

Social Data Science

(30 ECTS Semester Specialisation)



Big Data Analytics, Machine Learning and Artificial Intelligence are rapidly becoming an integral part of everyday life. These technologies are transforming the way how we interact with each other as citizens, but also how services are provided, and decisions are made by businesses and governments. Therefore, data literacy and the capacity for data-driven decision making are in high demand in the public sector and companies alike. At SDS you will learn cutting-edge skills in data-driven analytics and how to apply them to real-world issues.

SDS AIMS AT:

- supporting students to manage, analyse and use data in strategic, tactical and operational decision making under uncertainty
- preparing students for leadership positions within the digital transformation of organisations to create value for businesses and society
- bridging the gap between university education and professional needs in business, policy, and research

The growing availability of data and data-driven decision processes ask for strong analytics skills in employees of both, technical and non-technical jobs.

While quantitative methods have been increasingly used in social science (and humanities) research in the recent years, practical methods courses were only offered to a limited degrees at universities.

With SDS we created an application focused curriculum which will help you build extendable analytics skills. You will learn state-of-the-art approaches in Machine Learning and AI as well as industry standard tools such as R, Python and you will become comfortable using cloud computing (e.g. Amazon Web Services, MS Azure). Read more at sds.aau.dk.

WHO CAN APPLY?

The Social Data Science Specialization Semester is available as a 3rd semester options for:

- AAU master's degree students in Economics, International Business, International Marketing, Sociology, Political Science, IT Management
- Exchange students at AAU with pre-approval by the receiving study board
- Other master-level students who have been given pre-approval by the sending and receiving study board

Students can enrol in the whole semester, or single courses (M1-M3). Enrolment in single courses requires pre-approval by the student's original study board.

Please contact our secretary at oecon-secr@business.aau.dk if you have any further queries regarding the application procedure and other formal issues.

SEMESTER STRUCTURE

M1: Applied data science and machine learning. M1 intends to provide an opportunity to sample the core techniques of data science, understand their intuition and application cases.

M2: Network analysis and natural language processing. This module will introduce you to the fields of Natural Language Processing and Network analysis. The aim of the course is to give you insights about networks and unstructured data types, and introduce to state-of-the-art approaches to map and analyze these data.

M3: Deep learning and artificial intelligence for analytics. On this module you will be introduced to deep learning, that is a subfield of machine learning, and it is about algorithms that are inspired by the structure and the function of the brain-so called artificial neural networks.

M4: Applied social data science capstone project. The SDS capstone project provides you with a unique opportunity to apply knowledge gained from the programme by working on a real-world data science project in cooperation with a established company, start-up, or research group.

Contact semester coordinators:

Roman Jurowetzki

Phone: **9940 2738**

Email: roman@business.aau.dk

Daniel Hain

Phone: **9940 2724**

Email: dsh@business.aau.dk

