

Exclosure to Subject Specific Regulations from 22.10.2014
 for Bachelor-Programme Verfahrenstechnik
 at TUHH
 Programme Director: Prof. Michael Schlüter
 Total: 180 CP
 Number of Specialisations to choose: 1

Course Scheme Bachelor Process Engineering (VTBS)

Consolidated Version
 for Study Cohort: WiSe 16/17
 according to Decision of Academic Senate: 27.04.2016
 and Approval of Chair from: 13.05.2016
 In Force on: 01.10.2016
 Out of Force on: 31.03.2021

| Re com. Term | Module Name (German) | Modul Name (English) | Institute | C/EC (1) | CM/OM (2) | Grade | Examination Form(3) | CP (4) | Course Name (German) | Course Name (English) | Course Form LV(5) | Language (6) | SWS (7) | Sem. LV |
|---|--------------------------------------|--|-----------|----------|-----------|-------|---------------------|--------|--------------------------------------|--|-------------------|--------------|---------|---------|
| Core qualification Compulsory Courses: 165 LP Optional Courses: 3 LP | | | | | | | | | | | | | | |
| 1 | Allgemeine und Anorganische Chemie | General and Inorganic Chemistry | 0-UNIHH | C | CM | Yes | Kl | 6 | Allgemeine und Anorganische Chemie | Fundamentals in Inorganic Chemistry | VL | DE | 4 | 1 |
| | | | | | | | | | Allgemeine und Anorganische Chemie | Fundamentals in Inorganic Chemistry | PR | DE | 3 | 1 |
| 1 | Grundlagen der Verfahrenstechnik | Fundamentals of Process Engineering | V-5 | C | CM | Yes | Kl | 3 | Einführung in die VT/BioVT | Introduction into Process Engineering/Bioprocess Engineering | VL | DE | 2 | 1 |
| | | | | | | | | | Grundlagen der Werkstofftechnik | Fundamentals of material engineering | VL | DE | 2 | 1 |
| 1 | Grundlagen des Technischen Zeichnens | Fundamentals of technical drawing | V-5 | C | CM | Yes | Kl | 3 | Grundlagen des Technischen Zeichnens | Fundamentals of Technical Drawing | VL | DE | 1 | 1 |
| | | | | | | | | | Grundlagen des Technischen Zeichnens | Fundamentals of Technical Drawing | HÜ | DE | 1 | 1 |
| 1 | Mathematik I | Mathematics I | E-10 | C | CM | Yes | Kl | 8 | Analysis I | Analysis I | VL | DE | 2 | 1 |
| | | | | | | | | | Analysis I | Analysis I | UE | DE | 1 | 1 |
| | | | | | | | | | Analysis I | Analysis I | HÜ | DE | 1 | 1 |
| | | | | | | | | | Lineare Algebra I | Linear Algebra I | VL | DE | 2 | 1 |
| | | | | | | | | | Lineare Algebra I | Linear Algebra I | UE | DE | 1 | 1 |
| | | | | | | | | | Lineare Algebra I | Linear Algebra I | HÜ | DE | 1 | 1 |
| 1 | Physik | Physics | 0-UNIHH | C | CM | Yes | Kl | 6 | Physik | Physics | VL | DE | 2 | 1 |
| | | | | | | | | | Physik | Physics | UE | DE | 1 | 1 |
| | | | | | | | | | Physik-Praktikum für VT/ BVT/ EUT | Physics-Lab for VT/ BVT/ EUT | PR | DE/EN | 2 | 1 |
| 1 | Technische Mechanik I | Engineering Mechanics I | M-24 | C | CM | Yes | Kl | 6 | Technische Mechanik I | Engineering Mechanics I | VL | DE | 3 | 1 |
| | | | | | | | | | Technische Mechanik I | Engineering Mechanics I | UE | DE | 2 | 1 |
| 2 | Konstruktion und Apparatebau | Construction and Apparatus Engineering | V-5 | C | CM | Yes | Kl | 6 | | | | | | |

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|--------------|---|----------------------------------|-----------|----------|-----------|-------|---------------------|--------|---|--|-------------------|--------------|---------|---------|
| | | | | | | | | | Konstruktion und Apparatebau | Construction and Apparatus Engineering | VL | DE | 2 | 2 |
| | | | | | | | | | Konstruktion und Apparatebau | Construction and Apparatus Engineering | UE | DE | 2 | 2 |
| 2 | Mathematik II | Mathematics II | E-10 | C | CM | Yes | KI | 8 | | | | | | |
| | | | | | | | | | Analysis II | Analysis II | VL | DE | 2 | 2 |
| | | | | | | | | | Analysis II | Analysis II | UE | DE | 1 | 2 |
| | | | | | | | | | Analysis II | Analysis II | HÜ | DE | 1 | 2 |
| | | | | | | | | | Lineare Algebra II | Linear Algebra II | VL | DE | 2 | 2 |
| | | | | | | | | | Lineare Algebra II | Linear Algebra II | UE | DE | 1 | 2 |
| | | | | | | | | | Lineare Algebra II | Linear Algebra II | HÜ | DE | 1 | 2 |
| 2 | Organische Chemie | Organic Chemistry | 0-UNIHH | C | CM | Yes | KI | 6 | | | | | | |
| | | | | | | | | | Organische Chemie | Organic Chemistry | VL | DE | 4 | 2 |
| | | | | | | | | | Organische Chemie | Organic Chemistry | PR | DE | 3 | 2 |
| 2 | Technische Mechanik II | Engineering Mechanics II | M-24 | C | CM | Yes | KI | 6 | | | | | | |
| | | | | | | | | | Technische Mechanik II | Engineering Mechanics II | VL | DE | 3 | 2 |
| | | | | | | | | | Technische Mechanik II | Engineering Mechanics II | UE | DE | 2 | 2 |
| 2 | Technische Thermodynamik I | Technical Thermodynamics I | M-21 | C | CM | Yes | KI | 6 | | | | | | |
| | | | | | | | | | Technische Thermodynamik I | Technical Thermodynamics I | VL | DE | 2 | 2 |
| | | | | | | | | | Technische Thermodynamik I | Technical Thermodynamics I | UE | DE | 1 | 2 |
| | | | | | | | | | Technische Thermodynamik I | Technical Thermodynamics I | HÜ | DE | 1 | 2 |
| 3 | Grundlagen der Betriebswirtschaftslehre | Foundations of Management | W-11 | C | CM | Yes | KI | 6 | | | | | | |
| | | | | | | | | | Grundlagen der Betriebswirtschaftslehre | Introduction to Management | VL | DE | 3 | 3 |
| | | | | | | | | | Projekt Entrepreneurship | Project Entrepreneurship | POL | DE | 2 | 3 |
| 3 | Grundlagen der Elektrotechnik | Basics of Electrical Engineering | M-4 | C | CM | Yes | KI | 6 | | | | | | |
| | | | | | | | | | Grundlagen der Elektrotechnik | Basics of Electrical Engineering | VL | DE | 3 | 3 |
| | | | | | | | | | Grundlagen der Elektrotechnik | Basics of Electrical Engineering | UE | DE | 2 | 3 |
| 3 | Mathematik III | Mathematics III | 0-UNIHH | C | CM | Yes | KI | 8 | | | | | | |
| | | | | | | | | | Analysis III | Analysis III | VL | DE | 2 | 3 |
| | | | | | | | | | Analysis III | Analysis III | UE | DE | 1 | 3 |
| | | | | | | | | | Analysis III | Analysis III | HÜ | DE | 1 | 3 |
| | | | | | | | | | Differentialgleichungen 1 (Gewöhnliche Differentialgleichungen) | Differential Equations 1 (Ordinary Differential Equations) | VL | DE | 2 | 3 |
| | | | | | | | | | Differentialgleichungen 1 (Gewöhnliche Differentialgleichungen) | Differential Equations 1 (Ordinary Differential Equations) | UE | DE | 1 | 3 |

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|--------------|---|---|-----------|----------|-----------|-------|---------------------|--------|---|--|-------------------|--------------|---------|---------|
| | | | | | | | | | Differentialgleichungen 1 (Gewöhnliche Differentialgleichungen) | Differential Equations 1 (Ordinary Differential Equations) | HÜ | DE | 1 | 3 |
| 3 | Physikalische Chemie | Physical Chemistry | 0-UNIHH | C | CM | Yes | KI | 3 | | | | | | |
| | | | | | | | | | Physikalische Chemie | Physical Chemistry | VL | DE | 2 | 3 |
| | | | | | | | | | Physikalische Chemie | Physical Chemistry | PR | DE | 2 | 3 |
| 3 | Technische Thermodynamik II | Technical Thermodynamics II | M-21 | C | CM | Yes | KI | 6 | | | | | | |
| | | | | | | | | | Technische Thermodynamik II | Technical Thermodynamics II | VL | DE | 2 | 3 |
| | | | | | | | | | Technische Thermodynamik II | Technical Thermodynamics II | UE | DE | 1 | 3 |
| | | | | | | | | | Technische Thermodynamik II | Technical Thermodynamics II | HÜ | DE | 1 | 3 |
| 4 | Bioverfahrenstechnik - Grundlagen | Bioprocess Engineering - Fundamentals | V-6 | C | CM | Yes | KI | 6 | | | | | | |
| | | | | | | | | | Bioverfahrenstechnik - Grundlagen | Bioprocess Engineering - Fundamentals | VL | DE | 2 | 4 |
| | | | | | | | | | Bioverfahrenstechnik - Grundlagen | Bioprocess Engineering- Fundamentals | HÜ | DE | 2 | 4 |
| | | | | | | | | | Bioverfahrenstechnik - Grundpraktikum | Bioprocess Engineering - Fundamental Practical Course | PR | DE | 2 | 4 |
| 4 | Grundlagen der Strömungsmechanik | Fundamentals of Fluid Mechanics | V-5 | C | CM | Yes | KI | 6 | | | | | | |
| | | | | | | | | | Grundlagen der Strömungsmechanik | Fundamentals of Fluid Mechanics | VL | DE | 2 | 4 |
| | | | | | | | | | Strömungsmechanik für die Verfahrenstechnik | Fluid Mechanics for Process Engineering | HÜ | DE | 2 | 4 |
| 4 | Informatik für Verfahreningenieure | Informatics for Process Engineers | E-17 | C | CM | Yes | KI | 6 | | | | | | |
| | | | | | | | | | Informatik für Verfahreningenieure | Informatics for Process Engineers | VL | DE | 2 | 4 |
| | | | | | | | | | Informatik für Verfahreningenieure | Informatics for Process Engineers | UE | DE | 2 | 4 |
| | | | | | | | | | Numerik und Matlab | Numeric and Matlab | PR | DE | 2 | 4 |
| 4 | Mischphasenthermodynamik | Phase Equilibria Thermodynamics | V-8 | C | CM | Yes | KI | 6 | | | | | | |
| | | | | | | | | | Thermodynamik III | Thermodynamics III | VL | DE | 2 | 4 |
| | | | | | | | | | Thermodynamik III | Thermodynamics III | UE | DE | 1 | 4 |
| | | | | | | | | | Thermodynamik III | Thermodynamics III | HÜ | DE | 1 | 4 |
| 4 | Umweltbewertung | Environmental Technology | V-9 | EC | CM | Yes | KI | 3 | | | | | | |
| | | | | | | | | | Umweltbewertung | Environmental Assessment | VL | DE/EN | 2 | 4 |
| | | | | | | | | | Umweltbewertung | Environmental Assessment | UE | DE | 1 | 4 |
| 5 | Grundlagen der Regelungstechnik | Introduction to Control Systems | E-14 | C | CM | Yes | KI | 6 | | | | | | |
| | | | | | | | | | Grundlagen der Regelungstechnik | Introduction to Control Systems | VL | DE | 2 | 5 |
| | | | | | | | | | Grundlagen der Regelungstechnik | Introduction to Control Systems | UE | DE | 2 | 5 |
| 5 | Messtechnik für Maschinenbau- und Verfahreningenieure | Measurement Technology for Mechanical and Process Engineers | M-4 | C | CM | Yes | KI | 6 | | | | | | |
| | | | | | | | | | Laborpraktikum: Labor-, Mess-, Steuer- und Regelungstechnik | Practical Course: Measurement and Control Systems | PR | DE | 2 | 5 |

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|--|--|--|-------------|----------|-----------|-------|---------------------|--------|---|---|-------------------|--------------|---------|---------|
| | | | | | | | | | Messtechnik für Maschinenbau- und Verfahreningenieure | Measurement Technology for Mechanical and Process Engineers | VL | DE | 2 | 5 |
| | | | | | | | | | Messtechnik für Maschinenbau- und Verfahreningenieure | Measurement Technology for Mechanical and Process Engineers | HÜ | DE | 1 | 5 |
| 5 | Wärme- und Stoffübertragung | Heat and Mass Transfer | V-8 | C | CM | Yes | KI | 6 | Wärme- und Stoffübertragung | Heat and Mass Transfer | VL | DE | 2 | 5 |
| | | | | | | | | | Wärme- und Stoffübertragung | Heat and Mass Transfer | UE | DE | 1 | 5 |
| 5-6 | Chemische Reaktionstechnik | Chemical Reaction Engineering | V-2 | C | CM | Yes | KI | 6 | Chemische Reaktionstechnik (Grundlagen) | Chemical Reaction Engineering (Fundamentals) | VL | DE | 2 | 5 |
| | | | | | | | | | Chemische Reaktionstechnik (Grundlagen) | Chemical Reaction Engineering (Fundamentals) | HÜ | DE | 2 | 5 |
| | | | | | | | | | Praktikum Chemische Reaktionstechnik (Grundlagen) | Experimental Course Chemical Engineering (Fundamentals) | PR | DE/EN | 2 | 6 |
| 5-6 | Thermische Grundoperationen | Thermal Separation Processes | V-8 | C | CM | Yes | KI | 6 | Thermische Grundoperationen | Thermal Separation Processes | VL | DE | 3 | 5 |
| | | | | | | | | | Thermische Grundoperationen | Thermal Separation Processes | UE | DE | 2 | 5 |
| | | | | | | | | | Thermische Grundoperationen | Thermal Separation Processes | HÜ | DE | 1 | 5 |
| | | | | | | | | | Thermische Grundoperationen | Separation Processes | PR | DE/EN | 1 | 6 |
| 5-6 | Umwelttechnik | Environmental Technology | V-9 | EC | CM | Yes | KI | 3 | Umwelttechnik | Environmental Technologie | VL | DE | 2 | 5 |
| | | | | | | | | | Laborpraktikum Umwelttechnik | Practical Exercise Environmental Technology | PR | DE | 1 | 6 |
| 6 | Partikeltechnologie und Feststoffverfahrenstechnik I | Particle Technology and Solids Process Engineering | V-3 | C | CM | Yes | KI | 6 | Partikeltechnologie I | Particle Technology I | VL | DE | 2 | 6 |
| | | | | | | | | | Partikeltechnologie I | Particle Technology I | UE | DE | 1 | 6 |
| | | | | | | | | | Partikeltechnologie I | Particle Technology I | PR | DE | 2 | 6 |
| 6 | Prozess- und Anlagentechnik I | Process and Plant Engineering I | V-4 | C | CM | Yes | KI | 6 | Prozess- und Anlagentechnik I | Process and Plant Engineering I | VL | DE | 2 | 6 |
| | | | | | | | | | Prozess- und Anlagentechnik I | Process and Plant Engineering I | UE | DE | 1 | 6 |
| | | | | | | | | | Prozess- und Anlagentechnik I | Process and Plant Engineering I | HÜ | DE | 1 | 6 |
| 1-6 | Nichttechnische Ergänzungskurse im Bachelor | Nontechnical Complementary Courses for Bachelors | 0-TUHH | C | OM | | | 6 | Selection out of Catalogue | | | | | |
| Thesis Compulsory Courses: 12 LP Optional Courses: 0 LP | | | | | | | | | | | | | | |
| 6 | Bachelorarbeit | Bachelor Thesis | not defined | C | CM | Yes | lt. FSPO | 12 | | | | | | |

Explanation:

¹C=Compulsory, EC=Elective Compulsory

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

³KI=Written exam, Re=Presentation, KI=Written exam, SA=Written elaboration, HA=Homework, lt. FSPO=according to Subject Specific Regulations

⁴CP=Credit Points

⁵VL=Lecture, SE=Seminar, UE=Recitation Section (small), POL=Problem-based Learning, PR=Laboratory Course, HÜ=Recitation Section (large)

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SWS=credit hours