## Department of Computer and Systems Sciences



# Education plan

for

One Year Master's Programme in IT Project Management Magisterprogram i IT-projektledning

60.0 Higher Education Credits 60.0 ECTS credits

Programme code:SPROMValid from:Autumn 2022Date of approval:2018-05-30Changed:2022-05-02

Department: Department of Computer and Systems Sciences

#### Decision

This program syllabus was approved by the Social Sciences Faculty Board.

## Prerequisites and special admittance requirements

A Bachelor degree with at least 180 ECTS, including a 15 ECTS independent degree project or thesis. Language requirements: English 6 or the equivalent.

Specific requirements: At least 60 ECTS of successfully completed studies in Computer and Systems Sciences, Informatics or the equivalent.

#### **Programme structure**

The program will be given completely at distance and with a 50% study rate. Students are expected to participate in scheduled activities online. This means that weekend studies are not sufficient to complete the program.

As all activities will take place on the Internet, the student is expected to have a computer of good quality where the student can install software and a stable and fast internet connection. Furthermore, each student must have a webcam and a microphone of good quality to be able to discuss and collaborate in the course and during the examination.

Written examinations where relevant will take place via a digital examination platform with recording and, if deemed necessary, real-time monitoring.

In the program, we will start from a modern agile approach and focus on methods and working methods that are established in the IT industry and gradually increase students knowledge in various parts such as project methods, procurement, requirements management, leadership and financial management in projects. Furthermore, the program focuses on benefit realization and the connection between IT and business via portfolio management.

We see a great need to train project managers and the expected labor market must be considered good. Within the program, the student will be given the opportunity to deepen their knowledge in IT related areas such as modeling, IT strategy, architectures.

The progression through the program is as follows (50% study rate = 4 semesters):

Term 1 - Here we lay the foundation for the program by focusing on benefit realization, the role of the project

and the connection between business strategies and IT and the students get an in-depth study of scientific methodology and IT related skills.

- Term 2 The second semester is about project methods, requirements and project management. We will also deepen our knowledge in, among other things, software systems and modeling and its development linked to the role of project manager.
- Term 3 The third semester is about organization, leadership and project management
- Term 4 Degree project of 15 credits.

#### Goals

In addition to the general learning goals stated in chapter 1, paragraph 9 of the Swedish Higher Education Act, the following goals according to Higher Education Ordinance are applied:

#### Knowledge and understanding

For a Degree of Master (60 credits) the student shall

- demonstrate knowledge and understanding in the main field of study, including both an overview of the field and specialised knowledge in certain areas of the field as well as insight into current research and development work, and
- demonstrate specialised methodological knowledge in the main field of study.

#### Skills and abilities

For a Degree of Master (60 credits) the student shall

- demonstrate the ability to integrate knowledge and analyse, assess and deal with complex phenomena, issues and situations even with limited information,
- demonstrate the ability to identify and formulate issues autonomously as well as to plan and, using appropriate methods, undertake advanced tasks within predetermined time frames,
- demonstrate the ability to clearly report and discuss both orally and in writing, own conclusions and the knowledge and argumentation which they are based on, in dialogue with different audiences in national and international contexts.
- demonstrate such skills that are required either for participation in research and development work or for conducting autonomous work within other qualified areas of activities.

## Assessment ability and approach

For a Degree of Master (60 credits) the student shall

- demonstrate the ability to make assessments in the main field of study informed by relevant disciplinary, social and ethical issues and also to demonstrate awareness of ethical aspects of research and development work.
- demonstrate insight into the possibilities and limitations of research, its role in society and the responsibility of the individual for how it is used, and
- demonstrate the ability to identify the personal needs for further knowledge and take responsibility for own continuous learning.

In addition to these degree objectives, the following objectives also apply to this program:

For the master's degree, the student must

- demonstrate in-depth knowledge and understanding in utility realization and project portfolios
- show knowledge and understanding of the project as a form of work in the IT industry and how projects are started, run and handed over in organizations
- show in-depth knowledge and understanding of different project methods and how methods such as waterfalls, Agile and Devops place different demands on organization and how projects are conducted
- show in-depth knowledge and understanding in qualitative and quantitative project follow-up, management and goal realization
- demonstrate in-depth knowledge and understanding in organization, leadership and change management
- demonstrate knowledge and understanding in areas related to software development, such as architecture, modeling and development methodology

#### Courses

All courses are in the main area of Computer and Systems Science. All courses are at advanced level. The courses described below are mandatory within the program. The language of instruction is English.

The program is read at half speed over four semesters according to:

#### Term 1

- Strategies, Benefits and Alignment, 7.5 credits
- Empirical Research Methodology for Computer and Systems Science, 7.5 credits

### Term 2

- Digital business strategies and change management 7.5 credits
- Project Management Methods and Theory, 7.5 credits

## Term 3

- Organization, leadership and change management 7.5 credits
- Monitoring and Controlling IT Projects, 7.5 credits

#### Term 4

- Master's (one year) Thesis in Computer and Systems Sciences, 15 credits

## Degree

The programme leads to a Degree of Master of Science (60 credits) in the main field of study: Computer and Systems Sciences.

The specialization is in IT project management.

#### Misc

Admitted students, who have not completed their studies within the planned academic years, may complete the programme even after the programme syllabus has expired. In this case, the limitations stated in the syllabi for the courses included in the programme apply.