



COURSE SYLLABUS

Client-side Programming, 15 credits

Klientprogrammering, 15 högskolepoäng

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|----------------------|-------------------|-----------------------------|---|
| Course Code: | TKPK17 | Education Cycle: | Basic level |
| Confirmed by: | Dean Mar 1, 2016 | Disciplinary domain: | Technology (95%) and social sciences (5%) |
| Valid From: | Jan 1, 2017 | Subject group: | DT1 |
| Version: | 1 | Specialised in: | G1F |
| Reg number: | JTH 2016/1422-313 | Main field of study: | Informatics |

Intended Learning Outcomes (ILO)

After a successful course, the student shall

Knowledge and understanding

- display knowledge and understanding of basic concepts of programming like variables, data types, iterations, conditional statements and functions
- display knowledge of core concepts of object-orientation
- show familiarity with the possibilities, limitations and current uses of JavaScript
- demonstrate comprehension of different design principles in the development of JavaScript applications
- demonstrate comprehension of the relationship between JavaScript, HTML and CSS

Skills and abilities

- demonstrate the ability to troubleshoot and identify basic programming errors
- demonstrate the ability to apply web services and third-party data
- demonstrate the ability to apply existing JavaScript libraries
- demonstrate the ability to apply JavaScript to improve usability and compability
- demonstrate skills in applying modern JavaScript APIs, for example geolocation and localStorage, to improve the user experience
- demonstrate the ability to autonomously solve a given problem and choose a suitable method

Contents

The course comprises modules giving theoretical as well as practical skills for developing modern web applications and services.

The course includes the following parts:

- JavaScript, object-oriented client-side programming
- Reusable JavaScript-libraries
- Ajax and JSON
- Manipulated HTML and Document Object Model
- Design principles and concepts including Event-driven programming, module handling and closures

- New concepts, functions and possibilities in ES6

Type of instruction

Lectures, assignments and project work.

The teaching is conducted in English.

Prerequisites

General entry requirements for the programme and a passing grade in the courses Web and User Interface Design, 9 credits and Graphic Design and Visual Communication I, 15 credits (or the equivalent).

Examination and grades

The course is graded 5,4,3 or Fail .

The final grade for the course is based upon a balanced set of assessments.

The final grade will only be issued after satisfactory completion of all assessments.

Registration of examination:

| Name of the Test | Value | Grading |
|---|-----------|---------|
| Written and oral presentation of project work | 6 credits | 5/4/3/U |
| Assignments | 6 credits | 5/4/3/U |
| Written examination | 3 credits | 5/4/3/U |

Course literature

The literature list for the course will be provided one month before the course starts.