Module overview B.Sc. Bio-Materials Engineering - 12 Semesters

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

The Degree I	Programme con	sists of 180 Cree	dit Points (CP) i	n total:							
Mandatory Subject Area: General Studies: Lab practicals:		132 CP 6 CP 4 CP	Elective Area: Bachelor Tesis:		26 CP 12 CP	Language of Tuition: GERMAN Certificates required				ECHNISCHE NIVERSITÄT ARMSTADT	
This leads to	following possi	ble part-time ser	mester course s	chedule:							
1. Semester	2. Semester	3. Semester	4. Semester	5. Semester	6. Semester	7. Semester	8. Semester	9. Semester	10. Semester	11. Semester	12. Semester
Mathematics for Mechanical Engineering I (8 CP)	Mathematics for Mechanical Engineering II (8 CP)	Bio-based Materials (6 CP)	Chemistry for Mechanical Engineering (4 CP)	Introduction to Machine Elements (6 CP)	Mathematical Fundamentals of Machine Learning (4 CP)	Biomechanics (6 CP)	Fundamentals of Process Engineering (6 CP)	Manufacturing of Bio- Materials (4 CP)	Numerical Simulation Methods (4 CP)	Bachelor Thesis (12 CP)	
Engineering Mechanics I (6 CP)	Engineering Mechanics II (6 CP)	Fundamentals of Digitalisation (4 CP)	Lab Practical Bio-Materials (2 CP)	Mathematics for Mechanical Engineering III (4 CP)	Measurement Techniques, Sensors and Statistics (6 CP)	Cell Biology - Lecture (4 CP)	Fluid Mechanics (4 CP)	Systems Theory and Control Engineering (6 CP)		Heat and Mass Transfer (4 CP)	
Inter- disciplinary Project (2 CP)		Material Science and Engineering I (4 CP)	Material Science for BioMatEng (6 CP)	Technical Thermo- dynamics I (6 CP)	Technical Thermo- dynamics II (4 CP)	Chemistry of Bio-Based Raw Materials (4 CP)				Introduction to Scientific Working and Writing (2 CP)	
			Computer Aided Design (CAD) (4 CP)							Laboratory Digitalisation (2 CP)	
			Elective Area: Biology and Chemistry (12 - 14 CP)								
			Elective Area: Materials Science and Engineering (12 - 14 CP)								
			General Studies (6 CP)								
Ø 15 CP	Ø 15 CP	Ø 15 CP	Ø 15 CP	Ø 15 CP	Ø 15 CP	Ø 15 CP	Ø 15 CP	Ø 15 CP	Ø 15 CP	Ø 15 CP	Ø 15 CP