List of courses taught in English – 2022/23
(Spring 2023)

THU is offering a variety of courses taught in English. Please note that the programs have different semester times
Detailed course description: https://studium.hs-ulm.de/en/org/aaa/Pages/ExchangePrograms.aspx

Academic Calendar		
International Engineering Programs IMEP, ICEP and IEEP (3-month-program)	<u>Fall semester:</u> Exams: <u>Spring semester:</u> Exams: Holidays:	**IMEP:** October – December + free intensive German course in September Mid-December **ICEP + IEEP:** April - June + free intensive German course in March (Possibility for IEEP students to stay for a laboratory project in July) last week of June 2 weeks in May/June (Pentecost)
Regular Semester Programs	<u>Fall semester</u> Start: Holidays: Exams: <u>Spring semester</u> Start: Holidays: Exams:	 End of September 2 weeks in Dec/Jan (Christmas) first 2 weeks of February Beginning of March 2 weeks in May/June (Pentecost) last 2 weeks of July

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 – SPCTS – **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.

Spring 2023

Department / Study Program	Title	ECTS credits	Fall semester 1. Oct - 23. Dec	Spring semester 1. April - 30. June
Mechanical and Production Engineering / IMEP				
IMEP	Mathematics for Engineeers (Intensive course September)	1	X	
	German for Beginners 1 (Intensive Course September)	2	X	
	Ankommen in Deutschland – Language and Culture (Previous knowledge of A2 required) (Intensive Course September)	2	X	
	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 Cells	4	X	
	Collaborative Product Development (CPD)	4	X	
Electrical Engineering / IEEP				
IEEP	Digital Integrated Circuits	4		X
	Control Technology	4		X
	EE Advanced Project Work	4		X
Computer Engineering / ICEP				
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

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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 of SPEEC and SPiB:
https://studium.hs-ulm.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	Performance Management	5	X		
P / SPEEC and SPiB	Germany within Europe	4	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	Simulation	5		X	
P / SPEEC and SPiB	Energy Trading and Risk Management	5		X	
P / SPEEC and SPiB	Germany within the last three centuries	4		X	
P / SPEEC	Energy Storage	5		X	
P / SPEEC and SPiB	Leadership and Business Communication	5	X	X	
P / SPEEC and SPiB	Energy Project	5	X	X	
P / SPiB	Cross Cultural Management	5	X	X	
P / 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 / Production Engineering	Distribution Logistics	6 (4)	X	X	
P / Production Engineering	Business Information Systems	4	X	X	
P / Production Engineering	System Automation	4	X	X	
P / Production Engineering	Advanced Project	5-10	X	X	
I	**Department of Computer Science** **I / Computer Science:** Complete Bachelor Program is offered in English				
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		
	Distributesd & 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 infor-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		admission restricted
3. Semester	Machine Vision	5	X		admission restricted
4. Semester	Hardware oriented Programming	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	X	admission restricted
4. Semester	Game Programming	5		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	Clinical Trials	5		X	
I / Data Sciences in Medicine	Project Work		X	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
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	
E	**Department of Electrical Engineering and Information Technology / Digital Media - open for enrollment ONLY for design students**				
E / Digital Media Program	Corporate Design	8	X		
E / Digital Media Program	Image Conception	5	X		
E / Digital Media Program	Interaction Design 1	10	X		
E / Digital Media Program	Color Design	5		X	
E / Digital Media Program	Computer Graphics	7		X	
E / Digital Media Program	E-Learning	8		X	
E / Digital Media Program	Photography	7		X	
E / Digital Media Program	Interaction Design 2	5		X	
E / Digital Media Program	Typography	5		X	
E / Digital Media Program	2D-Animation	5	X		
E / Digital Media Program	Type in Motion/Signs Go Global	5		X	
E / Digital Media Program	Programming 1	5	X		
E / Digital Media Program	Programming 2	5		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://studium.hs-ulm.de/en/Pages/Studiengang_IS.aspx?SearchCategory=Master;	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
E / Master SYE and SYE intl. resp.	Embedded Systems	6		X
T / Master SY	Navigation for Medical Interventions	6	X	
P / Master SY Logistics	Supply Network Performance Management	5	X	
P / Master SY Logistics	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
G / Institute of foreign Language and Management (IFM)	German for Beginners 1 - Intensive Course September	2	X	
G / Institute of foreign Language and Management (IFM)	Ankommen in Deutschland – Language and Culture (Previous knowledge of A2 required) Intensive Course September	2	X	
G / Institute of foreign Language and Management (IFM)	German for Beginners 1 - Intensive Course March	2		X
G / Institute of foreign Language and Management (IFM)	Ankommen in Deutschland Intensive Course March	2		X
G / Institute of foreign Language and Management (IFM)	German Beginners Level 1	2	X	X
G / Institute of foreign Language and Management (IFM)	German Beginners Level 2	3	X	X
G / Institute of foreign Language and Management (IFM)	German Beginners Level 3	5	X	X
G / Institute of foreign Language and Management (IFM)	German Beginners Level 4	5	X	X
G / Institute of foreign Language and Management (IFM)	German intermediate Level 1	5	X	X
G / Institute of foreign Language and Management (IFM)	German intermediate Level 2	5	X	X