UNIVERSITY OF TECHNOLOGY
IN THE EUROPEAN CAPITAL OF CULTURE
CHEMNITZ

„The World Wide Web has become the self-image of our society. Information at any time and any location is a crucial factor of success in our world. The Master's degree program Web Engineering is aimed at those, who learn modern technologies, comprehend interdisciplinary contexts and want to help shaping the fast moving Web. The instruction is application-oriented, industry-oriented, embedded in research as well as internationally networked." (Prof. Martin Gaedke, supervisor of the professorship distributed and self-organizing computer systems)

What characterizes the Master's degree programme Web Engineering?

Internet and Web have become the foundation of today's knowledge society. Web-based applications play a central role here and lead to advantages – whether it is on the Smart Watch, the Smartphone, in the cloud, distributed world wide via the Internet of Services or via the Internet of things in our Smart Home and the industry 4.0. It is the diversity, complexity and globality which are challenges for the development and secure operation of these applications. For this, methodical and practical skills in software development, management and evolution of data-intensive and web-based software solutions are necessary. The Master's degree programme Web Engineering teaches these skills. The focus here is on Databases, Information Systems, Software Engineering as well as Internet and Web technologies. Special highlight: Within the framework of current economic problems, you will learn project work, economic aspects and coordination as part of a team and help to find a solution for challenging research problems.

„The course of study offers an ideal mix of theory and practice. Principles and architectures of the web are taught and showed how to use them in industry and economy. For me, Web Engineering opened up a playground which, thanks to the rapid growth of the Web, always offers new opportunities for experimentation and development. Systematic planning, development and integration of web applications have become my dissertation topic and profession." (Valentin Sieger, Graduate)

Degree Structure

Main Modules (1st - 2nd semester)

Elective modules:

· Current Trends in Web Engineering

· Cloud & Web Applications

· Software Service Engineering

· Databases and web techniques

· Databases and object orientation

· Model-Driven Software Development

· Quantitative Analysis of Software Designs

Specialisation Modules (1st - 2nd semester)

Elective modules e. g.:

- Data security and cryptography
- Distributed Systems Design
- Distributed Software Security
- XML
- Operating systems for distributed systems
- Real-time systems
- Introduction to Artificial Intelligence

Key Competences (1st - 2nd semester)

Elective modules:

- Business planning and management of start-ups
- Start-up financing
- Technical sales
- Business to Business Marketing
- Communication and leadership
- German as a Foreign Language II (Level A2)
- English in Study and Specialised Communication II (Level B2)

Module Seminars (1st - 2nd semester)

- Seminar Web Engineering
- Preparatory Seminar Simulation game Web Engineering

Until graduation, students whose native language is not German must prove that they are at level A2. Students whose native language is not English can elect the module English in Study and Special Communication II (level C1).

Module Simulation Game (3rd semester)

The simulation features an innovative teaching concept with focus on user-centered solutions as well as teamwork and economic considerations in projects.

Module Master Thesis (4th semester)

Career Opportunities

Graduates will find interesting job opportunities in many areas on the German and international labour market, for example in the following sectors:

· Information and communication technology (ICT) industry (in the Internet of Services, Industry 4.0, E-Business)

· Web and media industry (agencies, search engines and portal operators, software houses)

· Industries in the Big Data environment (medical, pharmaceutical and chemical industries)

· Software Industry as Web Engineering Expert or Software Engineer

· Consultancy sector

General information

Faculty of Computer Science

Admission requirements: in general vocationally-qualifying university Bachelor's degree in Applied Computer Science or Computer Science from Chemnitz University of Technology or equivalent degree programme with regard to content, English language proficiency at Level B2 according to the CEFR

Standard period of Study: 4 semesters

Degree: Master of Science (M.Sc.)

Start of the degree programme: usually winter semester

Language of tuition: English

Further information

Studying in Chemnitz

www.study-in-chemnitz.com

Online application

www.tu-chemnitz.de/studienbewerbung

FAQ - Frequently Asked Questions

www.tu-chemnitz.de/studierendenservice/faq.php.en

Student Service Point

Straße der Nationen 62, room A10.043
+49 371 531-12125
admission@tu-chemnitz.de

Central Course Guidance Service

Straße der Nationen 62, room A10.046
+49 371 531-55555
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Academic Course Guidance

For an overview of all academic counsellors
www.tu-chemnitz.de/studienberater

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Edition August 2024