ID2216 Developing Mobile Applications 7.5 credits

Utveckling av mobila tillämpningar

This is a translation of the Swedish, legally binding, course syllabus.

If the course is discontinued, students may request to be examined during the following two academic years

Establishment

The official course syllabus is valid from the autumn semester 2021 in accordance with Head of School decision: J-2021-0338.Decision date: 15/04/2021

Grading scale

A, B, C, D, E, FX, F

Education cycle

Second cycle

Main field of study

Computer Science and Engineering,Information and Communication Technology

Specific prerequisites

Knowledge and skills in object-oriented programming, 6 higher education credits, equivalent completed course ID1018/DD1337 or a completed course in basic programming as DD1310/DD1311/DD1312/DD1314/DD1315/DD1316/DD1318/DD1321/DD1331/DD100N combined with a completed complementary course in object-oriented programming that DD1380/DM1595.

Knowledge in computer engineering/computer organisation and architecture, 6 higher education credits, equivalent completed course IS1200/IS1500/EP1200/DD1377 or completed course in sensorprogrammering DM1588.

Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

Intended learning outcomes

After passing the course, the student should be able to:

- carry out analyses of basic user requirement at development of mobile applications and mobile services
- develop simple mobile web applications
- develop mobile applications for specific platforms and associated hardware
- use basic mobile web services
- explain how one creates web content for mobile applications and mobile services by means of composite web services
- explain the structure and the mobile ecosystem of service providers, terminal manufacturers, and mobile network operators

in order to:

- be able to compare technologies that are used in application development
- be able to use mobile services for authentication, positioning and similar services
- be able to choose appropriate technical solutions to develop mobile applications and services
- be able to implement mobile applications by means of appropriate tools.

Course contents

The course brings up the following parts:

- the mobile ecosystem
- mobile context and use
- mobile information architecture
- develop mobile applications for a specific platform
- mobile web applications
- composite mobile services
- current research areas
- business models and sale and distribution of mobile applications.

The course covers modern technology to develop mobile applications and services.

We will mainly build and test applications for intelligent telephones but our applications can also be driven with no or small changes on more powerful units as tablets, digital TV-sets, cameras, industrial computers and information systems for cars.

The course covers three main difficulties at the creation of mobile applications: (i) to integrate and streamline external services for new mobile applications and novel user experience (ii) managing different properties between various devices and (iii) to understand how the user requirements and new business models create successful mobile applications and services.

Examination

- ANN1 - Assignment, 3.0 credits, grading scale: A, B, C, D, E, FX, F
- TEN1 - Examination, 4.5 credits, grading scale: A, B, C, D, E, FX, F

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

The exam is written.

Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.