WATERSHED SCIENCE (MINOR)

Minor: Watershed Science
Program Code: M470

The minor in watershed science is an interdisciplinary program designed to serve the regional need for scientists with a strong background in water-related issues (e.g., Bureau of Land Management, U.S. Geological Survey, U.S. Forest Service, U.S. Fish and Wildlife Service, and the Colorado Division of Wildlife). Some government agencies, such as the U.S. Forest Service, are shifting their management organization to focus on watersheds, and this minor supports needs in this area.

The minor will complement majors in Physical and Environmental Science and Biology by providing students in these (or related) fields focused coursework on the three critical components of watershed science: surface water, groundwater, and water chemistry. Combined with the relevant B.S., plus additional calculus and physics courses, the minor satisfies the federal government's requirements for qualification as a "hydrologist." The proximity of Colorado Mesa University to the Colorado, Gunnison, and Green Rivers, the drainages of the Colorado National Monument, and the high arroyos create an ideal location for the study of watershed science.

Requirements

Each section below contains details about the requirements for this program. Select a header to expand the information/requirements for that particular section of the program's requirements.

To print or save an overview of this program's information, including the program description, learning outcomes, requirements, suggested course sequencing (if applicable), and advising and graduation information, scroll to the bottom of the left-hand navigation menu and select "Print Options." This will give you the options to either "Send Page to Printer" or "Download PDF of This Page." The "Download PDF of This Page" option prepares a much more concise presentation of all program information. The PDF is also printable and may be preferable due to its brevity.

Institutional Minor Requirements

The following institutional requirements apply to all CMU minors. Specific programs may have different requirements that must be met in addition to institutional requirements.

- A minor consists of 15-24 semester hours. There may be prerequisites required for the minor which will increase the total number of credit hours for a student who has not already taken those prerequisites.
- Courses taken to satisfy Essential Learning, major requirements, or electives **can** be counted toward the minor if applicable.
- At least 33 percent of the credit hours required for the minor must be in courses numbered 300 or above.
- At least 25 percent of the classes must be taken at CMU.
- 2.00 cumulative GPA or higher for the courses used for the minor.
- A minor is not a degree by itself and must be earned at the same time as a baccalaureate degree.
- A minor must be outside the major field of study.
- A student may earn up to five minors with any baccalaureate degree at CMU.
- The Catalog Year determines which program sheet and degree requirements a student must fulfill in order to graduate. Visit with your advisor or academic department to determine which catalog year and program requirements sheet you should follow.
- See "Requirements for Undergraduate Degrees and Certificates" in the catalog for a complete list of graduation requirements.

Program Specific Minor Requirements

(18 semester hours)

Code	Title	Semester Credit Hours
GEOL 414 & 414L	Hydrology and River Dynamics and Hydrology and River Dynamics Laboratory	4
GEOL 415 & 415L	Introduction to Ground Water and Introduction to Ground Water Laboratory	4
ENVS 331 & 331L	Water Quality and Water Quality Laboratory	4
Choose six semester hours (minimum) from the list below:		6
BIOL 414 & 414L	Freshwater Ecology and Freshwater Ecology Laboratory	
CHEM 300	Environmental Chemistry	
ENVS 312 & 312L	Soil Science and Sustainability and Soil Science and Sustainability Laboratory	
ENVS 337 & 337L	Stream Biomonitoring and Stream Biomonitoring Laboratory	
ENVS 410	Environmental Regulatory Compliance	
ENVS 431	Water and Wastewater Treatment	
ENVS 433	Restoration of Aquatic Systems	
GEOL 394	Natural Resources of the West	
GEOL 402 & 402L	Applications of Geomorphology and Applications of Geomorphology Laboratory	
GEOL 463	Subsurface Methods	
GEOL 465	Climate Change Science	
GEOL 470	Drone Explorations on Earth	
GIST 332 & 332L	Introduction to Geographic Information Systems and Introduction to Geographic Information Systems Laboratory	
Total Semester Credit Hours		**18**

Advising and Graduation Advising Process and DegreeWorks

Documentation on the pages related to this program is intended for informational purposes to help determine what courses and associated requirements are needed to earn a minor. Meeting with an academic advisor is essential in planning courses and developing a suggested course sequencing. It is ultimately the student's responsibility to understand and fulfill the requirements for their intended minor.

DegreeWorks is an online degree audit tool available in MAVzone. It is the official record used by the Registrar's Office to evaluate progress towards a minor. Students are responsible for reviewing their DegreeWorks audit on a regular basis and should discuss questions or concerns with their

advisor or academic department head for the minor. Discrepancies in requirements should be reported to the Registrar's Office.

Graduation Process

A minor cannot be awarded by itself. It must be combined with a baccalaureate degree outside the major field of study. Students should follow the graduation process outlined for the baccalaureate degree and list their majors and minors on the "Intent to Graduate" form.

If a student's petition for graduation is denied, it will be their responsibility to consult the Registrar's Office regarding next steps.