

# Module Overview B. Sc. Mechatronics (12 Semesters)

Degree Programme Guidelines as per 01.10.2014, Version 01.10.2016

The degree programme consists of 180 Credit Points (CP) in total:

- ▶ **Mandatory Area:** 127 CP ■
- ▶ **Mandatory Laboratories:** 14 CP ■
- ▶ **Optional Subject Area:** 15 CP ■
- ▶ **Studium Generale:** 12 CP ■
- ▶ **Bachelor's Thesis:** 12 CP ■

**Language of Tuition:**  
**GERMAN**  
*Certificates required*



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This leads to the following *possible* part-time semester course schedule:

1. Semester	2. Semester	3. Semester	4. Semester	5. Semester	6. Semester
Mathematics I (8 CP)	Mathematics II (8 CP)	Introductory Project (Projectweek) (2 CP)	Electrical Engineering and Information Technology Lab I B (2 CP)	Mathematics III (8 CP)	Mathematics IV (8 CP)
Engineering Mechanics I (Statics)* (6 CP)	Engineering Mechanics II (Elastostatics)* (6 CP)	Engineering Mechanics III (Dynamics)* (6 CP)	General Informatics I (5 CP)	Logic Design (6 CP)	Hydromechanics (4 CP)
Mentoring (1 CP)		Electrical Engineering and Information Technology I* (7 CP)	Electrical Engineering and Information Technology II* (7 CP)	Programming in Automatic Control (C/C++) (2 CP)	General Studies*** (3 CP)
		Electrical Engineering and Information Technology Lab I A (2 CP)			
14 CP	15 CP	17 CP	14 CP	16 CP	15 CP
7. Semester	8. Semester	9. Semester	10. Semester	11. Semester	12. Semester
Deterministic Signals and Systems (7 CP)	Computer Aided Design (4 CP)	Mechanical Components and System Behaviour for Mechatronics (4 CP)	Laboratory Course Control of Mechatro- nic Systems (4 CP)	Materials Technology for Mechatronics (3 CP)	General Studies*** (3 CP)
Technical Thermodynamics I (6 CP)	Measuring Technique (4 CP)	Electrical Machines and Drives (5 CP)	Actuators for Mechatronic Systems Lab (4 CP)	Optional Subject Area - ETiT/MB** (5 CP)	Bachelor's Thesis (12 CP)
Elektronics (4 CP)	Measuring Technique Lab (2 CP)	System Dynamics and Automatic Control Systems I (6 CP)	Optional Subject Area - ETiT/MB** (5 CP)	General Studies*** (6 CP)	
	Optional Subject Area - ETiT/MB** (5 CP)				
17 CP	15 CP	15 CP	13 CP	14 CP	

\* At least 5 CP from the department Electrical Engineering and Information Technology and at least 5 CP from the department Mechanical Engineering.

\*\* All modules from the departments 1, 2, 3, 15 and the Language Resource Center (Sprachenzentrum) as well as particular modules from the departments.