

Exclosure to Subject Specific Regulations  
 from 18.07.2018  
 for Master-Programme  
 Mechanical Engineering and Management  
 at TUHH  
 Programme Director: Prof. Dieter Krause  
 Total: 120 CP  
 Number of Specilisations to choose: 2



## Course Scheme Master Mechanical Engineering and Management (IMP MEM)

Consolidated Version  
 for Study Cohort: WiSe20/21  
 en\_head\_sda  
 and Approval of Chair from:  
 30.04.2020  
 In Force on: 01.10.2020  
 Out of Force on: 30.09.2023

1. Specializations of the study course IMPMEM are divided into two sections. Students have to choose one specialization of the first section ("I Management") and one specialization of the second section ("II Materials", "II Mechatronics" or "II Product Development and Production").
  2. NIT students cannot choose from the first section ("I Management"), they choose instead two specializations from the second section ("II Materials", "II Mechatronics" or "II Product Development and Production").
  3. Students who already had the module "Vibration Theory (GES)" in their bachelor study course are not allowed to enroll for the module mentioned above.
- 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	Examination Form(3)	Compulsory	Course Work Type	Bonus (in %)
<b>Core qualification</b> Compulsory Courses: 42 LP Optional Courses: 12 LP												
1	Computer Aided Design and Computation / Computer Aided Design and Computation	EN	Dr. Lippert	M-16	C	CM	6	Y	KL			
1	Robotik / Robotics	EN	Prof. Weltin	M-24	C	CM	6	Y	KL			
1	Marketing und Kommunikation / Marketing and Communication	EN	Prof. Lüthje	W-3	EC	CM	6	Y	FFA			
1-2	Ausgewählte Themen des Mechanical Engineering and Management (Alternative A: 12 LP) / Selected Topics of Mechanical Engineering and Management (Alternative A: 12 CP)	DE / EN	Prof. Krause	M-17	EC	OM	12	Selection out of Catalogue below				
1-2	Ausgewählte Themen des Mechanical Engineering and Management (Alternative B: 6 LP) / Selected Topics of Mechanical Engineering and Management (Alternative B: 6 CP)	DE / EN	Prof. Krause	M-17	EC	OM	6	Selection out of Catalogue below				
2	Faser-Kunststoff-Verbunde / Fibre-polymer-composites	EN	Prof. Fiedler	M-11	C	CM	6	Y	KL			
2	Industriepaktikum MEM / Internship MEM		Prof. Krause	M-17	EC	CM	6	N	SA It. FPrO			
3	Studienarbeit IMPMEM / Research Project IMPMEM		Dozenten des Studiengangs	SD-M	C	CM	12	Y	STA			
1-3	Betrieb & Management / Business & Management	DE / EN	Prof. Meyer	W-1	C	OM	6	Selection out of seperatly published Catalogue				

Module							Examination			Course Work		
Re-com. Term	Module Name (German / English)	Language	ModuleResponsability	Institute	C/EC (1)	CM/OM (2)	CP (4)	Grade	Examination Form(3)	Compulsory	Course Work Type	Bonus (in %)
1-3	Nichttechnische Angebote im Master / Non-technical Courses for Master (lt. letzter PO Nichttechnische Ergänzungskurse im Master)	DE / EN	Richter	0-TUHH	C	OM	6	Selection out of seperatly published Catalogue				

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

1	Technologiemanagement / Technology Management	EN	Prof. Herstatt	W-7	EC	CM	6	Y	KL			
2	Gütermobilität und Logistiksysteme / Mobility of Goods and Logistics Systems	EN	Prof. Flämig	W-8	EC	CM	6	Y	KL	Y	EX	0
										Y	ÜA	0
2	International Production Management and Enterprise Resource Planning: CERMEDES AG / International Production Management and Enterprise Resource Planning: CERMEDES AG	EN	Prof. Ringle	W-9	EC	CM	6	Y	SA	Y	RE	0
										Y	SA	0
2	Marketing (Vertrieb und Services / Innovationsmarketing) / Marketing (Sales and Services / Innovation Marketing)	EN	Prof. Lühje	W-3	EC	CM	6	Y	FFA			
2	Quantitative Forschungsmethoden / Quantitative Research Methods	EN	Prof. Ringle	W-9	EC	CM	6	Y	SA			
2	Technology Entrepreneurship / Technology Entrepreneurship	EN	Prof. Ihl	W-11	EC	CM	6	Y	FFA			
2	Volkswirtschaftslehre und Außenwirtschaftslehre / Economics	EN	Prof. Fischer	W-4	EC	CM	6	Y	KL	Y	ÜA	5
3	Angewandte Statistik für Ingenieure / Applied Statistics	DE / EN	Prof. Morlock	M-3	EC	CM	6	Y	KL	Y	SA	0
3	Corporate Entrepreneurship & Growth / Corporate Entrepreneurship & Growth	EN	Prof. Ihl	W-11	EC	CM	6	Y	FFA	Y	GD	20
3	Führung, Organisation und Personalmanagement / Management, Organization and Human Resource Management	EN	Prof. Ringle	W-9	EC	CM	6	Y	SA	Y	RE	20
3	Produktplanung / Product Planning	EN	Prof. Herstatt	W-7	EC	CM	6	Y	KL	Y	FFST	20

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

1	Technische Schwingungslehre / Vibration Theory	DE / EN	Prof. Hoffmann	M-14	EC	CM	6	Y	KL			
2	Nichtlineare Dynamik / Nonlinear Dynamics	DE / EN	Prof. Hoffmann	M-14	EC	CM	6	Y	KL			
3	3D Computer Vision / 3D Computer Vision	EN	Prof. Grigat	E-2	EC	CM	6	Y	KL			
3	Digitale Signalverarbeitung und Digitale Filter / Digital Signal Processing and Digital Filters	EN	Prof. Bauch	E-8	EC	CM	6	Y	KL			
3	Entwurf Integrierter Schaltungen / Integrated Circuit Design (lt. letzter PO Elektronische Bauelemente und Schaltungen)	EN	Prof. Kuhl	E-9	EC	CM	6	Y	KL			
3	Mikrosystemtechnik / Microsystem Engineering	EN	Prof. Kasper	E-7	EC	CM	6	Y	KL	N	RE	10
3	Prozessautomatisierungstechnik / Industrial Process Automation	EN	Prof. Schlaefer	E-1	EC	CM	6	Y	KL	N	ÜA	10

		Module					Examination			Course Work		
Re-com. Term	Module Name (German / English)	Language	ModuleResponsability	Institute	C/EC (1)	CM/OM (2)	CP (4)	Grade	Examination Form(3)	Compulsory	Course Work Type	Bonus (in %)
3	Theorie und Entwurf regelungstechnischer Systeme / Control Systems Theory and Design	EN	Prof. Werner	E-14	EC	CM	6	Y	KL			
3-4	Entwurf Digitaler Schaltungen / Digital Circuit Design (lt. letzter PO Design von hochkomplexen integrierten Systemen und CAD-Werkzeuge)	EN	Prof. Kuhl	E-9	EC	CM	6	Y	MP			
<b>Specialisation Product Development and Production</b> Compulsory Courses: 0 LP Optional Courses: 18 LP												
2	Additive Production / AdditiveProduction	EN	Prof. Emmelmann	G-2	EC	CM	6	Y	KL			
2	Boundary-Elemente-Methoden / Boundary Element Methods	EN	Prof. von Estorff	M-16	EC	CM	6	Y	KL	N	MT	20
2	High-Order FEM / High-Order FEM	EN	Prof. Düster	M-10	EC	CM	6	Y	KL	N	RE	10
2	Praktische Entwicklungsmethodik in der Mechatronik / Applied Design Methodology in Mechatronics (lt. letzter PO Methodisches Konstruieren)	EN	Prof. Kern	M-4	EC	CM	6	Y	FFA			
3	3D Printing Labor / 3D Printing Laboratory	EN	Prof. Emmelmann	G-2	EC	CM	6	N	SA			
3	Lasersysteme und Metallische Konstruktionswerkstoffe / Laser Systems and Metallic Materials	EN	Prof. Emmelmann	G-2	EC	CM	6	Y	KL			
<b>Specialisation Materials</b> Compulsory Courses: 0 LP Optional Courses: 18 LP												
1	Kontinuumsmechanik / Continuum Mechanics	DE	Prof. Cyron	M-15	EC	CM	6	Y	KL			
1	Moderne Funktionsmaterialien / Advanced Functional Materials	DE	Prof. Huber	M-22	EC	CM	6	Y	RE			
2	Mechanische Eigenschaften / Mechanical Properties	DE / EN	Dr. Lilleodden	M-9	EC	CM	6	Y	KL			
2	Verarbeitung von Faser-Kunststoff-Verbunde / Processing of fibre-polymer-composites	DE / EN	Prof. Fiedler	M-11	EC	CM	6	Y	KL			
2-3	Grenzflächen und grenzflächenbestimmte Materialien / Interfaces and interface-dominated Materials	DE / EN	Prof. Huber	M-22	EC	CM	6	Y	KL			
3	Werkstoffmodellierung / Material Modeling	DE	Prof. Cyron	M-15	EC	CM	6	Y	KL			
<b>Thesis</b> Compulsory Courses: 30 LP Optional Courses: 0 LP												
4	Masterarbeit / Master Thesis		Professoren der TUHH	0-TUHH	C	CM	30	Y	AB			

## Selected Topics of Mechanical Engineering and Management (Alternative A: 12 CP)

Course					Examination			
Course Name (German / English)	Course Form LV(5)	Language (6)	SWS (7)	Sem. LV	CP (4)	Grade	Examination Form(3)	Additional information
Ermüdung und Schadenstoleranz / Fatigue & Damage Tolerance	VL	EN	2	WiSe	3	Y	MP	
Forschungsseminar für Fortgeschrittene / Advanced Research Seminar	SE	EN	2	SoSe	2	Y	SA	
Internationales Recht für Ingenieure / International Law for Engineers	VL	EN	2	WiSe	2	Y	KL	
Internationales Recht für Ingenieure / International Law for Engineers	SE	EN	2	SoSe	2	Y	SA	
Investition und Finanzierung / Corporate Finance	VL	EN	2	WiSe	2	Y	KL	
Leichtbaupraktikum / Lightweight Design Practical Course	PBL	DE/EN	3	SoSe	3	Y	MP	
Methodenbasiertes Projektmanagement / Project Management Methods	VL	EN	1	SoSe	2	Y	KL	
Personalmanagement und Organisationsentwicklung / Human Resource Management and Organization Design	VL	EN	2	SoSe	2	Y	KL	
Rechnungswesen / Accounting	VL	EN	2	WiSe	2	Y	SA	
Rechnungswesen / Accounting	HÜ	EN	2	WiSe	2	Y	SA	

## Selected Topics of Mechanical Engineering and Management (Alternative B: 6 CP)

Course					Examination			
Course Name (German / English)	Course Form LV(5)	Language (6)	SWS (7)	Sem. LV	CP (4)	Grade	Examination Form(3)	Additional information
Ermüdung und Schadenstoleranz / Fatigue & Damage Tolerance	VL	EN	2	WiSe	3	Y	MP	
Forschungsseminar für Fortgeschrittene / Advanced Research Seminar	SE	EN	2	SoSe	2	Y	SA	
Internationales Recht für Ingenieure / International Law for Engineers	VL	EN	2	WiSe	2	Y	KL	
Internationales Recht für Ingenieure / International Law for Engineers	SE	EN	2	SoSe	2	Y	SA	
Investition und Finanzierung / Corporate Finance	VL	EN	2	WiSe	2	Y	KL	
Leichtbaupraktikum / Lightweight Design Practical Course	PBL	DE/EN	3	SoSe	3	Y	MP	
Methodenbasiertes Projektmanagement / Project Management Methods	VL	EN	1	SoSe	2	Y	KL	
Personalmanagement und Organisationsentwicklung / Human Resource Management and Organization Design	VL	EN	2	SoSe	2	Y	KL	
Rechnungswesen / Accounting	VL	EN	2	WiSe	2	Y	SA	
Rechnungswesen / Accounting	HÜ	EN	2	WiSe	2	Y	SA	

### 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, FFA=Subject theoretical and practical work, FFST=Subject theoretical and practical work, MP=Oral exam, RE=Presentation, GD=Group discussion, STA=Study work, AB=Thesis, UA=Exercises, SA It. FPO=Written elaboration (accord. to Internship Regulations), EX=Participation in excursions

<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, PS=Project Seminar, HÜ=Recitation Section (large), IV=Integrated Lecture

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

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