



ACADEMIC BACHELOR OF CIVIL ENGINEERING
“CONSTRUCTION MANAGEMENT”

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.



Cambridge

Technical College

Program	Bachelor of Civil Engineering “Construction Management”
Duration	4 Academic Years
Credit Hours	138 Credits

Program Syllabus	
Subject	CREDITS

ENGINEERING MATHEMATICS (1)	3
ENGINEERING PHYSICS	3
ENGINEERING CHEMISTRY	3
SYSTEMS IN MECHANICAL ENGINEERING	3
BASIC ELECTRICAL ENGINEERING	3

ENGINEERING MATHEMATICS (2)	3
ENGINEERING PHYSICS / ENGINEERING CHEMISTRY	3
BASIC ELECTRONICS ENGINEERING	3
PROGRAMMING AND PROBLEM SOLVING	3
ENGINEERING GRAPHICS (ENGINEERING DRAWING)	3
PROJECT-BASED LEARNING	3

EXERCISE AND FIELD ACTIVITIES	3
BUILDING TECHNOLOGY AND ARCHITECTURAL PLANNING	3
MECHANICS OF STRUCTURE	3
FLUID MECHANICS	3
ENGINEERING MATHEMATICS (3)	3
ENGINEERING GEOLOGY	3

AWARENESS OF CIVIL ENGINEERING PRACTICES	3
ROAD SAFETY MANAGEMENT	3
GEOTECHNICAL ENGINEERING	3
SURVEYING	3
CONCRETE TECHNOLOGY	3



Cambridge

Technical College

STRUCTURAL ANALYSIS	3
PROJECT MANAGEMENT	3
PROJECT-BASED LEARNING	3
SUBSEA ENGINEERING	3
HYDROLOGY AND WATER RESOURCE ENGINEERING	3
INFRASTRUCTURE AND CONSTRUCTION TECHNIQUES	3

STRUCTURAL DESIGN (1)	3
STRUCTURAL ANALYSIS (2)	3
FLUID MECHANICS	3
FERROCEMENT TECHNOLOGY	3
WAVE MECHANICS	3
ADVANCED SURVEYING	3

PROJECT MANAGEMENT AND ENGINEERING ECONOMICS	3
FOUNDATION ENGINEERING	3
STRUCTURAL DESIGN (2)	3
ENVIRONMENTAL ENGINEERING	3
GREEN BUILDING TECHNOLOGY	3
AIR POLLUTION AND CONTROL	3
TRANSPORTATION ENGINEERING	3

STRUCTURAL DESIGN (3)	3
MATRIX METHODS OF STRUCTURAL ANALYSIS	3
ARCHITECTURE AND TOWN PLANNING	3
FINITE ELEMENT METHOD IN CIVIL ENGINEERING	3

STATISTICAL ANALYSIS IN CIVIL ENGINEERING	3
QUANTITY SURVEYING, CONTRACTS AND TENDERS	3
CONSTRUCTION MANAGEMENT	3
ADVANCED STRUCTURAL DESIGN	3

GRADUATION PROJECT	18
--------------------	----