

Exclosure to Subject Specific Regulations
 from 25.07.2018
 for Bachelor-Programme
 General Engineering Science (7 Semester)
 at TUHH
 Programme Director: Prof. Robert Seifried
 Total: 210 CP
 Number of Specilisations to choose: 1



Course Scheme Bachelor General Engineering Science (English program, 7 semester) (GESBS(7))

Consolidated Version
 for Study Cohort: WiSe17/18
 en_head_sda
 and Approval of Chair from:
 24.04.2019
 Replaces Version from: 25.07.2018
 Out of Force on: 31.03.2023

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

| | | Module | | | | | Examination | | | |
|---|--|----------|----------------------|-----------|----------|-----------|--|--|---------------------|--|
| Re-com. Term | Module Name (German / English) | Language | ModuleResponsability | Institute | C/EC (1) | CM/OM (2) | CP (4) | Grade | Examination Form(3) | |
| Core qualification Compulsory Courses: 126 LP Optional Courses: 0 LP | | | | | | | | | | |
| 1 | Chemie (GES) / Chemistry (GES) | EN | Dr. Wutz | 0-UNIHH | C | CM | 6 | Y | KL | |
| 1 | Elektrotechnik I / Electrical Engineering I | EN | Prof. Kasper | E-7 | C | CM | 6 | Y | KL | |
| 1 | Lineare Algebra / Linear Algebra | EN | Prof. Lindner | E-10 | C | CM | 8 | Y | KL | |
| 1 | Mechanik I (GES) / Mechanics I (GES) | EN | Prof. Iwankiewicz | M-13 | C | CM | 6 | Y | KL | |
| 1 | Physik für Ingenieure (GES) / Physics for Engineers (GES) | EN | Dr. Petrov | E-12 | C | CM | 4 | Y | KL | |
| 1 | Programmieren in C / Programming in C | DE / EN | Prof. Rump | E-19 | C | CM | 2 | N | SA | |
| 2 | Elektrotechnik II / Electrical Engineering II | EN | Dr. Fielitz | E-6 | C | CM | 6 | Y | KL | |
| 2 | Grundlagen der Konstruktionslehre (GES) / Fundamentals of Mechanical Engineering (GES) (lt. letzter PO) | EN | Dr. Seibel | G-4 | C | CM | 6 | Y | KL | |
| 2 | Mathematische Analysis / Mathematical Analysis | EN | Prof. Lindner | E-10 | C | CM | 8 | Y | KL | |
| 2 | Mechanik II (GES) / Mechanics II (GES) | EN | Prof. Iwankiewicz | M-13 | C | CM | 6 | Y | KL | |
| 2 | Technische Thermodynamik I / Technical Thermodynamics I | DE | Prof. Schmitz | M-21 | C | CM | 6 | Y | KL | |
| 3 | Mathematik III / Mathematics III | DE | Prof. Taraz | 0-UNIHH | C | CM | 8 | Y | KL | |
| 3 | Mechanik III (GES) / Mechanics III (GES) | EN | Prof. Iwankiewicz | M-13 | C | CM | 6 | Y | KL | |
| 3 | Technische Thermodynamik II / Technical Thermodynamics II | DE | Prof. Schmitz | M-21 | C | CM | 6 | Y | KL | |
| 7 | Fachpraktikum AIW/ GES / Advanced Internship AIW/ GES (lt. letzter PO Fachpraktikum AIW) | | Prof. Seifried | M-13 | C | CM | 18 | N | SA lt. FPrO | |
| 1-7 | Nichttechnische Ergänzungskurse im Bachelor / Nontechnical Complementary Courses for Bachelors | DE / EN | Richter | 0-TUHH | C | OM | 6 | Selection out of seperatly published Catalogue | | |
| 3,5 | Grundlagen der Regelungstechnik / Introduction to Control Systems (lt. letzter PO) | | | E-14 | C | CM | Gemäß Darstellung in den einzelnen Vertiefungen bzw. Schwerpunkten | | | |

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| Re-com. Term | Module Name (German / English) | Language | ModuleResponsability | Institute | C/EC (1) | CM/OM (2) | CP (4) | Grade | Examination Form(3) |
| 3,5 | Technische Informatik / Computer Engineering (lt. letzter PO) | | | E-13 | C | CM | Gemäß Darstellung in den einzelnen Vertiefungen bzw. Schwerpunkten | | |
| 4,5,6 | Grundlagen der Betriebswirtschaftslehre / Foundations of Management (lt. letzter PO) | | | W-11 | C | CM | Gemäß Darstellung in den einzelnen Vertiefungen bzw. Schwerpunkten | | |
| Specialisation Civil Engineering Compulsory Courses: 54 LP Optional Courses: 18 LP | | | | | | | | | |
| 3 | Baustatik I / Structural Analysis I | DE | Prof. Starossek | B-4 | C | CM | 6 | Y | KL |
| 3 | Baustoffgrundlagen und Bauphysik / Principles of Building Materials and Building Physics | DE | Prof. Schmidt-Döhl | B-3 | C | CM | 6 | Y | KL |
| 4 | Baustatik II / Structural Analysis II | DE | Prof. Starossek | B-4 | C | CM | 6 | Y | KL |
| 4 | Baustoffe und Bauchemie / Building Materials and Building Chemistry | DE | Prof. Schmidt-Döhl | B-3 | C | CM | 6 | Y | KL |
| 4 | Geotechnik I / Geotechnics I | DE | Prof. Grabe | B-5 | C | CM | 6 | Y | KL |
| 4 | Massivbau I / Reinforced Concrete I | DE | Prof. Rombach | B-7 | C | CM | 6 | Y | KL |
| 5 | Grundlagen der Regelungstechnik / Introduction to Control Systems | DE | Prof. Werner | E-14 | C | CM | 6 | Y | KL |
| 5 | Stahlbau I / Steel Structures I | DE | Prof. Rutner | B-4 | C | CM | 6 | Y | KL |
| 5 | Technische Informatik / Computer Engineering | DE | Prof. Falk | E-13 | C | CM | 6 | Y | KL |
| 5 | Wasserbau I / Hydraulic Engineering I | DE | Prof. Fröhle | B-10 | C | CM | 6 | Y | KL |
| 5 | Geotechnik II / Geotechnics II | DE | Prof. Grabe | B-5 | EC | CM | 6 | Y | KL |
| 5 | Massivbau II / Concrete Structures II | DE | Prof. Rombach | B-7 | EC | CM | 6 | Y | KL |
| 5 | Wasserwirtschaft / Water Management | DE | NN | B-11 | EC | CM | 6 | Y | KL |
| 5-6 | Anwendungen im Bau- und Umweltingenieurwesen / Applications in Civil and Environmental Engineering | DE | Prof. Fröhle | B-11 | EC | OM | 6 | Selection out of Catalogue below | |
| 6 | Baukonstruktion / Structural Design | DE | Prof. Schmidt-Döhl | B-3 | C | CM | 6 | Y | FFA |
| 6 | Grundlagen der Betriebswirtschaftslehre / Foundations of Management | DE | Prof. Ihl | W-11 | C | CM | 6 | Y | FFA |
| 6 | Siedlungswasserwirtschaft / Sanitary Engineering | DE | Prof. Otterpohl | B-2 | EC | CM | 6 | Y | KL |
| 6 | Wasserbau II / Hydraulic Engineering II | DE | Prof. Fröhle | B-10 | EC | CM | 6 | Y | KL |
| Specialisation Bioprocess Engineering Compulsory Courses: 69 LP Optional Courses: 3 LP | | | | | | | | | |
| 3 | Grundlagen der Verfahrenstechnik und Werkstofftechnik / Fundamentals of Process Engineering and Material Engineering (lt. letzter PO Grundlagen der Verfahrenstechnik) | DE | Prof. Schlüter | V-5 | C | CM | 3 | Y | KL |
| 3 | Technische Informatik / Computer Engineering | DE | Prof. Falk | E-13 | C | CM | 6 | Y | KL |
| 3 | Physikalische Chemie / Physical Chemistry | DE | Prof. Moritz | 0-UNIHH | EC | CM | 3 | Y | KL |
| 4 | Biochemie und Mikrobiologie / Biochemistry and Microbiology | DE | Dr. Bubenheim | V-6 | C | CM | 6 | Y | KL |
| 4 | Bioverfahrenstechnik - Grundlagen / Bioprocess Engineering - Fundamentals | DE | Prof. Liese | V-6 | C | CM | 6 | Y | KL |

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| Re-com. Term | Module Name (German / English) | Language | ModuleResponsability | Institute | C/EC (1) | CM/OM (2) | CP (4) | Grade | Examination Form(3) |
| 4 | Grundlagen der Strömungsmechanik / Fundamentals of Fluid Mechanics | DE | Prof. Schlüter | V-5 | C | CM | 6 | Y | KL |
| 4 | Phasengleichgewichtsthermodynamik / Phase Equilibria Thermodynamics | DE | Prof. Smirnova | V-8 | C | CM | 6 | Y | KL |
| 4 | Signale und Systeme / Signals and Systems | DE / EN | Prof. Bauch | E-8 | C | CM | 6 | Y | KL |
| 5 | Bioverfahrenstechnik - Vertiefung / Bioprocess Engineering - Advanced | DE | Prof. Zeng | V-1 | C | CM | 6 | Y | KL |
| 5 | Grundlagen der Regelungstechnik / Introduction to Control Systems | DE | Prof. Werner | E-14 | C | CM | 6 | Y | KL |
| 5 | Thermische Grundoperationen / Thermal Separation Processes | DE / EN | Prof. Smirnova | V-8 | C | CM | 6 | Y | KL |
| 5 | Wärme- und Stoffübertragung / Heat and Mass Transfer | DE | Prof. Smirnova | V-8 | C | CM | 6 | Y | KL |
| 5-6 | Chemische Reaktionstechnik / Chemical Reaction Engineering | DE / EN | Prof. Horn | V-2 | C | CM | 6 | Y | KL |
| 5-6 | Umweltechnik / Environmental Technology | DE | Prof. Kaltschmitt | V-9 | EC | CM | 3 | Y | KL |
| 6 | Grundlagen der Betriebswirtschaftslehre / Foundations of Management | DE | Prof. Ihl | W-11 | C | CM | 6 | Y | FFA |
| 6 | Partikeltechnologie und Feststoffverfahrenstechnik I / Particle Technology and Solids Process Engineering | DE / EN | Prof. Heinrich | V-3 | C | CM | 6 | Y | KL |
| 6 | Prozess- und Anlagentechnik I / Process and Plant Engineering I | DE | Prof. Fieg | V-4 | C | CM | 6 | Y | KL |
| 6 | Umweltbewertung / Environmental Technology | DE / EN | Prof. Kaltschmitt | V-9 | EC | CM | 3 | Y | KL |
| Specialisation Electrical Engineering Compulsory Courses: 66 LP Optional Courses: 6 LP | | | | | | | | | |
| 3 | Elektrotechnik III: Netzwerktheorie und Transienten / Electrical Engineering III: Circuit Theory and Transients | DE | Prof. Jacob | E-3 | C | CM | 6 | Y | KL |
| 3 | Technische Informatik / Computer Engineering | DE | Prof. Falk | E-13 | C | CM | 6 | Y | KL |
| 4 | Elektrotechnik IV: Leitungen und Forschungsseminar / Electrical Engineering IV: Transmission Lines and Research Seminar | DE / EN | Prof. Jacob | E-3 | C | CM | 6 | Y | KL |
| 4 | Mathematik IV / Mathematics IV | DE | Prof. Taraz | 0-UNIHH | C | CM | 6 | Y | KL |
| 4 | Signale und Systeme / Signals and Systems | DE / EN | Prof. Bauch | E-8 | C | CM | 6 | Y | KL |
| 4 | Theoretische Elektrotechnik I: Zeitunabhängige Felder / Theoretical Electrical Engineering I: Time-Independent Fields | DE | Prof. Schuster | E-18 | C | CM | 6 | Y | KL |
| 4 | Werkstoffe der Elektrotechnik / Materials in Electrical Engineering | DE | Prof. Eich | E-12 | C | CM | 6 | Y | KL |
| 5 | Einführung in die Nachrichtentechnik und ihre stochastischen Methoden / Introduction to Communications and Random Processes | DE / EN | Prof. Bauch | E-8 | C | CM | 6 | Y | KL |
| 5 | Elektromagnetik für Ingenieure II: Zeitabhängige Felder / Electromagnetics for Engineers II: Time-Dependent Fields (lt. letzter PO) | EN | Prof. Schuster | E-18 | C | CM | 6 | Y | KL |
| 5 | Elektronische Bauelemente / Electronic Devices | DE | Prof. Trieu | E-7 | C | CM | 6 | Y | KL |
| 5 | Grundlagen der Regelungstechnik / Introduction to Control Systems | DE | Prof. Werner | E-14 | C | CM | 6 | Y | KL |
| 5 | Elektrische Energiesysteme I: Einführung in elektrische Energiesysteme / Electrical Power Systems I: Introduction to Electrical Power Systems (lt. letzter PO Elektrische Energiesysteme I) | DE | Prof. Becker | E-6 | EC | CM | 6 | Y | KL |

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| 5 | Messtechnik und Messdatenverarbeitung / Measurements: Methods and Data Processing | DE | Prof. Schlaefer | E-1 | EC | CM | 6 | Y | KL | |
| 6 | Elektrotechnisches Projektpraktikum / Electrical Engineering Project Laboratory | DE | Prof. Becker | E-6 | C | CM | 6 | N | FFA | |
| 6 | Grundlagen der Betriebswirtschaftslehre / Foundations of Management | DE | Prof. Ihl | W-11 | C | CM | 6 | Y | FFA | |
| 6 | Halbleiterschaltungstechnik / Semiconductor Circuit Design | DE | Prof. Kuhl | E-9 | C | CM | 6 | Y | KL | |
| Specialisation Energy and Enviromental Engineering Compulsory Courses: 66 LP Optional Courses: 6 LP | | | | | | | | | | |
| 3 | Technische Informatik / Computer Engineering | DE | Prof. Falk | E-13 | C | CM | 6 | Y | KL | |
| 3-4 | Grundlagen der Werkstoffwissenschaften / Fundamentals of Materials Science | DE | Prof. Weißmüller | M-22 | C | CM | 6 | Y | KL | |
| 3-4 | Konstruktionslehre Gestalten / Mechanical Engineering: Design | DE | Prof. Krause | M-17 | C | CM | 6 | Y | KL | |
| 4 | Elektrische Maschinen / Electrical Machines | DE | Prof. Kern | M-4 | C | CM | 6 | Y | KL | |
| 4 | Grundlagen der Strömungsmechanik / Fundamentals of Fluid Mechanics | DE | Prof. Schlüter | V-5 | C | CM | 6 | Y | KL | |
| 4 | Regenerative Energiesysteme und Energiewirtschaft / Renewables and Energy Systems | DE / EN | Prof. Kaltschmitt | V-9 | C | CM | 6 | Y | KL | |
| 5 | Grundlagen der Regelungstechnik / Introduction to Control Systems | DE | Prof. Werner | E-14 | C | CM | 6 | Y | KL | |
| 5 | Messtechnik für Maschinenbau- und Verfahreningenieure / Measurement Technology for Mechanical and Process Engineers | DE | NN | M-4 | C | CM | 6 | Y | KL | |
| 5 | Thermische Grundoperationen / Thermal Separation Processes | DE / EN | Prof. Smirnova | V-8 | C | CM | 6 | Y | KL | |
| 5 | Wärme- und Stoffübertragung / Heat and Mass Transfer | DE | Prof. Smirnova | V-8 | C | CM | 6 | Y | KL | |
| 5 | Wärme- und Stoffübertragung / Heat and Mass Transfer | DE | Prof. Kather | M-5 | C | CM | 6 | Y | KL | |
| 5-6 | Umwelttechnik / Environmental Technology | DE | Prof. Kaltschmitt | V-9 | C | CM | 3 | Y | KL | |
| 6 | Grundlagen der Betriebswirtschaftslehre / Foundations of Management | DE | Prof. Ihl | W-11 | C | CM | 6 | Y | FFA | |
| 6 | Partikeltechnologie und Feststoffverfahrenstechnik I / Particle Technology and Solids Process Engineering | DE / EN | Prof. Heinrich | V-3 | C | CM | 6 | Y | KL | |
| 6 | Umweltbewertung / Environmental Technology | DE / EN | Prof. Kaltschmitt | V-9 | C | CM | 3 | Y | KL | |
| 6 | Informatik für Verfahreningenieure / Informatics for Process Engineers | DE | Dr. Venzke | E-17 | EC | CM | 6 | Y | KL | |
| 6 | Prozess- und Anlagentechnik I / Process and Plant Engineering I | DE | Prof. Fieg | V-4 | EC | CM | 6 | Y | KL | |
| Specialisation Computer Science Compulsory Courses: 42 LP Optional Courses: 30 LP | | | | | | | | | | |
| 3 | Diskrete Algebraische Strukturen / Discrete Algebraic Structures | DE | Prof. Zimmermann | E-13 | C | CM | 6 | Y | KL | |
| 3 | Technische Informatik / Computer Engineering | DE | Prof. Falk | E-13 | C | CM | 6 | Y | KL | |
| 4 | Graphentheorie und Optimierung / Graph Theory and Optimization | DE | Prof. Taraz | E-10 | C | CM | 6 | Y | KL | |
| 4 | Objektorientierte Programmierung, Algorithmen und Datenstrukturen / Objectoriented Programming, Algorithms and Data Structures | DE | Prof. Grigat | E-2 | C | CM | 6 | Y | KL | |

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| 4 | Signale und Systeme / Signals and Systems | DE / EN | Prof. Bauch | E-8 | C | CM | 6 | Y | KL |
| 4 | Stochastik / Stochastics | EN | Prof. Lindner | E-10 | C | CM | 6 | Y | KL |
| 4 | Automatentheorie und Formale Sprachen / Automata Theory and Formal Languages | EN | Prof. Knopp | E-5 | EC | CM | 6 | Y | KL |
| 4 | Eingebettete Systeme / Embedded Systems | EN | Prof. Falk | E-13 | EC | CM | 6 | Y | KL |
| 5 | Grundlagen der Regelungstechnik / Introduction to Control Systems | DE | Prof. Werner | E-14 | C | CM | 6 | Y | KL |
| 5 | Numerische Mathematik I / Numerical Mathematics I | DE / EN | Prof. Le Borne | E-10 | C | CM | 6 | Y | KL |
| 5 | Seminare Informatik und Mathematik / Seminars Computer Science and Mathematics | DE / EN | Prof. Zimmermann | SD-E | C | CM | 6 | N | RE |
| 5 | Funktionales Programmieren / Functional Programming | EN | Prof. Schupp | E-16 | EC | CM | 6 | Y | KL |
| 5 | Rechnerarchitektur / Computer Architecture | DE / EN | Prof. Falk | E-13 | EC | CM | 6 | Y | KL |
| 5 | Rechnernetze und Internet-Sicherheit / Computernetworks and Internet Security | EN | Prof. Timm-Giel | E-4 | EC | CM | 6 | Y | KL |
| 6 | Grundlagen der Betriebswirtschaftslehre / Foundations of Management | DE | Prof. Ihl | W-11 | C | CM | 6 | Y | FFA |
| 6 | Berechenbarkeit und Komplexität / Computability and Complexity Theory | DE / EN | Prof. Zimmermann | E-13 | EC | CM | 6 | Y | MP |
| 6 | Betriebssysteme / Operating Systems | DE | Prof. Turau | E-17 | EC | CM | 6 | Y | KL |
| 6 | Labor Cyber-Physical Systems / Lab Cyber-Physical Systems | DE / EN | Prof. Falk | E-13 | EC | CM | 6 | Y | SA |
| 6 | Mathematische Statistik / Mathematical Statistics | DE / EN | Prof. Neumeyer | 0-UNIHH | EC | CM | 6 | Y | KL |
| 6 | Software-Engineering / Software Engineering | EN | Prof. Schupp | E-16 | EC | CM | 6 | Y | KL |
| Specialisation Mechanical Engineering Compulsory Courses: 30 LP Optional Courses: 6 LP Number of Focuses to choose: 1 | | | | | | | | | |
| 3-4 | Grundlagen der Werkstoffwissenschaften / Fundamentals of Materials Science | DE | Prof. Weißmüller | M-22 | C | CM | 6 | Y | KL |
| 3-4 | Konstruktionslehre Gestalten / Mechanical Engineering: Design | DE | Prof. Krause | M-17 | C | CM | 6 | Y | KL |
| 4 | Mechanik IV (Kinetik II, Schwingungen, Analytische Mechanik, Mehrkörpersysteme) / Mechanics IV (Kinetics II, Oscillations, Analytical Mechanics, Multibody Systems) | DE | Prof. Seifried | M-13 | C | CM | 6 | Y | KL |
| 4 | Strömungsmechanik / Fluid Dynamics | DE | Prof. Rung | M-8 | C | CM | 6 | Y | KL |
| 5 | Messtechnik für Maschinenbau- und Verfahreningenieure / Measurement Technology for Mechanical and Process Engineers | DE | NN | M-4 | C | CM | 6 | Y | KL |
| 6 | Elektrische Maschinen und Antriebe / Electrical Machines and Actuators (lt. letzter PO Elektrische Maschinen) | DE | Prof. Kern | M-4 | EC | CM | 6 | Y | KL |
| 6 | Grundlagen des Produktions- und Qualitätsmanagements / Fundamentals of Production and Quality Management | EN | Prof. Lödding | M-18 | EC | CM | 6 | Y | KL |
| 6 | Moderne Werkstoffe / Advanced Materials | DE / EN | Prof. Huber | M-22 | EC | CM | 6 | Y | KL |

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| Focus Biomechanics Compulsory Courses: 36 LP Optional Courses: 0 LP | | | | | | | | | | |
| 3-4 | Vertiefte Konstruktionslehre / Advanced Mechanical Engineering Design | DE | Prof. Krause | M-17 | C | CM | 6 | Y | KL | |
| 4 | MED I: Einführung in die Anatomie / MED I: Introduction to Anatomy | DE | Prof. Schumacher | M-3 | C | CM | 3 | Y | KL | |
| 4 | MED I: Einführung in die Radiologie und Strahlentherapie / MED I: Introduction to Radiology and Radiation Therapy | DE | Prof. Carl | M-3 | C | CM | 3 | Y | KL | |
| 4 | Signale und Systeme / Signals and Systems | DE / EN | Prof. Bauch | E-8 | C | CM | 6 | Y | KL | |
| 5 | BIO I: Implantate und Frakturheilung / BIO I: Implants and Fracture Healing | DE | Prof. Morlock | M-3 | C | CM | 3 | Y | KL | |
| 5 | Grundlagen der Regelungstechnik / Introduction to Control Systems | DE | Prof. Werner | E-14 | C | CM | 6 | Y | KL | |
| 5 | MED II: Einführung in die Biochemie und Molekularbiologie / MED II: Introduction to Biochemistry and Molecular Biology | DE | Prof. Kreienkamp | M-3 | C | CM | 3 | Y | KL | |
| 5 | Numerische Mathematik I / Numerical Mathematics I | DE / EN | Prof. Le Borne | E-10 | C | CM | 6 | Y | KL | |
| 5 | Technische Informatik / Computer Engineering | DE | Prof. Falk | E-13 | C | CM | 6 | Y | KL | |
| 6 | BIO I: Experimentelle Methoden der Biomechanik / BIO I: Experimental Methods in Biomechanics | DE | Prof. Morlock | M-3 | C | CM | 3 | Y | KL | |
| 6 | Grundlagen der Betriebswirtschaftslehre / Foundations of Management | DE | Prof. Ihl | W-11 | C | CM | 6 | Y | FFA | |
| 6 | MED II: Einführung in die Physiologie / MED II: Introduction to Physiology | DE | Dr. Zimmermann | M-3 | C | CM | 3 | Y | KL | |
| Focus Energy Systems Compulsory Courses: 24 LP Optional Courses: 12 LP | | | | | | | | | | |
| 3 | Technische Informatik / Computer Engineering | DE | Prof. Falk | E-13 | C | CM | 6 | Y | KL | |
| 4 | Signale und Systeme / Signals and Systems | DE / EN | Prof. Bauch | E-8 | C | CM | 6 | Y | KL | |
| 5 | Grundlagen der Regelungstechnik / Introduction to Control Systems | DE | Prof. Werner | E-14 | C | CM | 6 | Y | KL | |
| 5 | Wärmeübertragung / Heat Transfer | DE | Dr. Moschallski | M-21 | C | CM | 6 | Y | KL | |
| 5 | Numerische Methoden der Thermofluidodynamik I / Computational Fluid Dynamics I | DE | Prof. Rung | M-8 | EC | CM | 6 | Y | KL | |
| 5 | Wärmeleistungswerke / Gas and Steam Power Plants | DE | Prof. Kather | M-5 | EC | CM | 6 | Y | KL | |
| 5-6 | Kolbenmaschinen / Reciprocating Machinery | DE | Prof. Wirz | M-12 | C | CM | 6 | Y | KL | |
| 5-6 | Vertiefte Konstruktionslehre / Advanced Mechanical Engineering Design | DE | Prof. Krause | M-17 | C | CM | 6 | Y | KL | |
| 6 | Grundlagen der Betriebswirtschaftslehre / Foundations of Management | DE | Prof. Ihl | W-11 | C | CM | 6 | Y | FFA | |
| 6 | Regenerative Energiesysteme und Energiewirtschaft / Renewables and Energy Systems | DE / EN | Prof. Kaltschmitt | V-9 | EC | CM | 6 | Y | KL | |
| Focus Aircraft Systems Engineering Compulsory Courses: 36 LP Optional Courses: 0 LP | | | | | | | | | | |
| 3-4 | Vertiefte Konstruktionslehre / Advanced Mechanical Engineering Design | DE | Prof. Krause | M-17 | C | CM | 6 | Y | KL | |
| 4 | Signale und Systeme / Signals and Systems | DE / EN | Prof. Bauch | E-8 | C | CM | 6 | Y | KL | |
| 5 | Großes Konstruktionsprojekt / Advanced Mechanical Design Project | DE | Dr. Schmidt | M-17 | C | CM | 6 | Y | KL | |

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| 5 | Grundlagen der Regelungstechnik / Introduction to Control Systems | DE | Prof. Werner | E-14 | C | CM | 6 | Y | KL | |
| 5 | Simulation und Entwurf mechatronischer Systeme / Simulation and Design of Mechatronic Systems | DE | Prof. Weltin | M-24 | C | CM | 6 | Y | KL | |
| 5 | Technische Informatik / Computer Engineering | DE | Prof. Falk | E-13 | C | CM | 6 | Y | KL | |
| 6 | Grundlagen der Betriebswirtschaftslehre / Foundations of Management | DE | Prof. Ihl | W-11 | C | CM | 6 | Y | FFA | |
| 6 | Integrierte Produktentwicklung und Leichtbau / Integrated Product Development and Lightweight Design | DE | Prof. Krause | M-17 | C | CM | 6 | Y | KL | |
| 6 | Luftfahrtssysteme / Aeronautical Systems | DE | Prof. Thielecke | M-7 | C | CM | 6 | Y | KL | |
| Focus Materials in Engineering Sciences Compulsory Courses: 36 LP Optional Courses: 0 LP | | | | | | | | | | |
| 3-4 | Vertiefte Konstruktionslehre / Advanced Mechanical Engineering Design | DE | Prof. Krause | M-17 | C | CM | 6 | Y | KL | |
| 4 | Signale und Systeme / Signals and Systems | DE / EN | Prof. Bauch | E-8 | C | CM | 6 | Y | KL | |
| 5 | Grundlagen der Regelungstechnik / Introduction to Control Systems | DE | Prof. Werner | E-14 | C | CM | 6 | Y | KL | |
| 5 | Materialwissenschaftliches Praktikum / Material Science Laboratory | DE | Prof. Fiedler | M-11 | C | CM | 6 | N | KL | |
| 5 | Numerische Mathematik I / Numerical Mathematics I | DE / EN | Prof. Le Borne | E-10 | C | CM | 6 | Y | KL | |
| 5 | Technische Informatik / Computer Engineering | DE | Prof. Falk | E-13 | C | CM | 6 | Y | KL | |
| 5-6 | Strukturwerkstoffe / Structural Materials | DE | Prof. Emmelmann | G-2 | C | CM | 6 | Y | KL | |
| 6 | Grundlagen der Betriebswirtschaftslehre / Foundations of Management | DE | Prof. Ihl | W-11 | C | CM | 6 | Y | FFA | |
| 6 | Vertiefende Grundlagen der Werkstoffwissenschaften / Enhanced Fundamentals of Materials Science | DE / EN | Prof. Schneider | M-9 | C | CM | 6 | Y | KL | |
| Focus Mechatronics Compulsory Courses: 36 LP Optional Courses: 0 LP | | | | | | | | | | |
| 3-4 | Vertiefte Konstruktionslehre / Advanced Mechanical Engineering Design | DE | Prof. Krause | M-17 | C | CM | 6 | Y | KL | |
| 4 | Signale und Systeme / Signals and Systems | DE / EN | Prof. Bauch | E-8 | C | CM | 6 | Y | KL | |
| 5 | Elektrotechnik III: Netzwerktheorie und Transienten / Electrical Engineering III: Circuit Theory and Transients | DE | Prof. Jacob | E-3 | C | CM | 6 | Y | KL | |
| 5 | Grundlagen der Regelungstechnik / Introduction to Control Systems | DE | Prof. Werner | E-14 | C | CM | 6 | Y | KL | |
| 5 | Simulation und Entwurf mechatronischer Systeme / Simulation and Design of Mechatronic Systems | DE | Prof. Weltin | M-24 | C | CM | 6 | Y | KL | |
| 5 | Technische Informatik / Computer Engineering | DE | Prof. Falk | E-13 | C | CM | 6 | Y | KL | |
| 6 | Grundlagen der Betriebswirtschaftslehre / Foundations of Management | DE | Prof. Ihl | W-11 | C | CM | 6 | Y | FFA | |
| 6 | Halbleiterschaltungstechnik / Semiconductor Circuit Design | DE | Prof. Kuhl | E-9 | C | CM | 6 | Y | KL | |
| 6 | Mathematik IV / Mathematics IV | DE | Prof. Taraz | 0-UNIHH | C | CM | 6 | Y | KL | |
| Focus Product Development and Production Compulsory Courses: 36 LP Optional Courses: 0 LP | | | | | | | | | | |

| Module | | | | | | | Examination | | |
|--------------|--|----------|----------------------|-----------|----------|-----------|-------------|-------|---------------------|
| Re-com. Term | Module Name (German / English) | Language | ModuleResponsability | Institute | C/EC (1) | CM/OM (2) | CP (4) | Grade | Examination Form(3) |
| 3-4 | Fertigungstechnik / Production Engineering | DE | Prof. Hintze | M-18 | C | CM | 6 | Y | KL |
| 3-4 | Vertiefte Konstruktionslehre / Advanced Mechanical Engineering Design | DE | Prof. Krause | M-17 | C | CM | 6 | Y | KL |
| 5 | Großes Konstruktionsprojekt / Advanced Mechanical Design Project | DE | Dr. Schmidt | M-17 | C | CM | 6 | Y | KL |
| 5 | Grundlagen der Regelungstechnik / Introduction to Control Systems | DE | Prof. Werner | E-14 | C | CM | 6 | Y | KL |
| 5 | Produktionstechnologie / Production Technology | DE | Prof. Hintze | M-18 | C | CM | 6 | Y | KL |
| 5 | Technische Informatik / Computer Engineering | DE | Prof. Falk | E-13 | C | CM | 6 | Y | KL |
| 6 | Grundlagen der Betriebswirtschaftslehre / Foundations of Management | DE | Prof. Ihl | W-11 | C | CM | 6 | Y | FFA |
| 6 | Integrierte Produktentwicklung und Leichtbau / Integrated Product Development and Lightweight Design | DE | Prof. Krause | M-17 | C | CM | 6 | Y | KL |
| 6 | Vertiefende Grundlagen der Werkstoffwissenschaften / Enhanced Fundamentals of Materials Science | DE / EN | Prof. Schneider | M-9 | C | CM | 6 | Y | KL |

Focus Theoretical Mechanical Engineering Compulsory Courses: 24 LP Optional Courses: 12 LP

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|-----|---|---------|-----------------|---------|----|----|---|---|-----|
| 3-4 | Vertiefte Konstruktionslehre / Advanced Mechanical Engineering Design | DE | Prof. Krause | M-17 | C | CM | 6 | Y | KL |
| 4 | Signale und Systeme / Signals and Systems | DE / EN | Prof. Bauch | E-8 | C | CM | 6 | Y | KL |
| 5 | Großes Konstruktionsprojekt / Advanced Mechanical Design Project | DE | Dr. Schmidt | M-17 | C | CM | 6 | Y | KL |
| 5 | Grundlagen der Regelungstechnik / Introduction to Control Systems | DE | Prof. Werner | E-14 | C | CM | 6 | Y | KL |
| 5 | Technische Informatik / Computer Engineering | DE | Prof. Falk | E-13 | C | CM | 6 | Y | KL |
| 5 | Numerische Mathematik I / Numerical Mathematics I | DE / EN | Prof. Le Borne | E-10 | EC | CM | 6 | Y | KL |
| 5 | Simulation und Entwurf mechatronischer Systeme / Simulation and Design of Mechatronic Systems | DE | Prof. Weltin | M-24 | EC | CM | 6 | Y | KL |
| 5 | Wärmeübertragung / Heat Transfer | DE | Dr. Moschallski | M-21 | EC | CM | 6 | Y | KL |
| 5-6 | Fertigungstechnik / Production Engineering | DE | Prof. Hintze | M-18 | EC | CM | 6 | Y | KL |
| 6 | Grundlagen der Betriebswirtschaftslehre / Foundations of Management | DE | Prof. Ihl | W-11 | C | CM | 6 | Y | FFA |
| 6 | Mathematik IV / Mathematics IV | DE | Prof. Taraz | 0-UNIHH | C | CM | 6 | Y | KL |

Specialisation Biomedical Engineering Compulsory Courses: 72 LP Optional Courses: 0 LP

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|-----|---|----|------------------|------|---|----|---|---|----|
| 3 | Technische Informatik / Computer Engineering | DE | Prof. Falk | E-13 | C | CM | 6 | Y | KL |
| 3-4 | Grundlagen der Werkstoffwissenschaften / Fundamentals of Materials Science | DE | Prof. Weißmüller | M-22 | C | CM | 6 | Y | KL |
| 4 | Mechanik IV (Kinetik II, Schwingungen, Analytische Mechanik, Mehrkörpersysteme) / Mechanics IV (Kinetics II, Oscillations, Analytical Mechanics, Multibody Systems) | DE | Prof. Seifried | M-13 | C | CM | 6 | Y | KL |
| 4 | MED I: Einführung in die Anatomie / MED I: Introduction to Anatomy | DE | Prof. Schumacher | M-3 | C | CM | 3 | Y | KL |
| 4 | MED I: Einführung in die Radiologie und Strahlentherapie / MED I: Introduction to Radiology and Radiation Therapy | DE | Prof. Carl | M-3 | C | CM | 3 | Y | KL |

| | | Module | | | | | Examination | | | |
|---|---|----------|----------------------|-----------|----------|-----------|-------------|-------|---------------------|--|
| Re-com. Term | Module Name (German / English) | Language | ModuleResponsability | Institute | C/EC (1) | CM/OM (2) | CP (4) | Grade | Examination Form(3) | |
| 4 | Signale und Systeme / Signals and Systems | DE / EN | Prof. Bauch | E-8 | C | CM | 6 | Y | KL | |
| 4 | Strömungsmechanik / Fluid Dynamics | DE | Prof. Rung | M-8 | C | CM | 6 | Y | KL | |
| 5 | BIO I: Implantate und Frakturheilung / BIO I: Implants and Fracture Healing | DE | Prof. Morlock | M-3 | C | CM | 3 | Y | KL | |
| 5 | Grundlagen der Regelungstechnik / Introduction to Control Systems | DE | Prof. Werner | E-14 | C | CM | 6 | Y | KL | |
| 5 | MED II: Einführung in die Biochemie und Molekularbiologie / MED II: Introduction to Biochemistry and Molecular Biology | DE | Prof. Kreienkamp | M-3 | C | CM | 3 | Y | KL | |
| 5 | Messtechnik für Maschinenbau- und Verfahreningenieure / Measurement Technology for Mechanical and Process Engineers | DE | NN | M-4 | C | CM | 6 | Y | KL | |
| 5 | Numerische Mathematik I / Numerical Mathematics I | DE / EN | Prof. Le Borne | E-10 | C | CM | 6 | Y | KL | |
| 5 | Wärmeübertragung / Heat Transfer | DE | Dr. Moschallski | M-21 | C | CM | 6 | Y | KL | |
| 5-6 | Konstruktionslehre Gestalten / Mechanical Engineering: Design | DE | Prof. Krause | M-17 | C | CM | 6 | Y | KL | |
| 6 | BIO I: Experimentelle Methoden der Biomechanik / BIO I: Experimental Methods in Biomechanics | DE | Prof. Morlock | M-3 | C | CM | 3 | Y | KL | |
| 6 | Einführung in Medizintechnische Systeme / Introduction into Medical Technology and Systems | DE | Prof. Schlaefer | E-1 | C | CM | 6 | Y | KL | |
| 6 | Grundlagen der Betriebswirtschaftslehre / Foundations of Management | DE | Prof. Ihl | W-11 | C | CM | 6 | Y | FFA | |
| 6 | MED II: Einführung in die Physiologie / MED II: Introduction to Physiology | DE | Dr. Zimmermann | M-3 | C | CM | 3 | Y | KL | |
| Specialisation Naval Architecture Compulsory Courses: 72 LP Optional Courses: 0 LP | | | | | | | | | | |
| 3 | Grundlagen der Regelungstechnik / Introduction to Control Systems | DE | Prof. Werner | E-14 | C | CM | 6 | Y | KL | |
| 3 | Technische Informatik / Computer Engineering | DE | Prof. Falk | E-13 | C | CM | 6 | Y | KL | |
| 4 | Grundlagen der Betriebswirtschaftslehre / Foundations of Management | DE | Prof. Ihl | W-11 | C | CM | 6 | Y | FFA | |
| 4 | Mathematik IV / Mathematics IV | DE | Prof. Taraz | 0-UNIHH | C | CM | 6 | Y | KL | |
| 4 | Mechanik IV (Kinetik II, Schwingungen, Analytische Mechanik, Mehrkörpersysteme) / Mechanics IV (Kinetics II, Oscillations, Analytical Mechanics, Multibody Systems) | DE | Prof. Seifried | M-13 | C | CM | 6 | Y | KL | |
| 4 | Strömungsmechanik / Fluid Dynamics | DE | Prof. Rung | M-8 | C | CM | 6 | Y | KL | |
| 5 | Grundlagen der Konstruktion und Strukturanalyse von Schiffen / Fundamentals of Ship Structural Design and Analysis | DE | Prof. Ehlers | M-10 | C | CM | 8 | Y | KL | |
| 5 | Numerische Methoden der Thermofluidodynamik I / Computational Fluid Dynamics I | DE | Prof. Rung | M-8 | C | CM | 6 | Y | KL | |
| 5 | Widerstand und Propulsion / Resistance and Propulsion | DE | Prof. Krüger | M-6 | C | CM | 6 | Y | KL | |
| 5-6 | Grundlagen der Werkstoffwissenschaften / Fundamentals of Materials Science | DE | Prof. Weißmüller | M-22 | C | CM | 6 | Y | KL | |
| 5-6 | Hydrostatik und Linienriss / Hydrostatics and Body Plan | DE | Prof. Krüger | M-6 | C | CM | 6 | Y | KL | |
| 5-6 | Konstruktion und Fertigung von Schiffen / Structural Design and Construction of Ships | DE | Prof. Ehlers | M-10 | C | CM | 9 | Y | KL | |

| Module | | | | | | | Examination | | |
|--|--|----------|----------------------|-----------|----------|-----------|-------------|-------|---------------------|
| Re-com. Term | Module Name (German / English) | Language | ModuleResponsability | Institute | C/EC (1) | CM/OM (2) | CP (4) | Grade | Examination Form(3) |
| 5-6 | Stochastik und Schiffsdynamik / Stochastics and Ship Dynamics | DE | Prof. Abdel-Maksoud | M-8 | C | CM | 7 | Y | KL |
| 6 | Entwerfen von Schiffen / Ship Design | DE | Prof. Krüger | M-6 | C | CM | 6 | Y | KL |
| Specialisation Process Engineering Compulsory Courses: 66 LP Optional Courses: 6 LP | | | | | | | | | |
| 3 | Grundlagen der Verfahrenstechnik und Werkstofftechnik / Fundamentals of Process Engineering and Material Engineering (lt. letzter PO Grundlagen der Verfahrenstechnik) | DE | Prof. Schlüter | V-5 | C | CM | 3 | Y | KL |
| 3 | Physikalische Chemie / Physical Chemistry | DE | Prof. Moritz | 0-UNIHH | C | CM | 3 | Y | KL |
| 3 | Technische Informatik / Computer Engineering | DE | Prof. Falk | E-13 | C | CM | 6 | Y | KL |
| 4 | Bioverfahrenstechnik - Grundlagen / Bioprocess Engineering - Fundamentals | DE | Prof. Liese | V-6 | C | CM | 6 | Y | KL |
| 4 | Grundlagen der Strömungsmechanik / Fundamentals of Fluid Mechanics | DE | Prof. Schlüter | V-5 | C | CM | 6 | Y | KL |
| 4 | Phasengleichgewichtsthermodynamik / Phase Equilibria Thermodynamics | DE | Prof. Smirnova | V-8 | C | CM | 6 | Y | KL |
| 4 | Signale und Systeme / Signals and Systems | DE / EN | Prof. Bauch | E-8 | C | CM | 6 | Y | KL |
| 5 | Grundlagen der Regelungstechnik / Introduction to Control Systems | DE | Prof. Werner | E-14 | C | CM | 6 | Y | KL |
| 5 | Messtechnik für VT / BVT / Measurement Technology for VT/ BVT (lt. letzter PO) | DE | Prof. Schlüter | V-5 | C | CM | 6 | Y | KL |
| 5 | Thermische Grundoperationen / Thermal Separation Processes | DE / EN | Prof. Smirnova | V-8 | C | CM | 6 | Y | KL |
| 5 | Wärme- und Stoffübertragung / Heat and Mass Transfer | DE | Prof. Smirnova | V-8 | C | CM | 6 | Y | KL |
| 5-6 | Chemische Reaktionstechnik / Chemical Reaction Engineering | DE / EN | Prof. Horn | V-2 | C | CM | 6 | Y | KL |
| 5-6 | Umwelttechnik / Environmental Technology | DE | Prof. Kaltschmitt | V-9 | EC | CM | 3 | Y | KL |
| 6 | Grundlagen der Betriebswirtschaftslehre / Foundations of Management | DE | Prof. Ihl | W-11 | C | CM | 6 | Y | FFA |
| 6 | Partikeltechnologie und Feststoffverfahrenstechnik I / Particle Technology and Solids Process Engineering | DE / EN | Prof. Heinrich | V-3 | C | CM | 6 | Y | KL |
| 6 | Prozess- und Anlagentechnik I / Process and Plant Engineering I | DE | Prof. Fieg | V-4 | C | CM | 6 | Y | KL |
| 6 | Informatik für Verfahreningenieure / Informatics for Process Engineers | DE | Dr. Venzke | E-17 | EC | CM | 6 | Y | KL |
| 6 | Umweltbewertung / Environmental Technology | DE / EN | Prof. Kaltschmitt | V-9 | EC | CM | 3 | Y | KL |
| Thesis Compulsory Courses: 12 LP Optional Courses: 0 LP | | | | | | | | | |
| 7 | Bachelorarbeit / Bachelor Thesis | | Professoren der TUHH | 0-TUHH | C | CM | 12 | Y | AB |

Applications in Civil and 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 |
| 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 | |
| Building Information Modeling / Building Information Modeling | VL | DE | 1 | WiSe/SoSe | 1 | N | SA | |
| Building Information Modeling / Building Information Modeling | PBL | DE | 2 | WiSe/SoSe | 2 | N | SA | |
| Computerbasierte Tragwerksberechnungen / Computational Analysis of Structures | VL | DE | 2 | WiSe | 3 | N | KL | |
| Einführung in die Statistik mit R / Introduction in Statistics with R | VL | DE | 1 | WiSe | 1 | N | KL | |
| Einführung in die Statistik mit R / Introduction in Statistics with R | HÜ | DE | 1 | WiSe | 1 | N | KL | |
| Grundlagen der Geomatik / Principles of Geomatics | VL | DE | 2 | SoSe | 2 | N | SA | |
| Grundlagen der Geomatik / Principles of Geomatics | UE | 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 | |
| Projekte II / Projects II | PS | DE | 2 | SoSe | 2 | N | RE | |
| 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:

¹C=Compulsory, EC=Elective Compulsory

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

³KL=Written exam, MT=Midterm, SA=Written elaboration, FFST=Subject theoretical and practical work, FFA=Subject theoretical and practical work, MP=Oral exam, RE=Presentation, ÜA=Exercises, AB=Thesis, SA lt. FPO=Written elaboration (accord. to Internship Regulations), TE=Attestation

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