MASTER'S DEGREE PROGRAMME IN SOCIAL DATA SCIENCE

Programme curriculum

2020 curriculum revised April 2024.

Content

1. Introduction

This programme curriculum should be read in conjunction with the Curricula's Common Part for the Faculty of Social Sciences, which applies to all Bachelor's and Master's degree programmes run by the Faculty. The Curricula's Common Part lays out rules that apply to all of the Faculty's programmes.

The programme curriculum was approved by the Dean of the Faculty of Social Sciences on 7 July 2020 and is valid from 1 September 2020. This latest revision was approved in January 2024 and becomes effective on 1 February 2024 for all students in the programme.

2. Title and affiliation

Graduates who have completed the Master's degree programme in Social Data Science are entitled to use the title of Master of Science (MSc) in Social Sciences in Social Data Science. The corresponding title in Danish is *cand.soc. i social datavidenskab*.

The MSc in Social Data Science is an interdisciplinary degree programme offered jointly by departments at the Faculty of Social Sciences and Copenhagen Center for Social Data Science, both at the University of Copenhagen. The Social Data Science degree programme has a board of studies. The administrative affiliation is with the Faculty of Social Sciences. The Board of Examiners is that of sociology.

3. The degree programme's objectives, competency profile etc.

3.1 Objectives

The Danish University Programme Order stipulates that:

- The purpose of Master's degree programmes within the field of social sciences area is to enable the students to identify and analyse complex social phenomena and to apply theoretical and methodological knowledge and skills within a wide range of professions in the public and private sectors.

- The Master's degree programmes include one or more social science subjects or other subjects relevant to the work of a social science graduate.

In addition to the above points, the MSc in Social Data Science has the following more specific purposes:

1. Providing students with the opportunity to improve their skills and specialise in both the social science aspects and data science aspects of social data science, as well as working with other social science disciplines.

2. Providing students with further academic knowledge, theoretical qualifications and methodological competencies to enable them to independently identify, formulate and solve advanced complex issues within the social science aspects of social data science.

3. Providing students with a basis for undertaking relevant job functions and qualifying them for enrolment in a PhD programme in Social Data Science or in one of the core social sciences.

3.2 Competence profile

In the course of the degree programme, students will acquire the knowledge, skills and competencies listed below enabling them both to work and conduct research within the field of social data science. Students will also acquire additional individual qualifications through elective courses as well as field and project work, and through their writing of the Master's thesis.

Graduates have the following qualification profile on successful completion of the degree programme:

Knowledge
- List and explain different uses of social science methods and concepts relevant to Social Data Science.
- Account for and reflect on the ethical, legal, and political framework for and consequences of how a given dataset was obtained and applied to analysis.
- Explain fundamental properties of individual and social behaviour, networks, and ideas based on a reflective application of quantitative and qualitative methods as well as models and theories from multiple disciplines within the social sciences.
- Account for the new possibilities that digital and other big and social data types provide for research of contemporary problems in business and in society.

- Explain how quasi-experimental methods can be used to establish causality and measure the effect sizes of policies.

Skills

- Analyse, qualify and independently apply big and complex data with special focus on value-generating activities in business, public administration, and civil society.
- Master state-of-the-art programming language for collection, processing, preparation, and analysis of data.
- Combine quantitative and qualitative empirical methods from social science, including statistical analysis, ethnographic methods, digital methods, and experimental methods with data science tools in order to analyse complex societal and organizational problems.
- Identify the societal potential of and challenges to working with 'big data'.
- Assess and present arguments for and against the quality of own as well as others people's application of statistical methods, datasets, and analytical approaches, including assessing the ethical, legal, political, and societal consequences of the produced knowledge.
- Communicate research-based knowledge from own and others people's research in writing, visualization, and speech, and discuss societal and scientific problems with fellow social data scientists and non-experts alike.

Competencies

- Employ state-of-the-art data science tools, including methods from supervised and unsupervised machine learning, web scraping, network analysis, visualization, special analysis, natural language processing etc. to the analysis of societal and organizational problems.
- Independently plan, lead and complete a social data science study/examination/research aimed at obtaining new knowledge to help overcome challenges in business or society. This entails designing, executing and analysing complex and big data projects with multiple data types concerning behaviour, networks, and ideas. The data types include but are not limited to data on individuals and social relations from surveys, registries, experiments as well as online platforms and ethnographic studies and may come in the form of text and image data as well as temporal and spatial data.
- Manage the legal and ethical aspects of collecting and processing personal data as well as making decisions based on the data. This includes fulfilling personal data requirements of the EU, handling secondary use of data and questions of reproducibility and validity of implementing data governance in organisations.
- Assess and evaluate the possibilities and limitations of data in a specific research-related and organisational context.
- Convey central concepts from one scientific discipline to other scientific disciplines.
- Lead and coordinate cooperation in interdisciplinary teams with people from other scientific fields and traditions in the application of Social Data Science in order to create value in businesses and in society.

- Independently identify and take responsibility for further personal scientific development and specialisation in the private and public sectors alike.

3.3 Admission requirements and restrictions

In order to be admitted into the MSc in Social Data Science, applicants must meet the following requirements:

- Hold one of the following Bachelor's degrees from a Danish university, a Bachelor's degree from a Danish university equivalent to any of the fields below or a Bachelor's degree from a recognised international university equivalent to any of the fields below:

Agricultural economics	Global business informatics
Anthropology	International business and politics
Business administration and digital management	Mathematics-economics
Business administration and project management	Organisational learning
Business administration and psychology	Political science
Business administration and sociology	Psychology
Digital design and interactive technologies	Public administration
Economics	Public health
Economics and business administration	Social science
Education science	Sociology
European business	Sociology and cultural analysis
European ethnology	Techno-anthropology

- Hold a Bachelor's degree from a recognised Danish or international university with at least 30 ECTS credits from social sciences courses of which at least one should be a

practical methods course. Social sciences courses include, among other things, social statistics courses, ethnography courses and other courses on qualitative or quantitative data collection and analysis; courses on culture, organisation, leadership, innovation, management or related topics which involve empirical data collection, processing or analysis; and Bachelor and other self-defined projects which include social data collection, processing or analysis.

- English language proficiency corresponding to at least the Danish upper secondary school 'English level B. (For information on how to meet the language requirements, see https://studies.ku.dk/masters/social-data-science/admission-requirements/language-requirements/

3.4 Prioritisation of applicants

The MSc in Social Data Science has a restricted intake. If the number of applicants that meet the admission requirements exceeds the number of students for which the maximum intake allows, a selection will be made on the basis of a comprehensive evaluation. The selection criteria as well as the maximum number of students for which the intake allows is published at:

https://studies.ku.dk/masters/social-data-science/application-procedure/

3.4.1 Supplementary courses

Only the applicant's Bachelor's degree is considered when the applicant's academic qualifications are assessed. This means that it is not possible to complete supplementary courses in order to meet the specific admission requirements.

The only exception to this is any course which is completed before the Bachelor's degree is completed. These courses can either form part of a previous degree programme or have been taken as single courses. However, no more than 30 ECTS credits from such courses can be taken into account in the assessment.

4. Content and academic profile

The core subject area of the Master's degree programme is social data science. The table below is an overview of the subject elements on the Master's degree programme, which presents the recommended course of study. It is recommended that the courses are completed in the outlined order. Students are required to attend and complete Advanced Social Data Science II (ASDSII) concurrently with the Digital Methods course. It is a requirement that 60 ECTS-credits have been passed before the thesis writing period begins.

	The master's degree programme in Social Data Science (120 ECTS)	
	Block 1	*Block 2*
Semester 1 (Autumn, year 1)	Social Data Science Base Camp (15 ECTS)	
	Elementary Social Data Science (7.5 ECTS)	Social Data Analysis (7.5 ECTS)
	Block 3	*Block 4*
Semester 2 (Spring, year 1)	Advanced Social Data Science I (7.5 ECTS)	Advanced Social Data Science II (7.5 ECTS)
	Data Governance: Law, Ethics, and Politics (7.5 ECTS)	Digital Methods (7.5 ECTS)
Semester 3 (Autumn, year 2)	Elective courses and mobility window (30 ECTS)	
Semester 4 (Spring, year 2)	Master's Thesis (30 ECTS)	

4.1 Compulsory courses

The degree programme consists of the following constituent and compulsory courses worth a total of 90 ECTS credits:

- Social Data Science Base Camp (15 ECTS)
- Elementary Social Data Science (7.5 ECTS)
- Social Data Analysis (7.5 ECTS)

- Advanced Social Data Science I (7.5 ECTS)
- Data Governance: Law, Ethics, and Politics (7.5 ECTS)
- Advanced Social Data Science II (7.5 ECTS)
- Digital Methods (7.5 ECTS)
- Master's Thesis (30 ECTS)

The recommended course of study on the degree programme is outlined in the table above. The courses may be taken in any order, provided that the student complies with the maximum completion time; cf. the Curricula's Common Part for the Faculty of Social Sciences. Students are recommended to complete 30 ECTS credits per semester. Students must write and submit the Master's thesis on their final year of the degree programme.

4.2 Elective courses and mobility window

Students have a free choice of 30 ECTS credits worth of elective Master's courses. Students may follow courses outside of the Faculty and the University. If elective courses are taken at a Danish educational institution at least 5 ECTS credits must be graded in accordance with the Danish 7-point grading scale.

4.2.1 Elective courses offered by the degree programme

The degree programme also offers its own elective courses that students may choose to follow separately or in combination. Read about these elective courses in section 6.8:

- Data Collection, Processing and Analysis (15 or 30 ECTS)
- Extra-Curricular Written Assignment (7.5 ECTS)
- Academic internship (15 or 30 ECTS)

Other elective courses are described in the course catalogue (www.kurser.ku.dk) for the semester concerned.

4.3 Registration for courses and exams

The study administration registers students for courses and exams on the first year of the Master's degree programme. From the second year and onward, students register themselves must - prior to each semester - register for courses and exams via Self-Service on KUnet within the course registration period.

4.4 Credit

Students on the Master's degree programme in Social Data Science are entitled to transfer a maximum of 30 ECTS credits from subjects studied at another educational institution in Denmark or abroad. Exempted from this rule are students who (1) transfer credit for course elements when transferring from another institution or degree programme and (2) transfer credit from another degree programme that has already successfully completed. Read more about the rules and procedures for approval and transfer of credit in section 7.3 of the Curricula's Common Part.

5. Exam

All written exam assignments must comply with the general rules on examination; cf. section 6 of the Curricula's Common Part. Furthermore, all written exam assignments, unless otherwise specified, must comply with the following rules:

- All written group assignments must be written and submitted in groups of at least three (3) students and no more than four (4) students. If the number of students in a group is fewer than three (3) students due to illness among the group members, the group exam assignment may be written and submitted by the remaining student(s) in the group.
- For courses prescribed to 7.5 ECTS credits, written exam assignments must be no longer than 10 pages for one (1) student, 15 pages in a group of two (2) students, no more than 20 pages in a group of three (3) students, and no more than 25 pages in a group of four (4) students.
- The maximum length of written exam assignments in courses prescribed to a different amount of ECTS credits than the above-mentioned 7.5 ECTS credits is adjusted proportionally to the number of ECTS credits to which the course in question is prescribed. This does not include the Master's thesis.
- Assessment is individual, also when the exam is group based. In connection with group exams, each student's performance is assessed on an individual basis, and individual grades are awarded. Consequently, each student's contribution(s) to a written group exam paper must always be clearly indicated in the assignment. Each student's contribution must be indicated in the table of contents as well as at the beginning of the respective sections of the assignment that the student has authored. The group may write the introduction and main conclusion as well as any sub-conclusions jointly.

5.1 Assessment and grading

The assessment of exams complies with the grading requirements of the Curricula's Common Part and the Danish Examination Order (*DK: Eksamensbekendtgørelsen*).

The following compulsory course, which amounts to a total of 15 ECTS credits, is graded on a pass/fail basis:

- Social Data Science Base Camp (15 ECTS)

The following compulsory courses, which amount to a total of 75 ECTS credits, are graded in accordance with the Danish 7-point grading scale:

- Elementary Social Data Science (7.5 ECTS)
- Data Governance: Law, Ethics and Politics (7.5 ECTS)
- Advanced Social Data Science I (7.5 ECTS)
- Social Data Analysis (7.5 ECTS)
- Advanced Social Data Science II (7.5 ECTS)
- Digital Methods (7.5 ECTS)
- Master's Thesis (30 ECTS)

The following compulsory courses, which amount to a total of 45 ECTS credits, are graded by an external examiner:

- Elementary Social Data Science (7.5 ECTS)
- Social Data Analysis (7.5 ECTS)
- Master's Thesis (30 ECTS)

5.1.1 Amount of ECTS credit's graded in accordance with the Danish 7-point grading scale

One elective course (at least 5 ECTS) must be graded in accordance with the Danish 7-point grading scale. With respect to the degree programme in its entirety, at least 80 ECTS credits must be assessed in accordance with the Danish 7-point grading scale.

Exemption:

Courses taken abroad are exempt from this rule. If 30 ECTS credits are taken abroad, at least 75 ECTS credits on the degree programme in its entirety must be assessed in accordance with the Danish 7-point grading scale.

6. Course catalogue

The range of courses offered on the Master's degree programme in Social Data Science is outlined below. More information about the courses can be found in the course catalogue (www.kurser.ku.dk), e.g. information about feedback form, workload, and literature. Subjects and exams are quantified in accordance with the European Credit Transfer System (ECTS) pursuant to which 60 ECTS credits correspond to one year of full-time studies. If a subject is weighted to 7.5 ECTS credits, this corresponds to 1/8 of one year of full-time studies.

6.1 Social Data Science Base Camp (15 ECTS credits)

Content

This course introduces students to the interdisciplinary degree programme of Social Data Science. In the first week, students are introduced to the group-based learning and working practices, which are core elements of the degree programme. For the rest of the term, students are introduced to the fundamentals of programming, data collection, and data analysis in Python including regression analysis. This will be combined with lectures and exercises that focus on elementary statistical modelling techniques and integrated quali-quant methods. Overall, the course will teach students the basic skills to program, collect and process data from a variety of online sources and structure them into a dataset, and to conduct basic analyses on that dataset.

Learning outcome
At the end of the course, students are able to:

Knowledge
- Define and explain how to use basic concepts within programming, including variables and data structures, control flow, and functions
- Account for use cases of key Python libraries for data collection and analysis, including Pandas and MatPlotlib
- Define basic concepts within statistics and underlying mathematics
- Account for advantages and disadvantages of different quantitative approaches, in particular basic machine learning and regression

Skills
- Perform elementary programming tasks in Python drawing on basic programming concepts
- Navigate and draw on online and offline resources to debug Python programs

- Use the basic toolkit to use Application Programming Interfaces for data collection and processing
- Set up basic Python scripts for scraping and adjust them to various online sources
- Flexibly structure, merge, and reformat data coming from various sources and in different forms, including quantitative and qualitative data
- Conduct exploratory data analysis using descriptive statistics, visualization methods, and content analysis
- Estimate regression models and explain the output

Competencies
- Work with and analyse data in interdisciplinary teams
- Critically assess and reflect on their own and others' coding practices
- Communicate social data science insights using basic data visualization and appropriate statistical methods to relevant audiences
- Integrate a netnographic approach with computational data collection

Teaching and learning methods
Lectures, seminars, group work, exercises, coding tutorials and methods workshops.

Exam
Exam form
Individual written exam.

The exam will consist of submitting code to collect and process data in order to produce a dataset of the student's choosing, along with a description and reflection on how they constructed the dataset. The code must be in the form of a Jupyter Notebook. Within the Notebook, students will also be required to conduct a basic analysis on that dataset in accordance with the Learning Outcomes.

Exam registration requirements

To be eligible for the exam in Social Data Science Base Camp, it is a requirement that students have completed and submitted all of the exercise assignments via Absalon prior to the exam start date. Each class-day will have an associated exercise assignment (max. 28 Jupyter Notebooks).

Reexamination registration requirements
To be eligible for the reexamination in Social Data Science Base Camp, it is a requirement that students have completed and submitted all of the exercise assignments via Absalon prior to the deadline for the reexamination registration period.

<u>Aid</u>

All aids allowed.

ChatGPT and other large language model tools are permitted as a dedicated source, meaning text copied verbatim needs to be quoted, the tool cited, and generally the specific use made of them needs to be described in the submitted exam.

<u>Assessment</u>

The exam is graded on a pass/fail basis.
The exam is graded by an internal examiner.

<u>Re-examination</u>

The second and third examination attempts are conducted in the same manner as the ordinary examination.

Criteria for exam assessment

The exam will be assessed on the basis of the learning outcome (knowledge, skills and competencies) for the course.

6.2 Elementary Social Data Science (7.5 ECTS credits)

Content

This course provides students with a general introduction to the research process in social data science. The course introduces central concepts and research methods in relation to the planning and execution of research in the field of social data science. The course is structured in three constitutive blocks.

The first block provides an introduction to different forms of data (e.g., readymade and custom-made data) as well as the art and challenges of collecting online data.

The second block introduces prominent research designs (e.g., quantitative, qualitative, and mixed methods designs) and different (online) data collection methods (e.g., surveys and experiments).

The third block introduces open sience practices as well as principles and methods on how to conduct high quality research and establish high quality data (e.g., high validity and reliability).

In all, the course introduces the students to basic techniques, methods and principles of social data science research to prepare them for and complement the advanced computational techniques, statistical methods and social science theories taught in subsequent courses.

Learning outcome

At the end of the course, students are able to:

Knowledge

- Explain the principles of empirical social science addressing both quantitative and qualitative research.
- Account for a broad variety of data collection methods used in social data science, as well as their strengths and weaknesses.
- Account for basic methods how to process and treat data for further analyses.
- Explain common criteria for high-quality, replicable social science research.

Skills

- Develop social data science research designs.
- Plan data collections of primary data to answer research questions using survey and experimental methods.
- Plan data collections of secondary data to answer research questions from online sources using web scraping, online archives, and APIs.
- Evaluate data quality and prepare data for further statistical analyses.

Competencies

- Evaluate and critically reflect on published social data science research by applying the highest international standards.
- Identify opportunities to use digital data sources.
- Plan and conduct high-quality social data science research projects, encompassing the research design, data collection, and data preparation stages.

Teaching and learning methods

Lectures, seminars, group-work and exercises.

Exam

Exam form

Portfolio exam written in groups. The portfolio consists of revisions to the earlier assignments that have been handed in and must be submitted by the end of the course. The final grade results from

the combined assessment of the three assignments.

Exam registration requirements
During the course, students must in groups submit a set of compulsory assignments, each corresponding to one of the three blocks.

Reexamination registration requirements
Prior to the deadline for the reexamination registration, students must submit a set of compulsory assignments, each corresponding to one of the three blocks.

Aid
All aids allowed.

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Assessment
The exam is graded in accordance with the Danish 7-point grading scale.
The exam is graded by an external examiner.

Re-examination
An essay, written either in a group, or individually, on a subject pertaining to the course content and prescribed literature. The subject must be pre-approved by the course lecturer(s).

Criteria for exam assessment

The exam will be assessed on the basis of the learning outcome (knowledge, skills and competencies) for the course.

6.3 Social Data Analysis (7.5 ECTS credits)

Content

This course introduces theories, concepts, and methods for the social scientific study of behaviour, social networks and cultural ideas. Through a combination of lectures, seminars and exercises, the course shows how classic social science problems can be investigated by using data science methods, and how the study of large-scale digital social data can benefit from social science

approaches. As such, the course provides students with knowledge about central methods and theories of social data science research, and with the capacity to operationalize these.

Learning outcome

At the end of the course, students are able to:

Knowledge

- Account for key social science theories of behaviour, networks and ideas.
- Demonstrate understanding of how computational methods can improve social science theories, and vice versa.

Skills

- Assess the relevance of computational methods to investigate social data science problems.
- Identify and operationalise relevant theoretical concepts and constructs.

Competencies

- Formulate feasible and relevant social data science research questions.
- Apply best practices in operationalizing relevant social data science theories and methods pertaining to behaviour, networks, and ideas.

Teaching and learning methods

A combination of lectures introducing central theories and methods of behaviour, networks and ideas, with seminars, including student presentations and group discussions.

Exam

Exam form

Written assignment authored by groups of 3-4 students.

Aid

All aids allowed.

ChatGPT and other large language model tools are permitted as a dedicated source, meaning text copied verbatim needs to be quoted, the tool cited, and generally the specific use made of them needs to be described in the submitted exam.

<u>Assessment</u>

The exam is graded in accordance with the Danish 7-point grading scale.

The exam is graded by an external examiner.

<u>Re-examination</u>

An essay, written either in a group, or indvidually, on a course pertaining to the course content and prescribed literature. The subject must be pre-approved by the course lecturer(s).

Criteria for exam assessment

The exam will be graded on the basis of the learning outcome (knowledge, skills and competencies) for the course.

6.4 Advanced Social Data Science I (7.5 ECTS credits)

Content

The course introduces students to advanced quantitative social science methods, supervised machine learning and formal models of networks. The social sciences have developed a number of methods and approaches to inferring causal relations and testing theory based on observational data and 'found' data. At the same time, machine learning methods are becoming ever more prominent, both for measurement and analysis. The first part of the course introduces advanced regression models and key research designs for causal identification from observational data in the social sciences, including regression-discontinuity, difference-in-difference, event studies and instrumental variables. The second part of the course introduces the basic approaches to and methods of supervised machine learning in a social science context. This includes linear models, tree-based classification and (cross)validation.

We also introduce the intersection of machine learning and social science empirical methods and outline challenges in (re)interpreting machine learning results through a social science lens, with a focus on machine learning model explainability and interpretability. Finally, the course introduces basic network concepts and measures.

Learning outcome

At the end of the course, students are able to:

Knowledge

- Show familiarity with advanced regression methods and different research designs for causal inference in the social sciences.
- Describe core concepts and methods in supervised machine learning, including linear models, tree-based classification, overfitting, bias/variance trade-off and cross-validation.
- Be able to define empirical issues at the intersection between machine learning and social science and describe challenges of interpretability of machine learning models.
- Define key concepts in the analysis of complex networks.

Skills

- Implement common social science identification strategies to handle problems of endogeneity and selection.
- Set up and execute simple supervised machine learning models for measurement and prediction in Python.
- Identify challenges in applying and learning from machine learning in a social science context.
- Structure network data in Python, as well as to construct and extract various network measures.

Competencies

- Design and carry out basic analyses of complex social science networks.
- Evaluate and implement appropriate modelling approaches given dataset and objective, i.e. whether the goal is to evaluate a policy, make a model with best fit of the data or construct new measures.
- Critically assess how various research designs and identification strategies can or cannot be applied to questions of causal relationships in observational and 'found' data and use this to develop data collection strategies.
- Account for the possibilities and limitations in the use of machine learning within the social sciences and reflect upon contemporary (mis)use of applications of machine learning in policy and research contexts.

Teaching and learning methods

Teaching combines lectures and classes, with a heavy emphasis on hands-on work with data in Python. Classes will present students with opportunities to apply their knowledge of programming and data handling and structuring as taught in Social Data Science Base Camp and Elementary Social Data Science to more advanced concepts and problems.

Exam

Exam form

Written exam project in groups. The group project will involve conducting one or more empirical analyses using insights from the course.

Exam registration requirements

To be eligible for the exam in Advanced Social Data Science I, it is a requirement that students have completed a number of compulsory problem sets based on a social science question combining knowledge of social science research design with methods from the course. The problem sets must be completed in groups and must be approved by a member of the teaching team.

Reexamination registration requirements

To be eligible for the reexam in Advanced Social Data Science I, it is a requirement that students have completed a number of compulsory problem sets based on a social science question combining knowledge of social science research design with methods from the course. The problem sets must be approved by a member of the teaching team prior to the deadline for the reexamination registration period.

Aid

All aids allowed.

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Assessment

The exam is graded in accordance with the Danish 7-point grading scale.

The exam is graded by an internal examiner.

An essay, written either in a group, or individually, on a subject pertaining to the course content and prescribed literature. The subject must be pre-approved by the course lecturer(s).

Criteria for exam assessment

The exam will be assessed on the basis of the learning outcome (knowledge, skills and competencies) for the course.

6.5 Data Governance: Law, Ethics and Politics (7.5 ECTS credits)

Content

The increasing datafication of the world brings with it a range of ethical, legal, and political challenges. From the ethics of data privacy to legal frameworks such as GDPR and legislation regulating tech giants, new data governance issues surface rapidly. This course introduces students to key legislation, as well as political and ethical debates concerning the governance and security of data. Students are taught how to make data collection and processing ethically sound and legally compliant, providing them with the necessary knowledge, skills, and competencies regarding data protection and data management, complementing the social data science and programming skills they acquire on the other courses on the Master's degree programme in Social Data Science.

Learning outcome

At the end of the course, students are able to:

Knowledge
- Account for ethical, legal, and political aspects and consequences of the collection and use of data for a range of administrative, scientific, and commercial purposes.
- Explain key legal and social science concepts, ideas, and debates pertaining to the use of different types of data in private and public contexts, including the ethical debates regarding the use of algorithms and machine learning (e.g. FATE: Fair, Accountable, Transparent & Ethical).
- Demonstrate insight into the content and implications of national and EU legal frameworks for data collection, processing, and storage (i.e., GDPR).

Skills

- Evaluate the quality of own as well as others people's use of methods, datasets, and analytical approaches in relation to the ethical, legal, and political aspects of data protection.
- Communicate central questions around data ethics – academic as well as policy-oriented – to peers and non-experts.
- Formulate efficient, ethically, and legally sound procedures for managing data, including data stewardship, ownership, compliance, privacy, data risks, data sensitivity, and data sharing.

Competencies

- Navigate and understand existing key legislation, rules, and ethical frameworks for personal data management and governance, especially GDPR.
- Critically discuss possibilities and risks associated with the use of data when implementing data governance policies and rules in organizations and institutions based on frameworks from social science and law.
- Assess concrete cases of data governance, including the identification of problems, risks of misuse, as well as the benefits of data analysis.

Teaching and learning methods

The course combines lectures, workshops, quizzes, group exercises, student presentations, and peer-feedback seminars. Expert guest lecturers will be invited to give talks, especially in connection to aspects of the course related to GDPR and Danish data protection legislation.

Exam

Exam form

Written assignment in groups (a free essay and a 3-day take-home essay).

The first essay is a free assignment with an independently formulated problem called the Data Governance Issue Essay. The essay must include an analysis of the legal, ethical and political issues pertaining to a real-world case study related to the application, management, and governance of data. Students are expected to draw on arguments and theories from the course literature. The essay should have a clear problem statement and a number of sections analysing the case study from legal, ethical, and political perspectives. Students can choose a case themselves.

The second essay is a three-day take-home assignment called a Data Management Plan. The essay must include an account of how to make a dataset legally compliant and ethically sound. Students are supplied with a dataset that resembles the types of datasets that they will be working on in other courses on the Master's degree programme.

The total length of the two essays must not exceed the general length prescribed for written exams, cf. section 5. The number of pages should roughly be evenly distributed between the two essays.

<u>Aid</u>

All aids allowed.

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<u>Assessment</u>

The exam is graded in accordance with the Danish 7-point grading scale. The two essays are assigned equal weight towards the final grade.

The exam is graded by an internal examiner.

<u>Re-examination</u>

The second and third examination attempts will differ from the ordinary examination in two respects: 1) in the first essay, students must answer a substantially new problem statement of their own choosing; 2) the dataset supplied for the second essay will differ from the one from that was handed out in connection with the ordinary examination. It is possible to do the re-examination either individually or in groups.

Criteria for exam assessment

The exam will be assessed on the basis of the learning outcome (knowledge, skills, and competencies) for the course.

6.6 Advanced Social Data Science II (7.5 ECTS credits)

Content

The wealth of new data in the digital society is characterized by high frequency observations in a high granularity setting, allowing for both comprehensive and detailed analysis of social and individual behaviour. Messages in digital form and comments and conversations on social media

have the potential to provide thick descriptions of social interactions and individual values in large-scale, sometimes population level, settings. Digitalization of large corpuses of legal, administrative and political texts allows for dynamic analysis of evolving social ideas and issues. At the same time, most digital data do not arrive in simple accessible, quantifiable and comparable forms, but as text, sound and pictures. Advanced Social Data Science II focuses on unstructured data and methods for processing, transforming and dealing with complex and high dimensional data.

The course presents classic unsupervised learning methods for characterizing and developing typologies and categories of individual and social behaviour, networks and ideas. Furthermore, it introduces state-of-the-art methods of self-supervision and transfer learning for classifying complex unstructured data such as text and audiovisual data, and relates such data-driven methods to existing theoretical methods and models in the social sciences.

Learning outcome

At the end of the course, students are able to:

Knowledge

- Explain the differences between and capabilities of neural network architectures such as RNN, LSTM and attention-based models.
- Account for various learning strategies, algorithms as well as approaches: clustering and unsupervised learning, supervised learning, semi-supervised learning, and transfer learning.
- Account for the potential of different representations, encodings and transformations of text, structured and unstructured.

Skills

- Extract reliable information from text data using supervised and unsupervised learning and techniques from natural language processing.
- Use scikit-learn and PyTorch to apply basic and advanced machine learning models.
- Apply state-of-the-art deep transfer learning to classify unstructured data.

Competencies

- Integrate theoretical and applied knowledge within the field of Social Data Science and formulate compelling research questions given an unstructured dataset.
- Construct data sets for social science research from unstructured text and media data that are validated and well documented.

- Independently carry out an end-to-end analysis given an unstructured dataset of text, including exploratory analysis and discovery using unsupervised methods and supervised learning for measurement, and assessment of model-based biases.
- Critically evaluate the implications of results, considering model limitations and biases, and systematic noise introduced by data collection and sampling methods.

Teaching and learning methods

This class will be taught using a combination of lectures and hands-on lab exercises working with problem sets.

Exam

72-hour written take home exam. The exam can be written individually or in groups of 2-4 students.

Aid

All aids allowed.

ChatGPT and other large language model tools are permitted as a dedicated source, meaning text copied verbatim needs to be quoted, the tool cited, and generally the specific use made of them needs to be described in the submitted exam.

Assessment

The exam is graded in accordance with the Danish 7-point grading scale.

The exam is graded by internal examination.

Re-examination

An essay, written either in a group, or individually, on a subject pertaining to the course content and prescribed literature. The subject must be pre-approved by the course lecturer(s).

Criteria for exam assessment

The exam will be assessed on the basis of the learning outcome (knowledge, skills and competencies) for the course.

6.7 Digital Methods (7.5 ECTS credits)

Content

Using digital methods is a specific approach to doing digital social research. In digital methods, focus is placed on the digital media contexts where data is generated as a by-product of social interaction, and on new ways of combining quantitative and qualitative methods of digital inquiry and analysis. This course provides students with practical skills in implementing three sets of computer-assisted qualitative methods: exploratory network analysis, online ethnography, and content analysis. As such, it supplements the various quantitative techniques taught in other courses on the degree programme, and provides tools for mixing qualitative methods with textual and/or visual quantitative data into qualitative-quantitative social-science analyses. Students train these skills by conducting their own integrated mapping of a public issue, involving networks, ideas, and behaviour across individual and organizational levels and across multiple digital platforms.

Learning outcome

At the end of the course, students are able to:

Knowledge

- Show familiarity with the basic techniques, use scenarios, and validity criteria of computer-assisted qualitative methods, i.e. online ethnography, content analysis, and exploratory network analysis.
- Account for the procedures, potentials, and pitfalls of combining and integrating qualitative and quantitative data sources.
- Account for the relationship between digital methods' emphasis on the media contexts of digital data and the broader questions, claims and biases of social data science.

Skills

- Identify the procedures of qualitative content analysis for designing appropriate semantic categories, including for use in subsequent machine learning with quantitative text (and/or visual) data.
- Extract, and communicate network patterns, ideas, and behaviour characteristics of specific social settings and public issues, using the appropriate qualitative method(s).
- Combine qualitative data with quantitative data sources, thereby integrating heterogeneous digital data formats into comprehensive social analyses.

Competencies

- Evaluate and analyse a social data problem from both qualitative and quantitative perspectives, including determining when to deploy specific method designs taught on the course.
- Design and implement small-scale online ethnography campaigns, along with exploratory network analysis and content analysis, to obtain insights into social networks, ideas, and behaviour at individual and organizational levels.
- Produce persuasive qualitative-quantitative reports on social data problems for a range of organizational use scenarios, by integrating qualitative and quantitative sources of data as well as forms of narration and visualization.

Teaching and working methods

Teaching combines lectures and in-class method exercises with extensive out-of-class project work. Throughout the course, students train their qualitative digital method skills by conducting their own project (with some teacher assistance available), i.e. digitally mapping a public issue chosen by themselves (or possibly suggested by the teachers). In-class exercises give priority to providing students first-hand skills in closely combining digital data formats into combined qualitative and quantitative social analyses that mirror realistic use scenarios in a range of contexts where social data analysis is a key component.

Exam

Exam form

Group-based oral exam with a prior written assignment in groups. The written assignment should contain a description of method accounts, forms of analyses and formulate and evaluate an explicit research question. In addition, it may contain documentation in the shape of code, field-notes, data visualizations, and so on, as relevant to the project.

Exam registration requirements

To be eligible for the exam in Digital Methods, it is a requirement that students have completed and passed four project-related assignments. The assignments can be submitted individually or in groups and must be approved by a member of the teaching team. The length of each assignment must be no longer than 3 standard pages.

Reexamination registration requirements: To be eligible for the reexam in Digital Methods, it is a requirement that students have completed and passed four project-related assignments prior to the deadline for the reexamination registration period. The assignments can be submitted individually or in groups and must be approved by a member of the teaching team. The length of each assignment must be no longer than 3 standard pages.

Aid

All aids allowed.

ChatGPT and other large language model tools are permitted as a dedicated source, meaning text copied verbatim needs to be quoted, the tool cited, and generally the specific use made of them needs to be described in the submitted exam.

Assessment

The exam is graded in accordance with the Danish 7-point grading scale. The written assignment and the oral exam are given equal weight towards the final grade awarded.

The exam is graded by internal examination.

Re-examination

An essay, written either in groups, or individually, on a subject pertaining to the course content and prescribed literature. The subject must be pre-approved by the course lecturer(s).

Criteria for exam assessment

The exam will be assessed on the basis of the learning outcome (knowledge, skills and competencies) for the course.

The assessment is based on an overall assessment of the students' ability to formulate and implement a coherent digital social research framework. Specifically, students are evaluated on their ability to give an account of the different parts of the assignment (research question, analysis etc.)

6.8 Elective courses offered by the degree programme

6.8.1 Data Collection, Processing and Analysis (15 or 30 ECTS credits)

Students can enrol in this course for either 15 or 30 ECTS credits.

Content

The purpose of this course is to provide students with an opportunity for collecting and working with data that is relevant in relation to the Master's thesis. The course consists in participating in a data collection project such as running an experiment or scraping data from the internet. This includes preliminary processing and basic analysis.

Students are only allowed to pass this course once in the course of the Master's degree programme.

Learning outcome 15 ECTS credits

At the end of the course, students are able to:

Knowledge
- Describe the choice of method for doing research within social data science and the knowledge it produces.
- Define theoretical terms and research themes that can be used to understand relevant social data science problems within an empirical material.

Skills
- Carry out a smaller data collection, taking point of departure in an independent problem formulation.
- Organize the empirical material systematically, taking into consideration research ethics.

Competencies
- Reflect critically on the methodological and analytical process of collecting data.
- Assess problem statement and research questions in relation to the empirical material.

Learning outcome 30 ECTS credits

At the end of the course, students are able to:

Knowledge
- Describe the use of different methods for doing research within social data science and the knowledge they produce.
- Define of theoretical terms and research themes that can be used to understand relevant social data science problems within an empirical material.

Skills

- Design large scale data collection process taking a point of departure in an independent problem formulation.
- Independently and critically collect relevant empirical material.
- Adjust the problem statement and research question and academically account for the adjustments.
- Systematically organize and structure the empirical material in accordance with research ethics.
- Document the collected data and account for how it has been structured.

Competencies

- Assess problem statement and research questions in relation to the empirical material from different perspectives.
- Discuss ethical implications in regard to the data collection.
- Contemplate and assess the potential for applying the data for commercial and/or political purposes.
- Reflect critically on the methodological and analytical process of collecting data and applying it for and research purposes.

Teaching and learning methods

This course is conducted primarily as an independent study. At the beginning of the semester, the Head of Studies assigns students into supervision clusters.

In the course of the semester students must participate in workshops, organised by the cluster supervisor, focusing on presenting their social data science material and analysis. The output from the workshops are portfolio items.

Exam

Exam form

Written exam (portfolio) submitted individually or in groups. Students in the same group must be enrolled for the same number of ECTS. The portfolio exam must contain all the portfolio assignments handed in during the course and an overview of the collected data material.

- For 15 ECTS credits, the written portfolio assignment must be no longer than 10 pages when written by 1 student and 15 pages when written by two students, who write together.
- For 30 ECTS credits, the written portfolio assignment must be no longer than 20 pages when written by 1 student and 30 pages when written by two students, who write together.

Exam registration requirements

To be eligible for exam, the projects must be pre-approved by course responsible(s) at the start of the third semester. In addition, participation in the workshops is compulsory. The number and type of workshops depends on the scope of ECTS credits taken.

Aid

All aids allowed.

ChatGPT and other large language model tools are permitted as a dedicated source, meaning text copied verbatim needs to be quoted, the tool cited, and generally the specific use made of them needs to be described in the submitted exam.

Assessment

The exam is graded in accordance with the Danish 7-point grading scale.
The exam is graded by an internal examiner.

Re-examination

The second and third examination attempts are conducted in the same manner as the ordinary examination.

Criteria for exam assessment

The exam will be assessed on the basis of the learning outcome (knowledge, skills and competencies) for the course.

6.8.2 Co-curricular Written Assignment (2,5, 5 or 7.5 ECTS credits)

Content

Co-curricular written assignments are an option available to students who want to enhance their knowledge and competencies in a particular field within social data science.

Students are allowed to write a maximum of one assignment of this kind during their master's programme.

Learning outcome

At the end of the course, students are able to:

Knowledge

- Critically and independently reflect upon and discuss the applied social data science theories and methods within the chosen area of study.
- Account for the validity, scope and usefulness of relevant data as part of the project.

Skills

1. Apply relevant theories and methods on a selected area of study.
2. Independently summarize and analyse a topic in a well-structured written report.

Competencies

1. Independently identify and select relevant theories to examine a chosen area of study.
2. Independently select, analyse and apply academic literature relevant to a specific problem statement.

Teaching and learning methods

Students enter into supervision agreements with one of the full-time teachers who are involved in the Master's degree programme in Social Data Science or an affiliated part-time lecturer, a PhD student or a postdoc. Supervision of co-curricular written assignments is limited to initial assistance with literature suggestions and/or the structuring and scope of the analysis and contents in the course of one meeting.

All assignments must be submitted no later than in the end of the semester where the registration date is made. The exact date is given by the exam administration.

The assignment must be submitted in Digital Exam.

Exam

Exam form

The length of co-curricular written assignments depends on the prescribed number of ECTS. The requirements for the number of pages for co-curricular written assignments are as follows:

- 2.5 ECTS = 5–7.5 standard pages
- 5 ECTS = 10–15 standard pages
- 7.5 ECTS = 20–25 standard pages

The assignment may be written by up to two students. For assignments written by two students, the number of pages is multiplied by 1,5.

Aid

All aids allowed.

ChatGPT and other large language model tools are permitted as a dedicated source, meaning text copied verbatim needs to be quoted, the tool cited, and generally the specific use made of them needs to be described in the submitted exam.

Assessment

The exam is graded in accordance with the Danish 7-point grading scale.

The exam is graded by an internal examiner (the supervisor).

Re-examination

The second and third examination attempts are conducted in the same manner as the ordinary examination.

Criteria for exam assessment

The exam will be assessed on the basis of the learning outcome (knowledge, skills and competencies) for the course.

6.8.3 Academic Internship (15 or 30 ECTS credits)

It is possible to replace subject elements corresponding to 15 or 30 ECTS credits on the master's degree programme in Social Data Science with an academic internship.

Content

The purpose of the academic internship is to provide students with an opportunity to get hands-on-experience for research and/or commercial or social purpose. Through a formalized attachment to a company, public institution, research institute or similar the student will perform tasks and at the same time be able to apply academic skills in a practical context.

Students are only allowed to pass this course once in the course of the Master's degree programme.

<u>In the course of the academic internship, students signed up for 15 ECTS credits will:</u>

- On one occasion, submit preliminary considerations regarding their academic internship report and receive feedback from the internal supervisor.
- Submit an academic internship report for the exam.

<u>In the course of the academic internship, students signed up for 30 ECTS credits will:</u>

- On two occasions, submit preliminary considerations regarding their social data scientific assignment and receive feedback from the supervisor.
- Submit a social data scientific assignment for the exam.

Learning outcome 15 ECTS credits

At the end of the academic internship, students are able to:

Knowledge

- Identify and refer to relevant theories and methods in a practical context.

Skills

- Independently summarize and analyse a practical case in a well-structured written report.
- Independently identify and select relevant theories and methods to examine a practical case.

Competencies

- Critically reflect upon the acquired insights into and practical experience with the execution of work tasks relevant to social data science.
- Discuss empirical implications with data collection at the internship site with reference to literature and experiences from the study program

Learning outcome 30 ECTS credits

At the end of the academic internship, students are able to:

Knowledge

- Critically and independently reflect upon and discuss the applied social data science theories and methods to a chosen topic.
- Account for the validity, scope and usefulness of relevant data as part of the social data scientific assignment.

Skills

- Apply and discuss for relevant theories and methods in a practical context.
- Independently summarize and analyse a topic in a well-structured written assignment.
- Carry out and implement social data science-based analysis in a practical context

Competencies

- Independently identify and select relevant theories to examine a practical case
- Gauge and evaluate the relevance of methods for collecting and analysing data for practical cases.
- Formulate a comprehensive research design to investigate the chosen case
- Independently analyse and apply academic literature relevant to a specific problem statement

Teaching and learning methods

This course is conducted primarily as an independent study.

Internal supervisor

Students enter into supervision agreement with one of the full-time teachers who are involved in the Master's degree programme in Social Data Science or an affiliated part-time lecturer, a PhD student or a postdoc. The supervisor is responsible for approving and monitoring the academic internship, and for ensuring that the learning outcome is achieved.

External supervisor

Students must be assigned an external supervisor employed at the place of the academic internship. The external supervisor continuously develops and evaluates the academic internship together with the student in accordance with the expected learning outcome.

Exam

Exam form for students signed up for 15 ECTS credits – Academic internship report

Internship report submitted individually, maximum 5 standard pages.

Exam form for students signed up for 30 ECTs credits – Social data scientific assignment

Social data scientific assignment submitted individually, maximum 20 standard pages.

If two internees (signed up for 30 ECTS credits) are working on the same topic, at the same company, and with the same supervisor they can write their exam together. The assignment must be at maximum 25 standard pages.

Exam registration requirements

Students enrolled for 15 ECTS credits must on one occasion submit considerations regarding their academic internship report to the internal supervisor, and document that the number of working hours has been completed (e.g. academic internship contract).

Students enrolled for 30 ECTS credits must on two occasions submit considerations regarding their social data scientific assignment to the internal supervisor, and document that the number of working hours has been completed (e.g. academic internship contract).

Assessment 15 ECTS credits

The exam is graded on a pass/fail basis.
The exam is graded by an internal examiner.

Assessment 30 ECTS credits

The exam is graded in accordance with the Danish 7-point grading scale.
The exam is graded by an internal examiner.

Aid

ChatGPT and other large language model tools are permitted as a dedicated source, meaning text copied verbatim needs to be quoted, the tool cited, and generally the specific use made of them needs to be described in the submitted exam.

Re-examination

The second and third examination attempts are conducted in the same manner as the ordinary examination.

Criteria for exam assessment

The exam will be assessed on the basis of the learning outcome (knowledge, skills and competencies).

6.8.5 Other Electives

Other elective courses offered by the programme are described in the course catalogue (www.kurser.ku.dk) for the semester concerned.

6.9 Master's Thesis (30 ECTS credits)

Master's thesis format

Students can choose the following formats:

- Social Data Science monograph
- Scientific article
- Annotated dataset
- Report for external partner

Social Data Science monograph

The Master's Thesis must meet the learning outcomes described below in one comprehensive piece of writing and fulfil the requirements in the Curricula's Common Part. The thesis should be written at a level comprehensible to any graduate of the MSc in Social Data Science and should reflect all learning content of the program relevant to the project. This means for example:

- Empirical theses should include sections related to data collection, analytical methodology, and the ethical and legal context for both.

- Theoretical or methodological theses should include sections comprehensively placing the problem the thesis addresses in the relevant literature, and might include sections applying a comprehensive set of relevant angles to the problem (e.g., different stakeholders, different ethical principles, different theoretical or conceptual perspectives) or evaluating the proposed methodology against existing baselines.

Scientific article

The Master's thesis must fulfil the standard criteria and contain the following main components:

- A scientific article. The scientific article should be written with the style and format of an article in a top social science journal. The scientific article should be of maximum 20 pages, emphasizing how the Master's thesis contributes to existing literature.

- A companion paper written for an academic audience which expands on and supplements the scientific article as necessary to document the full scope of the Master's Thesis' learning outcomes.

Annotated dataset

The Master's thesis must fulfil the standard criteria and contain the following main components:

- A detailed annotated dataset, which should 1) contain a documentation of the data, 2) code that structures the raw data source, 3) a sample of how raw data looks like (can be anonymized or simulated, if relevant) that the code can run on, 4) a sample of the structured/annotated data (can be anonymized or simulated, if relevant)
- A companion paper written for an academic audience which expands on and supplements the detailed annotated dataset as necessary to document the full scope of the Master's Thesis' learning outcomes.

Report for external partner

The Master's thesis must fulfil the standard criteria and contain the following main components:

- A report, primarily addressed to an external party of no more than 20 pages, in which a problem from an academic internship/project-oriented work or data collection is analysed.
- A companion paper written for an academic audience which expands on and supplements the report as necessary to document the full scope of the Master's Thesis' learning outcomes.

Content

The Master's thesis is the conclusion of the degree programme. The purpose of the Master's thesis is for students to acquire research-based competencies by conducting a social data science in-depth study of a problem of their choosing. This includes identifying a problem by gathering and analysing relevant social data and applying methodological, theoretical, ethical and legal perspectives while at the same time incorporating social science and data science. Relevant data may include, but is not limited to, big social data from e.g. social media platforms or other sources.

Learning outcome

At the end of the Master's thesis, students are able to:

Knowledge
- Account for the scientific and social potentials of the research.

- Relate critically to existing knowledge within this area.
- In connection with the oral defence, the student must demonstrate a command of the methodologies applied in connection with the preparation of the Master's thesis.

Skills

- In connection with the oral defence, the student must be able to account for the issue of the thesis and its clarification in a clear and comprehensible manner.
- Structure and argue convincingly while processing the problem.
- Critically assess the quality and use of empirical data or algorithms employed in the Master's thesis, including any legal, ethical, political or other relevant considerations.
- Justify the design and discuss the choice of methodology.
- Justify in what sense new knowledge has been generated or new light shed on existing knowledge and qualify this in terms of usefulness, topicality, theory or methodological progress.
- Account for the distinct social science contribution to knowledge made by the analysis and how it is part of a social data science approach.

Competencies

- Formulate a precise problem statement/research question.
- Independently take responsibility for own academic progress.
- Plan, structure and implement a social data science study in accordance with scientific standards.
- Independently manage and coordinate the collaboration with fellow student, supervisor, and potential external partner; including handling interdisciplinary differences, political or commercial interests, time schedules etc.
- Apply relevant social science theory in the analysis and present independent observations on it.
- Discuss the knowledge produced critically and put it into perspective.

Teaching and learning methods

Students are assigned to a cluster consisting of 4-6 students with two supervisors per cluster. The supervisors are drawn from a supervisor pool made up of the full-time teachers at the Master's program and PhD students and post docs affiliated with the Copenhagen Center for Social Data Science (SODAS). The cluster will meet during the semester by appointment.

The assignment of students to supervision clusters is done by the Head of Studies or a full-time lecturer appointed by the Head of Studies. The assignment is based on supervisor availability, fit between supervisor profiles and proposed thesis topic and format, students' requests as well as

overlap among all students signed up for the Master's Thesis. In exceptional circumstances, students may apply to the Board of Studies for an external supervisor.

Please note that supervision is only offered in connection with the first thesis contract.

Sign up

Students must register for the Master's thesis in accordance with the rules laid down in the Exam section of the Curricula's Common Part.

It is not possible to cancel the thesis contract once the contract period has begun. For a detailed description of the registration procedures, see the study pages on KUnet.

Exam

Exam form

The Master's thesis may be written individually or together in a group by a maximum of three students. For the classic Master's thesis, the total number of pages must amount to no more than 40 standard pages for a single student, 60 pages for groups of two students, and 80 pages for groups of three students. For the non-classic formats, the same page limits apply to the combination of all thesis components.

The Master's thesis is defended in an oral defence based on the student's written presentation. Students co-writing their Master's thesis defend it together. The duration of the oral defence is one hour for one student, with 15 minutes added for each additional student in a group. This time frame includes dedicated time for an initial discussion among external censor and supervisors (up to 1/6 of the total duration) and time for students' presentation (approximately one third of the total duration)

The Master's thesis must include a summary that summarizes the main points of the Master's thesis and how the student arrived at these points. The summary must be written in English, German og French, even if the Master's thesis is not written in Danish.

Formal requirements

It is a requirement that 60 ECTS credits have been passed before the thesis writing period begins.

Assessment

The Master's thesis and the oral defence are graded in accordance with the Danish 7-point grading scale.

The exam is graded by an external examiner.

In connection with group exams, each student's performance is assessed on an individual basis, and individual grades are awarded. The supervisor decides, in consultation with the students, whether the individual grades are announced together or separately.

<u>Re-examination</u>

Students who fail to submit their Master's thesis within the stipulated deadline must register for a second examination attempt (and, if needed, a third attempt) in accordance with the rules laid down in the Exam section of the Curricula's Common Part.

The student cannot make use of second and third examination attempt if the maximum completion time is exceeded. In that case, the student is disenrolled from the University regardless of whether all attempts have been used.

Criteria for exam assessment

The exam will be assessed on the basis of the learning outcome (knowledge, skills and competencies) for the Master's thesis.

The summary is included in the assessment of the Master's thesis. The assessment of the Master's thesis is weighted in such a way that the written part weighs approx. 2/3 and the oral part approx. 1/3.

Writing and spelling skills form part of the overall assessment of the Master's thesis. However, the academic content is assigned the highest weight. The Board of Studies might grant an exemption from this rule in case of impairment, cf. the Danish Examination Order.

<u>Aid</u>

All aids allowed.

ChatGPT and other large language model tools are permitted as a dedicated source, meaning text copied verbatim needs to be quoted, the tool cited, and generally the specific use made of them needs to be described in the submitted exam.

Language

Danish or English.