UNIVERSITY OF MINNESOTA
Driven to Discover℠

Twin Cities Campus

Water Science Minor

Soil, Water, & Climate

College of Food, Agricultural and Natural Resource Sciences

- Program Type: Undergraduate free-standing minor
- Requirements for this program are current for Fall 2016
- Required credits in this minor: 18 to 20

Increasing pressures from population growth, climate change, and other human activities are severely impacting the quality and quantity of water on a global basis. Tomorrows scientists will require a keen understanding of factors pertaining to the biology, chemistry, hydrology and scarcity of our water resources. The minor provides students the opportunity to broaden their expertise in the area of water science. Students must complete at least 18 credits for the minor.

Note: Students interested in qualifying as a hydrologist should determine the exact requirements for the Minnesota civil service position by checking the Hydrologist I (Hydrogeology) and Hydrologist I (Water Resources) position descriptions.

Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

Minor Requirements

Minor Courses

FNRM 3114 - Hydrology and Watershed Management (3.0 cr)
ESPM 4216 - Contaminant Hydrology (3.0 cr)
or ESCI 4702 - General Hydrogeology (4.0 cr)
SOIL 5232 - Vadose Zone Hydrology (3.0 cr)
or SOIL 5555 - Wetland Soils (3.0 cr)
or ESPM 5555 - Wetland Soils (3.0 cr)

Electives

Courses used to fulfill requirements above cannot be chosen to fulfill electives.
Take 9 or more credit(s) from the following:

Wetlands

Take at most 6 credit(s) from the following:
- ESPM 3575 - Wetlands (3.0 cr)
- SOIL 5555 - Wetland Soils (3.0 cr)
  or ESPM 5555 - Wetland Soils (3.0 cr)

Hydrology

Take at most 9 credit(s) from the following:
- FNRM 5153 - Forest Hydrology & Watershed Biogeochemistry (3.0 cr)
- SOIL 5232 - Vadose Zone Hydrology (3.0 cr)
- ESCI 4702 - General Hydrogeology (4.0 cr)

Water Quality and Limnology

Take at most 9 credit(s) from the following:
- ESPM 4061W - Water Quality and Natural Resources [ENV, WI] (3.0 cr)
- ESPM 4601 - Environmental Pollution (3.0 cr)
- EEB 5601 - Limnology (3.0 cr)
- EEB 5605 *{Inactive}*(2.0 cr)
- PUBH 6190 - Environmental Chemistry (3.0 cr)

Conservation and Urban Systems

Take at most 6 credit(s) from the following:
- ESPM 3221 - Soil Conservation and Land-Use Management (3.0 cr)
- GCC 3009 *{Inactive}*[ENV] (3.0 cr)

Information current as of March 28, 2024