Course-specific Structure

Course-specific structure for the master course Computer Science International
Specialization Information Systems – starting in the winter semester

Master Thesis Computer Science International
30 LP

Latest Developments in Computer Science
6 LP

Non-technical Elective Area
12 LP

Area Seminar Information Systems
6 LP

Elective Area
Individual Specialization
12 LP

Project Master Computer Science International
12 LP

Elective Area Complex Systems
12 LP

Research Topics in Computer Science
6 LP

Elective Area Information Systems
24 LP

4. Semester 30 LP
3. Semester 30 LP
2. Semester 30 LP
1. Semester 30 LP

LP: credit point according to ECT system (Unit for learning, preparation and postprocessing efforts, 1 credit point corresponds to about 30 hours)
light blue: mandatory modules, dark blue: mandatory modules specialization, blue: elective modules Information Systems, green: elective modules Complex Systems,
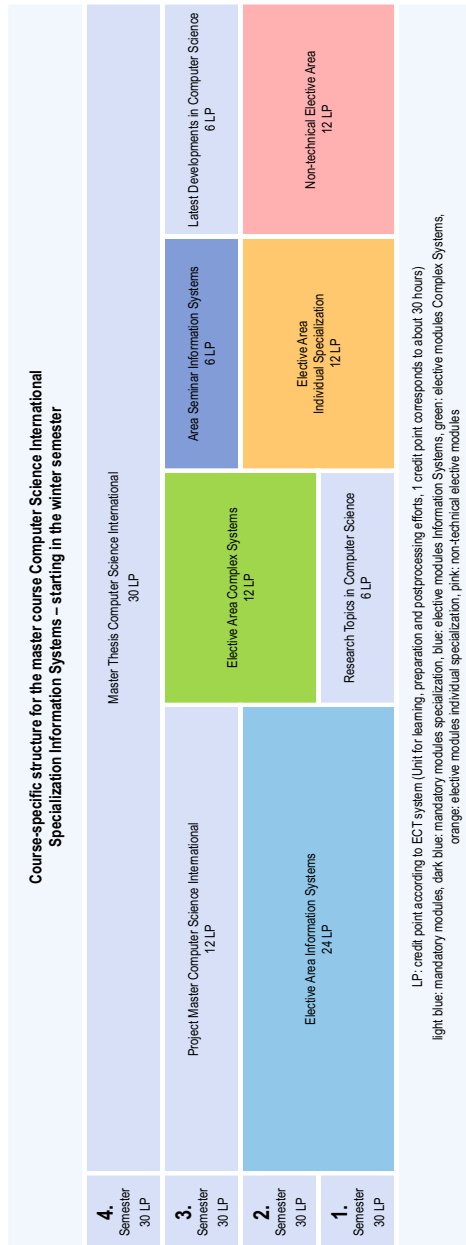orange: elective modules individual specialization, pink: non-technical elective modules

Further course overviews for the specialization Information Systems (starting in the summer semester)
as well as the specialization Complex Systems (starting in the winter or summer semester)
can be found on the web at www.ief.uni-rostock.de/csi-msc

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FACULTY OF COMPUTER SCIENCE
AND ELECTRICAL ENGINEERING

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Computer Science International

(Master of Science)

FACULTY OF COMPUTER SCIENCE
AND ELECTRICAL ENGINEERING

Degree
Master of Science (M.Sc.)

Type of Program
graduate (with a second academic degree)

one major subject degree (not combinable)

language: English

Students with knowledge of German can also study modules in German.

Duration
4 semesters

Start Date
in winter semester (Oct. 1st)

and in summer semester (Apr. 1st)

Start-up Support
Assistance during the start of studies and orientation in Germany with the help of mentoring from students for students

Fields of Study
Engineering / Computer Science

Formal Requirements
- Completion of a first academic degree in Computer Science with at least 180 credit points or another equivalent qualification; with with at least 85 % of the CGPA (Cumulative Grade Point Average) or a comparable grade
- Native language English or English proficiency TOEFL IBT with at least score 94 or IELTS with at least score 7.0 or another equivaltent test (the certificate should not be older as two years)

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- proof of profound knowledge: Mathematics (at least 18 credit points), Theoretical Computer Science, in particular Computability, Complexity, Formal Languages, Formal Semantics and Formal Modeling (at least 12 credit points). A maximum of 9 credit points in Theoretical Computer Science can be made up in the first year.

Advanced Qualification Options
graduate to Dr.-Ing.

Purpose and Objective
With the research-oriented master's program in Computer Science International, you qualify for academic and industrial fields of computer science, for specialist activities in the public sector and for taking up doctoral studies at a national or international university. You deepen and expand your scientific knowledge and skills acquired in the bachelor's program. You will be prepared for assuming responsibility both in business and for the further development of science in research. Because computer scientists are urgently sought worldwide, all development opportunities are open to you.

Premises for the Study
You are interested in further qualifying and specializing in the field of computer science. You have completed your bachelor's degree with good results and have the skills to grasp complex tasks and apply your theoretical knowledge to solve them. A good level of abstraction and a good command of English are also helpful.

Content of the Master Program
In the Master's program in Computer Science International, you expand and deepen your specialist knowledge in one of the two specializations „Information Systems" or „Complex Systems". In the first three semesters you will take the modules of the chosen specialization, selected modules from the other specialization and two non-technical modules. The non-technical elective primarily serves the acquisition or improvement of language skills in German and English as well as the acquisition of soft skills. The non-technical modules taken are intended to improve linguistic, non-technical and social skills as well as the students' self-competence. Possible subject areas include founding a company, time management, mentoring, management tasks, presentation techniques, social impact of computer science or didactics of computer science. In the third semester you will carry out project work. In the fourth semester, you create and defend your master's thesis.

Career Prospects
Typical occupational fields are academic research and teaching, research, development, project planning, sales, commissioning and service departments of industrial companies in computer science or IT-related departments in companies in other industries, as well as research, development and consulting departments of research institutions, authorities and associations.

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