Module title			Abbreviation
MCS Project Computer Science			10-MCS-Proj-Info-152-m01
Module coordinator		**Module offered by**	
holder of the Chair of Computer Science IX		Institute of Computer Science	
ECTS	**Method of grading**	**Only after succ. compl. of module(s)**	
12	numerical grade	--	
Duration	**Module level**	**Other prerequisites**	
1 semester	undergraduate	--	

Contents

The development of software typically is a complex process that requires the collaboration of a group of people carrying out many different roles. The activities required for this process include requirements engineering, software architecture design, programming, testing and integration. These activities can be organised by following one of many software development methodologies, like waterfall, iteration, V-shaped, spiral or Extreme programming. This course involves the development of a non-trivial application by a group of 4-5 students. The application's graphical user interface is of central importance. Along the way, presentations, exercises and discussions support the student groups in increasing their teamwork efficiency, familiarising themselves with required technologies and activities as well as organising the overall project. The technologies utilised are regularly adapted to current well-established approaches, e. g. git, HTML, CSS, JavaScript, Java, the Play framework, SQL, JDBC or JUnit.

Intended learning outcomes

At the end of the course, the participants will have a fundamental understanding of a collaborative software development process. This includes in particular best practices for effectively working as a team, such as evaluation methods, communication of expectations and dealing with problems. In addition to these soft skills, the course "Softwarepraktikum Schnittstellenentwurf" ("Programming Course Interface Development") will teach students how to gather, analyse, specify and validate software requirements and to independently familiarise themselves with new software technologies and frameworks. In addition, students will enhance their basic programming skills (which are a prerequisite for participation in this course) during the project's implementation phase.

Courses (type, number of weekly contact hours, language — if other than German)

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Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

report (approx. 10 pages)
Language of assessment: German and/or English
creditable for bonus

Allocation of places

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Additional information

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Referred to in LPO I (examination regulations for teaching-degree programmes)

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Module appears in

Bachelor' degree (1 major) Human-Computer Systems (2015)
Bachelor' degree (1 major) Human-Computer Systems (2016)
Bachelor' degree (1 major) Human-Computer Systems (2018)