



Faculty of Arts and Social Sciences  
Information Systems

# Syllabus

## Object-Oriented Modeling

<b>Course Code:</b>	ISGB03
<b>Course Title:</b>	Object-Oriented Modeling <i>Objektorienterad modellering</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 2024-01-16, and is valid from the Autumn semester 2024 at Karlstad University.

### Prerequisites

Registered for ISGA03 Acquisition of Information Systems (7.5 ECTS credits) and ISGB01 Database Design (7.5 ECTS credits), or equivalent

### Learning Outcomes

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

1. apply object-oriented modeling methods and Unified Modeling Language (UML) for organisational analysis,
2. apply basic object-oriented concepts for modeling and design,
3. use Unified Modeling Language (UML) to define and visualise static and dynamic systems aspects, and
4. integrate the static and dynamic systems aspects.

### Content

Basic methodological choices and principles constitute the starting point of object-oriented analysis and design.

The course covers the following:

- The semantics of a graphic language to express object-oriented concepts. Content is based on the class, status, and interaction diagrams of the models.
- The systems design process which develops the students' skills in object-oriented modeling.
- Integration of systems analysis, systems design, and implementation aspects.

Students complete a practical group assignment, which includes different aspects of modeling and the following diagrams: use case diagram, class diagram, statechart diagram, activity diagram, and sequence diagram.

### **Reading List**

See separate document.

### **Examination**

Assessment is based on a written hand-in assignment completed in groups and 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.