



Faculty of Health, Science and Technology
Computer Science

Syllabus

Introduction to Programming for Teachers

Course Code:	DVGA22
Course Title:	Introduction to Programming for Teachers <i>Introduktion till programmering för lärare</i>
Credits:	5
Degree Level:	Undergraduate level
Progressive Specialisation:	First cycle, has only upper-secondary level entry requirements (G1N)

Major Field of Study:
DVA (Computer Science)

Course Approval

The syllabus was approved by the Faculty of Health, Science and Technology 2020-03-11, and is valid from the Autumn semester 2020 at Karlstad University.

Prerequisites

General admission requirements and upper secondary level Mathematics 3/C, or equivalent

Learning Outcomes

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

- describe, use, and teach basic concepts in programming, and
- create programs, troubleshoot, test, and improve program code.

Content

- Basic concepts and building-blocks in programming (including sequence, alternative, condition, iteration, and functions)
- Algorithmic thinking and problem-solving with the help of programming

- Programming in at least two programming languages
- Programming skills such as creating, testing, and troubleshooting program code, along with reading and improving existing program code
- Programming is done mainly as applications relevant for mathematics
- Briefing on how programming is included in steering documents for the subject of mathematics in secondary school.

Reading List

See separate document.

Examination

Assessment is individual and in the form of written hand-in assignments and oral presentations.

If students have a decision from Karlstad University entitling them to special pedagogical support due to a documented disability, the examiner has the right to give such students an adapted examination or to examine them in a different manner.

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.