

# Civil Engineering

## Master of Science (M.Sc.) in Structural Civil Engineering

Civil engineering, a broad field of study in engineering sciences, plays a major role in the planning, construction, and maintenance of fixed structures or public works. Examples of civil engineering work include building structures, bridges, highways, transit systems, dams, tunnels, harbors, canals, sewage treatment systems, and energy facilities.

Structural engineering, a branch of this science, addresses the design and analysis of structures by calculating the stresses and forces within the elements of each structure. The main goal of structural engineering is to improve the serviceability and durability of structures against natural forces such as wind and earthquakes.

The Master of Science (M.Sc.) degree in Civil Engineering normally requires two years with 35 credits. Courses include advanced topics in steel and concrete design, structural analysis, stability, and elasticity and plasticity. In addition to regular course work, graduates must also conduct research and pass a seminar course. As a result of completing this program, graduates will be able to:

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Demonstrate the sound technical competency necessary for a professional engineering career

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Use the necessary modern tools for engineering design and problem solving in real-world situations from a strong technical foundation

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Understand contemporary issues and the impacts of engineering solutions from a global and societal context

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Advance to further graduate-level studies

Graduates of this degree can work in various fields of civil engineering such as design and/or construction of high-rise buildings, tunnels, embedded structures, bridges, dams, etc.

Please click on the [Course List](#) link to view all the courses offered in this degree.