

5 REASONS TO STUDY COMPENG AT THE RUHR-UNIVERSITY

1. Future-oriented

Computational engineers are in high demand in both industry and research. Graduates thus have excellent job chances on the international job market.

2. Subject-spanning

The program encompasses essential courses from the fields of mechanical and civil engineering, as well as mathematics and computer science. The subject-specific content is complemented with a variety of fundamental soft skills, such as communication and presentation skills.

3. Customized

After completion of the compulsory basic courses in the first two semesters, students may choose their own area of specialization by selecting the relevant courses from the curriculum (<https://www.compeng.ruhr-uni-bochum.de/oe/about/curriculum.html.en>).

4. Well-equipped

The laboratories, testing halls and computer pools at the faculty are equipped with the latest technology. In addition, the members of the CompEng Coordination Office offer support in subject-related, organizational and personal matters.

5. Amiable

Bochum is an attractive city with a lot to offer: The numerous bars centered at the 'Bermuda Triangle', the alternative scene around the theatre district, the university's own fitness center and a rich cultural program on campus, paired with numerous places to unwind and relax in nature.

COMPUTATIONAL ENGINEERING

KEY AREAS

- Computer-aided models and finite element analyses;
- Algorithms for solving discrete and continuous problems
- Numerical and applied linear algebra, initial & boundary value problems, Fourier analysis, optimization
- Data science for developing methods and algorithms to handle and extract knowledge from large scientific data
- High performance computing
- Machine learning

WORKING FIELDS

- Automotive Engineering
- Aerospace Engineering
- Power Engineering
- Civil Engineering
- Control Engineering
- Information Science
- Biomedicine

REQUIRED SKILLS

Excellent abilities in analytical and abstract thinking; basic skills in numerical mathematics and structural mechanics on a Bachelor's level.

REQUIREMENTS

SUBJECT-SPECIFIC REQUIREMENTS

Students applying for the program are required to have a Bachelor's (or comparable) degree with at least 6 semesters and at least a workload of 180 ECTS credits in

- Civil Engineering
- Mechanical Engineering
- or a related engineering field

Students who have a Bachelor's degree in Computer Science will not be accepted.

LANGUAGE REQUIREMENTS

- Completion of one's first degree program in English, or
- TOEFL: minimum score paper-based 550, computer-based 215, internet-based 79, or
- IELTS (Academic): minimum score 6.0 (Overall Band Score).

GERMAN LANGUAGE SKILLS ARE NOT REQUIRED TO COMPLETE THE PROGRAM!

COSTS

No tuition fees are charged, only the social fee (of currently about EUR 365 euros per semester), which includes free use of public transport in the state of NRW, and reduced prices for food and drinks bought on campus.

GENERAL INFO

DURATION & DEADLINES

Start of the program: Every winter term (1st October).

Duration: four semesters (2 years)

Application deadline:

- 1st November to 15th May for citizens of non-European countries.
- 1st November to 15th July for citizens of the European Union.

APPLICATION

For more info on how and where to apply go to:

<https://www.compeng.ruhr-uni-bochum.de/ce/admission/application.html.en>



SHOULD YOU STUDY COMPENG?

Find it out at:

<https://studium.rub.de/en/master-programme/computational-engineering>



Comp Eng Computational Engineering

CONTACT

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