

**Overview of the modules in the bachelor program Civil Engineering
Specialization **"Construction and Structural Design"****

Modules	Pt.	Credit Points (CrP)						
		BE 1	BE 2	BE 3	BE 4	BE 5	BE 6	BE 7
Computer Science in AEC (CAD/BIM)		5						
Building Construction and Degree Program Project Week - Building Construction 1 (4 ECTS) - Partial Module: Degree Program Project Week (SEPW) (1 ECTS)		5						
Materials Sciences		5						
Geometry and Mathematics - Descriptive Geometry (2 ECTS) - Mathematics 1 (3 ECTS)		5						
Principles of Infrastructural Engineering		5						
Structural Concepts 1		5						
SUM		30						
Building Construction 2			5					
Building Physics 1			5					
Mathematics 2			5					
Pavement Design and Materials 1			5					
Structural Concepts 2			5					
Water Resources Engineering 1			5					
SUM			30					
Rail Systems and Railroad Engineering				5				
Soil Mechanics 1				5				
Building Law and Civil Engineering Management - Civil Engineering Management (3 ECTS) - Building Law (2 ECTS)				5				
Project Management 1				5				
Reinforced Concrete Design 1				5				
Structural Concepts 3				5				
SUM				30				
Construction Management and Calculation					5			
Building Physics 2					5			
Foundation Engineering 1					5			
Urban Water Management 1					5			
Reinforced Concrete Design 2					5			
Surveying					5			
SUM					30			
Structural Analysis 1						5		
Foundation Engineering 2						5		
Timber Construction - basics						5		
Solid Construction 1 with Project						5		

Modules	Pt.	Credit Points (CrP)						
		BE 1	BE 2	BE 3	BE 4	BE 5	BE 6	BE 7
Steel Construction 1						5		
Elective Module 1						5		
SUM						30		
Structural Analysis 2							5	
Integrated Project / Structural Design							5	
Solid Construction 2 with Project							5	
Steel Construction 2							5	
Elective Module 2							5	
Elective Module 3							5	
SUM							30	
Practical Vocational Phase								15
Bachelor Thesis								12
Bachelor Thesis: Presentation and Colloquium								3
SUM								30

Legend






	Basics and Theory
	Design and Planning
	Construction and Engineering
	Infrastructure Planning
	Project Management
	Elective Modules

Elective Modules of the specialization "Construction and Structural Design"		Pt.	CrP
Area Project Management	Knowledge Relating to Occupational Safety and Health		5
	Tendering, Awarding of Contracts + Accounting		5
	Building Construction Processes 1		5
	Construction Management Project		5
	EDV – Application in Construction Management and Project Management		5
Area Infrastructure Planning	Applied Water Management		5
	Computer Application of Traffic Engineering		5
	Geographical Information Systems		5
	Infrastructure Planning Project		5
	Sanitary Engineering 2		5
	Highway Design and Materials 2		5
	Transport Planning and Public Transport Systems		5
	Transport Engineering		5
	Water Resources Management 2: Engineering Hydrology and Water Supply		5
Area Construction	Introduction to Bridge Engineering		5
	Timber Construction Project		5
	Tunnel Construction and Pipe Jacking		5
Comprehensive Modules	Computer Science in AEC Project		5
	Building Construction 5 (TGA)		5
	Energy Efficient Building		5
	Urban Planning 1 / Strategic Environmental Assessment (SEA) and Environmental Impact Assessment (EIA)		5
	Elective Module (Department Marketing and Communication)		5
	Elective Module (THM)		5

Bachelor Civil Engineering specialization “Construction and Structural Design”

1 st Semester		2 nd Semester		3 rd Semester		4 th Semester		5 th Semester		6 th Semester		7 th Semester		
Computer Science in AEC (CAD/BIM) 5 ECTS		Building Physics 1 5 ECTS		Reinforced Concrete Design 1 5 ECTS		Building Physics 2 5 ECTS		Elective Module 1 5 ECTS		Elective Module2 5 ECTS		Practical Vocational Phase 15 ECTS		
Building Construction 1 4 ECTS SEPW 1 ECTS		Building Construction 2 5 ECTS		Soil Mechanics 1 5 ECTS		Surveying 5 ECTS		Timber Construction - basics 5 ECTS		Elective Module3 5 ECTS				
Structural Concepts 1 5 ECTS		Structural Concepts 2 5 ECTS		Structural Concepts 3 5 ECTS		Foundation Engineering 1 5 ECTS		Structural Analysis 1 5 ECTS		Structural Analysis 2 5 ECTS				
Mathematics 1 3 ECTS Descriptive Geometry 2 ECTS		Mathematics 2 5 ECTS		Civil Engineering Management 3 ECTS Building Law 2 ECTS		Reinforced Concrete Design 2 5 ECTS		Foundation Engineering 2 5 ECTS		Integrated Project / Structural Design 5 ECTS		Bachelor Thesis with Presentation and Colloquium 15 ECTS		
Materials Sciences 5 ECTS		Pavement Design and Materials 1 5 ECTS		Project Management 1 5 ECTS		Construction Management and Calculation 5 ECTS		Solid Construction 1 with Project 5 ECTS		Solid Construction 2 with Project 5 ECTS				
Principles of Infrastructural Engineering 5 ECTS		Water Resources Engineering 1 5 ECTS		Rail Systems and Railroad Engineering 5 ECTS		Urban Water Management 1 5 ECTS		Steel Construction 1 5 ECTS		Steel Construction 2 5 ECTS				

Legend

	Basics and Theory		Construction and Engineering		Infrastructure Planning		Project Management		Elective Modules
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