Linnæus University

Jnr: 2018/1220-3.1.2.2

Course syllabus

Faculty of Technology
Department of Computer Science and Media Technology

1DV021 Grundläggande programmering, 7,5 högskolepoäng
Introduction to Programming, 7.5 credits

Main field of study
Computer Science

Subject Group
Informatics/Computer and Systems Sciences

Level of classification
First Level

Progression
G1N

Date of Ratification
Approved 2014-12-09
Revised 2018-04-23 by Faculty of Technology. Removal of ECTS-grading scale and course evaluation is changed.
The course syllabus is valid from autumn semester 2018

Prerequisites
General entry requirements and Mathematics 2a / 2b / 2c or Mathematics B (Field-specific entry requirements 15/A14).

Objectives

The purpose of the course is that students will develop basic knowledge in programming with JavaScript. After completing the course the student should be able to:

- account for different data types and simple data structures (1)
- select types, expressions, statements and control structures appropriate to the context (2)
- create and use functions (3)
- create and use objects and arrays (4)
- perform debugging (5)
- revision control of program code (6)
- write code that meets the requirements of good code quality (7)
- analyze problems and then to evaluate and choose appropriate design and construct the solution in the form of programs in the programming language JavaScript (8)

Content

- Programming languages and development environments.
- Values, types and operators.
- Expressions, statements, variables, keywords, comments
- Sequences, selections, iterations and recursions
- Functions.
- Data structures: objects and arrays.
- Object Oriented Programming.
- Error handling with exceptions.
- Modules and namespaces.
- Regular expressions.
- Revision control.
- Troubleshooting techniques.

Type of Instruction

Teching is in the form of lectures with different forms of learning activities and labs. Theory combined with practical applications in problem solving oriented towards application design.

The course can be studied at campus or remotely. The studies requires own access to a computer, headset, webcam and internet connection.

Examination

The course is assessed with the grades Fail (U), Pass (G) or Pass with Distinction (VG).
Test 1: Examination Assignment 1 (2.5 credits). Goals 1-7 are examined through oral examination of a programming problem. The grades Fail (U), Pass (G) is applied.

Test 2: Examination Assignment 2 (5 credits). Goals 1-8 are examined through oral examination of a programming problem. The grades Fail (U), Pass (G) or (VG) is applied.

The grades Fail (U), Pass (G) and (VG) is applied in the final grade. To pass the course requires a minimum Pass on each sample moments. A Pass with distinction is required Distinction for the test item two

Reexamination is offered within six weeks under the regular semesters.

Course Evaluation

During the course or in close connection to the course, a course evaluation is to be carried out. The result and analysis of the course evaluation are to be communicated to the students who have taken the course and to the students who are to participate in the course the next time it is offered. The course evaluation is carried out anonymously. The compiled report will be filed.

Other

The teaching is mainly in Swedish, but English components are recurring in the form of, for example, English literature.

Course learning resources are open through the course's public website.

If the course ceases to be given or major changes to be students, over a year after the change occurred, offered two occasions for retesting based on the syllabus in force at registration.

Required Reading and Additional Study Material

Recommended learning resources

- Marijn Haverbeke, Eloquent JavaScript, No Starch Press, latest edition.
- Douglas Crockford, JavaScript: The Good Parts, O'Reilly Media, latest edition.
- Web-based resources specified on the web site of the course.

Additional learning resources

- David Flanagan, JavaScript The Definitive Guide, O'Reilly Media, latest edition.