

## **Programme Specific Curriculum for the**

# MSc in Social Data Science 2020 (revised April 2025)

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## **Chapter 1. Introduction**

The programme curriculum for the MSc in Social Data Science consists of two parts: the Curricula's Common Part and a Programme-specific Curriculum. The Curricula's Common Part stipulates the common rules that apply to all degree programmes at the faculty. The Programme Curriculum describes the academic elements of the master's Programme in Social Data Science.

The programme curriculum was approved by the Dean of the Faculty of Social Sciences on 7 July 2020, and it is valid from September 2020. This latest revision was approved in April 2025, and it becomes effective on 1 September 2025 for all students in the programme.

## 1.1 Title and affiliation

Graduates are entitled to use the title Master of Science (MSc) in Social Data Science. The corresponding title in Danish is candidatus/candidata societatis (cand.soc.) i Social Datavidenskab.

## **1.2 Number of ECTS credits**

Subject elements and exams of the MSc in Social Data Science are quantified in ECTS credits (the European Credit Transfer System), according to which 60 ECTS credits correspond to one year of full-time study. The MSc in Social Data Science equates to 120 ECTS credits.

## **1.3 Affiliation**

The MSc in Social Data Science is an interdisciplinary master's programme offered by SODAS (Copenhagen Center for Social Data Science) with contributions from the five departments of the Faculty of Social Sciences at the University of Copenhagen. The administrative affiliation is with the Faculty of Social Science.

The programme is affiliated with the Board of Studies for Social Data Science.

The Board of External Examiners for Sociology provides all external examiners for the programme.

### 1.4 Language

The language of instruction of the programme is English.

## **1.5 Academic Profile**

#### 1.5.1 Objective

The master's programme in Social Data Science is an independent, complete and coherent research-based, social science Study Programme. 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.

Furthermore, the MSc in Social Data Science programme has the following specific purposes:

- 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.
- 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.
- 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.

#### 1.5.2 Competence profile

In the course of the degree programme, students will acquire the knowledge, skills and competences 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. A graduate of the MSc programme in Social Data Science will have acquired the following qualifications:

#### Knowledge

Graduates are able to:

- 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

Graduates are able to:

- 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.

#### Competences

Graduates are able to:

- 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 researchrelated 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.

## **Chapter 2. Admission requirements**

## 2.1 Admission to the master's programme

In order to be admitted into the master's programme 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.

## 2.2 Supplementary activities

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.

## 2.3 Language requirements

In order to be admitted into the master's programme, applicants must document proficiency in English corresponding to at least 'English level B.' of the Danish upper secondary school; cf. Section 11 of the Danish Ministerial Order on Admission at Universities. For further details please refer to <a href="https://studies.ku.dk/masters/social-data-science/admission-requirements/language-requirements/">https://studies.ku.dk/masters/social-data-science/admission-</a> requirements/language-requirements/).

## 2.4 Prioritization 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/

## Chapter 3. Programme structure

## 3.1 Programme composition and study progression

Subject elements and exams are quantified in ECTS credits (the European Credit Transfer System), according to which 60 ECTS credits correspond to one year of full-time study.

The MSc in Social Data Science equates to 120 ECTS credits and consists of the following constituent subject elements:

- Compulsory subject elements, corresponding to 90 ECTS (of which the Master's Thesis accounts for 30 ECTS credits).
- Elective subject elements corresponding to 30 ECTS credits.

The core subject area of the degree programme is social data science. The table below illustrates the recommended academic progression of the subject elements on the master's degree programme. Students may plan an alternative progression, provided that they comply with the following:

- Students must finish their master's degree within the maximum completion time; cf. paragraph 3.2 of the Curricula's Common Part for the Faculty of Social Sciences.
- 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)   |                                 |  |  |
|               | <u>Block 1</u>                                       | <u>Block 2</u>                  |  |  |
| Semester 1    | Social Data Science Base Camp                        |                                 |  |  |
| (Autumn, year | (15  | ECTS)                           |  |  |
| 1)            | Elementary Social Data                               | Social Data Analysis            |  |  |
|               | Science  | (7.5 ECTS)                      |  |  |
|               | (7.5 ECTS)   |                                 |  |  |
|               | <u>Block 3</u>                                       | <u>Block 4</u>                  |  |  |
| Semester 2    | Advanced Social Data Science                         | Advanced Social Data Science II |  |  |
| (Spring, year | I (7.5 ECTS)   |                                 |  |  |
| 1)            | (7.5 ECTS)   |                                 |  |  |
|               | Data Governance: Law, Digital Method                 |                                 |  |  |
|               | Ethics, and Politics (7.5 ECTS)                      |                                 |  |  |
|               | (7.5 ECTS)   |                                 |  |  |
| Semester 3    | Elective courses and mobility window                 |                                 |  |  |
| (Autumn, year | (30 ECTS)  |                                 |  |  |
| 2)            |  |                                 |  |  |

|                     | The master's degree programme in Social Data Science |  |  |  |
|---------------------|--|--|--|--|
|                     | (120 ECTS)   |  |  |  |
| Semester 4          | Master's Thesis                                      |  |  |  |
| (Spring, year<br>2) | (30 ECTS)  |  |  |  |

A 30 ECTS mobility window may be placed on the third or fourth semester.

The Master's Thesis (30 ECTS) can be placed either in the third or fourth semester, provided that the student has passed at least 60 ECTS before the thesis writing period begins.

## **3.2 Compulsory subject elements**

The degree programme consists of the following constituent and compulsory subject elements:

| Course title     | ECTS     | Exam         | Form of     | Form of       | Type of  |
|------------------|----------|--------------|-------------|---------------|----------|
|                  |          | registration | examination | assessment    | examiner |
|                  |          | requirement  | **          |               |          |
|                  |          | *            |             |               |          |
| First semester   |          | 1            | I           | I             |          |
| Social Data      | 15 ECTS  | Yes          | Home        | Pass/fail     | Internal |
| Science Base     |          |              | assignment  |               | examiner |
| <u>Camp</u>      |          |              |             |               |          |
| Elementary       | 7,5 ECTS | Yes          | Home        | 7-point       | External |
| Social Data      |          |              | assignment  | grading scale | examiner |
| <u>Science</u>   |          |              |             |               |          |
| Social Data      | 7,5 ECTS | Yes          | Home        | 7-point       | External |
| <u>Analysis</u>  |          |              | assignment  | grading scale | examiner |
| Second semester  |          |              |             |               |          |
| Advanced Social  | 7,5 ECTS | Yes          | Home        | 7-point       | Internal |
| Data Science I   |          |              | assignment  | grading scale | examiner |
| Data             | 7,5 ECTS | No           | Home        | 7-point       | Internal |
| Governance:      |          |              | assignment  | grading scale | examiner |
| Law, Ethics, and |          |              |             |               |          |
| Politics         |          |              |             |               |          |

| Course title      | ECTS     | Exam         | Form of      | Form of       | Type of  |
|-------------------|----------|--------------|--------------|---------------|----------|
|                   |          | registration | examination  | assessment    | examiner |
|                   |          | requirement  | **           |               |          |
|                   |          | *            |              |               |          |
| Advanced Social   | 7,5 ECTS | No           | Home         | 7-point       | Internal |
| Data Science II   |          |              | assignment   | grading scale | examiner |
| Digital Methods   | 7,5 ECTS | Yes          | Home         | 7-point       | Internal |
|                   |          |              | assignment + | grading scale | examiner |
|                   |          |              | an oral      |               |          |
|                   |          |              | examination  |               |          |
| Final examination |          |              |              |               |          |
| Master's Thesis   | 30 ECTS  | No           | Home         | 7-point       | External |
|                   |          |              | assignment + | grading scale | examiner |
|                   |          |              | oral         |               |          |
|                   |          |              | examination  |               |          |

\* Students must meet the exam registration requirements to be able to sit the examination in the course, e.g., compulsory assignments, attendance, presentation and/or submission of a paper or a contract. The specific exam registration requirements can be found in the course description in the electronic course catalogue at <a href="http://kurser.ku.dk/">http://kurser.ku.dk/</a>.

\*\* The form of examination in the re-examination period is the same as in the ordinary examination period, if nothing else is stated in the course description at <a href="http://kurser.ku.dk">http://kurser.ku.dk</a>.

## **3.3 Elective subject elements**

Students have a free choice of 30 ECTS credits worth of elective Master's courses. Students may register for elective courses offered by the Social Data Science Master's degree programme, by the Faculty of Social Sciences at the University of Copenhagen, or they can register for courses outside of the Faculty and the University of Copenhagen. If elective subject elements are taken at a Danish educational institution at least 5 ECTS credits must be graded in accordance with the Danish 7-point grading scale.

#### 3.3.1 Elective subject elements offered by the degree programme

The degree programme offers its own elective subject elements that students may choose to register for separately or in combination:

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

- Co-Curricular Written Assignment (2,5, 5 or 7,5 ECTS)
- Academic Internship (15 or 30 ECTS)

Students are only allowed to pass one of each of the abovementioned elective subject elements.

Other elective subject elements offered by the degree programme will be published at the course catalogue prior to the ordinary registration period.

You'll find a detailed course description for the Data Collection, Processing and Analysis, Cocurricular Written Assignment (2,5, 5 or 7,5 ECTS), the Academic Internship (15, 22,5 and 30 ECTS) and the Master's Thesis (30 ECTS) in the paragraph below.

## **Chapter 4. Course descriptions**

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

Students can register for 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 sign up for 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.

#### Competences

- 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.

#### Competences

- 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. Before each workshop students must submit assignments that report on their progression of the data collection.

#### Form of examination: Home assignment.

**Details of the exam form:** Written home assignment submitted individually or in groups of two students. Students in the same group must be registered for the same number of ECTS. The home assignment must contain all the prerequisite assignments handed in during the course and an overview of the collected data material.

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

**Exam registration requirements:** To be eligible for the exam, students must participate in the workshops and submit assignments before the workshops. Furthermore, 3 out of 3 assignments must be approved for students to register for the exam.

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.

**Type of examiner:** Internal examiner.

Form of assessment: 7-point grading scale.

**Re-examination**: The second and third examination attempts are conducted in the same manner as the ordinary examination.

**Criteria for exam assessment:** Students are assessed on the extent to which they master the learning outcome for the course.

To obtain the top grade "12", the student must with no or only a few minor weaknesses be able to demonstrate an excellent performance displaying a high level of command of all aspects of the relevant material and can make use of the knowledge, skills and competencies listed in the learning outcomes. To obtain the passing grade "02", the student must in a satisfactory way be able to demonstrate a minimal acceptable level of the knowledge, skills and competencies listed in the learning outcomes.

## 4.2 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

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

#### Competences

- Independently identify and select relevant theories to examine a chosen area of study.
- 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, as well as one meeting mid-way in the process where the student will receive feedback on a draft of the assignment, or parts of it.

#### Form of examination: Home assignment.

**Details of the exam form:** The assignment may be written individually or in groups.

The length of co-curricular written assignments depends on the prescribed number of ECTS.

The length of the co-curricular written assignments is as follows:

2.5 ECTS = 5 standard pages (1 extra pages pr. extra student)

5 ECTS = 10 standard pages (2 extra pages pr. extra student)

7.5 ECTS = 20 standard pages (3 extra pages pr. extra student)

All assignments must be submitted in Digital Exam at the end of the semester. The submission date will be listed in the exam plan at KUnet.

**Exam registration requirements:** To be eligible for the exam, the projects must be preapproved by course responsible(s) at the start of the third semester.

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.

Form of assessment: 7-point grading scale.

Type of examiner: 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:** Students are assessed on the extent to which they master the learning outcome for the course.

To obtain the top grade "12", the student must with no or only a few minor weaknesses be able to demonstrate an excellent performance displaying a high level of command of all aspects of the relevant material and can make use of the knowledge, skills and competencies listed in the learning outcomes.

To obtain the passing grade "02", the student must in a satisfactory way be able to demonstrate a minimal acceptable level of the knowledge, skills and competencies listed in the learning outcomes.

## 4.3 Academic Internship (15 or 30 ECTS credits)

It is possible to replace an elective subject element 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 register for the course once in the course of the master's degree programme.

#### 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.

#### Competences

- 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 programme

#### 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.

#### Competences

- 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.

#### Form of examination: Home Assignment.

**Details of the exam form:** Exam form for students signed up for 15 ECTS credits – Academic internship report:

• Academic internship report submitted individually, maximum 10 standard pages.

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

• Social data scientific assignment submitted individually or in groups of two, 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:** In the course of the academic internship, students signed up for 15 ECTS credits will:

• On one occasion, submit preliminary considerations regarding their academic internship report and receive feedback from the internal supervisor.

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

• On two occasions, submit preliminary considerations regarding their social data scientific assignment and receive feedback from the supervisor.

#### **Assessment 15 ECTS credits:**

Form of assessment: Pass/fail. Type of examiner: Internal examiner.

#### Assessment 30 ECTS credits:

Form of assessment: 7-point grading scale. Type of examiner: Internal examiner.

#### 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.

**Re-examination**: The second and third examination attempts are conducted in the same manner as the ordinary examination.

**Criteria for exam assessment:** Students are assessed on the extent to which they master the learning outcome for the course.

To obtain the top grade "12", the student must with no or only a few minor weaknesses be able to demonstrate an excellent performance displaying a high level of command of all aspects of the relevant material and can make use of the knowledge, skills and competencies listed in the learning outcomes. To obtain the passing grade "02", the student must in a satisfactory way be able to demonstrate a minimal acceptable level of the knowledge, skills and competencies listed in the learning outcomes.

## 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.

#### Competences

- 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 fulltime 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 stipulated 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.

Form of examination: Home assignment and oral examination.

**Details for the 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 or French.

#### **Formal requirements**

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

Form of Assessment:\_7-point grading scale.

**Weighting:** 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.

#### Type of examiner: 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.

**Re-examination**: 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.

**Criteria for 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.

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.

## **Chapter 5. General Rules**

## 5.1 Academic progression and completion time

#### 5.1.1 Maximum completion time

Students on master's degree programmes must complete the degree programme no later than 3 years after commencing their studies. Students who fail to complete the degree programme within the maximum duration of study will be disenrolled from the University. Students are not entitled to a second and/or third attempt at an exam if this exceeds their maximum study time.

### 5.2 Teaching

#### 5.2.1 Course and exam registration

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 must register for courses and exams via Self-Service on KUnet within the course and exam registration period prior to each semester.

Students are responsible for registering for the remaining compulsory courses and elective courses as well as for re-registering for compulsory courses from which they have previously withdrawn their registration. This is done via the Student Self Service on KUnet within the registration periods.

#### 5.2.2 Course binding

Registration for all courses, including elective courses, is binding once the late registration period has expired.

#### 5.2.3 Selection criteria for electives taken at Faculty of Social Sciences

If the number of registrations for a specific course within the ordinary registration period exceeds the course capacity, students will be apportioned by the following order of prioritization:

1. Students, including exchange students, enrolled in the programme which offers the course.

2. Students from other programmes at the Faculty of Social Sciences who have registered for the course through KU Self Service.

3. Credit students.

4. Part-time tuition fee students.

The respective courses are filled with students from Category 1 before students from Category 2 are considered, and so forth.

Within each category (1-4), students are distributed by lot.

#### 5.2.4 Credit transfer

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.

## 5.3 Examinations

#### 5.3.1 Purpose of exams

Exams are designed to assess whether and to what extent students' qualifications comply with the objectives, competences and academic requirements stipulated for the degree programme in the Danish University Programme Order, the programme curriculum etc.

#### 5.3.2 Number of exam attempts

Students are entitled to three exam attempts for each subject element.

Students will use an exam attempt if they do not sit an exam for which they have registered. Students who can document exceptional circumstances can apply for an exemption from these provisions.

#### 5.3.3 Exam registration requirements and use of exam attempts

The course descriptions at https://kurser.ku.dk/ stipulate the requirements for registering for an exam. The requirements may include submission and approval of compulsory written assignments, active course participation, compulsory attendance etc. Students who fail to meet the requirements stipulated in the course description will not be allowed to sit the exam but will be registered as having used one of their exam attempts. Students cannot register for a re-exam, unless the course description determines that it is possible to meet the requirements prior to the date of the re-exam. Students who do not meet the requirements for sitting an exam will have to register for the course and, thus, a second exam attempt.

#### 5.3.4 Re-exams

Students who fail to show up for an exam, withdraw a registration from an exam, become ill or do not pass an exam must register for a re-exam on their own initiative. Re-exams are held after each ordinary exam period (in general in February as regards winter exams and in August as regards summer exams). Re-exams are normally only scheduled in semesters during which the course in question is offered. However, the board of studies has the authority to decide that a re-exam is scheduled anyway.

#### 5.3.5 Exam language

The exam language is English in all (compulsory) courses offered by the programme. For the elective elements, the language may be Danish.

#### 5.3.6 Written exams

Written exams are either optional or set subjects. If a subject is optional, the question or the subject is agreed between the examiner and the student(s). If the subject is set, the question or subject is determined by the examiner. See which exams are set and which ones are optional in the course description of the course at the <u>course catalogue</u>. All written exam assignments must comply with the general rules on examination; cf. section 6 of the Curricula's Common Part.

#### 5.3.7 Individual and group exams

Oral and written exams are conducted either as individual exams or as group exams. The course description for each subject element stipulates whether group exams are allowed and the maximum number of students in a group.

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.

### 5.4 Assessment and censorship

According to the Examination Order no more than 1/3 of the programme's ECTS credits can be assessed pass/fail basis.

#### 5.4.1 Assessment

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

• Social Data Science Base Camp (15 ECTS)

The following compulsory subject elements, which amount to a total of 75 ECTS credits, are assessed 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)

#### 5.4.2 Censorship

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

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

# 5.4.3 Amount of ECTS credits assessed in accordance with the Danish 7-point grading scale

One elective course (at least 5 ECTS) must be assessed 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 exempted 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.