

## COURSE SYLLABUS

# Client-side Programming, 15 credits

*Klientprogrammering, 15 högskolepoäng*

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

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### 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.