



Deutscher Akademischer Austauschdienst
German Academic Exchange Service



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Master's degree



Computer Science International

University of Rostock • Rostock

Overview

Degree	Master of Science
Course location	Rostock
Teaching language	<ul style="list-style-type: none">English
Languages	Courses are held in English (100%), and some courses can be taken in German. It is possible to study completely in English.
Programme duration	4 semesters
Beginning	Winter and summer semester
Application deadline	Please check the application periods online at https://www.uni-rostock.de/en/study/international-students/degree-students/application-for-non-german-prospective-students-via-uni-assist/ .
Tuition fees per semester in EUR	None
Combined Master's degree / PhD programme	No
Joint degree / double degree programme	No

Description/content

The Master's programme in Computer Science International is research oriented. It qualifies students for occupational fields related to computer science in industry, academia, and public service. Graduates acquire skills and competencies that enable them to understand, evaluate, and systematically solve problems in computer science based on solid theoretical grounds and engineering methods. They are able to individually familiarise themselves with specific questions and tasks of their discipline and to contribute to the further development of their field.

The programme offers two core topics:

- Information Systems
- Complex Systems

The core topic of **Information Systems** focusses on the design of software, algorithms, and data structures for information systems, techniques for the efficient analysis of large amounts of data as well as related topics. It comprises issues from the area of data bases such as managing, retrieving, and analysing large amounts of data and modern approaches to big data and data mining that combine and jointly analyse complex models with large data sets. Another focus is the traceability of processes and results and on protection of privacy. This core topic also includes topics from the realm of software engineering such as requirements engineering, human-computer interaction and

software development processes, as well as the basics of machine learning (or, more generally, artificial intelligence), interactive visual analysis, and the development and use of simulation models.

The core topic of **Complex Systems** deals with architectures, models, methods, algorithms, and tools for IT systems that, due to their size and complexity, require systematic approaches for their design, implementation, and operation. The topic also touches surrounding fields. Complexity of studied systems results from the distribution and the large number of interacting components, their heterogeneous nature, and the multitude of mutual dependencies. This core topic includes lectures from the areas of modelling, simulation, and systems analysis for the design, evaluation, and verification of complex systems and the determination of core properties of such systems (e.g. correctness). Finally, this core topic covers methods for asserting performance, safety, and reliability of complex systems. To this end, methods of self-organisation, fault tolerance, safety, cryptography, distributed algorithms, middleware, and World Wide Web technology are included.

Students choose one of the core topics as their major topic and the other one as their minor topic. They study 30 ECTS in their major topic and 12 ECTS in their minor topic. In addition, they may choose modules that are worth 12 ECTS from the remaining modules of both core topics or from other modules offered in the department. In a topical seminar, the major topic is comprehensively concluded. The programme includes a project that is worth 12 ECTS.

Computer science courses (78 credits, excluding thesis), non-technical option (12 credits), Master's thesis (30 credits)

Course Details

A Diploma supplement will be issued	Yes
Integrated internships	None
Course-specific, integrated German language courses	Yes
Course-specific, integrated English language courses	No

Costs / Funding

Tuition fees per semester in EUR	None
Semester contribution	266 EUR per semester (may increase each semester), including the semester ticket
Funding opportunities within the university	No

Requirements / Registration

Academic admission requirements

First academic degree (at least 180 credit points) in computer science or a related scientific study field, good knowledge of English (see below)
Applicants need to show extended knowledge worth at least 18 credit points in mathematics and 12 credit points in theoretical computer science.

Applicants will only be admitted if successful graduation from the Master's course of study is anticipated. Therefore, we only accept candidates who have completed their first university degree with at least **85% of the CGPA**(cumulative grade point average [e.g. your final Bachelor's grade should be better than 3.5 out of 4 or 8.5 out of 10 ...]) or with a comparable grade in a different grading system. Alternatively, the applicant should be able to demonstrate any other qualifications relevant to this Master's course of study that may lead to the prospect of successful graduation based on overall academic progress.

Additionally, you can enhance your performance with a GATE (Graduate Aptitude Test in Engineering) with a minimum score of 500.

Language requirements

A TOEFL IBT with at least 94 points or an IELTS with at least 7.0 points or equivalent

Application deadline

Please check the application periods online at <https://www.uni-rostock.de/en/study/international-students/degree-students/application-for-non-german-prospective-students-via-uni-assist/>.

Submit application to

Universität Rostock
c/o uni-assist e.V.
11507 Berlin
Germany

Services

Possibility of finding part-time employment

There are limited opportunities for international students to work while studying. Foreign students with a residence permit for study purposes are allowed to work as far as this work does not exceed 120 full days or 240 half days a calendar year. In addition, they can work as student assistants. Other jobs need to be approved by the labour authorities and the Immigration Office. Permissions are granted only in special cases. Thus, you should not plan to finance your studies by working during the programme.

Accommodation

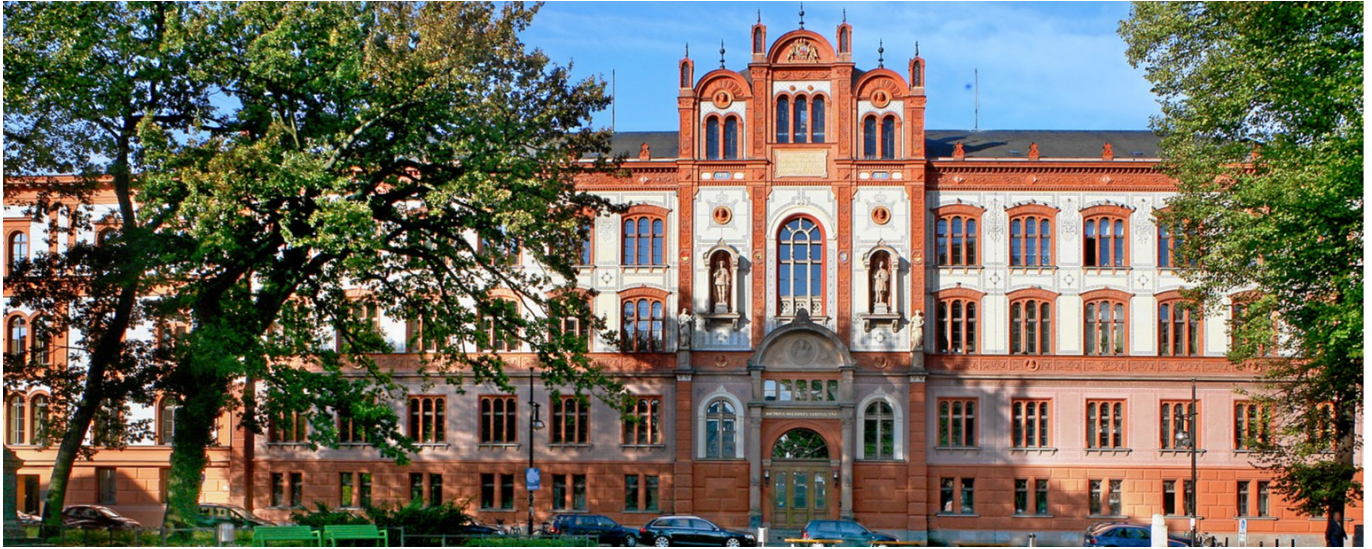
Rostock's dormitory places are arranged and assigned by the student services organisation, "Studierendenwerk Rostock-Wismar". Their website provides information on location, facilities, and monthly rent. An application for a place in a dormitory can be submitted online or downloaded and sent by mail to the following address:

Studierendenwerk Rostock – Wismar
Abt. Studentisches Wohnen
St.-Georg-Straße 104 - 107
18055 Rostock
Germany

Support for international students and doctoral candidates

- Welcome event
- Buddy programme
- Tutors
- Specialist counselling

University of Rostock



University of Rostock – main building

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The University of Rostock was founded in 1419 and is considered the oldest university in the Baltic area. The motto "Traditio et Innovatio" illustrates what makes up our university: studying at a university full of tradition and history, but nevertheless open to change and new ideas. The University of Rostock offers a wide variety of subjects in 10 different departments, very good student services, and high quality research and teaching opportunities. Studying in Rostock is a win for your personal development. Not only will you acquire an understanding of intercultural differences and a proficiency for the German language, but a study abroad will also help you begin creating international contacts and friendships. The University of Rostock always welcomes new guests and would like to welcome you to Rostock!



University location

With approx. 200,000 inhabitants, Rostock is the biggest town in as well as the economic centre of Mecklenburg-Western Pomerania.

- Rostock is a vintage Hanseatic and harbour town.
- It is located close to the beautiful Baltic Sea coastline, which is only half an hour away from the centre of the city by bicycle.
- There are theatres, museums, and a very lively cultural scene. You may relax at the zoo, the botanical garden, the IGA park, or in some of the many other green spaces.
- Every year in August, Rostock hosts a big international party at the Hanse-Sail, with sailing boats from all over the world and around one million visitors.
- The "Kröpeliner-Tor-Vorstadt" is distinguished as a very lively student area, with its popular café and pub scene.

Contact

University of Rostock

Faculty of Computer Science and Electrical Engineering

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18059 Rostock

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🌐 Course website: <https://www.ief.uni-rostock.de/studiengaenge/master-studiengaenge-2/computer-science-international-msc/>

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International Programmes in Germany - Database

www.daad.de/international-programmes
www.daad.de/sommerkurse

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www.daad.de

GATE-Germany

Consortium for International Higher Education Marketing
www.gate-germany.de

Disclaimer

The data used for this database was collected and analysed in good faith and with due diligence. The DAAD and the Content5 AG accept no liability for the correctness of the data contained in the "International Programmes in Germany" and "Language and Short Courses in Germany".

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