

Exclosure to Subject Specific Regulations from  
03.08.2018  
for Bachelor-Programme Maschinenbau  
at TUHH  
Programme Director: Prof. Thorsten Schüppstuhl  
Total: 180 CP  
Number of Specilisations to choose: 1



## Course Scheme Bachelor Mechanical Engineering (MBBS)

Consolidated Version  
for Study Cohort: WiSe19/20  
en\_head\_sda  
and Approval of Chair from: 24.04.2019  
Replaces Version from: 25.07.2018  
In Force on: 01.10.2019  
Out of Force on: 31.03.2024

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

Re com. Term	Module Name (German / English)	Module		Exami nation						Course Work			
		Language	Module Responsibility	Institute	C/EC (1)	CM/ OM (2)	CP (4)	Grade	Exami nation Form(3)	Compulsory	Course Work Type	Bonus (in %)	
<b>Core qualification</b> Compulsory Courses: 144 LP Optional Courses: 6 LP													
1	Informatik für Maschinenbau-Ingenieure / Computer Science for Mechanical Engineers	DE	Prof. Fey	E-13	C	CM	6	Y	KL	N	ÜA	10	
1	Mathematik I / Mathematics I	DE	Prof. Taraz	E-10	C	CM	8	Y	KL				
1	Mechanik I (Stereostatik) / Mechanics I (Statics)	DE	Prof. Seifried	M-13	C	CM	6	Y	KL	N	MT	20	
1	Teamprojekt MB / Team Project MB	DE	Prof. Fiedler	M-11	C	CM	6	N	SA				
1-2	Fertigungstechnik / Production Engineering	DE	Prof. Hintze	M-18	C	CM	6	Y	KL				
1-2	Grundlagen der Werkstoffwissenschaften / Fundamentals of Materials Science	DE	Prof. Weißmüller	M-22	C	CM	6	Y	KL				
2	Grundlagen der Konstruktionslehre / Fundamentals of Mechanical Engineering Design	DE	Prof. Krause	M-17	C	CM	6	Y	KL				
2	Mathematik II / Mathematics II	DE	Prof. Taraz	E-10	C	CM	8	Y	KL				
2	Mechanik II: Elastostatik / Mechanics II: Mechanics of Materials	DE	Prof. Cyron	M-15	C	CM	6	Y	KL				
2	Technische Thermodynamik I / Technical Thermodynamics I	DE	Prof. Schmitz	M-21	C	CM	6	Y	KL				
3	Grundlagen der Elektrotechnik / Basics of Electrical Engineering	DE	Prof. Kern	M-4	C	CM	6	Y	KL				
3	Mathematik III / Mathematics III	DE	Prof. Taraz	0-UNIHH	C	CM	8	Y	KL				
3	Mechanik III (Hydrostatik, Kinematik, Kinetik I) / Mechanics III (Hydrostatics, Kinematics, Kinetics I)	DE	Prof. Seifried	M-13	C	CM	6	Y	KL	N	MT	20	
3	Technische Thermodynamik II / Technical Thermodynamics II	DE	Prof. Schmitz	M-21	C	CM	6	Y	KL				
3-4	Konstruktionslehre Gestalten / Mechanical Engineering: Design	DE	Prof. Krause	M-17	C	CM	6	Y	KL	Y	SA	0	
										Y	SA	0	
										Y	SA	0	
										Y	SA	0	
										Y	SA	0	

		Module					Exami nation			Course Work		
Re com. Term	Module Name (German / English)	Language	Module Responsibility	Institute	C/EC (1)	CM/OM (2)	CP (4)	Grade	Exami nation Form(3)	Compulsory	Course Work Type	Bonus (in %)
3-4	Vertiefte Konstruktionslehre / Advanced 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	N	MT	20
4	Strömungsmechanik / Fluid Dynamics	DE	Prof. Rung	M-8	C	CM	6	Y	KL			
4	Elektrische Maschinen und Antriebe / Electrical Machines and Actuators	DE	Prof. Kern	M-4	EC	CM	6	Y	KL			
4	Grundlagen des Produktions- und Qualitätsmanagements / Fundamentals of Production and Quality Management	EN	Prof. Lödding	M-18	EC	CM	6	Y	KL			
4	Moderne Werkstoffe / Advanced Materials	DE / EN	Prof. Huber	M-22	EC	CM	6	Y	KL			
5	Großes Konstruktionsprojekt / Advanced Mechanical Design Project	DE	Dr. Schmidt	M-17	C	CM	6	Y	KL	Y	TE	0
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	Y	FFST	0
6	Grundlagen der Betriebswirtschaftslehre / Foundations of Management	DE	Prof. Ihl	W-11	C	CM	6	Y	FFA			
1-6	Nichttechnische Ergänzungskurse im Bachelor / Nontechnical Complementary Courses for Bachelors	DE / EN	Richter	0-TUHH	C	OM	6	Selection out of seperatly published Catalogue				

**Specialisation Biomechanics** Compulsory Courses: 18 LP Optional Courses: 0 LP

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			
5	BIO I: Implantate und Frakturheilung / BIO I: Implants and Fracture Healing	DE	Prof. Morlock	M-3	C	CM	3	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			
6	BIO I: Experimentelle Methoden der Biomechanik / BIO I: Experimental Methods in Biomechanics	DE	Prof. Morlock	M-3	C	CM	3	Y	KL			
6	MED II: Einführung in die Physiologie / MED II: Introduction to Physiology	DE	Dr. Zimmermann	M-3	C	CM	3	Y	KL			

**Specialisation Energy Systems** Compulsory Courses: 12 LP Optional Courses: 6 LP

5	Wärmeübertragung / Heat Transfer	DE	Dr. Moschalski	M-21	C	CM	6	Y	KL			
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		Module					Examination				Course Work		
Re com. Term	Module Name (German / English)	Language	Module Responsibility	Institute	C/EC (1)	CM/OM (2)	CP (4)	Grade	Examination Form(3)	Compulsory	Course Work Type	Bonus (in %)	
5	Numerische Methoden der Thermofluidynamik I / Computational Fluid Dynamics I	DE	Prof. Rung	M-8	EC	CM	6	Y	KL				
5	Wärme- und Kälteanlagen / Gas and Steam Power Plants	DE	Prof. Kather	M-5	EC	CM	6	Y	KL	N	TE	5	
										N	ÜA	5	
5-6	Kolbenmaschinen / Reciprocating Machinery	DE	Prof. Wirz	M-12	C	CM	6	Y	KL				
<b>Specialisation Aircraft Systems Engineering</b> Compulsory Courses: 18 LP Optional Courses: 0 LP													
5	Simulation und Entwurf mechatronischer Systeme / Simulation and Design of Mechatronic Systems	DE	Prof. Weltin	M-24	C	CM	6	Y	KL				
6	Integrierte Produktentwicklung und Leichtbau / Integrated Product Development and Lightweight Design	DE	Prof. Krause	M-17	C	CM	6	Y	KL	Y	FFST	20	
6	Luftfahrtssysteme / Aeronautical Systems	DE	Prof. Thielecke	M-7	C	CM	6	Y	KL				
<b>Specialisation Materials in Engineering Sciences</b> Compulsory Courses: 18 LP Optional Courses: 0 LP													
5	Materialwissenschaftliches Praktikum / Material Science Laboratory	DE	Prof. Fiedler	M-11	C	CM	6	N	KL				
5-6	Strukturwerkstoffe / Structural Materials	DE	Prof. Emmelmann	G-2	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				
<b>Specialisation Mechatronics</b> Compulsory Courses: 18 LP Optional Courses: 0 LP													
4	Mathematik IV / Mathematics IV	DE	Prof. Taraz	0-UNIHH	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				
6	Halbleiterschaltungstechnik / Semiconductor Circuit Design	DE	Prof. Kuhl	E-9	C	CM	6	Y	KL				
<b>Specialisation Product Development and Production</b> Compulsory Courses: 18 LP Optional Courses: 0 LP													
5	Materialwissenschaftliches Praktikum / Material Science Laboratory	DE	Prof. Fiedler	M-11	C	CM	6	N	KL				
5	Produktionstechnologie / Production Technology	DE	Prof. Hintze	M-18	C	CM	6	Y	KL				
6	Integrierte Produktentwicklung und Leichtbau / Integrated Product Development and Lightweight Design	DE	Prof. Krause	M-17	C	CM	6	Y	KL	Y	FFST	20	
<b>Specialisation Theoretical Mechanical Engineering</b> Compulsory Courses: 12 LP Optional Courses: 6 LP													
5	Numerische Mathematik I / Numerical Mathematics I	DE / EN	Prof. Le Borne	E-10	C	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				

		Module						Examination			Course Work		
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5	Wärmeübertragung / Heat Transfer	DE	Dr. Moschallski	M-21	EC	CM	6	Y	KL				
6	Mathematik IV / Mathematics IV	DE	Prof. Taraz	0-UNIHH	C	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				

#### 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, MT=Midterm, SA=Written elaboration, FFST=Subject theoretical and practical work, FFA=Subject theoretical and practical work, MP=Oral exam, RE=Presentation, ÜA=Excercises, AB=Thesis, TE=Attestation

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

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

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

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