



ID2216 Developing Mobile Applications 7.5 credits

Utveckling av mobila tillämpningar

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

Establishment

The official course syllabus is valid from spring semester 2025 according to the decision of Director of First and Second Cycle Education: J-2024-2284. Date of decision: 2024-10-15

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 programming, 6 credits, equivalent to completed course DD1337/DD1310-DD1319/DD1321/DD1331/DD100N/ID1018.

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:

- choose appropriate technical platforms or technical frameworks to create useful, data-persistent, interactive mobile web and platform-specific applications
- program interactive mobile applications according to Model-View-Controller or related architectures
- program systems with good use qualities that read data from, and sends data to, web APIs
- assess and improve the usability of existing interactive mobile applications
- cooperate with others to implement interactive mobile applications

in order to

- be able to compare technologies that are used for development of mobile applications
- 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 using appropriate tools.

Course contents

The course covers modern technologies to develop mobile applications and services and covers the following parts:

- mobile context and use
- development of mobile applications for a specific platform
- mobile web applications.

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

The course covers three main challenges when developing mobile applications:

- (i) to integrate and streamline external services for new mobile applications and new user experiences
- (ii) to handle different properties between different units
- (iii) to understand how the users' requirements and new business models create successful mobile applications and services.

Examination

- LAB1 - Laborative work, 3.0 credits, grading scale: P, F
- PRO1 - Project work, 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.

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

In oral examinations, each student should be able to give an account of the whole assignment and the whole solution.

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.