

# GRADUATE CERTIFICATE IN WATER RESOURCES

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This certificate program is designed to provide college graduates, current practitioners, and new professionals with targeted knowledge and skills to advance their understanding and career mobility related to water resources planning, management, and policy. This skillset can be applied to a wide array of natural resource managers, as water planning is essential to sound governmental policy and community management. All courses include case studies and exercises pertaining to various water issues in Colorado and the United States, as well as international examples.

Students interested in graduate work should refer to the Graduate and Professional Bulletin (<http://catalog.colostate.edu/general-catalog/graduate-bulletin/>).

## Learning Objectives

Upon successful completion, students will be able to:

1. Apply and demonstrate the principles of the hydrologic cycle and explain complex interactions of groundwater and surface water.
2. Recognize and articulate the foundational assumptions of water resource management in multiple settings (Colorado, the US and international).
3. Conduct research and analysis of water data, both temporally and spatially, using spreadsheets, geographic information systems and statistical software.
4. Contrast and compare water policy, laws, and regulation to assess potential changes to water management.

## Requirements Effective Fall 2019

**Additional coursework may be required due to prerequisites.**

| Code                          | Title                                    | Credits  |
|-------------------------------|--|----------|
| WR 511                        | Water Resource Development               | 3        |
| or CIVE 544                   | Water Resources Planning and Management  |          |
| WR 512                        | Water Law for Non-Lawyers                | 3        |
| WR 514                        | GIS and Data Analysis in Water Resources | 3        |
| <b>Program Total Credits:</b> |  | <b>9</b> |

\*This certificate may have courses in common with other graduate certificates. A student may earn more than one certificate, but a given course may be counted only in one certificate.