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## 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 semester programs**

- 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: IEP-dates are different from our regular semester times.



Department / Study Program	Title	ECTS credits	Fall semester 1. Oct - 23. Dec	Spring semester 1. April - 30. June
<b>Pre-Semester Intensive Courses</b>				
	Mathematics for Engineers 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
<b>Mechanical and Production Engineering</b>				
<b>IMEP</b>	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		
<b>Electrical Engineering</b>				
<b>IEEP</b>	Digital Integrated Circuits	4		X
	Control Technology	4		X
	EE Advanced Project Work	4		X
<b>Computer Engineering</b>				
<b>ICEP</b>	Computer Networks	4		X
	Operating Systems	4		X
	Mobile Application Development	4		X
	Computer Architecture	4		X
<b>Social Sciences</b>				
IMEP	Germany within Europe	4	X	
IEEP / ICEP	Germany In the last three centuries	4		X



### **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 one department.

Click here for a [Detailed course description](#)

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

Department / Study Program	Title	ECTS credits	Fall semester (Sept - Feb)	Spring semester (March - July)	Course code / specific information
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	
<b>Department of Computer Science</b> <b>Computer Science: Complete Bachelor Program is offered in English - CTS</b>					
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 & Data Structures	5		X	
	Stochastics	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 (Sept - Feb)	Spring semester (March - July)	Course code / specific information
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	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
<b>I / Data Sciences in Medicine</b>	Project Work	5	X		
<b>I / Data Sciences in Medicine</b>	Machine Learning	5	X		admission restricted Please ask for Pre-requisites
<b>I / Business information Systems</b>	Operations Research	5	X		
<b>I / Business information Systems</b>	Database Programming	5		X	Admission restricted Please ask for Pre-requisites
<b>I / Business information Systems</b>	Seminar	5		X	admission restricted Please ask for Pre-requisites
<b>I / Business information Systems</b>	Process and Project Excellence	5		X	
<b>I / Business information Systems</b>	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
<b>E</b> Department of Electrical Engineering and Information Technology					
<b>Electrical Engineering and Information Technology:</b> 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		
4. Semester courses:					
	Digital Signal Processing	5		X	
	Control Theory	5		X	
	Electrical Machines and Drives	5		X	
	Software Engineering	5		X	
	Sensors and Bussystems	5		X	
	Power Electronics	5		x	
<b>Digital Media - open for enrollment ONLY for design students</b>					
<b>E / Digital Media Program</b>	Project in Interaction	10	X		



	Design				
<b>E / Digital Media Program</b>	Project in Computer Graphics	4		X	
<b>T Department of Medical Engineering and Mechatronics</b>					
<b>T / Mechatronics / Medical Engineering</b>	Microcontroller Applications	5	X	X	89500
<b>T / Medical Engineering</b>	Technical Security in Medicine	5		X	91100
<b>T / Mechatronics / Medical Engineering</b>	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	Complete M. Sc Program is offered in English <a href="https://www.thu.de/de/org/rek/Downloads/Modulhandbuch_ISY_en.pdf">https://www.thu.de/de/org/rek/Downloads/Modulhandbuch_ISY_en.pdf</a> ;	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