

COURSE SYLLABUS

Foundations of Programming, 7.5 credits*Grundläggande programmering, 7.5 högskolepoäng*

Course Code:	TGPG14	Education Cycle:	First-cycle level
Confirmed:	Apr 30, 2024	Disciplinary domain:	Technology
Valid From:	Aug 31, 2026	Subject group:	Informatics/Computer and Systems Sciences
		Specialised in:	G1N First cycle, has only upper-secondary level entry requirements
		Main field of study:	Informatics

Intended Learning Outcomes (ILO)

On completion of the 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

Skills and Abilities

- demonstrate the ability to troubleshoot and identify basic programming errors
- demonstrate the ability to autonomously solve a given problem and choose a suitable method.

Content

The course includes modules giving theoretical as well as practical skills for developing modern JavaScript applications.

The course includes the following elements:

- Basic concepts of programming in JavaScript
- Object-oriented programming in JavaScript
- Event-driven programming
- Git and GitHub

Type of Instruction

Lectures, workshops, and assignments.

Language of instruction is English.

Entry Requirements

General entry requirements and Mathematics 2a or 2b or 2c. Proof of English proficiency is required (or the equivalent).

Examination and Grades

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

Registration of examination:

Name of the Test	Value	Grading
Examination ¹	5 credits	5/4/3/U
Assignment	2.5 credits	G/U

¹Determines the final grade of the course, which is issued only when all course units have been passed.

Course Literature

Please note that the course literature may be revised up to eight weeks before the start of the course.

Titel: *Learn JavaScript with p5.js* (First edition)

Författare: Engin Arshlan

Förlag: APress

ISBN: 9781484234259

McCarthy, L., Reas, C., & Fry, B. (2015). *Getting started with p5.js* (First edition.). Maker Media.

(https://primo.library.ju.se/permalink/46JUL_INST/1kh77vo/alma998372977903831) *Eloquent JavaScript* (4th Edition)

<https://eloquentjavascript.net> (online book)