

# MOBILE COMPUTING

MASTER'S DEGREE PROGRAMME, FULL-TIME 

## In-depth technical know-how for all areas of mobile computing

All-pervasive mobile computational power is colonising all aspects of everyday life. Without it, many tasks we take for granted would be far more difficult or even impossible to carry out.

More and more areas of our life rely on these technologies; for example, automated control systems for homes and smart cars that automatically adapt to traffic conditions and even to the fickle moods of the weather. Clearly, mobile communications have become the touchstone activity driving the most important and dynamic economic sectors worldwide, a global business thriving on innovation and for which our students are thoroughly trained.

## Career Profile

Wide in-depth technical knowledge in the main focus areas equips our students with the proactive qualities required for leadership and management positions and which will lead to high-flying careers. Given the essential role of mobile applications in our daily lives, this sector offers a highly dynamic and aspiring environment with excellent career prospects. Potential employers include mobile communications companies, and also multinational corporations, small and middle-sized enterprises and innovative start-ups.

## Projects and Research

From the start of their first semester, students begin to work on practical projects. Topics chosen for this work can reflect the student's personal interests. Our research focus includes novel interaction techniques, applications and services for mobile devices, user-friendly secure mobile environments, sports and health applications.

## Study Abroad

Our flexible curriculum allows out-of-country studies. Destinations for our students have been Toronto, Melbourne and Helsinki, to name just a few. This degree is taught entirely in English, thus also equipping our students with the language and intercultural skills necessary to succeed in the global IT industry.

## Essential Information

### Degree:

Master of Science in Engineering (MSc)

**Duration:** 4 semesters (120 ECTS)

**Annual Intake:** 15

**Admission Requirements:** Completed Master's or Bachelor's degree with IT strand worth a minimum of 60 ECTS, or a similar qualification; sound knowledge of English.

**Application:** Online or in writing by 30<sup>th</sup> June at the latest. Non-EU applicants: send your application by 31<sup>st</sup> March at the latest – the visa process can take up to 3 months.

[www.fh-ooe.at/application](http://www.fh-ooe.at/application)

### Admission Procedure:

Test (online) and interview.

**Language of Instruction:** English

**Semester Abroad:** Flexible curriculum allows out-of-country studies.

### Tuition Fees:

EU/EEA citizens: 363.36 EUR per semester (plus Austrian Student Union fee).

Citizens from non-EU/EEA countries: 726.72 EUR per semester (plus Austrian Student Union fee). Scholarships available.

[www.fh-ooe.at/mc-ma](http://www.fh-ooe.at/mc-ma)

[facebook.com/MC.AC.ENI.fhooe](https://facebook.com/MC.AC.ENI.fhooe)

## Did you know that ...

... graduates of this degree programme are the founders of the successful sports app company Runtastic? Just like some of the founders of Tractive, Fretello, Butleroy, ...

## Focus of Studies

The programme offers a combination of software development, communications technologies and telecommunication engineering. It allows specialisation in at least three of nine Main focus areas.

- » Ambient Assisted Living/Mobile Health ①
- » Automotive Computing ②
- » Entrepreneurship ③
- » Mobile Communication ④
- » Mobile Infotainment ⑤
- » Mobile Games ⑥
- » Mobile Software Techniques ⑦
- » Logistics ⑧
- » Ubiquitous Computing ⑨

Three focus areas have to be selected and, from each of these, three courses need to be chosen. In addition, four elective specialisation courses need to be selected.

## Curriculum

Core courses	ECTS credits per semester			
	1	2	3	4
<b>Systems Engineering</b>				
UML and MDA	5			
Real-time and Mobility in UML		5		
Metrics and Testing			5	
<b>Interdisciplinary Qualifications</b>				
Projects	5	5	3	
Scientific Working			2	
Elective Specialization (free choice from elective courses)	5	5	5	5
<b>Main Focus Areas</b>				
Three focus areas have to be selected and, from each of these, three courses need to be chosen.				
Main Focus Area 1	5	5	5	
Main Focus Area 2	5	5	5	
Main Focus Area 3	5	5	5	
<b>Scientific Competences</b>				
Master's Thesis				23
Master's Thesis Seminar				1
Master's Thesis Examination				1

ECTS: European Credit Transfer and Accumulation System.

Note: Students have to achieve a minimum of 120 ECTS credits in total.



Mobile computing is superseding the desktop paradigm; the future really has arrived thanks to smartphones, tablets, wearables, apps and Co. It's a future where you can excel in your specialist field on our study programme – be it games, automotive, health or energy, etc.

**Prof. Dr. Christoph Schaffer**, *Head of Studies*

	Semester				Main Focus Area
	1	2	3	4	
<b>Elective Courses*</b>					
Applied Machine Learning <sup>†</sup>		x		x	①② ④⑤⑥⑦
Artificial Intelligence		x			①② ⑥⑦
Augmented reality	x		x		① ⑥⑦ ⑨
Automotive Computing			x		②
Blockchains**	x		x		⑧
Cloud Computing			x		⑧
Communication Networks		x		x	⑤
Computer Ethics <sup>††</sup>				x	①② ④⑤⑥⑦⑧⑨
Computer Vision		x		x	①② ④ ⑥⑦
Contemporary Concepts in Mobile Communication		x		x	⑤
Continuous Delivery**		x		x	⑧
Cross-Platform Development of Mobile Applications		x		x	⑧
Distributed Real-Time Systems		x			⑧
Home and Building Automation		x		x	① ⑦ ⑨
Interactive Technologies		x		x	①② ⑥⑦
Location-Based and Context-Aware Systems	x		x		①② ⑤⑥⑦ ⑨
Machine Learning**	x		x		①② ④⑤⑥⑦
Mobile Business and Marketing				x	③
Mobile Games	x		x		⑥
Mobile Health and Sports			x		①
Mobile Services	x		x		⑤
Modeling and Simulation of Mobile Networks		x			⑤
Operating Systems for Mobile Applications	x		x		⑧
Sensors and networks		x		x	①② ④⑤⑥⑦ ⑨
Short-Range Wireless Communication			x		①② ④⑤ ⑦ ⑨
Software Architectures and Patterns	x		x		⑧
Supply Chain Management	x		x		④
XML Specialization		x		x	⑧

\* Also courses being offered by other Master's degree programmes can be selected

\*\* will be offered in the next semesters.

## Contact

**Head of Studies:** Prof. Dr. Christoph Schaffer  
 University of Applied Sciences Upper Austria  
 School of Informatics, Communications and Media  
 Softwarepark 11, 4232 Hagenberg/Austria  
 Phone: +43 50804 22800 | Email: mc@fh-hagenberg.at  
 www.fh-ooe.at/mc-ma | facebook.com/MC.AC.ENI.fhooe