Civil Engineering Department

Civil Engineering (CE) is a professional discipline recognized by licensure in each of the 50 states and many other countries. Civil engineering is a broad branch of engineering dedicated to providing civilization with essential infrastructure and services, including bridges, buildings, ports, water resource development, waste disposal, dams, water power, irrigation and drainage works, roads, airports, railways, construction and management services, surveying, and providing city management and developmental planning. Civil engineering students are introduced to principles of mathematics, chemistry, and physics during their first two years of study. The third year of study is largely devoted to courses in applied extensions of the basic sciences to form the foundation for more advanced engineering analysis and design. Students draw upon previous learning in their senior year to focus their studies on sophisticated analyses and creative designs. Throughout the four-year engineering program students take courses in communication, humanities, social sciences, and fine arts to improve their communication skills and to become more aware of their roles and responsibilities in modern society. The UAA civil engineering program emphasizes northern region design considerations and provides specialized training appropriate for an engineering career in Alaska and other cold regions of the world.

Civil Engineering Department Mission

The mission of the Civil Engineering Department, through its undergraduate and graduate education programs, its professional development programs, its research, and its service, is to advance the civil engineering profession in Alaska and elsewhere for building a sustainable civilization with utmost respect for the well-being of its peoples and the environment.

Program Objectives

The curriculum of the UAA CE program is designed to produce graduates who, within five years of graduation, will:

Practice with responsible charge in the civil engineering sub-disciplines of water resources, geotechnical, structural, transportation, and environmental engineering, with emphasis on cold region issues. Responsible charge is as defined by the Alaska Professional Engineering licensing regulations.

1. Make contributions in project planning, preparation, implementation, design, and presentation in a team environment in sub-discipline areas.
2. Demonstrate and update their competency via professional registration, continuing education, graduate study, and professional service to their communities.
3. Exemplify the ethical standards of the profession.