# **COMPUTER SCIENCE**

Computer Science is a 2 ½-year programme focusing on databases and their structure. Students learn to program and to develop and maintain IT systems as well as to analyse business requirements and implement solutions.

The teaching combines classroom instruction and individual and group project work. A cross-disciplinary, application -oriented approach is taken. Close ties to the business community are fostered, for example, by students writing papers in cooperation with public sector organisations or private sector businesses. A mandatory ten-week internship in a relevant business ensures that students have the opportunity to use their competences in practice.

## **EXCHANGE STUDENTS CAN TAKE THE FOLLOWING COURSES**

### **COMPUTER SCIENCE 3RD SEMESTER (ONLY FALL SEMESTER)**

#### **SYSTEMS DEVELOPMENT (10 ECTS)**

System Development is designed to provide students with the competencies to participate professionally and efficiently in the development of IT systems with relevant qualities.

Moreover, the core area is intended to enable students, from initial idea to running system, to further develop and integrate IT systems on a systematic basis using situation-specific, modern system development methods and techniques.

In the 3rd semester, students will learn how to choose a situation-specific system development method and work systematically with this method on a specific project. Students will be introduced to different agile processes in general and get a thorough introduction to SCRUM.

#### **TECHNOLOGY (10 ECTS)**

Technology is designed to provide the students with the competencies to help select and apply technology in connection with system development and programming of IT systems, and provide the student with basic knowledge of technological aspects.

This course deals with security-related threats, the use of virtualisation, programming interfaces for communication purposes and the use of application protocols when developing distributed systems.

#### **PROGRAMMING (10 ECTS)**

Programming is designed to provide the students with the competencies to efficiently and professionally implement IT systems with relevant qualities using modern, up-to-date programming techniques and software construction tools.

The student will learn to construct programs that support multiple simultaneous users and are based on collaborative processes in a distributed architecture. Additionally, the student will learn to develop software components and web applications.

There is one interdisciplinary exam for Technology (20% of the grade) and Programming (80% of the grade). In order to take the exam, students must hand in a number of mandatory assignments.



## **COMPUTER SCIENCE 4TH SEMESTER (ONLY SPRING SEMESTER)**

4th semester at Computer Science consists entirely of electives. A list of electives for the upcoming semester will be available a couple of months before semester start. Examples of popular electives that are often offered are:

- Intro to Python
- Machine Learning
- IT-Operations
- Web Development with REACT NATIVE
- Node.js