



List of courses taught in English – 2024/25

THU is offering a variety of courses taught in English. Please note that the programs have different semester times. In addition, the mixing of courses from different departments is very difficult and can only be accepted in exceptional cases.

Detailed course description: <https://www.thu.de/en/org/aaa/Pages/ExchangePrograms.aspx>

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: Semester times are different from our regular semester times.


 Fall
 2024/25

Department / Study Program	Title	ECTS credits	Fall semester 1. Oct - 23. Dec	Spring semester 1. April - 30. June
Pre-Semester Intensive Courses				
	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
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



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.

Detailed course description of SPEEC and SPiB:

<https://www.thu.de/en/org/aaa/Pages/ExchangePrograms.aspx>

Department / Study Program	Title	ECTS credits	Fall semester (Sept - Feb)	Spring semester (March - July)	Course code / specific information
P Department of Production Engineering and Production Economics / International Semester Program in Energy Economics - SPEEC					
P / SPEEC	Analytics for Energy Data	5	X		
P / SPEEC	Energy Efficiency	5	X		
P / SPEEC and SPiB	Statistics	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 / SPEEC and SPiB	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	
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 (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	Deep Learning for Computer Vision	5		X	admission restricted
4. Semester	Multicore Systems Programming and Performance	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
4. Semester	Game Programming	5	X	X	admission restricted
5. Semester	Computer Architecture	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
5. Semester	Computer Graphics	5	X		admission restricted
I / Data Sciences in Medicine	Project Work		X		
I / Business information Systems	Database Programming	5	X	X	Please ask for Pre-requisites
I / Business information Systems	Data Warehousing	5	X	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 in C	6	X		
	Mathematical Foundations	6	X		
	Physics 1	6	X		
Digital Media - open for enrollment ONLY for design students					
E / Digital Media Program	Interaction Design 1	10	X		
E / Digital Media Program	Computer Graphics	7		X	
E / Digital Media Program	Project in Photography	7		X	
E / Digital Media Program	Interaction Design 2	5		X	
E / Digital Media Program	Programming	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	Complete M. Sc Program is offered in English https://www.thu.de/de/org/rek/Downloads/Modulhandbuch_ISY_en.pdf	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
