

# Water Science Major

## Area of Emphasis

Students must complete requirements in one of the following areas of emphasis:

- General
- Accelerated- Integrated with graduate Environmental Science & Policy program

## General

Code	Title	Credits
<b>Supporting Courses</b>		<b>33</b>
WATER 201	Introduction to Water Science	
BIOLOGY 203 & BIOLOGY 204	Principles of Biology: Organisms, Ecology, and Evolution and Principles of Biology Lab: Organisms, Ecology, and Evolution	
GEOSCI 202	Physical Geology	
GEOSCI 222	Ocean of Air: Weather and Climate	
CHEM 211 & CHEM 213	Principles of Chemistry I and Principles of Chemistry I Laboratory	
CHEM 212 & CHEM 214	Principles of Chemistry II and Principles of Chemistry II Laboratory	
MATH 260	Introductory Statistics	
PHYSICS 103 or PHYSICS 201	Fundamentals of Physics I Principles of Physics I	
<b>Upper-Level Required Courses</b>		<b>19</b>
ENV SCI 335 or ET 331	Water and Waste Water Treatment Advanced Water and Waste Water Treatment	
ENV SCI/ET 330	Hydrology	
GEOSCI 432	Hydrogeology	
WATER 444	Geochemistry of Natural Waters	
ENV SCI 401 or ENV SCI 403	Stream Ecology Limnology	
ENV SCI 433 or PU EN AF 351	Ground Water: Resources and Regulations Water Resources Policy and Management	
<b>Upper-Level Elective Courses: (Choose from the following)</b>		<b>16</b>
BIOLOGY 322	Environmental Microbiology	
BIOLOGY 341	Ichthyology	
BIOLOGY 361	Introduction to Aquaculture	
CHEM 311	Analytical Chemistry	
CHEM 413	Instrumental Analysis	
ECON 305	Natural Resources Economic Policy	
ENV SCI 305	Environmental Systems	
ENV SCI 320	The Soil Environment	
ENV SCI/ET 323	Pollution Prevention	
ENV SCI 337	Environmental GIS	
ENV SCI 338	Environmental Modeling	
ENV SCI 339	Scientific Writing	
ENV SCI 401	Stream Ecology	
ENV SCI 403	Limnology	
ENV SCI/ET 424	Hazardous and Toxic Materials	
ENV SCI 425	Global Climate Change	
ENV SCI/ET 433	Ground Water: Resources and Regulations	
ENV SCI 491	Senior Thesis/Research in Environmental Science	

ENV SCI 492	Practicum in Environmental Science
GEOSCI 325	Regional Climatology
PU EN AF 351	Water Resources Policy and Management
PU EN AF 378	Environmental Law
PU EN AF 379	Natural Resources Policy, Law, and Administration
WATER 321	Stable Isotopes in the Environment
WATER 491	Senior Thesis/Research in Water Science
WATER 497	Internship
WATER 498	Independent Study
Freshwater Collaborative of Wisconsin <sup>1</sup>	

**Total Credits****68**

<sup>1</sup> may use up to 8 credits of Specialty and Field Immersion Courses offered by Freshwater Collaborative of Wisconsin

**Accelerated -Integrated with graduate Environmental Science & Policy program**

Code	Title	Credits
<b>Supporting Courses</b>		<b>33</b>
WATER 201	Introduction to Water Science	
BIOLOGY 203 & BIOLOGY 204	Principles of Biology: Organisms, Ecology, and Evolution and Principles of Biology Lab: Organisms, Ecology, and Evolution	
GEOSCI 202	Physical Geology	
GEOSCI 222	Ocean of Air: Weather and Climate	
CHEM 211 & CHEM 213	Principles of Chemistry I and Principles of Chemistry I Laboratory	
CHEM 212 & CHEM 214	Principles of Chemistry II and Principles of Chemistry II Laboratory	
MATH 260	Introductory Statistics	
PHYSICS 103 or PHYSICS 201	Fundamentals of Physics I Principles of Physics I	
<b>Upper-Level Required Courses</b>		<b>19</b>
ENV SCI 335	Water and Waste Water Treatment	
ENV SCI/ET 330	Hydrology	
ENV SCI 401/601 or ENV SCI 403 or ENV SCI 603	Stream Ecology Limnology Limnology	
ENV SCI 433/633 or PU EN AF 351	Ground Water: Resources and Regulations Water Resources Policy and Management	
GEOSCI 432/632	Hydrogeology	
WATER 444/644	Geochemistry of Natural Waters	
<b>Upper-Level Elective Courses: (Choose from the following)</b>		<b>16</b>
BIOLOGY 322	Environmental Microbiology	
BIOLOGY 341	Ichthyology	
BIOLOGY 361	Introduction to Aquaculture	
CHEM 311	Analytical Chemistry	
CHEM 413/613	Instrumental Analysis	
ECON 305	Natural Resources Economic Policy	
ENV SCI 305	Environmental Systems	
ENV SCI 320/520	The Soil Environment	
ENV SCI/ET 323	Pollution Prevention	
ENV SCI 337	Environmental GIS	
ENV SCI 338	Environmental Modeling	
ENV SCI 339	Scientific Writing	
ENV SCI 401	Stream Ecology	

ENV SCI 403	Limnology
ENV SCI 424/624/ET 424	Hazardous and Toxic Materials
ENV SCI 425/625	Global Climate Change
ENV SCI 433/633	Ground Water: Resources and Regulations
ENV SCI 491	Senior Thesis/Research in Environmental Science
ENV SCI 492	Practicum in Environmental Science
GEOSCI 325	Regional Climatology
PU EN AF 351	Water Resources Policy and Management
PU EN AF 378	Environmental Law
PU EN AF 379	Natural Resources Policy, Law, and Administration
WATER 321	Stable Isotopes in the Environment
WATER 491	Senior Thesis/Research in Water Science
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**Total Credits**
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