Module overview B.Sc. Bio-Materials Engineering - 9 Semesters

Degree Programme Guidelines as per 01.10.2023, Version: 01.10.2023 (SB2023I)

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

Mandatory Subject Area: 132 CP **General Studies:**

Lab Practicals:

6 CP

4 CP

Elective Area: Bachelor Thesis: 12 CP

26 CP

Language of Tuition: GERMAN

Certificates required



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

1. Semester	2. Semester	3. Semester	4. Semester	5. Semester	6. Semester	7. Semester	8. Semester	9. Semester
Engineering Mechanics I (6 CP)	Engineering Mechanics II (6 CP)	Bio-based Materials (6 CP)	Lab Practical Bio- Materials (2 CP)	Chemistry of Bio- based Raw Materials (4 CP)	Fundamentals of Process Engineering (6 CP)	Manufacturing of Bio-Materials (4 CP)	Bachelor Thesis (12 CP)	
Interdisciplinary Project (2 CP)	Material Science for BioMatEng (6 CP)	Fundamentals of Digitalisation (4 CP)	Chemistry for Mechanical Engineering (4 CP)	Biomechanics (6 CP)	Measurement Techniques, Sensors and Statistics (6 CP)	Laboratory Digitalisation (2 CP)		
Mathematics for Mechanical Engineering I (8 CP)	Mathematics for Mechanical Engineering II (8 CP)	Mathematics for Mechanical Engineering III (4 CP)	Computer Aided Design (CAD) (4 CP)	Introduction to Machine Elements (6 CP)	Fluid Mechanics (4 CP)	Systems Theory and Control Engeneering (6 CP)	Numerical Simulation Methods (4 CP)	
Material Science and Engineering I (4 CP)		Technical Thermodynamics I (6 CP)	Mathematical Fundamentals of Machine Learning (4 CP)	Cell Biology - Lecture (4 CP)		Heat and Mass Transfer (4 CP)	Introduction to Scientific Working and Writing (2 CP)	
			Technical Thermodynamics II (4 CP)					
			Elective Area: Biology and Chemistry (12 - 14 CP)					
			Elective Area: Materials Science and Engineering (12 - 14 CP)					
			General Studies (6 CP)					
Ø 20 CP	Ø 20 CP	Ø 20 CP	Ø 20 CP	Ø 20 CP	Ø 20 CP	Ø 20 CP	Ø 20 CP	Ø 20 CP