MAJOR IN WATERSHED SCIENCE AND SUSTAINABILITY, WATERSHED SCIENCE CONCENTRATION

The Watershed Science concentration focuses on the physical, chemical, social, and biological factors that affect the quantity, quality, and flux of water through engagement in the field, laboratory, and classroom. Students begin their program with core courses that build a strong foundation in the physical and natural sciences in preparation for upper-division coursework in land use and snow hydrology, land use and water quality, and watershed problem analysis. Courses emphasize field learning and technical skills, with core classes emphasizing watershed measurements, data analysis, modeling, and research. Students graduating in the watershed science concentration will qualify for federal hydrology jobs under the Office of Personnel Management series 1315.

Learning Outcomes

Students will be able to:

- Articulate core concepts in watershed science and sustainability including climate processes, surface and subsurface hydrology, water quality, human uses of water, and sustainable water management.
- Describe how different types of land and water use affect hydrologic processes and water quality.
- Collect, analyze, and interpret meteorological, hydrological, and water quality, water use and management data.
- Analyze watershed problems and sustainability challenges using geospatial data, field observations, sensor data, and watershed models.
- Demonstrate strong critical thinking, writing, and oral communication skills.