



PROFESSIONAL BACHELOR OF CIVIL ENGINEERING

The bachelor's program in Civil Engineering provides a sound understanding of the fundamentals required to construct buildings and structures, as well as to acquire, develop and maintain viable sites.

The program covers how to design and plan the construction of buildings, roads, dams, rail networks, and building pits. All such undertakings significantly alter the environment. In this respect, civil engineering categorically distinguishes itself from architecture. For the civil engineer is primarily concerned with structural safety and functionality, on the basis of which the planning and designing of structures first becomes possible.

The bachelor's program in Civil Engineering conveys the fundamental disciplines required for modern construction work. Central to the program is the conception, planning, production and operation of construction sites and associated infrastructure. These skills are taught in thorough theoretical as well as practical courses in advanced mathematics, applied mechanics, materials science, construction processes, civil engineering informatics, statics, and structural physics. In addition to the principles of engineering and natural sciences, students have the chance to familiarize themselves with the fundamentals of hydraulic engineering, material-specific issues and transportation technologies. Special attention is paid throughout to the interrelated areas of safety, economics and ecology.

Program	Professional Bachelor of Civil Engineering
Duration	2 Academic Years
Credit Hours	84 Credits

Subject	Credit Hours
ENGINEERING MATHEMATICS	3
ENGINEERING PHYSICS	3
ENGINEERING MECHANICS	3
ENGINEERING GRAPHICS (ENGINEERING DRAWING)	3
PROJECT-BASED LEARNING	3
BUILDING TECHNOLOGY AND ARCHITECTURAL PLANNING	3
MECHANICS OF STRUCTURE	3
FLUID MECHANICS	3
ENGINEERING GEOLOGY	3
ROAD SAFETY MANAGEMENT	3
GEOTECHNICAL ENGINEERING	3
SURVEYING	3
CONCRETE TECHNOLOGY	3
STRUCTURAL ANALYSIS	3
SUBSEA ENGINEERING	3
INFRASTRUCTURE AND CONSTRUCTION TECHNIQUES	3

STRUCTURAL DESIGN (1)	3
FERROCEMENT TECHNOLOGY	3
PROJECT MANAGEMENT AND ENGINEERING ECONOMICS	3
STRUCTURAL DESIGN (2)	3
ENVIRONMENTAL ENGINEERING	3
GREEN BUILDING TECHNOLOGY	3
TRANSPORTATION ENGINEERING	3
QUANTITY SURVEYING, CONTRACTS AND TENDERS	3
GRADUATION PROJECT	12