Exclosure to Subject Specific Regulations
from 25.07.2018
for Master-Programme
Environmental Engineering
at TUHH
Programme Director: Prof. Simon Michael Papalexiou

Total: 120 CP
Number of Specilisations to choose: 1

Course Scheme Master Environmental Engineering (IMPEE)

Consolidated Version
for Study Cohort: WiSe23/24
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and Approval of Chair from:
12.06.2024
Replaces Version from: 19.04.2023
Out of Force on: 30.09.2026

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

	Module							Examination			Course Work		
	Re-com. Term	Module Name (German / English)	Language	ModuleResponsability	Institute	C/EC (1)	CM/ OM (2)	CP (4)	Grade	Exami-nation Form(3)	Compulsory	Course Work Type	Bonus (in %)
Core Qualification Compulsory Courses: 42 LP Optional Courses: 18 LP													
	1	Abfallbehandlungstechnologien / Waste Treatment Technologies	DE / EN	Prof. Kuchta	V-11	C	CM	6	Y	RE	Y	FFST	0
	1	Nachhaltiges Wassermanagement und Mikrobiologie der Wasseraufbereitung / Sustainable Water Management and Microbiology of Water Systems	EN	Prof. Ernst	B-11	C	CM	6	Y	KL	Y	RE	20
	1	Strömungsmechanik, Hydraulik und Geoinformationssysteme im Wasserbau / Fluid Mechanics, Hydraulics and Geo-Information-Systems in Water Management	DE / EN	Prof. Fröhle	B-10	C	CM	6	Y	KL			
	1	Subsurface Processes / Subsurface Processes	EN	Prof. Shokri	B-9	C	CM	6	N	FFA			
	1	Umweltanalytik und wassertechnisches Praktikum / Environmental Analysis and Water Technology Practice	EN	Dr. Rechtenbach	B-2	C	CM	6	Y	KL			
	2	Advanced Vadose Zone Hydrology / Advanced Vadose Zone Hydrology	EN	Prof. Shokri	B-9	EC	CM	6	N	SA			
	2	Hydrologische Systeme / Hydrological Systems	DE / EN	Prof. Fröhle	B-10	EC	CM	6	Y	KL			
	2	Ingenieurgeochemie / Geochemical Engineering	EN	Dr. Ritzkowski	SD-B	EC	CM	6	Y	KL			
	2	Management von Oberflächenwasser / Management of Surface Water	DE / EN	Prof. Fröhle	B-10	EC	CM	6	Y	KL			
	2	Nexus Engineering - Wasser, Boden, Nahrung und Energie / Nexus Engineering - Water, Soil, Food and Energy	EN	Prof. Otterpohl	B-2	EC	CM	6	Y	FFA			
	2	Städtisches Umweltmanagement / Urban Environmental Management	EN	Dr. Rechtenbach	B-2	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	Exami-nation Form(3)	Compulsory	Course Work Type	Bonus (in %)
	2-3	Ausgewählte Themen des Umweltingenieurwesens / Selected Topics in Environmental Engineering	DE / EN	Prof. Ernst	B-11	EC	OM	6	Selection out of Catalogue below				
	1-3	Nichttechnische Angebote im Master / Non-technical Courses for Master	DE / EN	Richter	0-TUHH	C	OM	6	Selection out of seperatly published Catalogue				
	1-3	Betrieb & Management / Business & Management	DE / EN	Prof. Meyer	W-1	C	OM	6	Selection out of seperatly published Catalogue				
	Specialisation Energy and Resources Compulsory Courses: 12 LP Optional Courses: 18 LP												
	2	Abfall und Energie / Waste and Energy	EN	Prof. Kuchta	V-11	EC	CM	6	Y	RE	Y	SA	20
	2	Angewandte Optimierung in der Energie- und Verfahrenstechnik / Applied optimization in energy and process engineering	DE / EN	Prof. Skiborowski	V-4	EC	CM	6	Y	MP			
	2	Smart Monitoring / Smart Monitoring	EN	Prof. Smarsly	B-1	EC	CM	6	Y	SA			
	3	Studienarbeit Energie und Ressourcen / Study work Energy and Ressources		Dozenten des Studiengangs	SD-B	C	CM	12	Y	STA			
	3	Abfallbehandlung und Recycling / Waste Treatment and Recycling	EN	Prof. Kuchta	V-11	EC	CM	6	Y	KL			
	3	Advanced Fuels / Advanced Fuels	DE / EN	Prof. Kaltschmitt	V-9	EC	CM	6	Y	KL	Y	SA	20
	3	Bioressourcen und Bioraffinerien / Bioresources and Biorefineries	EN	Dr. Körner	B-2	EC	CM	6	Y	KL			
	3	Nachhaltige Kreislaufwirtschaft / Sustainable Circular Economy (lt. letzter PO Nachhaltigkeit und Risikomanagement)	EN	Prof. Kuchta	V-11	EC	CM	6	Y	SA			
	Specialisation Environment and Climate Compulsory Courses: 12 LP Optional Courses: 18 LP												
	2	Küstenwasserbau I / Coastal Hydraulic Engineering I	EN	Prof. Fröhle	B-10	EC	CM	6	Y	KL			
	2	Smart Monitoring / Smart Monitoring	EN	Prof. Smarsly	B-1	EC	CM	6	Y	SA			
	2	Water and Environment: Theory and Application / Water and Environment: Theory and Application	EN	Prof. Shokri	B-9	EC	CM	6	N	FFA			
	3	Studienarbeit Umwelt und Klima / Study work Environment and Climate		Dozenten des Studiengangs	SD-B	C	CM	12	Y	STA			
	3	Emerging Trends in Environmental Engineering / Emerging Trends in Environmental Engineering	EN	Prof. Shokri	B-9	EC	CM	6	N	FFA			
	3	Küstenwasserbau II / Coastal Hydraulic Engineering II	EN	Prof. Fröhle	B-10	EC	CM	6	Y	KL			
	3	Ländliche Entwicklung und Ressourcen Orientierte Sanitärsysteme für verschiedene Klimate / Rural Development and Resources Oriented Sanitation for different Climate Zones	EN	Prof. Otterpohl	B-2	EC	CM	6	Y	FFA			

	Module							Examination			Course Work		
	Re-com. Term	Module Name (German / English)	Language	ModuleResponsability	Institute	C/EC (1)	CM/ OM (2)	CP (4)	Grade	Exami-nation Form(3)	Compulsory	Course Work Type	Bonus (in %)
	3	Nachhaltiger naturbasierter Küstenschutz im Klimawandel (SeaPiaC) / Sustainable Nature-based Coastal Protection in a Changing Climate (SeaPiaC)	EN	Prof. Fröhle	B-10	EC	CM	6	Y	SA			
	4	Geländemessungen für Umweltstudien / Field measurements for environmental studies	EN	Prof. Shokri	B-9	EC	CM	6	N	FFA			
	Specialisation Water Quality and Water Engineering Compulsory Courses: 12 LP Optional Courses: 18 LP												
	2	Abwassersysteme / Wastewater Systems	DE / EN	Prof. Otterpohl	B-2	EC	CM	6	Y	KL			
	2	Küstenwasserbau I / Coastal Hydraulic Engineering I	EN	Prof. Fröhle	B-10	EC	CM	6	Y	KL			
	2	Smart Monitoring / Smart Monitoring	EN	Prof. Smarsly	B-1	EC	CM	6	Y	SA			
	3	Studienarbeit Wasserqualität und Wasseringenieurwesen / Study Work Water Quality and Water Engineering		Dozenten des Studiengangs	SD-B	C	CM	12	Y	STA			
	3	Gewässerschutz / Water Protection	EN	Prof. Otterpohl	B-2	EC	CM	6	Y	RE			
	3	Küstenwasserbau II / Coastal Hydraulic Engineering II	EN	Prof. Fröhle	B-10	EC	CM	6	Y	KL			
	3	Ländliche Entwicklung und Ressourcen Orientierte Sanitärsysteme für verschiedene Klimate / Rural Development and Resources Oriented Sanitation for different Climate Zones	EN	Prof. Otterpohl	B-2	EC	CM	6	Y	FFA			
	3	Membran Technologie / Membrane Technology	EN	Prof. Ernst	B-11	EC	CM	6	Y	KL			
	3	Modellierung von Prozessen in der Wassertechnologie / Process Modeling in Water Technology	DE / EN	Dr. Johannsen	B-11	EC	CM	6	Y	MP			
	Thesis Compulsory Courses: 30 LP Optional Courses: 0 LP												
	4	Masterarbeit / Master Thesis		Professoren der TUHH	0-TUHH	C	CM	30	Y	AB			

Selected Topics in Environmental Engineering

Course					Examination			
Course Name (German / English)	Course Form LV(5)	Language (6)	SWS (7)	Sem. LV	CP (4)	Grade	Examination Form(3)	Additional information
Aquatische Umweltchemie / Environmental Aquatic Chemistry	VL	EN	2	SoSe	3	Y	KL	
Feststoffverfahrenstechnik für Biomassen / Solid Matter Process Technology for Biomass	VL	DE	2	SoSe	3	Y	KL	
Nachhaltige Deponietechnik, Planung und Betrieb / Sustainable landfill design and operation	IV	EN	3	SoSe	3	Y	KL	
Schlammbehandlung / Sludge Treatment	VL	EN	2	SoSe	3	Y	KL	

Course					Examination			
Course Name (German / English)	Course Form LV(5)	Language (6)	SWS (7)	Sem. LV	CP (4)	Grade	Examination Form(3)	Additional information
Spezielle Themen des Umweltingenieurwesen 1 LP / Special topics of the Environmental engineering 1CP		DE/EN	1	WiSe/SoSe	1	N	FFA	
Spezielle Themen des Umweltingenieurwesen 1 LP / Special topics of the Environmental engineering 1CP		DE/EN	1	WiSe/SoSe	1	Y	FFA	Replaces "Special topics of the Environmental engineering 1CP ()" from WiSe25/26
Spezielle Themen des Umweltingenieurwesen 2LP / Special topics of the Environmental engineering 2CP		DE/EN	2	WiSe/SoSe	2	N	FFA	
Spezielle Themen des Umweltingenieurwesen 2LP / Special topics of the Environmental engineering 2CP		DE/EN	2	WiSe/SoSe	2	Y	FFA	Replaces "Special topics of the Environmental engineering 2CP ()" from WiSe25/26
Spezielle Themen des Umweltingenieurwesen 3LP / Special topics of the Environmental engineering 3CP		DE/EN	3	WiSe/SoSe	3	N	FFA	
Spezielle Themen des Umweltingenieurwesen 3LP / Special topics of the Environmental engineering 3CP		DE/EN	3	WiSe/SoSe	3	Y	FFA	Replaces "Special topics of the Environmental engineering 3CP ()" from WiSe25/26
Thermische Biomassenutzung / Thermal Biomass Utilization	VL	DE	2	WiSe	2	Y	KL	
Thermische Biomassenutzung / Thermal Biomass Utilization	PR	DE	1	WiSe	1	Y	SA	

Explanation:

[1]C=Compulsory, EC=Elective Compulsory
[2]CM=Compulsory Defined Module, OM=Optional Defined Module
[3]KL=Written exam, SA=Written elaboration, FFA=Subject theoretical and practical work, FFST=Subject theoretical and practical work, MP=Oral exam, RE=Presentation, STA=Study work, AB=Thesis
[4]CP=Credit Points
[5]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
[6]DE=German, EN=English, DE/EN=German and English
[7]SWS=Contact hours