



Faculty of Arts and Social Sciences  
Information Systems

# Syllabus

## Advanced course in Programming

<b>Course Code:</b>	ISGB37
<b>Course Title:</b>	Advanced course in Programming <i>Fördjupningskurs i programmering</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 2024-08-26, and is valid from the Autumn semester 2024 at Karlstad University.

### Prerequisites

Registered for ISGA44 Introduction to programming, 7.5 ECTS credits, or equivalent

### Learning Outcomes

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

1. perform advanced debugging of code,
2. explain and apply good program structure,
3. explain and provide written comments on their own code and that of others,
4. use a programming environment to compile and run programs,
5. produce advanced programs, and
6. reflect upon and choose third-party libraries for advanced programming tasks.

### Content

The course is an advanced programming course. It includes components such as debugging

of self-created or existing code and review and analysis of existing code to understand how different programs are structured. Students develop advanced programs and use standard libraries and third-party libraries for more advanced programming tasks.

### **Reading List**

See separate document.

### **Examination**

Assessment is based on written hand-in assignments completed in groups. Learning outcomes 1, 2, 3, and 5 are also assessed based on a written exam.

If students have a decision from Karlstad University entitling them to Targeted Study 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.