

Exclosure to Subject Specific Regulations from 25.07.2018
 for Master-Programme Environmental Engineering
 at TUHH
 Programme Director: Prof. Mathias Ernst
 Total: 120 CP
 Number of Specialisations to choose: 1

**Course Scheme Master
 Environmental Engineering
 (IMPEE)**

Consolidated Version
 for Study Cohort: WiSe17/18
 according to Decision of Academic Senate: 25.07.2018
 and Approval of Chair from: 22.08.2018
 Replaces Version from: 26.04.2017
 In Force on: 01.10.2018
 Out of Force on: 30.09.2020

| Re com. Term | Module Name (German / English) | Module | | | | | Exam nation | | |
|--|--|----------|-----------------------|-----------|----------|---------------|-------------|--|---------------------|
| | | Language | Module Responsibility | Institute | C/EC (1) | CM/ OM (2) | CP (4) | Grade | Exam nation Form(3) |
| Core qualification Compulsory Courses: 42 LP Optional Courses: 18 LP | | | | | | | | | |
| 1 | Abfallbehandlungstechnologien / Waste Treatment Technologies | DE / EN | Prof. Kuchta | V-9 | C | CM | 6 | Y | RE |
| 1 | Nachhaltiges Wassermanagement und Mikrobiologie der Trinkwasserversorgung / Sustainable Water Management and Microbiology of Water Supply | EN | Prof. Ernst | B-11 | C | CM | 6 | Y | KL |
| 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 | Umweltanalytik und wassertechnisches Praktikum / Environmental Analysis and water technology practice | DE / EN | Dr. Rechtenbach | B-2 | C | CM | 6 | Y | KL |
| 1 | Umweltschutz und -management / Environmental Protection and Management | EN | Prof. Otterpohl | B-2 | C | CM | 6 | Y | KL |
| 2 | Hydrologische Systeme / Hydrological Systems | DE / EN | Prof. Fröhle | B-10 | EC | CM | 6 | Y | KL |
| 2 | Ingenieurgeochemie / Geochemical Engineering | EN | Dr. Gerth | V-9 | 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 |
| 2 | Technische Mikrobiologie / Technical Microbiology | EN | Dr. Krüger | V-7 | EC | CM | 6 | Y | KL |
| 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 Ergänzungskurse im Master / Nontechnical Elective Complementary 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 Waste and Energy Compulsory Courses: 12 LP Optional Courses: 18 LP | | | | | | | | | |
| 2 | Abfall und Energie / Waste and Energy | EN | Prof. Kuchta | V-9 | EC | CM | 6 | Y | RE |
| 3 | Studienarbeit Abfall und Energie / Study Work Waste and Energy | | Dozenten des SD B | V-9 | C | CM | 12 | Y | STA |
| 3 | Abwasserreinigung und Luftreinhaltung / Wastewater Treatment and Air Pollution Abatement | DE / EN | Dr. Hartge | V-3 | EC | CM | 6 | Y | KL |
| 3 | Bioressourcen und Bioraffinerien / Bioresources and Biorefineries | EN | Dr. Kömer | B-2 | EC | CM | 6 | Y | KL |
| 3 | Spezielle Aspekte des Abfallressourcenmanagements / Special Aspects of Waste Resource Management | EN | Prof. Kuchta | V-9 | EC | CM | 6 | Y | RE |
| Specialisation Biotechnology Compulsory Courses: 12 LP Optional Courses: 18 LP | | | | | | | | | |
| 2 | Bioprozess- und Biosystemtechnik / Bioprocess and Biosystems Engineering | EN | Prof. Zeng | V-1 | EC | CM | 6 | Y | KL |
| 3 | Studienarbeit Biotechnologie / Study Work Biotechnology | | Dozenten des SD B | V-1 | C | CM | 12 | Y | STA |
| 3 | Biokatalyse / Biocatalysis | EN | Prof. Liese | V-6 | EC | CM | 6 | Y | KL |
| 3 | Bioressourcen und Bioraffinerien / Bioresources and Biorefineries | EN | Dr. Kömer | B-2 | EC | CM | 6 | Y | KL |
| 3 | Industrielle Biotransformationen / Industrial Biotransformations | EN | Prof. Liese | V-6 | EC | CM | 6 | Y | RE |

| Re com. Term | Module Name (German / English) | Module | | | | | Exami nation | | | |
|---|--|----------|-----------------------|-----------|----------|-----------|--------------|-------|----------------------|--|
| | | Language | Module Responsibility | Institute | C/EC (1) | CM/OM (2) | CP (4) | Grade | Exami nation Form(3) | |
| Specialisation Water Compulsory Courses: 12 LP Optional Courses: 18 LP | | | | | | | | | | |
| 2 | Grundwassermodellierung / Groundwater Modeling | EN | Prof. Schneider | B-11 | EC | CM | 6 | Y | KL | |
| 3 | Studienarbeit Wasser / Study Work Water | | Dozenten des SD B | B-11 | C | CM | 12 | Y | STA | |
| 3 | Gewässerschutz / Water Protection | EN | Prof. Otterpohl | B-2 | 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 | KL | |
| 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 | | | | | Exami nation | | | |
|--|-------------------|--------------|---------|---------|--------------|-------|----------------------|---|
| Course Name (German / English) | Course Form LV(5) | Language (6) | SWS (7) | Sem. LV | CP (4) | Grade | Exami nation Form(3) | Additional information |
| Aquatische Umweltchemie / Environmental Aquatic Chemistry | VL | EN | 2 | SoSe | 3 | Y | KL | |
| Gewässerschutz und Abwassermanagement / Water Protection and Wastewater Management | VL | EN | 3 | WiSe | 2 | Y | KL | |
| Gewässerschutz und Abwassermanagement / Water Protection and Wastewater Management | SE | EN | 2 | WiSe | 2 | Y | KL | Replaces "Water Protection and Wastewater Management (VL)" from WiSe17/18 |
| Gewässerschutz und Abwassermanagement / Water Protection and Wastewater Management | HÜ | EN | 1 | WiSe | 1 | Y | | |
| Hydrobiologie / Hydrobiology | VL | EN | 2 | SoSe | 3 | Y | SA | |
| Schlammbehandlung / Sludge Treatment | VL | EN | 2 | SoSe | 3 | Y | KL | |
| Themische Biomassennutzung / Thermal Utilization of Biomass | VL | DE | 2 | WiSe | 2 | Y | KL | |
| Themische Biomassennutzung / Thermal Utilization of Biomass | UE | DE | 1 | WiSe | 1 | Y | KL | |

Explanation:

¹C=Compulsory, EC=Elective Compulsory

²CM=Compulsory Defined Module, OM=Optional Defined Module

³KL=Written exam, SA=Written elaboration, FFA=Subject theoretical and practical work, MP=Oral exam, RE=Presentation, STA=Study work, AB=Thesis

⁴CP=Credit Points

⁵VL=Lecture, SE=Seminar, UE=Recitation Section (small), PBL=Project-/problem-based Learning, PR=Practical Course, PS=Project Seminar, HÜ=Recitation Section (large)

⁶DE=German, EN=English, DE/EN=German and English

⁷SWS=Contact hours