Computer Engineering 1

Winter

(in German: Technische Informatik 1)

Module-ID: FIN-INF-1103782

Abbreviation	Credit Points	Semester	Term	Duration	Language	Level
TI-1	5	Winter	3.	1 Semester	english	Bachelor

Link:	LSF
Limited accessability:	
Responsibility:	Prof. Dr. Mesut Güneş, Prof. Dr. David Hausheer
Lecturer:	Prof. Dr. Mesut Güneş
Classes:	• Vorlesung *Technische Informatik 1* • Übung *Technische Informatik 1*
Applicability in curriculum:	- B.Sc. INF: Technische Informatik - B.Sc. INF: Aufbaumodule (SPO 2027) - B.Sc. CV: Informatik - Wahlpflicht - B.Sc. CV: Computervisualistik Wahlpflicht (SPO 2027) - B.Sc. INGINF: Technische Informatik - B.Sc. INGINF: Ingenieurinformatik Pflicht (SPO 2027) - B.Sc. WIF: Gestalten und Anwenden - Wahlpflicht - B.Sc. WIF: Informatik Wahlpflicht (SPO 2027) - B.Sc. INF (bilingual): Technische Informatik - B.Sc. INF (bilingual): Aufbaumodule (SPO 2027)

Intended learning outcomes:
Students

- understand the structure of digital computers
- understand the layer model for computer systems

- understand number systems and the challenges of computer arithmetic
- can deal with different number systems
- understand the basic hardware components of computers
- understand machine programming and can develop simple assembly programs

Content:

- Structure of a computer
- Computer arithmetic
- Combinatorial switching networks
- Sequential switching networks
- Instruction set and addressing
- Conveyor belt and parallel processing

Workload:
56h attendance + 94h independent work

Pre-examination requirements:	Type of examination:	Teaching method / lecture hours per week (SWS):
	Written exam 120 Minuten	• lecture (2 SWS) • exercise (2 SWS)

Prerequisites according to examination regulations:	Recommended prerequisites:
none	

Media:	Literature:

Comments:

Revision #1
Created 2026-10-01 07:11:48 UTC by Fakultät für Informatik
Updated 2026-10-01 07:11:48 UTC by Fakultät für Informatik