

**SYLLABUS**

**STUDY YEAR 2015/2016**

# **Master Programme in Mobile Systems**

## **Enrollment semester Autumn 2014**

**DATE**

**2013-10-08**

**DECISION MAKER**

**Director of Education and Research**

## Programme content and structure

The requirements for a Masters degree in Computer Science and Engineering, specialization Mobile systems (120 ECTS), comprise of: a Master thesis of 30 ECTS, two smaller projects of 15 ECTS each, and 60 ECTS of Computer Science and Engineering coursework at the advanced level.

The program focuses on mobility enabling computer and communication technologies, applications for handheld and mobile devices as well as new services enabled by mobile systems and networks. Coursework consists primarily of advanced courses related to key research areas. The first year is mainly based on course work combined with a research project carried out during the second semester. The second year is dominated by a development project as well as a larger thesis work, complemented with two taught courses. The projects and thesis work are often carried out in cooperation with hi-tech ICT industry such as Ericsson Research, and others, including many SMEs, which is strongly present in and around LTU. The thesis work is often performed within research labs in industry. Courses can be delivered in both single-campus and multicampus mode. Distance education mode will also be offered to Swedish and International students.

For admission to the degree project course entry requirements specified in the Course Syllabus must be completed. Information regarding the application- and admission process is given and ensured by the responsible department.

### Credits

120 credits

### Degree

- Degree of Master of Science (120 credits) - Major; Computer Science and Engineering with specialisation Mobile Systems

## Entry requirements

Bachelor's degree of at least 180 ECTS in Computer Science, Computer Engineering, Electrical/ Electronics Engineering or Information Technology or a closely related area. At least 22,5 ECTS mathematics at the university level has to be achieved. Knowledge of computer networking, programming and operating systems is recommended.

Documented skills in English language.

### Selection

The selection procedure is based on academic qualifications, quality and quantity aspects

#### Selection group

Academic: 100%

## Compulsory courses

### Compulsory courses 112.5 credits

Course code	Course	Cr	Level	Comment
D7001D	Network programming and distributed applications	7.5	Master's level	
D7002D	Mobile networks and protocols	7.5	Master's level	
D7024E	Mobile and distributed computing systems	7.5	Master's level	
D7031E	Project in mobile systems 2	15	Master's level	
D7032E	Software engineering	7.5	Master's level	
M7012E	Pervasive Computing	7.5	Master's level	
M7016E	Project in Mobile Systems	15	Master's level	
M7018E	Special Studies in Mobile Systems	7.5	Master's level	
M7019E	Mobile applications	7.5	Master's level	
X7003E	Master Thesis in Computer Science and Engineering, MSc in Technology	30	Master's level	

### Compulsory courses 7.5 credits

Selective space is 7.5 credits. It is mandatory to select elective courses up to the given number of credits. The given number of credits of elective courses listed must be met for degree.

Course code	Course	Cr	Level	Comment
M7011E	Design of Dynamic Web Systems	7.5	Master's level	Selectable
M7017E	Multimedia Systems	7.5	Master's level	Selectable

## Study schedule

### Year of study 1 Enrollment semester Autumn 2014, Is offered in 2014/2015

Study-period	Course code	Course	Cr	Comment
1	D7001D	Network programming and distributed applications	7.5	
1	D7032E	Software engineering	7.5	
2	M7011E	Design of Dynamic Web Systems	7.5	Selectable
2	M7012E	Pervasive Computing	7.5	
2	M7017E	Multimedia Systems	7.5	Selectable
3	D7002D	Mobile networks and protocols	7.5	
3-4	M7016E	Project in Mobile Systems	15	
4	M7019E	Mobile applications	7.5	

### Year of study 2 Enrollment semester Autumn 2014, Is offered in 2015/2016

Study-period	Course code	Course	Cr	Comment
1	D7024E	Mobile and distributed computing systems	7.5	
1-2	D7031E	Project in mobile systems 2	15	
2	M7018E	Special Studies in Mobile Systems	7.5	
3-4	X7003E	Master Thesis in Computer Science and Engineering, MSc in Technology	30	Entry requirements