

# Module overview B.Sc. Computational Engineering - 9 Semesters

Degree Programme Guidelines as per 01.06.2023, Version: 01.06.2023 (SB2023III)

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

Compulsory Courses: 113 CP ■      Area of Specialisation: 50 CP ■  
 Studium Generale: 5 CP ■      Bachelor's Thesis: 12 CP ■

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



This leads to the 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
Mathematics for Mechanical Engineering I (8 CP)	Mathematics for Mechanical Engineering II (8 CP)	Mathematics for Mechanical Engineering III (4 CP)	Algorithms and Data Structure (10 CP)	Introduction to the Numerical Computation of Electromagnetic Fields (5 CP)	Scientific Working in CE (3 CP)			Bachelor's Thesis (12 CP)
Engineering Mechanics I (6 CP)	Engineering Mechanics II (6 CP)	Functional and Objectoriented Concepts of Programming (10 CP)	Elementary PDGL: Classical Methods (6 CP)	Introduction to AI (5 CP)	Scientific Calculations (4 CP)			
Electrical Engineering and Information Technology I (7 CP)	Electrical Engineering and Information Technology II (7 CP)	Materials Technology (4 CP)	Statistics and Probability Theory (4 CP)	Engineering Mechanics III (6 CP)	Practical Studies in CE (4 CP)	<b>Area of Specialisation</b> <i>Choice of one specialisation:</i> <ul style="list-style-type: none"> <li>Applied Mathematics und Mechanics</li> <li>Civil Engineering</li> <li>Electrical Engineering and Information Technology</li> <li>Computer Science</li> <li>Mechanical Engineering</li> </ul> (50 CP)		
Introduction to CE Studies (1 CP)				Parallel Programming (5 CP)				
<b>Studium Generale</b> <i>Modules from all departments from TU Darmstadt</i> (5 CP)								
Ø 22 CP	Ø 21 CP	Ø 18 CP	Ø 20 CP	Ø 21 CP	Ø 20 CP	Ø 18 CP	Ø 20 CP	Ø 20 CP