



Faculty of Health, Science and Technology  
Computer Science

# Syllabus

## Distributed Applications: Development Project

<b>Course Code:</b>	DVAD29
<b>Course Title:</b>	Distributed Applications: Development Project <i>Utvecklingsprojekt inom distribuerade applikationer</i>
<b>Credits:</b>	5
<b>Degree Level:</b>	Master's level
<b>Progressive Specialisation:</b>	Second cycle, has only first-cycle course/s as entry requirements (A1N)

**Major Field of Study:**  
DVA (Computer Science)

### Course Approval

The syllabus was approved by the Faculty of Health, Science and Technology 2022-09-01, and is valid from the Spring semester 2023 at Karlstad University.

### Prerequisites

Computer Science 60 ECTS credits, including at least 7.5 ECTS credits in Software Engineering, and upper secondary level English 6, or equivalent

### Learning Outcomes

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

- develop a distributed application based on concepts of distributed systems, cloud services, and software architecture,
- analyse requirements related to function and quality and identify architectural solutions that fulfill those requirements,
- explain and describe the architecture of a software system in terms of main design decisions and the fundamental structure and behaviour of the system,
- compare different cloud platforms and architectural solutions for the system under development,

- plan and carry out development work in a small agile team, and
- explain and critically evaluate a project, orally and in writing.

### **Content**

The main focus of the course is the development of a distributed application. Students use concepts in distributed systems, cloud services, and "as a service" principles as well as software architecture concepts to design a system and justify their design decisions. Modern development frameworks and application platforms are introduced and used in the course.

Instruction is in the form of group projects and introductory lectures or workshops.

### **Reading List**

See separate document.

### **Examination**

Assessment is based on individual written project reports and oral presentations.

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 5 (Pass with Distinction), 4 (Pass with Some Distinction), 3 (Pass), and U (Fail) 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.

The course DVAD29 cannot be included in the same degree programme as the courses DVAD11 and DVAD17.