IT FACULTY

Digital Leadership Master's Programme, 120 credits

Digitalt ledarskap masterprogram, 120 högskolepoäng

Programme code: N2DIG

Second cycle / Avancerad nivå

1. Confirmation

This programme syllabus was confirmed by the IT Faculty Board on 22-01-2021 (GU 2020/2624) to be valid from 30-08-2021, Autumn semester 2021.

Responsible Department/equivalent: Department of Applied Information Technology

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 the 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 Transf ormation 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.

English 6/English B from Swedish Upper Secondary School 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

This programme leads to a Degree of Master of Science (120 credits) with a major in Informatics (Filosofie masterexamen med huvudområdet Informatik).

5. Outcomes

General outcomes for Degree of Master (120 credits)

Knowledge and understanding

For a Degree of Master (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 (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 (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.

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
- demonstrate the ability to 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,

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- 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, and
- 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

- demonstrate ability to critically evaluate assumptions, principles, strengths and weaknesses of central theories and frameworks underpinning innovation, governance and control, digital infrastructure, and organising,
- demonstrate ability to compare and contrast industrial innovation and digital innovation,
- demonstrate ability to assess and argue for choices and combinations of methods for organisational development and digital transformation that take ethics and sustainability into consideration.

Sustainability labelling

The programme is sustainability-related, which means that at least one of the outcomes clearly shows that the programme content meets at least one of the University of Gothenburg's confirmed sustainability criteria.

6. Content and structure

The programme consists of courses in the area of digital leadership and related subjects. The programme includes a total of 120 credits. The first two semesters contribute 60 credits, distributed across eight compulsory courses. The third semester consists of four recommended courses, contributing 30 credits. As an alternative to recommended courses, students may broaden their education through optional courses offered by University of Gothenburg or other higher education institutions. The programme is concluded by a 30 credit independent degree project.

The education is given at full time. An academic year is divided into two semesters with two study periods, each of 15 credits. Apart from degree project, the programme is based on 7.5 credit courses. That means each semester includes 4 courses (see attached table).

Courses are arranged for progression. In that vein, they develop topic-specific knowledge, while concurrently contributing to the advancement of general skills and abilities in the main field of study.

The education involves lectures and extensive individual reading. However, to produce a student-centred learning environment it frequently involves interactive seminars, case studies, supervision, and projects, where students apply and deepen their knowledge. The literature is in English, as well as all teaching and communication.

Study process

The programme departs from the assumption that digital leadership requires deep understanding and careful management of the interrelation between digital technology and people/organizations. The first semester puts an emphasis on digital technology. It introduces a wide range of concepts in the area of materiality, platforms, and infrastructure. It also entails a project course, where students apply theoretical insights to resolve practical problems. The second semester takes on the perspective of people and organizations. It introduces concepts in the areas of organizing, governance, and strategy. Similar to the first semester, it also includes a project course for application. The third semester zooms out from specific concepts, and allows for broader reflection through courses on entrepreneurship, leadership, sustainability, and methods. The final semester of the study programme consists of an independent 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:

- Technology, 7.5 credits
- Platforms, 7.5 credits
- Infrastructure, 7.5 credits
- Project Work I, 7.5 credits
- Organizing, 7.5 credits
- Governance, 7.5 credits
- Strategy, 7.5 credits
- Project Work II, 7.5 credits
- Master's Thesis in Informatics, 30 credits

The study programme also includes the following recommended courses:

- Entrepreneurship, 7.5 credits
- Leadership, 7.5 credits
- Sustainability, 7.5 credits
- Methods, 7.5 credits

Please also see the appendix. N2DIG_Study_process.

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 recommended 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.

'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 information

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).

Revision of the syllabus

This syllabus is a revision of the syllabus confirmed by the IT Faculty Board on 08-09-2016 (reg. no. G 2016/273) and revised on 23-08-2017 (reg. no. G 2017/398).

DEPARTMENT OF APPLIED INFORMATION TECHNOLOGY

Appendix. Study process for N2DIG Digital Leadership Master's Programme.

Year 1			
Period 1		**Period 2**	
Technology 7.5 credits	**Platforms** 7.5 credits	**Infrastructure** 7.5 credits	**Project Work I** 7.5 credits
Period 3		**Period 4**	
Organizing 7.5 credits	**Governance** 7.5 credits	**Strategy** 7.5 credits	**Project Work II** 7.5 credits

Year 2			
Period 1		**Period 2**	
Entrepreneurship 7.5 credits	**Leadership** 7.5 credits	**Sustainability** 7.5 credits	**Methods** 7.5 credits
Period 3		**Period 4**	
Master's Thesis in Informatics 30 credits			