

# CIVIL ENGINEERING

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## M.S. Degree

Civil engineers plan, design and supervise the construction of facilities essential to modern life in both the public and private sectors. These facilities vary widely in nature, size and scope: space launching facilities, offshore structures, bridges, buildings, tunnels, highways, transit systems, dams, airports, irrigation projects, treatment and distribution facilities for water and collection and treatment facilities for wastewater.

Civil engineers use sophisticated technology and employ computer-aided engineering during project phases of design, construction, project scheduling and cost control. Civil engineers are problem solvers involved in community development and improvement. They meet the challenges of pollution, deteriorating infrastructure, traffic congestion, energy needs, floods, earthquakes, urban redevelopment and community planning. The opportunity for creativity is unlimited.

The civil engineering program at UAF began in 1922, had its first graduate in 1931 and since has graduated more than 800 men and women.

Many of these graduates work in Alaska's cities, towns and villages in a wide range of responsible positions. More than 60 percent of Alaska's professional engineers practice in civil engineering. The UAF civil engineering program has been accredited since 1940 by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology. All engineering programs in the department give special attention to problems of Northern regions.

In addition to general civil engineering courses, specialties are available in Arctic engineering, transportation, geotechnical, structures, water resources, hydrology, and design and construction management. Many courses emphasize principles of analysis, planning and engineering design in northern regions.

A master's degree program can include courses in environmental engineering (ENVE), engineering management (ESM) and other areas. An advanced degree in water and environmental science, administered within the Civil Engineering Department, is available.

Minimum Requirements for Civil Engineering Master's Degree: 30 credits

College of Engineering and Mines

Department of Civil, Geological and Environmental Engineering (<https://www.uaf.edu/cem/programs/civil-engineering/>)  
907-474-7241

## Programs Degrees

- M.S., Civil Engineering (<http://catalog.uaf.edu/graduate/graduate-degree-programs/civil-engineering/ms/>)
- Accelerated B.S./M.S. Civil Engineering (<http://catalog.uaf.edu/accelerated-programs/accelerated-programs-list/civil-engineering-bs-ms/>)