

Aufbau Studium Mechatronik Systems Engineering B.Sc.

Semester 1	Introductory Mathematics (8/8)	Statics and Strength of Materials (5/4)	Fundamentals of Electrical Engineering (5/4)	Business Economics and Project Management (5/4)	Programming (5/4)	Introduction to MSE (3/3)	Year 1 Fundamentals
Semester 2	Applied Mathematics (7/8)	Advanced Strength of Materials (5/4)	Analog Electronics (5/4)	Manufacturing Technology (5/4)	Advanced Programming (5/4)	Engineering Drawing and Design (5/4)	
Semester 3	Thermodynamics (5/4)	Dynamics (5/4)	Microcontroller (5/4)	Materials and Testing (5/4)	Drives and Power Electronics (5/4)	Engineering Design (5/4)	Year 2 Specific basics
Übergang: erstes Jahr - 10CP							
Semester 4	Focus Field Subject 1 (5/x)	Focus Field Subject 2 (5/x)	Numerical Mathematics (5/4)	Systems Theory and Controls (5/4)	Embedded Systems (5/4)	Modelling and Simulation (5/4)	Year 3/4 Profile development
Übergang: erstes Jahr komplett							
Semester 5	Focus Field Subject 3 (5/x)	Focus Field Subject 4 (5/x)	Controls (5/4)	Sensors and Actuator Networks (5/4)	Cross Cultural Management (5/4)	Interdisziplinäre Group Project (5/1)	
Semester 6	Internship Semester / Semester abroad (30/-)						
Semester 7	Elective (5/x)	Technology- and Innovation- Management (5/3)	Entrepreneurship Block (2/2)	Colloq. (3/-)	Bachelor Thesis (12/-)		

	Focus Field Simulation in Mechatronics	Focus Field Applied Mechatronics (ME focus)	Focus Field Applied Mechatronics (EL focus)
Subject 1	Fluid Mechanics	Fluid Mechanics	Signal Processing & Measurement Technology
Subject 2	Multibody Dynamics	Vehicle Technology	Opto-Electronics
Subject 3	Object-oriented Programming	Mobile Hydraulics	Object-oriented Programming
Subject 4	FEM	Robotics	Practical Electronics

Legende:

(CP/SWS)

CP: Kreditpunkte

SWS: wöchentliche Stunden