

## Master's Program in Computer Science 2009

Both the Bachelor's as well as the Master's program are systematically divided into modules, which means that all of the academic credit points, with the exception of the final thesis, are earned by completing modules. To structure the Computer Science program, the subject matter has been divided into four specialization areas. Each module belongs to one of the areas.

- Software Technology and Information Systems (SWT & IS),
- Models and Algorithms (MuA),
- Embedded Systems and System Software (ESS), and
- Human-Machine Interaction (MMWW)

In addition to completing modules in these four areas, students must also finish optional elective courses in a minor subject of their choice – or the same amount of Studium Generale courses, 12 ECTS points. The standard minor subjects are offered and coordinated with the other faculties through minor subject agreements. As of 2009, the standard minor subjects for Computer Science majors are electrical engineering, mechanical engineering, mathematics, media science, psychology, business informatics and economics. Students can also pursue a different minor subject than ones listed above, but must submit a special minor subject application to the Examination Committee first.

The alternative Studium Generale program was designed for students who want to deepen their general academic knowledge, learn foreign languages, fill knowledge gaps, or pursue other similar goals. In the Studium Generale, students are not required to complete academic credit points. Instead, they have to prove evidence of the amount of work they achieved (ECTS points), usually through a certificate of achievement.

Students in the English-language Master's program must attend a German language course, which can be accredited with up to 12 ECTS points in the Studium Generale. German-speaking Master's students must prove sufficient proficiency in English during their studies, and complete courses in English amounting to at least 24 ECTS points.

As of the start of Winter Semester 2009/10, both the Bachelor's and the Master's Program are offered as part-time (50%) programs. In general, these are versions of the full-time study programs expanded to a time period that is twice as long, with a few additional regulations. The information on the curriculum contents and the work load for each course (ECTS points) applies equally to the full-time and part-time program.

The goal of the 4-semester Master in Computer Science program is to deepen the knowledge students acquired in the Bachelor's program by providing specialized knowledge in one or several fields of computer science. The students are required to select one of the four computer science fields as a specialization area – modules (of 8 ECTS each) must be completed in this specialization area. In the three other CS fields, the students must complete one module (of 8 ECTS each) in each field. The modules offered in the four fields are listed in the 2009 Module Handbook.

In addition, the students must also participate in a project group (30 ECTS). This is a well-approved 2-semester type of course in which a team cooperates together on a relevant research topic. For a general overview of the current and previously offered project group topics, please refer to the [project group information site](#). When completing the Master's program, students often derive their final Master's Thesis (30 ECTS) from their project group's research topic, or from a topic in their area of specialization. However, this is not mandatory.