

Module name	System theory
Module coordinator/ Module leaders	Prof. Dr. Bachmann
Qualification goals	Students learn and understand the basic contents and approaches of systems theory. They can apply their knowledge to the design of system solutions. Professional competence 20 % Methodological competence 50 % System competence 30 % Social competence 0 %
Module contents	Systems theory describes the effect of signals on different constellations of processes and natural and technical structures. It primarily uses a mathematical form of description. The theoretical content is explained in a practical way based on important application scenarios for systems theory. The use of modern software tools supports efficient access and in-depth insight into the subject area.
Teaching methods	Lecture / Exercise: 4 SWS Lecture share: 3 SWS Proportion exercise: 1 SWS Analysis and discussion of documented example systems using suitable tools, seminar-style lecture
Requirements for participation	Recommended: Control engineering in the Bachelor's program
Literature/ multimedia teaching and learning programs	Lecture notes, exercise materials Documentations
Textbook author	
Usability	
Workload/ Total workload	Attendance time 60 h + self-study 90 h = 150 h = 5 credit points
ECTS and weighting of the grade in the overall grade	5 ECTS credits
Proof of performance	written examination
Semester	Summer semester
Frequency of the offer	Every academic year in the summer semester
Duration	4 SWS
Type of course (compulsory, optional, etc.)	Compulsory elective module
Special	