UNIVERSITY OF GOTHENBURG

IT FACULTY

Reference no. G 2017/398

Programme Syllabus for Digital Leadership Master's Programme, 120 credits

Digitalt ledarskap masterprogram, 120 högskolepoäng

Second Cycle/N2DIG

1. Confirmation

The syllabus is confirmed by the IT Faculty Board 2016-09-08 (reference no. G 2016/273) and revised 2017-08-23. This syllabus is to be valid from 2017-08-23 (autumn semester 2017).

The Division of Informatics at the Department of Applied IT is responsible for the study programme.

2. Purpose

Digitalization is a signature of our time. It offers almost unlimited opportunities for firms, public authorities and citizens. At the same time, it makes a steamroller of existing markets, organizations, and technologies, causing deep societal challenges. Digital leadership relies on capability to navigate the competing concerns of digitalization, but also to actively orchestrate digital innovation processes. The aim of the study programme is to provide individuals and organizations with such capability from five distinct perspectives; technological change, value creation, organizing, market logic, and strategy.

The overall purpose of the master's programme is to give students a deep understanding of how digitalization transforms society and to develop capabilities for taking a leading role in embracing and shaping this transformation. In doing so, the programme offers a broad theoretical foundation for understanding contemporary phenomena, it provides methods and techniques for analysing the implications of digitalization, and it supports students in developing practical skills to deal with change in complex environments. An important aspect of the study programme is to be close to the current research in the areas within the study programme, and to develop governance and leadership with a focus on digitalization. Close collaboration with industry partners ensures that the programme combines academic rigour with practical relevance.

The pedagogic stance is based on creating a student-centred learning environment that encourages active participation.

The study programme seeks to attract students from diverse backgrounds, including computer science, informatics, information technology, economics, industrial economics, and behavioural sciences, or equivalent. The programme is taught in English and is open to international students.

Further, the study programme prepares students for careers paths that extends far beyond traditional positions in consulting or at corporate IT Departments, including novel roles such as: Innovation Manager, Digital Strategist, Digital Designer, Chief Information Officer, Chief Technology Officer, Chief Digital Officer, Digital Brand Director, Head of Digital Platforms, Digital Marketing Manager, Content Acquisition Manager, Digital Transformation Officer. The study programme also prepares students for further postgraduate studies.

3. Entry requirements

Bachelor's degree 180 credits including an independent project (degree project) of at least 15 credits or equivalent.

Applicants must prove their knowledge of English: English 6/English B from Swedish Upper Secondary School or the equivalent level of an internationally recognized test, for example TOEFL, IELTS.

Specific entry requirements for admission to a course within the study programme

Within the study programme there can be specific entry requirements for admission to individual courses. These specific entry requirements are documented in each course syllabus and state which entry requirements are necessary to be registered on a course within the study programme.

Selection

Selection is according to the Higher Education Ordinance and the University of Gothenburg admission regulations for education on first and second cycle.

4. Higher education qualification and main field of study

Main field of study for the programme is Informatics.

After the completion of the programme with 120 credits of which at least 90 credits are specialised study in the main field Informatics on request a degree certificate is issued with the designation Degree of Master of Science (120 credits) with a major in Informatics. For a Degree of Master of Science (120 credits) the student must have accomplished an independent project (degree project) of at least 30 credits within the specialised study in the main field.

5. Outcomes

Second-cycle courses and study programmes shall be based fundamentally on the knowledge acquired by students during first-cycle courses and study programmes, or its equivalent.

Second-cycle courses and study programmes shall involve the acquisition of specialist knowledge, competence and skills in relation to first-cycle courses and study programmes, and in addition to the requirements for first-cycle courses and study programmes shall:

- further develop the ability of students to integrate and make autonomous use of their knowledge,
- develop the students' ability to deal with complex phenomena, issues and situations, and
- develop the students' potential for professional activities that demand considerable autonomy, or for research and development work.

(The Swedish Higher Education Act (Ordinance 2006:173), chapter 1, section 9.)

5.1. Outcomes for Degree of Master of Science (120 credits) according to the Higher Education Ordinance

Knowledge and understanding

For a Degree of Master of Science (120 credits) the student shall

- demonstrate knowledge and understanding in the main field of study, including both broad knowledge of the field and a considerable degree of 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.

Competence and skills

For a Degree of Master of Science (120 credits) the student shall

- demonstrate the ability to critically and systematically 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 critically, autonomously and creatively as well as to plan and, using appropriate methods, undertake advanced tasks within predetermined time frames and so contribute to the formation of knowledge as well as the ability to evaluate this work
- demonstrate the ability in speech and writing both nationally and internationally to clearly report and discuss his or her conclusions and the knowledge and arguments on which they are based in dialogue with different audiences, and
- demonstrate the skills required for participation in research and development work or autonomous employment in some other qualified capacity.

Judgement and approach

For a Degree of Master of Science (120 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 need for further knowledge and take responsibility for his or her ongoing learning.

(Higher Education Ordinance, Qualifications Ordinance, Annex 2)

5.2. Local outcomes

Knowledge and understanding

For a Degree of Master of Science (120 credits) with a major in Informatics the student shall

- exhibit deep knowledge about and ability to apply theories in the areas of innovation, governance and control, digital infrastructure, and organizing, and
- identify current research challenges in the above mentioned areas, and
- display knowledge of research methods and techniques for analysis appropriate for conducting empirical investigations related to the main field of study.

Competence and skills

For a Degree of Master of Science (120 credits) with a major in Informatics the student shall

- demonstrate ability to develop sustainable innovation strategies to support digital innovation and continuous value creation across different organisational contexts,
- demonstrate ability to design and evaluate governance configurations and control for digital leadership,
- demonstrate ability to develop future oriented business models based on digital infrastructures,
- demonstrate ability to lead, implement and communicate development work within different organizational contexts,
- demonstrate the skills required to independently, and in cooperation with others, apply appropriate research methods within the areas of innovation, governance and control, digital infrastructure and organizing.

Judgement and approach

For a Degree of Master of Science (120 credits) with a major in Informatics the student shall

- critically evaluate assumptions, principles, strengths and weaknesses of central theories and frameworks underpinning innovation, governance and control, digital infrastructure, and organising,
- compare and contrast industrial innovation and digital innovation,
- assess and argue for choices and combinations of methods for organisational development and digital transformation from an ethical stance.

6. Content and structure

The programme consists of courses related to digital leadership and related subjects. The programme includes a total of 120 credits. An independent project (degree project) of 30 credits is included. In addition to the degree project, 60 credits consist of compulsory courses in the main field of Informatics. Further, it is possible to include optional courses of maximum 30 credits.

The education is given at full time. An academic year is divided into two semesters with two study periods, each of 15 credits. The programme courses are offered either at half speed over two study periods or full time over one study period. Studying at half speed means that two courses are taken in parallel (see Table 1).

The courses are progressively arranged so that they, within the framework of learning outcomes, contribute separately and jointly, with developing the student's skills and abilities in the main field of study.

The education is implemented through lectures, seminars, case studies and supervision as well as projects where students apply and deepen their knowledge. The literature is in English and all teaching and communication is in English.

Study process

The first two semesters consist of compulsory courses which introduce key concepts within the area of innovation strategy, digital infrastructure, governance and control and organizing in the context of an increasingly digitalized society. The third semester offers an opportunity to broaden the perspective on digitalization of society through selected courses in entrepreneurship and innovation, and research methods. Alternatively, students can opt for broadening their education through optional courses offered by the University of Gothenburg or at another higher education institution. The final semester of the study programme consists of an independent project (degree project), allowing students to deeply engage in a specific research question related to the main field of study.

The study programme consists of the following compulsory courses[1]:

- Innovation Strategy for the Digital Economy, 15 credits (TIA010)
- Governance and Control for Digital Capabilities, 15 credits (TIA014)
- Digital Infrastructure, 15 credits (TIA016)
- Organizing for Digital Transformation, 15 credits (TIA013)
- Master Thesis in Informatics, 30 credits (TIA019)

The study programme consists of the following optional courses:

- Innovation and Entrepreneurship in the Digital Society, 15 credits (TIA015)
- Research Methods (TIA021), 15 credits

[1] Some courses in the main field mentioned above are still preliminary. This means that the syllabus for Digital Leadership Master's programme, 120 credits will be revised accordingly and confirmed by the IT Faculty in the coming years.

The course ‘Master Thesis in Informatics’ includes an independent project (degree project) of 30 credits.

Table 1. Study programme and process with obligatory and optional courses.

<table>
<tr><th colspan="2">Autumn term</th><th colspan="2">Spring term</th></tr>
<tr><td colspan="2">Study period 1 and 2</td><td colspan="2">Study period 3 and 4</td></tr>
<tr><td rowspan="2">Year 1</td><td>Innovation Strategy for the Digital Economy, 15 credits*</td><td rowspan="2">Governance and Control for Digital Capabilities, 15 credits*</td><td rowspan="2">Organizing for Digital Transformation, 15 credits*</td></tr>
<tr><td>Digital Infrastructure, 15 credits*</td></tr>
<tr><td></td><td>Study period 5 and 6</td><td colspan="2">Study period 7 and 8</td></tr>
<tr><td rowspan="3">Year 2</td><td>Innovation and Entrepreneurship in the Digital Society, 15 credits</td><td colspan="2" rowspan="2">Master Thesis in Informatics 30 credits*</td></tr>
<tr><td>Research Methods, 15 credits</td></tr>
<tr><td colspan="3">Master Thesis in Informatics[2] 60 credits</td></tr>
</table>

*Compulsory courses in the main field of study.

7. Guaranteed admission

Students who follow the study programme at the prescribed rate have guaranteed admission. There are two kinds of guaranteed admission at the University of Gothenburg: general or limited.

‘General guaranteed admission’ means that the students admitted to the study programme have guaranteed admission to all of the compulsory and optional courses in the programme syllabus provided that specific entry requirements are fulfilled and the student applies to the course within the study programme within the prescribed application period.

[2] Subject to individual assessment students can opt for an alternative study path for the second year of the programme. Optional courses (third semester) and Master Thesis in Informatics 30 credits (fourth semester) are then replaced by a 60 credits master’s thesis (TIA020). This path aims for postgraduate research studies. A local admission process, described in a separate document is applied by the Department of Applied IT

‘Limited guaranteed admission’ means that the students cannot be guaranteed their first-choice place for optional courses.

For optional courses outside the study programme local admission regulations are valid and there is no guaranteed admission.

8. Other

Credit transfer of former education

In some cases, the student has the right to be given credit for former higher education according to the legislative regulations of the Higher Education Ordinance.

Evaluation

The courses of the study programme are evaluated according to each course syllabus. The result will be used for planning and implementation of upcoming courses. A summary is given to students at the start of the courses.

The study programme will be followed up and evaluated in accordance with the applicable Policy för kvalitetssäkring och kvalitetsutveckling av utbildning vid Göteborgs universitet (Policy for the Quality Assurance and Quality Development of Education at the University of Gothenburg).