Degree Program in Brief

Duration of Study/Credits
6 semesters/180 credits, full-time program

Degree Type
Bachelor of Science (B. Sc.)

Start of Course
Winter semester

Language
English, selected elective modules in German

Admission Requirements
As part of the first stage of the admission process, we evaluate your high school diploma (e.g. Abitur) and your half-year grades for the last two years in Mathematics, English, and one Natural Science. Depending on the amount of points accumulated, applicants are either immediately admitted or invited to an admissions interview carried out by the department faculty. If you are an international applicant and do not submit individual grades in relevant subjects, we will also invite you to an interview. Since selected elective modules may be offered in German, you need to present an internationally recognized German language certificate (minimum A2).

Costs per Semester
No tuition fee. Detailed information:
www.tum.de/en/studies/fees-and-financial-aid

Further Information
www.cit.tum.de/cit/bachelor-information-engineering

Contact

Technical University of Munich
School of Computation, Information and Technology
Boltzmannstraße 3, 85748 Garching, Germany
www.cit.tum.de

Technical University of Munich
School of Computation, Information and Technology
Bildungscampus 2, 74076 Heilbronn, Germany
www.chn.tum.de

General Questions about Studying at TUM
TUM Center for Study and Teaching
Student Advising and Information Services
Arcisstrasse 21, 80333 Munich
Room 0144 (Service Desk)
Tel. +49 89 289 22245
studium@tum.de

Program-specific Questions
Studierenden-Service-Center
Costanza Terino
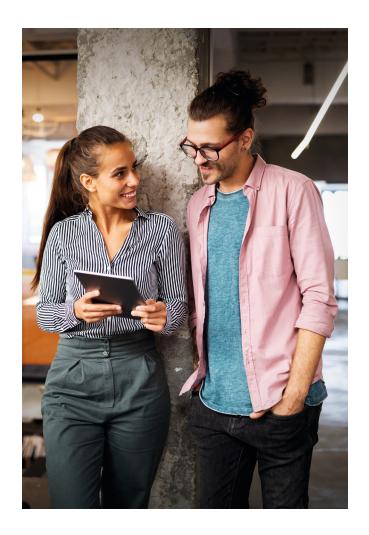Tel. +49 7131 264 189 04
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TUM

Bachelor of Science

Department of Informatics

Information Engineering at Campus Heilbronn

Objectives

New digital technologies are giving companies more and more opportunities to capture, integrate, and analyze information. To seize opportunities such as the introduction of intelligent products, they need specialists for planning and implementing inter-connected holistic IT systems. Information engineering considers the entire chain from the sensor to the IT system to the business model and is thus a significant building block in the digital transformation.

The Bachelor's program in Information Engineering at TUM Campus Heilbronn conveys the knowledge and skills necessary to design IT systems along the entire life cycle of the resource information. It offers you the opportunity to acquire solid theoretical, practical, and technical skills in a constantly evolving field and prepares you for your role as an information engineer.

During the three years of study, you will be prepared to participate in the design and implementation of cyber-physical business systems across different disciplines. In addition to a strong informatics core, the program particularly teaches business and electrical engineering to establish speaking skills in these disciplines. You will deepen this knowledge continuously in practical exercises and project work. In the process, you train social and communication skills.

Requirements

To succeed in the program, your interests and qualifications should meet the following:
- Ability to identify and understand problems and strive for efficient solutions
- High affinity for mathematics and scientific interest
- Very good command of English language
- Basic command of German language
- Very good communication and teamwork skills

Degree Program Structure

1st semester	Introduction into Informatics | Fundamentals of Programming | Computer Organization and Technology | Discrete Structures
2nd semester	Software Engineering | Operation Systems and System Software | Algorithms and Data Structures | Linear Algebra
3rd semester	Databases | Computer Networking and IT Security | Information Theory and Theory of Computation | Seminar | Calculus
4th semester	Signal Processing | Embedded Systems, Cyber-Physical Systems, and Robotics | Enterprise Architecture Management | Business Process Management | Discrete Probability Theory
5th semester	Electives in Informatics | Bachelor Practical Course (with Industry Partners) | Electives in Management and Economics
6th semester	Electives in Informatics | Electives in Management and Economics | Bachelor's Thesis

Distinctive Features of the Program

- The Bachelor in Information Engineering at TUM Campus Heilbronn is a novel and unique program that teaches fundamental skills in informatics, management, and electrical engineering.
- You study at the new TUM Campus Heilbronn in the heart of Heilbronn-Franken, the region of innovative world market leaders.
- The Bachelor Practical Course gives you the possibility to apply your theoretical skills in a joint project with industry partners.
- In addition to informatics expertise, TUM teaches interdisciplinary foundations including intercultural communication and the social consequences of the use of technology.
- In the third year, you will set an individual focus and choose a research area from a large pool of special courses from the fields of informatics and management.
- The Department of Informatics encourages its students to spend a part of their studies abroad and supports them in doing so.

Career Profile

With the Bachelor of Science, you can immediately start your professional career; but above all, the Bachelor's degree provides the basis for a more advanced Master's degree program – at TUM or at other German or foreign universities. And that means the best career prospects – in Germany and abroad. In addition, TUM supports activities on the path to self-employment. Graduates of TUM aspire to leadership roles in IT and corporate management.