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Facts and figures

Start: Winter and summer semesters
Duration: 4 semesters
Degree: Master of Science
Language: German/English
Admission not restricted

Application and enrolment

Admission requirements
General admission requirements:
www.uol.de/stud/209en

Language skills:
German native speaker or DSH 2
English native speaker or level B1

Application
Application deadline: 30 September or 31 March

German university degree:
Online application
www.uol.de/studium/bewerben/master

EU or international applicants:
www.uol.de/en/application/international-students/master

Contact

For questions about the subject/degree programme
Academic counselling for Computing Science
www.uol.de/en/subject-specific-student-advice
msc.informatik@uol.de

Student representatives for Computing Science
www.fachschaft-informatik.de/doku.php
oldenburg@fachschaft-informatik.de

For questions about your studies
Study and Career Counselling Service
www.uol.de/en/zskb

Basic questions about application and enrolment
Student InfoLine
Phone +49 441 798 - 2728
study@uol.de

Visitor address
Student Service Centre – SSC
Haarentor campus, Building A12
26129 Oldenburg
www.uol.de/en/students/service-advice

Further information

Computing Science website
www.uol.de/en/informatik/en/msc/cs

Degree programmes at the University of Oldenburg
www.uol.de/en/students/degree-programmes

Financing your studies
www.uol.de/en/students/fees/financing-your-studies

Optional period abroad
www.uol.de/en/going-abroad

Carl von Ossietzky
Universität Oldenburg

Computing Science

Master's degree

Computing Science (M. Sc.)

The Master's programme in Computing Science offers advanced scientific studies that build on a Bachelor's degree in Computing Science or a closely related subject. On the one hand, it provides insights into current methods, problems and findings from research in computing science. This gives students the scientific basis they need to contribute to the further development of the discipline. On the other hand, students acquire skills that enable them to apply current computing theories and methods, procedures, tools and systems to solve problems with practical relevance.

Graduates possess qualified skills in the design, specification, implementation, optimisation, validation, operation and further development of complex computing systems for information processing, communication and control. Students learn to create new algorithms, implement them and analyse their characteristics. They also learn in detail about current methods of software development, especially the development of complex software systems in teams.

A growing number of modules is offered in English, which boosts the language skills required on an international employment market. Students have a very large freedom of choice to specialise at their own initiative or based on recommendations.

Career opportunities

The Master qualification opens up opportunities in the following professions:

– Applications consultant
– Community manager
– Content manager
– Fraud analyst
– Game designer
– Geoinformatics specialist
– IT consultant, project coordinator, trainer
– Media specialist
– Online marketing manager
– Software developer
– Web designer

Structure and contents

ACCENTUATION MODULES	36 CP
Elective modules / 12 CP	
Modules from the areas Theoretical, Technical, Practical or Applied Computing Science / 6 CP each	
Elective modules from the various areas / 24 CP	
Theoretical Computing Science / 6 CP	
Technical Computing Science / 6 CP	
Practical Computing Science / 6 CP	
Applied Computing Science / 6 CP	
AREA OF SPECIALISATION	12 CP
Elective modules	
Non-Computing-Science modules / 6 CP	
PROJECT GROUP	24 CP
Compulsory module	
ACCENTUATION MODULES	18 CP
Elective modules	
Modules from the areas Theoretical, Technical, Practical or Applied Computing Science / 6 CP each	
COMPULSORY	30 CP
Master's thesis module	
MASTER OF SCIENCE	**120 CP**

SEMESTER 1/2
SEMESTER 3
SEM. 4

The extremely flexible nature of the Computing Science Master's programme provides an excellent foundation for individual, specialised qualification.

Apart from the Master's thesis, the project group is another key element in the course. Students work in teams on a challenging software or hardware development and implementation task, applying the latest technology.

Graduates in other disciplines can also apply. Graduates with a Bachelor in a discipline related to Computing Science can often join the Master's programme. If additional specialist knowledge is required, students can take modules from the Bachelor's programme in Computing Science. They must pass these modules in the first year of the Master's programme.

Specialisations

The Department of Computing Science and its specialist fields deal with high-level, nationally and internationally important research fields, e.g. energy computing, human-computer interaction, medical computing and reliable systems. These specialist fields are integrated in the Master's programme in Computing Science through a wide range of corresponding modules. Students are optimally prepared for a subsequent career in one of these fields by their choices of elective modules, project groups and Master's thesis.

This type of specialisation within the Master's programme can also be considered an alternative to a specialist Master's programme of the type offered by other universities. For this purpose, thematically related modules that contribute to a specific profile are grouped together in specialisation tracks. The following specialisation tracks are currently available:

– Automotive
– Energy Computing Science
– Human-Computer Interaction
– Complex Computing and Software Systems
– Artificial Intelligence
– Modelling and Analysis of Complex Systems
– Medical Computing Science
– Robotics
– Reliable Systems

Stay abroad

In order to effectively plan a semester abroad, we recommend that students start their project group in the first semester. In this case, students should contact the Academic Counselling Service during the Master's programme application phase to ask about currently available topics.