



COURSE SYLLABUS

Web Development Fundamentals, 7.5 credits

Grundläggande webbutveckling, 7,5 högskolepoäng

Course Code: TGWK18	Education Cycle: First-cycle level
Confirmed by: Dean Apr 6, 2018	Disciplinary domain: Technology
Valid From: Aug 1, 2018	Subject group: DT1
Version: 1	Specialised in: GIF
	Main field of study: Computer Engineering

Intended Learning Outcomes (ILO)

After a successful course, the student shall

Knowledge and understanding

- display an understanding of the fundamental building blocks of the web (HTTP and HTML)
- display an understanding of common security concerns in web applications

Skills and abilities

- display an ability to construct web pages using HTML5, CSS, and CSS frameworks
- display an ability to program in JavaScript
- display an ability to construct web pages using Node.js
- display an ability to construct database-backed web applications

Contents

The course aims to convey the fundamentals of web programming. The course begins with an introduction to web architecture, and continues to cover static web pages in HTML and CSS. It then covers JavaScript and Node.js, teaching the students to implement dynamic web pages that generate different HTML for different clients, and on which the user can input information via forms and send data back to the server. Emphasis is placed on cookies, sessions, database use, and security.

The course includes the following topics:

- Client-server communication and HTTP
- HTML
- CSS and CSS frameworks
- JavaScript
- Node.js and Node Package Manager
- Frameworks and related techniques
- Forms, cookies, and sessions
- Security

Type of instruction

Tuition will consist of lectures, lab work, and project work.

The teaching is conducted in English.

Prerequisites

General entry requirements and completion of the courses Object Oriented Programming, 7,5 credits and Databases, 6 credits (or the equivalent).

Examination and grades

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

The final grade for the course is based on 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
Project Work	5.5 credits	5/4/3/U
Written examination	2 credits	5/4/3/U

Course literature

Literature

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

Introduction to HTTP by Launch School

<https://launchschool.com/books/http>

HTML & CSS

<https://marksheet.io/>

Eloquent JavaScript 3rd edition by Marijn Haverbeke

<http://eloquentjavascript.net/>