Høyskolen Kristiania

Programme description

Master of Information Systems: Management and Innovation

120 credits

2020-2022
Full time and part time

The programme is accredited by NOKUT 02.19.2011
The programme description is approved by
The Education Committee 26.09.19 (UU/EIT-case no. 14/19)

1. Introduction

Master of Science in Information Systems is an advanced programme for students who aim for a career in management of business systems. School of Economy, Innovation and Technology, Department of Technology, at Høyskolen Kristiania educates competent and socially responsible IT professionals, who work in many roles, such as CIOs, project managers, business analysts, consultants, systems developers and IT security experts. The programme is research based, and is taught by active researchers. The programme is also developed in close co-operation with business and public organisations.

Information Systems (IS) is both a professional discipline and an academic field, aiming to bridge the technical capabilities of IT with business needs. As an academic discipline, IS investigates a wide range of topics, such as IS strategy and management, business systems, IS development methods, user behaviour and usability. It also investigates more theoretical issues, such as the relationship between technology and the social world, and the dynamics of the Information Society.

The awarded title is: Master of Science in Information Systems.

IS Masters work as CIOs, IT managers, business developers, software developers, business analysts, consultants and IT security staff. After completing the Master's programme, the candidate is also formally qualified for a PhD study in a related area of research.

1.1 Prerequisites

Applicants must meet the following requirements:

- Bachelor's degree in IT, management, economics, e-business or marketing, with an average grade of minimum C. Relevant practices, or other special considerations, may in some cases weigh up for non-compliant grade requirements.

- The applicants must also write an motivational letter of 500 words in English.

2. Objective

Knowledge
The candidate will have advanced knowledge about information systems as a research field, in terms of themes, theories, knowledge claims, research methods and professional standards.

The candidate....

- is able to apply their advanced knowledge
- is able to reflect on how information systems contribute to business and societal aims
- is able to describe and discuss key theories on the role of information technology for individuals, teams, organisations and society
- is able to understand the role of information technologies in innovation processes

Skills
The candidate will acquire practical skills in analysing complex information systems problems, designing or recommending solutions, and in measuring and evaluating results. Candidates will also have strong skills in applying research approaches and methods.

The candidate...

- is able to analyse business cases and assess alternative solutions
- is able to critically evaluate information technology in relation to organising and strategizing

Competence
The candidate will take responsibility for solving complex tasks and conducting a research project at a high standard. This includes the ability to choose the appropriate research approach and methods, to choose or develop a solution, to handle relationships ethically and professionally, and to evaluate and communicate the results in a systematic way.

The candidate…

- is able to take the responsibility to participate and contribute to an information technology strategy or innovation process in an organization
- is able to assess results in relation to information systems research
- is able to communicate findings in a professional and ethical way

3. Structure

For full-time students first year offers eight courses. For part-time students these eight courses are taken over two years. The second year (third year for part-time students) offers two courses, and a Master Thesis.

Master of Science in Information Systems: Management and Innovation Full-time				
1st semester	**Introduction to IS Research** 7,5 ects	**Social Media Management** 7,5 ects	**Innovation - Concepts and Perspectives** 7,5 ects	**IT Strategy and Archetecture** 7,5 ects
2nd semester	**IT Governance** 7,5 ects	**Agile Project Management** 7,5 ects	**Information Risk and Security** 7,5 ects	**IS Infrastructure and Platforms** 7,5 ects
3rd semester	**Research Methods** 7,5 ects			Elective 7,5 ects
4th semester	Master Thesis 45 ects			

*The courses are thought as moduels, meaning that the students usually will complete one module before starting the next.

Basic courses	**Subject Area courses**	**Specialization courses**

Master of Science in Information Systems: Management and Innovation Part -time				
1st semester	Introduction to IS Research 7,5 ects	Innovation - Concepts and Perspectives 7,5 ects		
2nd semester	IT Governance 7,5 ects	Information Risk and Security 7,5 ects		
3rd semester	Social Media Management 7,5 ects	IT Strategy and Archetecture 7,5 ects		
4th semester	Agile Project Management 7,5 ects	IS Infrastructure and Platforms 7,5 ects		
5th semester	Research Methods 7,5 ects	Master Thesis 45 ects		Elective 7,5 ects
6th semester				

*The courses are thought as moduels, meaning that the students usually will complete one module before starting the next.

Basic courses	**Subject Area courses**	**Specialization courses**

3.1 Academic progression

The first year provides the students with knowledge and skills in IS research, project management, IT governance, emerging technologies, innovation, IT security, IT strategy and architecture and innovation networks.

The second year has a stronger focus on competence, aiming at synthesising knowledge and skills into the ability to conduct projects. The shared courses of the second year prepare the student for the Master Thesis. During the work the student will be able to draw on and integrate all these resources.

3.2 Courses

Course name	Credits	Description
Introduction to IS Research	7,5	The course provides an introduction to the IS research field. Students will gain advanced knowledge of the key concepts and theories of IS research. They will acquire specialised problem-solving skills, being able to analyse and synthesize a research case. They shall take responsibility to a literature review of a specific IS topic. Central topics includes Information Systems as a research field, IS development, IS innovation, IS as sociotechnical and complex systems, Introduction to research methods in IS, Basic concepts and theories in IS, Literature reviews and writing style.
Social Media Management	7,5	This course will provide the students with knowledge and skills on strategic adoption and use of social media for business purposes. Students will gain knowledge in social media concepts and theories, technologies, and ethical issues. They will also acquire practical skills in design, implementation and evaluation of a social media strategy in an organization.
Innovation - Concepts and Perspectives	7,5	The course aims at providing insight into theoretical and practical aspects of innovation. Students will gain advanced knowledge of key concepts and theories of IT-supported innovation. They will acquire specialised problem-solving skills, being able to analyse innovation cases using different models. They shall take responsibility to conduct a review of the current state-of-the-art in innovation theory. Central topics includes innovation theories and concepts, digital innovation, service innovation and innovation in organizations.
IT Strategy and Architecture	7,5	This course highlights the importance of IS Strategy and architecture in contemporary organisations. Students will gain advanced knowledge of key theories and concepts of strategic use of IS. They will acquire specialised problem-solving skills, being able to conduct a strategic analysis based on accepted frameworks, and to analyse the implications for a company's IT architecture. They shall take responsibility to plan and accomplish an IS strategy process for a case organisation, with a proposed architecture. Central topics includes enterprise architecture, IT strategizing, IT strategy alignment and Business Process Modelling
IT Governance	7,5	This course will provide the student with an understanding of IT Governance as an important activity for securing business value of IT investments. Students will gain advanced knowledge of key theories and frameworks of IT governance. They will acquire specialised problem-solving skills, being able to select and use a governance framework to analyse a business case. They shall take responsibility to plan, organise and evaluate an IT governance process.
Agile Project Management	7,5	Organizations need to develop project managers who can complete projects on time and within budget and this course addresses challenges such as the ability to manage projects and stakeholders, risk assessment and agile planning. Students will gain advanced knowledge of the key theories of project management and agile development. They will acquire specialised problem-solving skills, being able to plan and run a time-boxed iteration, and to use a

		project management tool. They shall take responsibility to conduct plan, organise and control an agile IS project.
Information Risk and Security	7,5	Students will gain advanced knowledge of key concepts, laws, standards, technologies and ethics within IT security. They will acquire specialised problem-solving skills, being able to perform a comprehensive information risk analysis, and suggest the necessary controls. They shall take responsibility to conduct the design of an IT security plan for a case organisation, and assess the quality.
IS Infrastructure and Platforms	7,5	The module introduces the students to large-scale information systems and these are designed, deployed and how such systems evolve in organizations and markets. The students are introduced to the IS literature on information infrastructures and multisided digital platforms and ecosystems. Especially, the module covers theories of path constitution, generativity, and installed-base cultivation in order to understand and explain the dynamics of information infrastructures and digital platforms. Based on these theoretical insights, the students gain competencies for designing and governing infrastructures and platforms.
Research Methods	7,5	The aim of the course is to provide a methodological foundation for the Master Thesis. Students will gain knowledge of epistemologies and relevant methods for Information Systems. They will acquire specialized problem-solving skills, being able to conduct a systematic data collection and analysis. They shall take responsibility to conduct the steps of a research project, according to professional and ethical standards.

3.3 Elective subject

Within the students' 3th semester will have to choose one electable course in the program, which give the students the opportunity to further engage in in-depth knowledge of a topic of interest, or to broaden their scope and area of knowledge by selecting a related module that expands their horizon.

What topics that can be chosen may vary from year to year. The concrete topics are presented and published therefore early in the spring, in the students' 2rd semester, together with the deadline for enrolment in individual electable subjects.

3.4 Master Thesis (45 credits)

The aim of this course is to provide the student with an opportunity to develop systematic understanding and critical awareness on the solution of a relevant problem in the student's focal area. Students will gain advanced knowledge of the research process at Master level in information systems, including a deep knowledge of selected theories. They will acquire specialized problem-solving skills, being able to plan and conduct the steps in the research or development process at a high methodological standard. They shall take responsibility to conduct a well planned and executed project at Master level.

On a more detailed level, the student will, based on observations of the industry and the existing body of knowledge, develop a research question. Students will also be able to connect their Master Thesis work to one of the ongoing research projects at School of Economy, Innovation and Technology, Departmment of Technology. Futhermore the student will conduct an extensive literature review in order to map what is already known about the chosen research question. Building on this, the student will carry out the research. This usually includes collecting his or her own data, which can be done by means of surveys, interviews, experiments, observations, and more. The data are to be analysed in a throrough manner before conclusions can be made. Lastly, the student has to reflect on limitations, future research and the value of the contributions of the conduceted master thesis.

4. Internationalization and student exchange

With reference to *Studietilsynsforskriften* of February 2017 (§2-2, sections 7 and 8), the study has arrangements for internationalization and international student exchange.

4.1 Internationalization

In this context internationalization is understood as placing the study programme in an international context and that the students are exposed to a multitude of perspectives.

All of the reading materials and lectures are given in english, and the study uses both norwegian and international cases. The studends who wish to do so can write their Master Thesis in English, as well as choose an international case for their reseach. The program uses international lectures and guest lecturers. Our lectures also conduct reseach with international coauthors and play an active role in both national and international confrences.

For specific internationalization schemes, see the subject description of the study.

4.2 International student exchange

As regards to arrangements for international student exchange, Kristiania University College has the following mobility program;
- Nordplus in the Nordic region or the Baltic States
- ERASMUS + in Europe
- "Study Abroad", for students in and outside Europe

Kristiania Univeristy College has agreements on student exchanges and academic relevance secured by the academic field of study. Exchange courses from partners are approved by academic supervisors, for admission to the program, with an equivalent of 30 credits.

For nominations for student exchange, requirements are set for grades and motivation applications. For some study programmes there are requirements for documentation of creative work / portfolios.

For students at Master of Science in Information Systems: Management and Innovation student exchange is possible during the third semester. While on exchange the student will be able to start their master thesis with an advisor from Kristiania University College. For outgoing students, Kristiania University College, has established student exchange agreements with the following institutions:

- Kingston University, UK: Master Programme
- Arcada, Finland: International Business Management

- Seoul, South-Korea: Seoul National University of Science and Technology
- England: University of Hertfordshire, UK
- New Zealand: Otago Polytechnic New Zealand (1 student only)

Changes to approved universities may occur. Information about possible exchange stays for the relevant year is therefore published online and on the learning platform.

5. Teaching methods

The programme uses a number of varied forms of teaching in order to encourage learning.

- Lectures, to introduce theoretical issues and domain knowledge
- Seminars and group work, to give the students the opportunity to discuss different perspectives, integrate with previous knowledge, and practice analytical assessment with case materials.
- Practical assignments and lab work, to develop hands-on technical skills
- Directed and student-selected readings, to develop a solid knowledge base
- Oral presentations, to develop personal communication skills
- Essay and thesis writing, in order to synthesise knowledge and present analyses and results
- Supervision, to provide detailed feedback and discussion of student projects in close interaction with Høyskolen Kristiania researchers.

5.1 Forms of assessment

Regarding assessment forms, the students usually write essays during the modules. The objective of these assessment forms is to prepare and train the student for writing the Master's Thesis. In addition, some oral presentations, written exams and lab work are examples of other assessment forms. There are usually between one and two assessments in each module. For the Master's Thesis, the assessment is twofold: one written essay (The Master's Thesis) and one oral presentation.