



Faculty of Arts and Social Sciences  
Information Systems

# Syllabus

## Development of web applications

<b>Course Code:</b>	ISGB22
<b>Course Title:</b>	Development of web applications <i>Utveckling av webbapplikationer</i>
<b>Credits:</b>	7.5
<b>Degree Level:</b>	Undergraduate level
<b>Progressive Specialisation:</b>	First cycle, has less than 60 credits in first-cycle course/s as entry requirements (G1F)

**Major Field of Study:**  
IKA (Information Systems)

### Course Approval

The syllabus was approved by the Faculty of Arts and Social Sciences 2019-02-22, and is valid from the Autumn semester 2019 at Karlstad University.

### Prerequisites

40 ECTS credits in Information Systems, including ISGA11 HTML and CSS for Web development, 5 ECTS credits, and ISGB15 JavaScript for Web development, 5 ECTS credits, or equivalent

### Learning Outcomes

Upon completion of the course, students should be able to:

- include and use a chosen JavaScript library for the client,
- produce programs with a chosen JavaScript library for the client,
- produce programs with a chosen JavaScript library for the client which modifies Document Object Model (DOM),
- produce programs with a chosen JavaScript library for the client which communicates with a web server using AJAX (asynchronous JavaScript and XML),

- explain the difference between a client-side and a server-side script,
- produce programs in a chosen server-side script language,
- validate specific types of data input by means of the chosen server-side script language,
- design a strategy for validating data input on the server using a chosen server-side script language, and
- design and execute queries in SQL (Structured Query Language) against a database for data input, and to update and present data from database tables by means of server-side scripts.

### **Content**

The course is divided into two parts, one focused on clients and the other focused on servers. The client part covers how a chosen JavaScript library can be used to create web applications for the client side. The server part covers how a chosen server-side script language can be used to create web applications for the server side.

### **Reading List**

See separate document.

### **Examination**

Assessment is based on two written exams.

### **Grades**

One of the grades Distinction (VG), Pass (G), or Fail (U) is awarded in the examination of the course.

### **Quality Assurance**

Follow-up relating to learning conditions and goal-fulfilment takes place both during and upon completion of the course in order to ensure continuous improvement. Course evaluation is partly based on student views and experiences obtained in accordance with current regulations and partly on other data and documentation. Students will be informed of the result of the evaluation and of any measures to be taken.

### **Course Certificate**

A course certificate will be provided upon request.

### **Additional information**

The local regulations for studies at the Bachelor and Master levels at Karlstad University stipulate the obligations and rights of students and staff.