Overview

With an ever-growing population, today’s civil engineers face the challenge of building and maintaining a sustainable infrastructure. One of our most critical resources is water, and the water resources engineering focus of this degree program prepares you to tackle the evolving water concerns and other infrastructure issues facing future generations. Colorado State University is a leader in water-related issues and one of the few institutions providing an online graduate degree in civil engineering with a focus on water resources engineering and management.

Through CSU’s internationally recognized Department of Civil and Environmental Engineering, you can study online to earn either a Master of Engineering with a focus in water resources engineering or a Master of Science in Civil Engineering with a focus in water resources.

Take it from two-time CSU student, Melissa Brennan. Colorado State University has always been Brennan’s school of choice. Our highly regarded civil engineering program drew her from Hawaii as an undergraduate student, and the education she received led her to again choose her alma mater for an online civil engineering master’s degree.

Career Opportunities

An advanced degree in engineering provides you with the skills and knowledge to handle the new engineering problems that arise from our industrial-oriented society. By becoming a more environmentally-educated engineer, you will be well situated to pursue green positions, helping with areas such as water purification, flow, containment and transport. Consulting firms, industrial firms, and governmental agencies want engineers with advanced training in water resources engineering, systems analysis and optimization, hydrology, hydraulics, and civil engineering infrastructure.

Civil engineers with a focus on water resource engineering are needed in the global marketplace, though specific career opportunities depend on the desired region and job market. As a civil engineering graduate you’ll find outstanding employment prospects in public works, private consulting or regulatory organizations, and government or military agencies.

Credits

M.E. – 30 credits
M.S. – 32 credits

Tuition

$882 per credit; financial aid and military discount is available

Time Frame

Can be completed in 3 years.

Degree Awarded

Master of Engineering in Engineering, transcript reflects the Civil Engineering specialization, or Master of Science in Civil Engineering

Offered By

Department of Civil and Environmental Engineering

Learn More

online.colostate.edu/degrees/civil-engineering

What makes [the program] so unique is that they offer a wide variety of courses in water resources and also provide the latest technology in civil engineering software to complete some of the weekly tasks.

Carlos Melgar
Civil Engineering graduate
Curriculum

• CIVE 440 – Nonpoint Source Pollution (3 cr.) (Fall)
• CIVE 512 – Irrigation Systems Design (3 cr.) (Fall)
• CIVE 516 – Water Control and Measurement (3 cr.) (Spring)
• CIVE 519 – Irrigation Water Management (3 cr.)
• CIVE 520 – Physical Hydrology (3 cr.) (Fall)
• CIVE 522 – Engineering Hydrology (3 cr.) (Spring)
• CIVE 532 – Wells and Pumps (3 cr.) (Spring)
• CIVE 537 – Residuals Management (3 cr.) (Fall)
• CIVE 540 – Advanced Biological Wastewater Processing (3 cr.) (Fall)
• CIVE 544 – Water Resources Planning and Management (3 cr.) (Fall)
• CIVE 546 – Water Resource Systems Analysis (3 cr.) (Spring)
• CIVE 549 – Drainage and Wetland Engineering (3 cr.)
• CIVE 553 – Stability and Retaining Structures (3 cr.)
• CIVE 571 – Pipe System Engineering and Hydraulics (3 cr.) (Spring)
• CIVE 573 – Urban Stormwater Management (3 cr.) (Spring)
• CIVE 574 – Civil Engineering Project Management (3 cr.) (Fall)
• CIVE 575 – Sustainable Water and Waste Management (3 cr.) (Spring)
• CIVE 577 – GIS in Civil and Environmental Engineering (3 cr.) (Spring)
• CIVE 578 – Infrastructure and Utility Management (3 cr.) (Spring)
• ENGR 510 – Engineering Optimization: Method/Application (3 cr.) (Fall)
• ENGR 520 – Engineering Decision Support/Expert Systems (3 cr.) (Spring)
• ENGR 522 – Object-Oriented GIS Programming for Engineers

Minimum Admission Requirements

• 3.0 GPA on all undergraduate coursework
• GRE scores are required for the M.S. but not M.E.
• B.S. in Engineering

Completion Requirements

Master of Science (M.S.)

• M.S. students must complete at least two credits of CIVE 695H in their last semester in the program.
• A minimum of 32 total credits must be completed, with at least 16 credits completed in civil engineering courses, excluding CIVE 695
• 24 credits must be earned from Colorado State University at the 500-level or above, 21 of which must be earned after formal admission
• No more than two courses at the 400-level taken at Colorado State University are permitted
• Complete a minimum of two credits of CIVE 695 as appropriate to the area of study which includes an engineering report and final examination covering the report and coursework. Students may be required to come to campus for this exam. The M.S. is a Plan B (project paper) degree.

Master of Engineering (M.E.)

• A minimum of 30 total credits must be completed with at least 15 of the 30 credits completed in civil engineering courses
• 24 credits must be earned from Colorado State University at the 500-level or above, 21 of which must be earned after formal admission
• No more than two courses at the 400-level taken at Colorado State University are permitted
• A thesis, project paper, and final examination are not required. The M.E. is a courseworkonly (Plan C) degree.