



## System Development Philosophies

### Systemutvecklingsfilosofier

7.5 credits

7.5 högskolepoäng

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**Ladok Code:** 22SU1D

**Version:** 4.1

**Established by:** Committee for Education in Librarianship, Information, and IT 2016-11-08

**Valid from:** Spring 2017

**Education Cycle:** Second cycle

**Main Field of Study (Progressive Specialisation):** Informatics (A1N)

**Disciplinary Domain:** Natural sciences

**Prerequisites:** Completed courses of 60 Credits in Informatics including System Analysis Design 7.5 Credits.

**Subject Area:** Informatics/Computer and Systems Sciences

**Grading Scale:** ECTS-credits

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### Content

The course shall acquaint students with topics that are relevant in system development. The course starts with different philosophical perspectives such as reductionism, constructivism and inductivism and how they lead to different paradigms such as the construction, people and organization paradigms. We then look at how this in turn leads to concrete system development methods and accompanying techniques and tools. The main question is how to select a method that fits a particular development project and how this method can be adapted to the specific project.

### Learning Outcomes

After successful completion of the course student shall, with respect to,

#### *Knowledge and understanding*

- 1.1 Explain system development paradigms,
- 1.2 Explain system development methods,
- 1.3 Explain system development techniques and related tools,

#### *Competence and skills*

- 2.1 Compare system development paradigms and select a suitable one,
- 2.2 Compare system development methods, select a suitable one and adapt it,
- 2.3 Compare system development techniques and related tools and select suitable ones,

#### *Judgement and approach*

- 3.1 Discuss the perspectives lying behind the approaches,
- 3.2 Discuss the relationships between paradigms, methods, techniques and tools,
- 3.3 Discuss current research related to system development.

### Forms of Teaching

Teaching is in the form of lectures, tutoring and a seminar.

The language of instruction is English.

### Forms of Examination

The course is examined as follows:

- A scientific seminar paper: written assignment

Learning outcomes: 1.1-1.3, 2.1-2.3, 3.1-3.3

Credits: 6,0  
Grading scale: AF

- Seminar: oral presentation and opposition  
Learning outcomes: 3.1-3.3  
Credits: 1,5  
Grading scale: AF

A passed grade for the course requires at least a grade E for the seminar paper and the seminar. The grade for the course is thereafter determined by the grade for the seminar paper.

Student rights and obligations at examination are in accordance with guidelines and rules for the University of Borås.

### **Literature and Other Teaching Materials**

The course literature is in English.

Avison, David; Fitzgerald, Guy (2006): Information Systems Development – Methodologies, Techniques and Tools, McGraw-Hill, ISBN 978-0077114176, 670 pages

### **Student Influence and Evaluation**

The course is evaluated in accordance with the school's guidelines, in which students' views will be obtained. The results of the evaluation will be published and fed back to participating and prospective students in accordance with the school's guidelines, and will provide the basis for future course and program development.

### **Miscellaneous**

The course is offered within the Master (one-year) programme in Informatics.

This syllabus is a translation from the Swedish original.