



## DEPARTMENT OF APPLIED INFORMATION TECHNOLOGY

### **TIG015 Information Technology and Information Systems, 15 credits**

Informationsteknologi och informationssystem, 15 högskolepoäng

*First Cycle*

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#### **Confirmation**

This course syllabus was confirmed by The IT Faculty Board on 2008-10-15 and was last revised on 2019-06-19 by Department of Applied Information Technology to be valid from 2019-09-02, autumn semester of 2019.

*Field of education:* Science 100%

*Department:* Department of Applied Information Technology

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

The course is a introductory course. It is a compulsory course in the programme specified below.

The course can be part of the following programme: 1) Information Systems: IT, Users and Organizations, Bachelor's Programme (NISYS)

*Main field of studies*

Informatics

*Specialization*

G1N, First cycle, has only upper-secondary level entry requirements

#### **Entry requirements**

General entrance requirements for university studies and the Swedish upper secondary courses Mathematics B, Civics A or Mathematics 2a/2b/2c, Civics 1b/1a1+1a2 or equivalent.

#### **Learning outcomes**

On successful completion of the course the student will be able to:

*Knowledge and understanding*

- account for academic guidelines for report writing;
- with reference to the course literature describe the notion of information systems as well as give examples of the type of information system used in an organisation;
- account for the concepts of hardware and software and in relation to them explain the basics of programming and digital representation of information;
- briefly describe how data is stored, transferred and exchanged between IT systems;

*Competence and skills*

- supported by project methodology implement a group project, document the work according to project templates and present it orally;
- independently work in a shell (command prompt) with the most common programs (commands) for file management, navigation, text editing and analysis as well computer communication (network and protocol);
- use a text editor for different tasks, such as writing simpler scripts that perform some administrative task, and write code for a simpler web page;

*Judgement and approach*

- supported by reference material independently reflect on their own role in a project and the different phases of implementing a project;
- supported by a project schedule evaluate a time budget in a sustainable manner, to streamline the use of available resources;
- reflect on risks to personal integrity and to show awareness of which personal data we share consciously or unconsciously through social media platforms, search engines and cloud services.

**Course content**

The course introduces information systems and the role of these systems in the development of organizations, as well as practical understanding of information technology (IT) and its application. The course consists of two sub-courses, which together form a basis for the continued studies in the programme. Theory is interspersed with practical exercises in the respective sub-course.

*Sub-courses***1. Project (Projekt), 7.5 credits**

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

The purpose of the project work is partly to examine how organizations use information systems and partly to do this in the form of a project where each person is included in a project group and work according to project methodology. The students learn about system use in working life while learning to work in project form.

## 2. **Introduction to information technology** (*Introduktion till informationsteknologi*), 7.5 credits

Grading scale: Pass with Distinction (VG), Pass (G) and Fail (U)

In this sub-course, knowledge of fundamental concepts within IT is communicated, as well as the application of these concepts and the consequences for the individual. Students will also learn to work in the computer environment that is applied in the programme's courses in programming and databases. Students learn how to effectively use, create and administer IT systems. They will also gain insights and skills in networks and protocols.

### **Form of teaching**

**Project** - The teaching is conducted through lectures, project management and steering group meetings.

**Introduction to information technology** - Teaching is conducted through lectures, video material, supervised exercises, group work and workshops.

*Language of instruction:* Swedish

A large part of the teaching material, such as literature and films, is in English.

### **Assessment**

**Project:** Examined through a written project report, participation in steering group meeting and individual oral presentation (7.5 credits).

**Introduction to information technology:** Examined through a hall exam (4,5 credits), a test (1 credit), and individual written assignments (2 credits). The sub-course also includes mandatory attendance at five workshops. A student who does not attend a mandatory workshop, may submit a written supplementary assignment according to instruction in course guide.

If a student, who has failed the same examined element on two occasions, wishes to change examiner before the next examination session, such a request is to be submitted to the department in writing and granted unless there are special reasons to the contrary (Chapter 6, Section 22 of Higher Education Ordinance).

In the event that a course has ceased or undergone major changes, students are to be guaranteed at least three examination sessions (including the ordinary examination session) over a period of at least one year, though at most two years after the course has ceased/been changed. The same applies to work experience and VFU, although this is restricted to just one additional examination session.

**Grades**

The grading scale comprises: Pass with Distinction (VG), Pass (G) and Fail (U). In order to get the grade Pass for the whole course, the grade Pass is required for both sub-courses. In order to get the grade Pass with Distinction for the whole course, the grade Pass with Distinction is required on the hall exam (4.5 credits) and the grade Pass on the test (1 hp) and the individual assignments (2 credits) and the grade Pass in first sub-course (7.5 credits).

**Course evaluation**

On completion of the course, a course evaluation is carried out. The participating students are given the opportunity to participate anonymously. Course evaluations should be made electronically as far as possible. The result is compiled by the course coordinator and is made available for the students. Possible measures due to the results of the course evaluation are presented. The compilation of the course evaluation will also be made available for new students at the start of the course the next time it is given.