



# DM2518 Mobile Development with Web Technologies 7.5 credits

## Mobilutveckling med webbt teknologier

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

Course syllabus for DM2518 valid from Spring 2019

## Grading scale

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

## Education cycle

Second cycle

## Main field of study

Computer Science and Engineering, Information Technology, Information and Communication Technology

## Language of instruction

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

## Intended learning outcomes

After completing the course, the student should be able to

- develop mobile applications based on W3C standards and recommendations
- customize digital formatted content to the possibilities and shortcomings of the mobile channel
- use Web programming for both the mobile Web applications as stand-alone applications that can be published to business portals, so-called appstores
- apply knowledge about the mobile platform's API and how the hardware can be exposed to, and made accessible to, applications
- describe and apply both the server and client technologies to build basic mobile services for information retrieval, interaction, and use in everyday life
- describe the technologies for developing applications for multiple platforms and operating systems from a single code base
- formulate, plan and implement a self-defined programming task
- find solutions to programming problems on the internet

in order to

- have the ability to make independent and critical judgments
- have the ability to independently identify, formulate and solve problems
- be able to seek and evaluate knowledge
- be able to follow the development of knowledge in mobile application development
- have the cognitive capacity to participate in and lead projects in the development of mobile applications for both business and pleasure based on Web technologies.

## Course contents

The course in depth deals with mobile consumption of html5 - that is, HTML, CSS and Javascript as well as more general overview of a number of related technologies such as PHP and Scalable Vector Graphics SVG and SQL. Since the emphasis is on how Web technologies can be used to create all or part of a mobile application, the course also covers how html5 can interact with other programming languages, primarily C / C++ and how calls can be made between a Web view and underlying software layers.

Half of the course consists of lectures and laboratory work in the above areas. Some areas are extensions of the above areas and are studied individually for students who want a higher grade. The second half consists of a project.

The course is laboratory- and programming intensive.

## Specific prerequisites

## Course literature

Announced at least 4 weeks before the course starts, on the course website. Primarily the resources are Web based, since the field is relatively new, and general literature in book form is only found for certain parts of the course. Course literature will mainly be in English, most of the lectures given in Swedish.

## Examination

- LAB1 - Laboratory Assignments, 7.5 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.

## Other requirements for final grade

In this course all the regulations of the code of honor at the School of Computer science and Communication apply, see: [http://www.kth.se/csc/student/heder-skodex/1.17237?l=en\\_UK](http://www.kth.se/csc/student/heder-skodex/1.17237?l=en_UK).

## 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.