

Computational Engineering (B.Sc.) (as per degree programme guidelines 01.10.2015)

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

- ▶ **Compulsory Courses:** 114 CP ■
- ▶ **Area of Specialisation:** 54 CP ■
- ▶ **Bachelor's Thesis:** 12 CP ■

Language of Tuition:
GERMAN
certificates required

This leads to the following *possible* semester course schedule:

1. Semester	2. Semester	3. Semester	4. Semester	5. Semester	6. Semester
Mathematics I for Mechanical Engineering (8 CP)	Mathematics II for Mechanical Engineering (8 CP)	Mathematics III for Mechanical Engineering (4 CP)	Mathematics IV for Electrical Engineering (7 CP)	Area of Specialisation (48-50* CP) The students choose one of the following five majors: - Applied Mathematics and Mechanics - Civil Engineering - Mechanical Engineering - Computer Science - Electrical Engineering and Information Technology	
Functional and Object-Oriented Concepts of Programming (10 CP)	Algorithms and Data Structure (10 CP)	Principles of CAE/CAD (4 CP)	Elementary Partial Differential Equations (6 CP)		
Engineering Mechanics I (6 CP)	Engineering Mechanics II (6 CP)	Engineering Mechanics III (6 CP)	Computational Engineering and Robotics (4 CP)		
Electrical Engineering and Information Technology I (6 CP)	Electrical Engineering and Information Technology II (6 CP)	Materials Technology for CE (4 CP)	Practical Studies in CE (4 CP)		
Effective CE Studies: The ECES Programme I (1 CP)		Geometrical Methods of CAE/CAD (5 CP)	Effective CE Studies: The ECES Programme II <i>or</i> Courses from other Departments (3 CP)		
		Introduction into the numerical computation of electromagnetic fields (5 CP)	Fundamental Courses in one Area of Specialisation (4*-6 CP)		
				Bachelor's Thesis (12 CP)	

* If the major Mechanical Engineering has been chosen

Study Programmes

www.tu-darmstadt.de/studieren

hobit – Information fair for pupils

www.hobit.de

TUday – Info day for prospective students

www.tu-day.de

Online Self-Assessment

www.osa.tu-darmstadt.de

Course Schedule

www.tucan.tu-darmstadt.de

Application and Admission for international students
(International Office)

www.tu-darmstadt.de/international

Zentrale Studienberatung und -orientierung ZSB (Central Student Advisory)

Karolinenplatz 5, 64289 Darmstadt

Gebäude S1 | 01

email info@zsb.tu-darmstadt.de

www.zsb.tu-darmstadt.de

Opening hours

Tuesday 10-12 a.m.

Wednesday 2-4 p.m.

Thursday 4-6 p.m. and by arrangement

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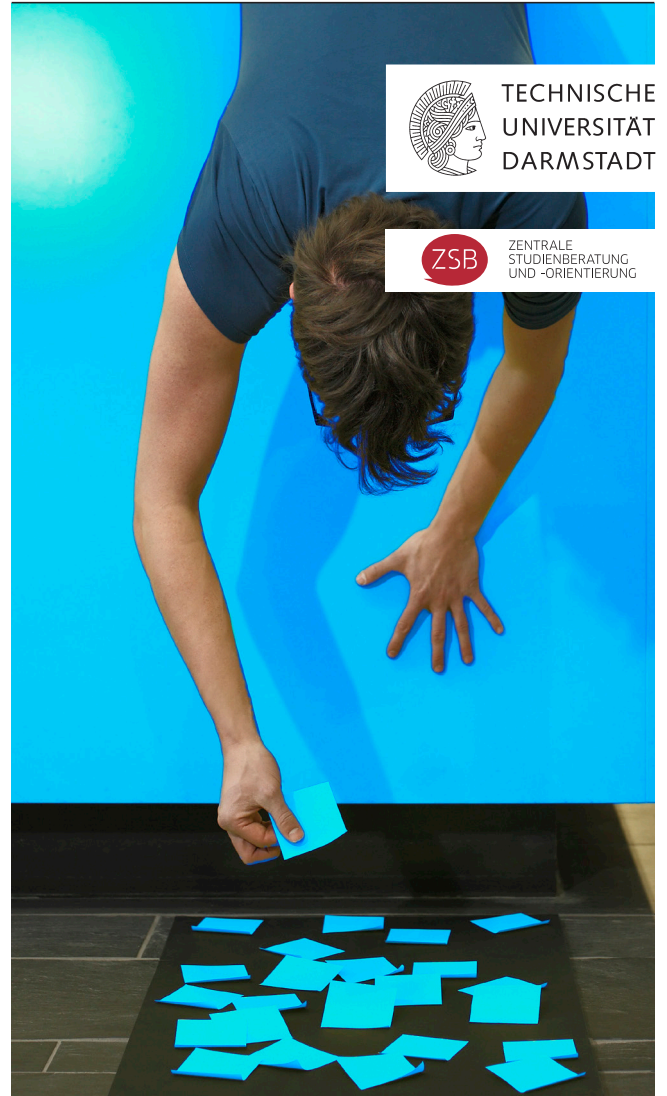
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Computational Engineering Bachelor of Science



 TECHNISCHE
UNIVERSITÄT
DARMSTADT

 ZENTRALE
STUDIENBERATUNG
UND -ORIENTIERUNG

Brief Description

Computer-assisted modeling, analysis, and simulation of physical and technical systems in engineering is called Computational Engineering. In the recent past, computer simulation has taken root – besides the classical methods of theory and experiment – as the third way of gathering scientific knowledge. The Computational Engineering (CE) programme is interdisciplinary in its approach. It represents the cooperation of the departments and study fields of Mathematics, Mechanics, Civil Engineering and Geodesy, Mechanical Engineering, Electrical Engineering and Information Technology, Informatics.

www.study.ce.tu-darmstadt.de

Admission

For information on application deadlines please refer to www.tu-darmstadt.de/international.

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