Introduction to Watershed Systems ¹	
GEOG 442	Limnology and Freshwater Ecology	
	3 credits of mentored undergraduate research (e.g., 395) with an advisor with a hydrology focus	
Total Hours		16

¹ Check the course description for prerequisite(s).

² Also offered as ENVR 781.

Department Programs

Majors

- Geological Sciences Major, B.A.–Earth Science (<https://catalog.unc.edu/undergraduate/programs-study/geological-sciences-major-ba-earth-science-concentration/>)
- Earth and Marine Sciences Major, B.S. (<https://catalog.unc.edu/undergraduate/programs-study/earth-marine-sciences-major-bs/>)

Minors

- Environmental Microbiology Minor (<https://catalog.unc.edu/undergraduate/programs-study/environmental-microbiology-minor/>)
- Geological Sciences Minor (<https://catalog.unc.edu/undergraduate/programs-study/geological-sciences-minor/>)
- Hydrology Minor (p. 1)
- Marine Sciences Minor (<https://catalog.unc.edu/undergraduate/programs-study/marine-sciences-minor/>)

Graduate Programs

- M.S. in Geological Sciences (<https://catalog.unc.edu/graduate/schools-departments/geological-sciences/>)
- M.S. in Marine Sciences (<https://catalog.unc.edu/graduate/schools-departments/marine-sciences/>)
- Ph.D. in Geological Sciences (<https://catalog.unc.edu/graduate/schools-departments/geological-sciences/>)
- Ph.D. in Marine Sciences (<https://catalog.unc.edu/graduate/schools-departments/marine-sciences/>) (<https://catalog.unc.edu/graduate/schools-departments/geological-sciences/>)

Contact Information

Department of Earth, Marine, and Environmental Sciences

Visit Program Website (<https://emes.unc.edu/>)

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