

Exclosure to Subject Specific Regulations  
 from 25.07.2018  
 for Bachelor-Programme  
 Bau- und Umweltingenieurwesen  
 at TUHH  
 Programme Director: Prof. Peter Fröhle  
 Total: 180 CP  
 Number of Specilisations to choose: 1



# Course Scheme Bachelor Civil- and Environmental Engineering (BUBS)

Consolidated Version  
 for Study Cohort: WiSe23/24  
 en\_head\_sda  
 and Approval of Chair from:  
 24.05.2023  
 In Force on: 01.10.2023  
 Out of Force on: 31.03.2028

Information regarding the lectures are available in the TUHH modul manuals as well as in the course catalogue.

Re-com. Term	Module						Examination			Course Work		
	Module Name (German / English)	Language	ModuleResponsability	Institute	C/EC (1)	CM/OM (2)	CP (4)	Grade	Examination Form(3)	Compulsory	Course Work Type	Bonus (in %)
<b>Core Qualification</b> Compulsory Courses: 135 LP Optional Courses: 0 LP												
1	Bauinformatik / Engineering Informatics	DE	Prof. Smarsly	B-1	C	CM	6	Y	KL	Y	SA	15
1	Baustoffgrundlagen und Bauphysik / Principles of Building Materials and Building Physics	DE	Prof. Schmidt-Döhl	B-3	C	CM	6	Y	KL			
1	Chemie / Chemistry	DE	Dr. Rechtenbach	B-2	C	CM	6	Y	KL			
1	Mathematik I / Mathematics I	DE	Prof. Taraz	E-10	C	CM	8	Y	KL	Y	ÜA	10
1	Technische Mechanik I (Stereostatik) / Engineering Mechanics I (Stereostatics)	DE	Prof. Kriegesmann	M-24	C	CM	6	Y	KL			
2	Baustoffe und Bauchemie / Building Materials and Building Chemistry	DE	Prof. Schmidt-Döhl	B-3	C	CM	6	Y	KL	N	RE	10
2	Bauwirtschaft und Baumanagement / Construction Industry and Construction Management	DE	Prof. Grabe	B-5	C	CM	6	Y	KL			
2	Mathematik II / Mathematics II	DE	Prof. Taraz	E-10	C	CM	8	Y	KL	Y	ÜA	10
2	Technische Mechanik II (Elastostatik) / Engineering Mechanics II (Elastostatics)	DE	Prof. Cyron	M-15	C	CM	6	Y	KL			
2	Wasser und Umwelt / Water and Environment	DE	Prof. Ernst	B-11	C	CM	6	Y	KL	Y	RE	0
3	Baukonstruktion / Structural Design	DE	Rybczynski	B-3	C	CM	6	Y	FFA			
3	Baustatik I / Structural Analysis I	DE	Prof. Oesterle	B-4	C	CM	6	Y	KL	N	SA	10
3	Geotechnik I / Geotechnics I	DE	Prof. Grabe	B-5	C	CM	6	Y	KL	N	TE	20
3	Hydromechanik und Hydrologie / Hydromechanics and Hydrology	DE	Prof. Fröhle	B-10	C	CM	6	Y	KL	Y	FFST	0
										Y	GD	0
										Y	ÜA	0

Module							Examination			Course Work		
Re-com. Term	Module Name (German / English)	Language	ModuleResponsability	Institute	C/EC (1)	CM/OM (2)	CP (4)	Grade	Examination Form(3)	Compulsory	Course Work Type	Bonus (in %)
3	Mathematik III - Differentialgleichungen I / Mathematics III - Differential Equations I	DE	Dozenten des Fachbereiches Mathematik der UHH	0-UNIHH-M	C	CM	4	Y	KL			
4	Baustatik II / Structural Analysis II	DE	Prof. Oesterle	B-4	C	CM	6	Y	KL	N	SA	10
4	Massivbau I / Reinforced Concrete Structures I	DE	Prof. Rombach	B-7	C	CM	6	Y	KL	N	ÜA	0
4	Siedlungswasserwirtschaft I / Sanitary Engineering I	DE	Prof. Otterpohl	B-2	C	CM	6	Y	KL			
5	Stahlbau I / Steel Structures I	DE	Prof. Rutner	B-8	C	CM	6	Y	KL			
5	Wasserbau / Hydraulic Engineering	DE	Prof. Fröhle	B-10	C	CM	6	Y	KL	Y	FFST	0
5-6	Anwendungen im Bau- + Umweltingenieurwesen / Applications in Civil + Environmental Engineering	DE / EN	Prof. Fröhle	B-10	C	OM	7	Selection out of Catalogue below				
1-6	Nichttechnische Angebote im Bachelor / Non-technical Courses for Bachelors	DE / EN	Richter	0-TUHH	C	OM	6	Selection out of seperatly published Catalogue				

**Specialisation Civil Engineering** Compulsory Courses: 21 LP Optional Courses: 12 LP

4	Geotechnik II / Geotechnics II	DE	Prof. Grabe	B-5	C	CM	6	Y	KL	N	TE	20
4	Mobilitätskonzepte / Mobility Concepts	DE	Dr. Gaffron	W-8	EC	CM	6	Y	SA	Y	EX	0
4	Regenerative Energien / Renewable Energies	DE	Prof. Kaltschmitt	V-9	EC	CM	6	Y	KL			
4	Umweltgerechtes Bauen / Sustainable Building	DE	Prof. Fröhle	B-10	EC	CM	6	Y	KL	Y	SA	20
5	Massivbau II / Reinforced Concrete Structures II	DE	Prof. Rombach	B-7	C	CM	6	Y	KL	N	ÜA	0
5	Grundlagen der Betriebswirtschaftslehre / Foundations of Management	DE	Prof. Ihl	W-11	EC	CM	6	Y	FFA			
5	Nichtlineare Baustatik / Non-linear structural analysis	DE	Prof. Oesterle	B-4	EC	CM	6	Y	KL			
5	Verkehrsplanung und Verkehrstechnik / Transportation Planning and Traffic Engineering	DE	Prof. Gertz	W-8	EC	CM	6	Y	FFA	N	ÜA	5
6	Numerische Strukturmechanik / Computational Structural Mechanics	DE	Prof. Cyron	M-15	C	CM	3	Y	KL			
6	Stahlbau II / Steel Structures II	DE	Prof. Rutner	B-8	C	CM	6	Y	KL			
6	Angewandte Wasserwirtschaft / Applied Water Management	DE / EN	Prof. Fröhle	B-10	EC	CM	6	Y	FFA			
6	Building Information Modeling / Building Information Modeling	DE	Prof. Smarsly	B-1	EC	CM	6	Y	SA			
6	Grundlagen des Eisenbahnwesens / Introduction to Railways	DE	Prof. Gertz	W-8	EC	CM	6	Y	KL			
6	Planungs- und Umweltrecht/ Nachhaltige Stadtentwicklung / Planning Law and Environmental Law/ Sustainable Urban Development	DE	Prof. Otterpohl	B-2	EC	CM	6	Y	FFA			
6	Siedlungswasserwirtschaft II / Sanitary Engineering II	DE	Prof. Ernst	B-11	EC	CM	6	Y	FFA			

**Specialisation Traffic and Mobility** Compulsory Courses: 21 LP Optional Courses: 12 LP

		Module					Examination			Course Work		
Re-com. Term	Module Name (German / English)	Language	ModuleResponsability	Institute	C/EC (1)	CM/OM (2)	CP (4)	Grade	Examination Form(3)	Compulsory	Course Work Type	Bonus (in %)
4	Mobilitätskonzepte / Mobility Concepts	DE	Dr. Gaffron	W-8	C	CM	6	Y	SA	Y	EX	0
4	Geotechnik II / Geotechnics II	DE	Prof. Grabe	B-5	EC	CM	6	Y	KL	N	TE	20
4	Regenerative Energien / Renewable Energies	DE	Prof. Kaltschmitt	V-9	EC	CM	6	Y	KL			
4	Umweltgerechtes Bauen / Sustainable Building	DE	Prof. Fröhle	B-10	EC	CM	6	Y	KL	Y	SA	20
5	Verkehrsplanung und Verkehrstechnik / Transportation Planning and Traffic Engineering	DE	Prof. Gertz	W-8	C	CM	6	Y	FFA	N	ÜA	5
5	Grundlagen der Betriebswirtschaftslehre / Foundations of Management	DE	Prof. Ihl	W-11	EC	CM	6	Y	FFA			
5	Massivbau II / Reinforced Concrete Structures II	DE	Prof. Rombach	B-7	EC	CM	6	Y	KL	N	ÜA	0
6	Geoinformation / Geoinformation Science	DE	Prof. Fröhle	B-10	C	CM	3	Y	FFA			
6	Grundlagen des Eisenbahnwesens / Introduction to Railways	DE	Prof. Gertz	W-8	C	CM	6	Y	KL			
6	Angewandte Wasserwirtschaft / Applied Water Management	DE / EN	Prof. Fröhle	B-10	EC	CM	6	Y	FFA			
6	Building Information Modeling / Building Information Modeling	DE	Prof. Smarsly	B-1	EC	CM	6	Y	SA			
6	Planungs- und Umweltrecht/ Nachhaltige Stadtentwicklung / Planning Law and Environmental Law/ Sustainable Urban Development	DE	Prof. Otterpohl	B-2	EC	CM	6	Y	FFA			
6	Siedlungswasserwirtschaft II / Sanitary Engineering II	DE	Prof. Ernst	B-11	EC	CM	6	Y	FFA			
6	Stahlbau II / Steel Structures II	DE	Prof. Rutner	B-8	EC	CM	6	Y	KL			

**Specialisation Water and Environment** Compulsory Courses: 21 LP Optional Courses: 12 LP

4	Umweltgerechtes Bauen / Sustainable Building	DE	Prof. Fröhle	B-10	C	CM	6	Y	KL	Y	SA	20
4	Geotechnik II / Geotechnics II	DE	Prof. Grabe	B-5	EC	CM	6	Y	KL	N	TE	20
4	Mobilitätskonzepte / Mobility Concepts	DE	Dr. Gaffron	W-8	EC	CM	6	Y	SA	Y	EX	0
4	Regenerative Energien / Renewable Energies	DE	Prof. Kaltschmitt	V-9	EC	CM	6	Y	KL			
5	Verkehrsplanung und Verkehrstechnik / Transportation Planning and Traffic Engineering	DE	Prof. Gertz	W-8	C	CM	6	Y	FFA	N	ÜA	5
5	Grundlagen der Betriebswirtschaftslehre / Foundations of Management	DE	Prof. Ihl	W-11	EC	CM	6	Y	FFA			
5	Massivbau II / Reinforced Concrete Structures II	DE	Prof. Rombach	B-7	EC	CM	6	Y	KL	N	ÜA	0
5	New Trends in Water and Environmental Research / New Trends in Water and Environmental Research	EN	Prof. Shokri	B-9	EC	CM	6	N	FFA			
6	Geoinformation / Geoinformation Science	DE	Prof. Fröhle	B-10	C	CM	3	Y	FFA			
6	Siedlungswasserwirtschaft II / Sanitary Engineering II	DE	Prof. Ernst	B-11	C	CM	6	Y	FFA			
6	Angewandte Wasserwirtschaft / Applied Water Management	DE / EN	Prof. Fröhle	B-10	EC	CM	6	Y	FFA			
6	Building Information Modeling / Building Information Modeling	DE	Prof. Smarsly	B-1	EC	CM	6	Y	SA			

		Module					Examination			Course Work		
Re-com. Term	Module Name (German / English)	Language	ModuleResponsability	Institute	C/EC (1)	CM/OM (2)	CP (4)	Grade	Examination Form(3)	Compulsory	Course Work Type	Bonus (in %)
6	Grundlagen des Eisenbahnwesens / Introduction to Railways	DE	Prof. Gertz	W-8	EC	CM	6	Y	KL			
6	Planungs- und Umweltrecht/ Nachhaltige Stadtentwicklung / Planning Law and Environmental Law/ Sustainable Urban Development	DE	Prof. Otterpohl	B-2	EC	CM	6	Y	FFA			
6	Stahlbau II / Steel Structures II	DE	Prof. Rutner	B-8	EC	CM	6	Y	KL			
<b>Thesis</b> Compulsory Courses: 12 LP Optional Courses: 0 LP												
6	Bachelorarbeit / Bachelor Thesis		Professoren der TUHH	0-TUHH	C	CM	12	Y	AB			

## Applications in Civil + Environmental Engineering

Course					Examination				Additional information
Course Name (German / English)	Course Form LV(5)	Language (6)	SWS (7)	Sem. LV	CP (4)	Grade	Examination Form(3)		
Anwendungen der Baudynamik / Applied Structural Dynamics	VL	DE	2	WiSe	2	N	MP		
Bodenmechanisches Praktikum / Soil Laboratory Course	PR	DE	1	WiSe	2	N	SA		
Computerbasierte Tragwerksberechnungen / Computational Analysis of Structures	VL	DE	2	WiSe	3	N	KL		
Digitales und nachhaltiges Bauen / Digitalization and sustainability in AEC	PS	EN	3	WiSe	3	N	SA		
Einführung in die Statistik mit R / Introduction in Statitics with R	VL	DE	1	WiSe	1	N	KL		
Einführung in die Statistik mit R / Introduction in Statitics with R	HÜ	DE	1	WiSe	1	N	KL		
Exkursion Bauprojekte / Excursion construction projects	PS	DE	2	SoSe	2	N	RE		
Grundlagen der Geomatik / Principles of Geomatics	VL	DE	2	SoSe	2	N	SA		
Grundlagen der Geomatik / Principles of Geomatics	GÜ	DE	2	SoSe	2	N	SA		
Numerik und Matlab / Numeric and Matlab	PR	DE	2	SoSe	2	N	FFA		
Praktikum Trinkwasserchemie / Practical Course in Drinking Water Chemistry	PR	DE	1	WiSe	2	N	FFA		
Spezielle Themen des Bau- und Umweltingenieurwesens 1LP / Special topics of Civil- and Environmental Engineering		DE/EN	1	WiSe/SoSe	1	N	lt. FSPO		
Spezielle Themen des Bau- und Umweltingenieurwesens 2LP / Special topics of Civil- and Environmental Engineering 2 LP		DE/EN	2	WiSe/SoSe	2	N	lt. FSPO		
Spezielle Themen des Bau- und Umweltingenieurwesens 3LP / Special topics of Civil- and Environmental Engineering 3LP		DE/EN	3	WiSe/SoSe	3	N	lt. FSPO		
Vorbeugender und abwehrender Brandschutz / Fire Protection and Prevention	VL	DE	2	SoSe	2	N	MP		

## Explanation:

<sup>1</sup>C=Compulsory, EC=Elective Compulsory

<sup>2</sup>CM=Compulsory Defined Module, OM=Optional Defined Module

<sup>3</sup>KL=Written exam, SA=Written elaboration, FFA=Subject theoretical and practical work, FFST=Subject theoretical and practical work, MP=Oral exam, RE=Presentation, GD=Group discussion, ÜA=Exercices, AB=Thesis, EX=Participation in excursions, TE=Attestation, it. FSPO=according to Subject Specific Regulations

<sup>4</sup>CP=Credit Points

<sup>5</sup>VL=Lecture, SE=Seminar, GÜ=Recitation Section (small), PBL=Project-/problem-based Learning, PR=Practical Course, PS=Project Seminar, HÜ=Recitation Section (large), IV=Integrated Lecture

<sup>6</sup>DE=German, EN=English, DE/EN=German and English

<sup>7</sup>SWS=Contact hours