WATER QUALITY INSTRUMENTATION, GRADUATE MICROCREDENTIAL

A microcredential is a digital badge students earn by completing a focused set of coursework that builds specific skills and knowledge. Smaller than a minor, certificate, or degree, microcredentials are narrower in scope and typically consist of 6 to 12 credits. They are designed to support academic and career goals, clearly communicate mastered skills and competencies, and help students stand out in a competitive job market.

The **Water Quality Instrumentation Microcredential** is designed to train students in the principles and use of instruments commonly used for measuring and monitoring water quantity and quality in both industrial and environmental settings. This includes the operation of lab instruments used for chemical analyses, in situ monitoring instruments used for continuous monitoring of water chemical and physical properties, and observing platforms such as in situ buoys for providing continuous near-real-time water quantity and quality data. Students will gain competencies in sensor calibration, instrument deployment and operation, quality control / quality assurance, and remote communication.

Admission Requirements

Application Deadlines

Application deadlines vary by program, please review the application deadline chart (http://uwm.edu/graduateschool/program-deadlines/) for specific programs. Other important dates and deadlines can be found by using the One Stop calendars (https://uwm.edu/onestop/dates-and-deadlines/).

Admission

Current UWM students in degree or certificate programs and non-degree or special students enrolling at UWM solely for credit-bearing microcredentials are eligible. Graduate-level microcredentials require a bachelor's degree. For microcredentials offered through the School of Freshwater Sciences, students are encouraged to have an undergraduate degree in a natural science, a graduate degree, or equivalent experience. For this specific microcredential, prior experience with water quantity and quality monitoring, environmental fieldwork, or general instrumentation is preferred.

Credits and Courses

Code	Title	Credits
Required		
FRSHWTR 471G	Introduction to Sensing Networks	3
FRSHWTR 513G	Field Experimentation and Analysis in Freshwater Sciences	3
or FRSHWTR 514G	Analytical Techniques in Freshwater Sciences	
FRSHWTR 999	Independent Study [1]	1
Total Credits		**7**

[1] Capstone project designed for more advanced skill training on instrumentation and field experience.

The credits in this microcredential can also be used toward the requirements of the Freshwater Sciences, MS (https://catalog.uwm.edu/freshwater-sciences/freshwater-sciences-ms/) degree.

Badging

Upon completion of a microcredential, your achievement is recognized through digital badging. You receive a digital badge that represents the skills and competencies you've gained, which you can share on LinkedIn, personal websites, or other professional platforms to showcase your strengths to employers.

A microcredential is the coursework you complete, while the badge is how that accomplishment is displayed and shared. After completing all required credits, you will submit a form to have your badge awarded and the microcredential added to your transcript.