



## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

### **DIT127 Web applications, 7.5 credits**

Webapplikationer, 7,5 högskolepoäng

*First Cycle*

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#### **Confirmation**

This course syllabus was confirmed by Department of Computer Science and Engineering on 2021-11-15 and was last revised on 2022-11-17 to be valid from 2024-01-15, spring semester of 2024.

*Field of education:* Science 100%

*Department:* Department of Computer Science and Engineering

#### **Position in the educational system**

The course is a part of the Computer Science Bachelor's programme and an elective course at the University of Gothenburg.

The course can be part of the following programmes: 1) Computer Science, Master's Programme (N2COS) and 2) Computer Science, Bachelor's Programme (N1COS)

#### *Main field of studies*

Computer Science

#### *Specialization*

G2F, First cycle, has at least 60 credits in first-cycle course/s as entry requirements

#### **Entry requirements**

The requirement for the course is to have successfully completed 100 hec in the Computer Science Bachelor's

Programme or equivalent. The following courses, or equivalent, must be completed: DIT012 Imperative Programming with Basic Object-orientation, 7.5 hec, DIT952 Object-oriented Programming and Design 7.5 hec, DIT960 Data structures, 7.5 hec, DIT420 Computer communication 7.5 hec and DIT620 Databases 7.5 hec.

## Learning outcomes

After completion of the course the student is expected to be able to:

### *Knowledge and understanding*

- Design, implement, deploy, test and debug a basic web application.
- Solve the special problems of web application in particular the use of multiple paradigms and technologies within the same application.
- Explain and discuss the importance of open standards

### *Competence and skills*

- Search for relevant information based on specifications.

### *Judgement and approach*

- Assess different potential solutions for the development of web applications.

## Course content

The course presents a number of technologies, how they are related and used for developing web applications. The course provides a good insight to modern complex web based applications. Design problems related to web- applications are presented such as session handling, navigation, persistens, etc.

Information retrieval from manuals and specifications is an integral and important aspect of the course.

The course is applied and the work is carried out in modern advanced development environments. As an important part the course presents advanced debugging, configuration, deployment and execution of web applications.

### *Sub-courses*

#### **1. Project** (*Projekt*), 6 credits

Grading scale: Pass with distinction (5), Pass with credit (4), Pass (3) and Fail (U)

#### **2. Assignments** (*Inlämningsuppgifter*), 1.5 credits

Grading scale: Pass (G) and Fail (U)

## Form of teaching

Lectures, computer exercises (assignments) and project work.

*Language of instruction:* English

**Assessment**

The course is examined by written assignments and a written project. The assignments and project are carried out in groups of normally 4 students.

If a student, who has failed the same examined component twice, wishes to change examiner before the next examination, a written application shall be sent to the department responsible for the course and shall be granted unless there are special reasons to the contrary (Chapter 6, Section 22 of Higher Education Ordinance).

In cases where a course has been discontinued or has undergone major changes, the student shall normally be guaranteed at least three examination occasions (including the ordinary examination) during a period of at least one year from the last time the course was given.

**Grades**

The grading scale comprises: Pass with distinction (5), Pass with credit (4), Pass (3) and Fail (U).

The laboratory assignments must be passed for the course to be completed. The grade for the course will be determined by the project grade.

**Course evaluation**

The course is evaluated through meetings both during and after the course between teachers and student representatives. Further, an anonymous questionnaire is used to ensure written information. The outcome of the evaluations serves to improve the course by indicating which parts could be added, improved, changed or removed.

**Additional information**

The course is a joint course together with Chalmers.

The Literature and other written documentation are in English.

The course replaces the course DIT126, 7.5 credits. The course cannot be included in a degree which contains DIT126. Neither can the course be included in a degree which is based on another degree in which the course DIT126 is included.