

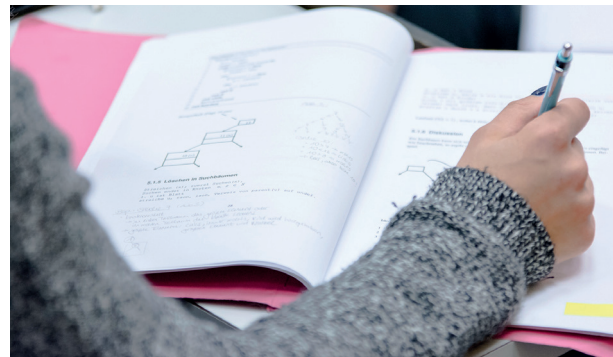
ADMISSION REQUIREMENTS

Computer Science, Media Informatics, Bioinformatics

Admission requirement is a Bachelor's degree in the corresponding degree course or in an equivalent degree course. Admitted applicants may be required to attend additional courses; e.g. if they wish to change their field of study or if they hold a degree from a University of Applied Sciences. For bioinformatics, a CEFR B2 level of English is required; in addition, a CEFR B2 level of German is required for all degree courses except bioinformatics Variant A. Applications are to be submitted through the central application portal of the University of Tübingen. For EU citizens deadline is 31 March for the summer term, and 30 September for the winter term. Accordingly, deadline is 15 January and 15 July for non-EU citizens.

Medical Informatics

The number of students in medical informatics is restricted, and a start is possible in the winter term only. A CERF B2 level of both German and English is required. Applications are to be submitted through the central application portal, deadline is 15 July for EU and non-EU citizens .



Contact: University of Tübingen
Faculty of Science
Department of Computer Science
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Academic advisory services:

For Computer Science, Bioinformatics, Medical Informatics:
studienberatung@informatik.uni-tuebingen.de
For Media Informatics: medieninformatik@uni-tuebingen.de

For further information see the following links:

www.informatik.uni-tuebingen.de
www.medieninformatik.uni-tuebingen.de
www.bioinformatik-tuebingen.de
www.medizininformatik.uni-tuebingen.de



COMPUTER SCIENCE @ TÜBINGEN

Computer science in Tübingen is one of the leading CS departments in Germany in terms of research, and it is internationally renowned. The department collaborates with major enterprises and research institutes both nationally and internationally. The CS department places strong emphasis on interdisciplinary cooperation with other university departments, in particular medicine, biology, psychology, and media studies, and also with the three Max Planck Institutes located in Tübingen.



The Eberhard Karls University of Tübingen

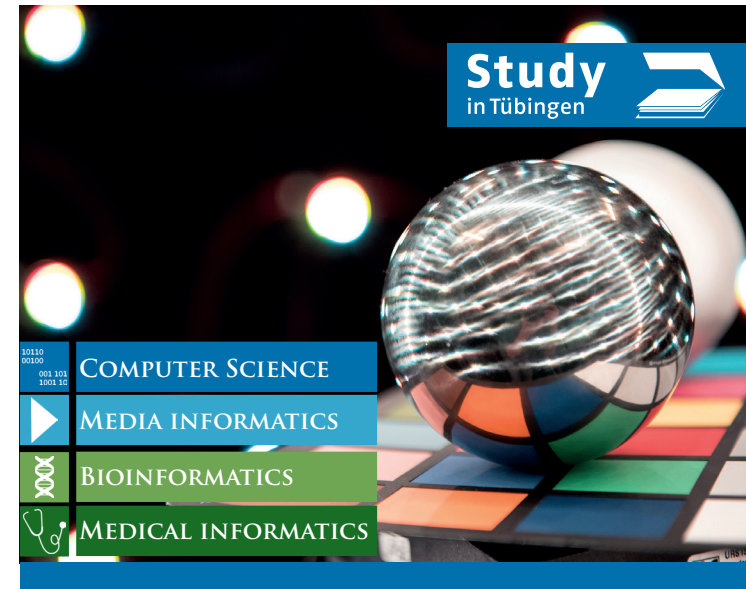
Innovative. Interdisciplinary. International. Since 1477. These have been the University of Tübingen's guiding principles in research and teaching ever since it was founded. With this long tradition, the University of Tübingen is one of the most respected universities in Germany. Recently, its institutional strategy was successfully selected for funding in the Excellence Initiative sponsored by the German federal and state governments, making Tübingen one of Germany's eleven universities distinguished with that title of excellence. Tübingen has also proven its status as a leading research university in many national and international competitions – in key rankings Tübingen is listed among the best universities for the Humanities and Social Sciences as well as for Science and Medicine.

The city of Tübingen

Tübingen does not have a university, it is a university: young, creative, open, innovative. The picturesque historical town center and its attractive position on the Neckar River offer a high quality of life whether you are studying, working, or taking a break.

Edition: November 2016
Photo Credits: University of Tübingen, Christoph Jäckle

EBERHARD KARLS
UNIVERSITÄT
TÜBINGEN



COMPUTER SCIENCE
MEDIA INFORMATICS
BIOINFORMATICS
MEDICAL INFORMATICS

Master of Science

FACULTY OF SCIENCE
Department of Computer Science



STUDY OPPORTUNITIES

Graduate students of all four master programs can choose among a wide range of topics offered by the computer science department in Tübingen. The staff-to-student ratio is excellent. The broad range of offered master courses is further extended by courses for advanced Bachelors, which will be recognized for the Master's program. Master's theses may be written based on academic research projects or in collaboration with industry.

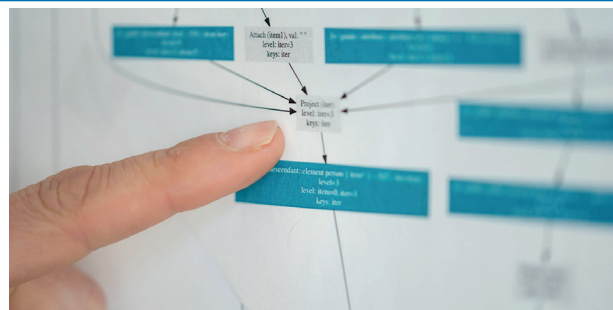
Tübingen is part of the Stuttgart Metropolitan area, one of the economically strongest regions of Europe with a booming car manufacturing industry and IT sector. Tübingen and its environs (Reutlingen, Böblingen, Sindelfingen and the Neckar Alb region famous for its many inventors) boast a large number of university spin-offs, startups, medium-sized enterprises and large companies with a high demand for computer scientists, offering both excellent career prospects and part-time job opportunities for students.



Career prospects

Graduates with a Master's degree in one of the computer science degree courses will be able to enter a career in every area of information technology. The demand for professionals in these areas is very high. The degree courses in media informatics, bioinformatics and medical informatics provide knowledge and skills that are sought after in specific areas.

A Master's degree allows students to subsequently complete a PhD - a further qualification for research and development and a first step towards an academic career.



The computer science degree course provides students with a sound knowledge in all areas of computer science, while granting freedom of choice, since students can choose among a wide range of courses offered in the various required modules. The minor offers students the opportunity to either acquire knowledge in a field outside computer science (e.g. physics, business administration, psychology etc.) or to acquire in-depth knowledge in a special field of computer science. In addition to regular lectures and seminars, numerous lab courses are offered as well as courses delivered by lecturers from industry. Participation in research projects offers students the opportunity to start working in a research group from an early time. Credits obtained for advanced Bachelor's courses can be transferred which enables students to change their subjects in the Master's program in computer science and to transfer to the University of Tübingen.

STUDY CONTENTS

Applied Computer Science	Theoretical Computer Science	Computer Engineering	Computer Science	Application Expertise	Master Thesis + Colloquium
18	18	18	18	18	30 ECTS

Career opportunities: All areas of the IT industry, e.g. software development and software consulting, hardware development, automation, automotive industry, corporate consulting, trade, banking, insurance etc.

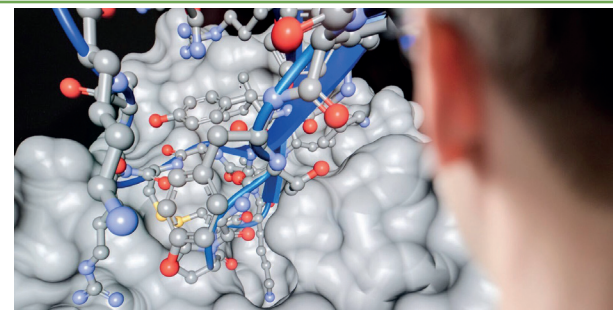


Media informatics is a discipline of applied computer science, gaining in importance on account of the rapid development of electronic media with new user interfaces and the growing number of computers, mobile devices and embedded systems used in all areas of daily life. The Master's degree course in media informatics provides advanced knowledge in media informatics, the key areas being human-computer interaction and media production, web and internet, computer graphics and visual computing, and multimedia engineering. In addition, this degree course not only includes a practical module where students can choose whether to focus on research or on application, but offers students a high degree of freedom of choice: apart from the core modules in media informatics, they may attend courses in computer science and certain minor subjects.

STUDY CONTENTS

MCI & Media Production	Web-Prog. & Internet	Computer Graphics & Visual Computing	Multimedia Technology	Media Informatics	Applied Media Informatics	Computer Science & Media Informatics	Specialisation & Application Expertise	Master Thesis + Colloquium
6	6	12	6	12	12	18	18	30 ECTS

Career opportunities: All areas of the IT industry, especially web development, development of computer games, film industry, automotive industry, and medical engineering.



The Master's degree in bioinformatics encompasses courses in bioinformatics, computer science and life sciences. The main objective of this degree course is to enable graduates to solve biological problems using high throughput technologies and bioinformatics methods in an interdisciplinary team. Students are taught efficient and advanced methods of analysis, visualization and mass data storage, with the focus on a hands-on approach and on research. The wide variety of subjects offered in Tübingen includes genomics and transcriptomics, protein and drug design, microbiome analysis and systems biology.

The degree course offers three variants: variant A for students with a Bachelor's degree in bioinformatics; variant B for biologists and other life scientists, variant C for computer scientists. Most of the courses are held in English, in variant A it is possible to complete the entire degree course in English.

STUDY CONTENTS

Sequence Bioinformatics	Structure & Systems Bioinformatics	Bioinformatics & Research Project + Seminar	Variant A				Master Thesis + Colloquium
			Life Science	Specialisation Computer Science	Applied Comp. Science	Thes. Comp. Science	
			Life Science	Specialisation Comp. Science	Basics Research Computer Science		
Applied Bioinformatics			Variant B				30 ECTS
Life Science	Specialisation Comp. Science	Basics Research Computer Science					
Life Science	Specialisation Comp. Science	Basic Research Life Science					
9	9	15 + 3	48				

Career opportunities: All areas of the IT industry, especially in biotechnological and pharmaceutical enterprises.



Medical informatics is the interdisciplinary science of systematic exploitation, management, storage, processing and provision of data, information and knowledge in medicine and healthcare. Apart from the basic principles, concepts and methods of computer science, the Master's degree course in medical informatics teaches basic principles, concepts and methods of human medicine and natural sciences. Graduates will be trained to work closely with healthcare professionals to develop, apply and manage computational tools to address a wide range of medical questions.

By appropriate selection of modules from the various fields of study, students may complete the entire degree course in English.

STUDY CONTENTS

Research Practice in Medical Inf. + Seminar	Biomedical Informatics	Medicine-Medical Technology	Computer Science	Advanced Medical Informatics	Advanced Bioinformatics	Master Thesis + Colloquium
9 + 3	24	18	18	9	9	30 ECTS

Career opportunities: All areas of the IT industry, especially in medical information processing and in healthcare.