

**Module: Mobile Applications**

<b>Level</b>	Master	<b>Short Name</b>	MobA
<b>Responsible Lecturers</b>	Matthies, Denys, Prof. Dr.		
<b>Department, Facility</b>	Electrical Engineering and Computer Science		
<b>Course of Studies</b>	Applied Information Technology, Master		
<b>Compulsory/elective</b>	Elective	<b>ECTS Credit Points</b>	5
<b>Semester of Studies</b>	2	<b>Semester Hours per Week</b>	4
<b>Length (semesters)</b>	1	<b>Workload (hours)</b>	150
<b>Frequency</b>	(Flexible)	<b>Presence Hours</b>	60
<b>Teaching Language</b>	German/English	<b>Self-Study Hours</b>	90

The following section is filled only if there is **exactly one** module-concluding exam.

<b>Exam Type</b>	Project Work	<b>Exam Language</b>	German/English
<b>Exam Length (minutes)</b>		<b>Exam Grading System</b>	One-third Grades
<b>Learning Outcomes</b>	<p>After successfully completing the course, students:</p> <ul style="list-style-type: none"> <li>• know typical application scenarios and requirements for mobile applications</li> <li>• can apply different approaches to developing mobile applications</li> <li>• are capable of evaluating different approaches for developing mobile applications for given a context</li> <li>• know trends and current topics in mobile applications and are able to apply this knowledge to a wide range of projects</li> <li>• are able to implement interaction concepts for mobile applications taking into account human factors and user-centered application development</li> <li>• got to know and applied basic usability &amp; UX evaluation techniques and Gestalt Laws for mobile applications</li> </ul> <p>improved their analytical, teamwork and presentation skills</p>		
<b>Participation Prerequisites</b>			

The previous section is filled only if there is **exactly one** module-concluding exam.

<b>Consideration of Gender and Diversity Issues</b>	<ul style="list-style-type: none"> <li>✓ Use of gender-neutral language (THL standard)</li> <li>✓ Target group specific adjustment of didactic methods</li> <li>✓ Making subject diversity visible (female researchers, cultures etc.)</li> </ul>
<b>Applicability</b>	The module can be used within the master of computer science.
<b>Remarks</b>	

## Module Course: Mobile Applications (Lecture)

(of Module: Mobile Applications)

<b>Course Type</b>	Lecture	<b>Form of Learning</b>	Presence
<b>Mandatory Attendance</b>	no	<b>ECTS Credit Points</b>	2
<b>Participation Limit</b>		<b>Semester Hours per Week</b>	2
<b>Group Size</b>		<b>Workload (hours)</b>	60
<b>Teaching Language</b>	German/English	<b>Presence Hours</b>	30
<b>Study Achievements ("Studienleistung", SL)</b>		<b>Self-Study Hours</b>	30
<b>SL Length (minutes)</b>		<b>SL Grading System</b>	

The following section is filled only if there is a course-specific exam.

<b>Exam Type</b>		<b>Exam Language</b>	
<b>Exam Length (minutes)</b>		<b>Exam Grading System</b>	
<b>Learning Outcomes</b>			
<b>Participation Prerequisites</b>			

The previous section is filled only if there is a course-specific exam.

<b>Contents</b>	<ul style="list-style-type: none"> <li>• Application scenarios for mobile applications</li> <li>• Requirements of mobile applications</li> <li>• Native mobile applications</li> <li>• Mobile web applications</li> <li>• Hybrid mobile applications</li> <li>• User-Centered Design fundamentals</li> <li>• Usability heuristics &amp; user experience guidelines</li> <li>• Gestalt Laws related to mobile applications</li> <li>• Wire-frame prototyping</li> <li>• Current trends and topics in mobile applications with strong focus on Mobile Human-Computer Interaction</li> </ul>
<b>Literature</b>	Mostefaoui, G., Tariq, F (2018) Mobile Apps Engineering: Design, Development, Security, and Testing, Chapman and Hall. Love, S. (2005). Understanding mobile human-computer interaction. Elsevier.
<b>Remarks</b>	

## Module Course: Mobile Applications (Practical Training)

(of Module: Mobile Applications)

<b>Course Type</b>		<b>Form of Learning</b>	Presence
<b>Mandatory Attendance</b>	yes	<b>ECTS Credit Points</b>	3
<b>Participation Limit</b>		<b>Semester Hours per Week</b>	2
<b>Group Size</b>	12	<b>Workload (hours)</b>	90
<b>Teaching Language</b>	German/English	<b>Presence Hours</b>	30
<b>Study Achievements ("Studienleistung", SL)</b>	Practical Training	<b>Self-Study Hours</b>	60
<b>SL Length (minutes)</b>		<b>SL Grading System</b>	

The following section is filled only if there is a course-specific exam.

<b>Exam Type</b>		<b>Exam Language</b>	
<b>Exam Length (minutes)</b>		<b>Exam Grading System</b>	
<b>Learning Outcomes</b>			
<b>Participation Prerequisites</b>			

The previous section is filled only if there is a course-specific exam.

<b>Contents</b>	The practical course serves to apply the teaching content presented in the lecture and to deepen a specific current topic from the field of mobile applications.
<b>Literature</b>	
<b>Remarks</b>	