List of courses taught in English – 2025/26

Please note:
- **The programs have different semester times**
- **Mixing of courses from different departments can not be accepted.**
- **Students are asked to take a minimum of 20 ECTS.**

Detailed course descriptions can be found here

A) International Engineering Program (IEP) - 3-month-program

→ International Mechanical Engineering Program – IMEP – **Fall only**
→ International Electrical Engineering Program – IEEP – **Spring only**
→ International Computer Engineering Program – ICEP – **Spring only**

B) Full semesterprograms

→ International Semester Program in Energy Economics – SPEEC – **Spring and Fall**
→ International Semester Program in Business – SPiB – **Spring and Fall**
→ Digital Media Program – SPDM – **Spring and Fall**
→ Bachelor Degree Program in Computer Science – CTS – **Spring and Fall**
→ Bachelor Degree Program in Electrical Engineering – EET - **Spring and Fall**
→ Courses offered by different faculties

C) Master-Level Courses taught in English

→ M. Sc. Degree Program in Intelligent Systems – **Spring and Fall**
→ Courses offered by different faculties

D) German Language courses

A) International Engineering Program (IEP) - 3 Month Program

Please note: Semester times are different from our regular semester times.

Fall 2025/26

Department / Study Program	Title	ECTS credits	Fall semester 1. Oct - 23. Dec	Spring semester 1. April - 30. June
Pre-Semester Intensive Courses				
Mathematics for Engineeers Intensive course: September		1	X	
German for Beginners 1 Intensive Course: September or March		2	X	X
Ankommen in Deutschland – Language and Culture (German level of A2 required) Intensive Course: September or March		2	X	X
Mechanical and Production Engineering				
IMEP	CAD/CAM	4	X	
	Dynamics I	4	X	
	Dynamics II	4	X	
	Dynamics Computer Lab	2/4	X	
	Lean Production Systems	4	X	
	System Automation	4	X	
	Applied Thermal-Fluid Systems	4	X	
	Fluid Mechanics	4	X	
	Fuel Cell Principles	4	X	
	Collaborative Product Development (CPD)	4	X	
	Project Work	6	X	
Electrical Engineering				
IEEP	Digital Integrated Circuits	4		X
	Control Technology	4		X
	EE Advanced Project Work	4		X
Computer Engineering				
ICEP	Computer Networks	4		X
	Operating Systems	4		X
	Mobile Application Development	4		X
	Computer Architecture	4		X
Social Sciences				
IMEP	Germany within Europe	4	X	
IEEP / ICEP	Germany In the last three centuries	4		X

International Office

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28.04.2025

B) Full Semester programs (Bachelor Level)

Those courses are offered during the German regular semester times, mixing IEP courses and semester program courses is NOT possible. Please note: It is possible that courses may take place at the same time. Students should choose only courses from <u>one</u> department.

Detailed course description

Department / Study Program	Title	ECTS credits	Fall semester (Sept - Feb)	Spring semester (March - July)	Course code / specific infor-mation
P	Department of Production Engineering and Production Economics / International Semester Program in Energy Economics - SPEEC				
P / SPEEC	Energy Efficiency	5	X		
P / SPEEC	Energy Regulation	5	X		
P / SPEEC	Project Management	5	X		
P / SPEEC	Energy Meteorology	5	X		
P / SPEEC and SPiB	Germany within Europe	4	X		
P / SPEEC and SPiB	Performance Management	5		X	
P / SPEEC	Data Management in Energy Markets	5		X	
P / SPEEC	Seminar in Energy Economics	5		X	
P / SPEEC and SPiB	Operations Research	5		X	
P / SPEEC and SPiB	Energy Trading and Risk Management	5		X	
P / SPEEC and SPiB	Germany in the last three centuries	4		X	
P / SPEEC	Energy Storage	5		X	
P / SPEEC	System Automation	4	X	X	
P / SPEEC and SPiB	Leadership and Business Communication	5	X	X	
P / SPEEC and SPiB	Elements of Complex Systems Simulation	5	X	X	
P / SPEEC and SPiB	Energy Project	5	X	X	
P / SPEEC and SPiB	Cross-Cultural Management	5	X	X	
P / SPiB	Cultural Competence in Theory and Practic	5	X	X	
P / SPEEC and SPiB	Sustainability and the Environment	5	X	X	
Department / Study Program	**Title**	**ECTS credits**	**Fall semester**	**Spring semester**	**Course code / specific infor-**

			(Sept - Feb)	(March - July)	mation
P / Industrial Engineering	Distribution Logistics	6 (4)	X	X	
P / Industrial Engineering	Enterprise Information Systems	4	X	X	
P / Production Engineering	Advanced Project	5-10	X	X	

I	**Department of Computer Science** **Computer Science:** Complete Bachelor Program is offered in English - CTS				
1. Semester courses:					
	Linear Algebra	5	X		
	Introduction to Computer Science	5	X		
	Programming 1	5	X		
	Technical Foundations of Computer Science	5	X		
2. Semester courses					
	Calculus 1	5		X	
	Programming 2	5		X	
	Computer Networks	5		X	
	Databases	5		X	
	Microcomputer Technology	5		X	
3. Semester courses					
	Calculus 2	5	X		
	Programming 3	5	X		
	Theoretical Computer Science	5	X		
4. Semester courses					
	Software Engineering	5		X	
	Operating systems	5		X	
	Algorithms and Data Structures	5		X	
	Stochastic	5		X	
5. Semester courses					
	Seminar	5	X		
	Distributed & Webbased Systems	5	X		
	Software Project	5	X		

Department / Study Program	Title	ECTS credits	Fall semester	Spring semester	Course code / specific infor-

			(Sept - Feb)	(March - July)	mation
6. Semester courses					
	Business Economics	5		X	
Special Subjects / Electives:					
3. Semester	Digital Systems	5	X		admission restricted
3. Semester	Embedded Systems	5	X		admission restricted
3. Semester	Information Security	5	X		admission restricted
3. Semester	Mobile Application Development	5	X	X	admission restricted
3. Semester	Computer Graphics	5	X		admission restricted
4. Semester	Deep Learning for Computer Vision	5		X	admission restricted
4. Semester	Scientific Computing	5	X	X	admission restricted
4. Semester	Realtime Systems	5		X	admission restricted
4. Semester	Digital Forensics	5		X	admission restricted
4. Semester	Web Engineering	5		X	admission restricted
5. Semester	Game Programming	5	X		admission restricted
5. Semester	Computer Architecture	5		X	admission restricted
5. Semester	Multicore Systems Programming and Performance	5	X		admission restricted
5. Semester	Autonomous Systems	5	X		admission restricted
5. Semester	Pentesting	5	X		admission restricted
5. Semester	Internet of Things	5	X		admission restricted
I / Data Sciences in Medicine	Project Work		X		
	Machine Learning	5	X		admission restricted Please ask for Pre-requisites
I / Business information Systems	Database Programming	5		X	Please ask for Pre-requisites
I / Business information Systems	Business Analytics	5		X	admission restricted Please ask for Pre-requisites

Department / Study Program	Title	ECTS credits	Fall semester (Sept - Feb)	Spring semester (March - July)	Course code / specific information
E	**Department of Electrical Engineering and Information Technology**				
	Electrical Engineering and Information Technology: Complete Bachelor Program is offered in English – EET				
1. Semester courses:					
	Digital Technology 1	5	X		
	Electrical Engineering 1	6	X		
	Programming 1	6	X		
	Mathematical Basics	6	X		
	Physics 1	6	X		
2. Semester courses:					
	Digital Technology 2	4		X	
	Electrical Engineering 2	5		X	
	Programming 2 incl. Project Work	6		X	
	Mathematics for Electrical Engineering 1	6		X	
	Physics 2	5		X	
	Communication Technology	4		X	
3. Semester courses:					
	Mathematics for Electrical Engineering 2	5	x		
	Systems Theorie	5	x		
	Electronics	5	x		
	Computer Technology	5	x		
	Wired Communications	5	x		
	Digital Media - open for enrollment ONLY for design students				
E / Digital Media Program	Project in Interaction Design 1	10	X		
E / Digital Media Program	Project in Computer Graphics	4		X	
E / Digital Media Program	Project in Interaction Design 2	5		X	
E / Digital Media Program	Programming 1	5	X		

T

Department of Medical Engineering and Mechatronics					
T / Mechatronics / Medical Engineering	Microcontroller Applications	5	X	X	89500
T / Medical Engineering	Technical Security in Medicine	5		X	91100
T / Mechatronics / Medical Engineering	Advanced Project	10	X	X	

C) Master-Level Courses taught in English

Department / Study Program	Title	ECTS credits	Fall semester (Sept - Feb)	Spring semester (March - July)
I / Master Intelligent Systems https://www.thu.de/de/org/rek/Downloads/Modulhandbuch_ISY_en.pdf;	Complete M. Sc Program is offered in English	90	X	X
E / Master SYE and SYE intl. resp.	Numerical Optimization	6		X
E / Master SYE and SYE intl. resp.	Physical Methods	6		X
E / Master SYE and SYE intl. resp.	Modeling of Technical Systems	6		X
E / Master SYE and SYE intl. resp.	Model-Based Systems Development	6		X
T / Master SY	Navigation for Medical Interventions	6	X	
P / Master SY Industrial Engineering	Supply Network Performance Management	5	X	
P / Master SY Industrial Engineering	Quantitative Planning Methods	5		X
G / Institute of foreign Language and Management	International Business	5	X	X

D) German Language courses

Department	Title	ECTS	Fall Semester	Spring Semester
Institute for foreign Languages	German for Beginners 1 - Intensive Course September or March	2	X	X

Institute for foreign Languages	Ankommen in Deutschland – Language and Culture (Previous knowledge of A2 required) Intensive Course September or March	2	X	X
Institute for foreign Languages	German Beginners Level 1	2	X	X
Institute for foreign Languages	German Beginners Level 2	3	X	X
Institute for foreign Languages	German Beginners Level 3	5	X	X
Institute for foreign Languages	German Beginners Level 4	5	X	X
Institute for foreign Languages	German intermediate Level 1	5	X	X
Institute for foreign Languages	German intermediate Level 2	5	X	X