TURN DATA INTO DECISIONS

MASTER OF APPLIED STATISTICS

AALBORG UNIVERSITY

.MAS

“THE CORE ADVANTAGE OF DATA IS THAT IT TELLS YOU SOMETHING ABOUT THE WORLD THAT YOU DIDN’T KNOW BEFORE.”

~ HILARY MASON, DATA SCIENTIST AND FOUNDER OF FAST FORWARD LABS

MASTER OF APPLIED STATISTICS 2-YEAR PROFESSIONAL MASTER'S PROGRAMME

Learn how to transform large, complex amounts of data into reliable knowledge for strategic decision making

Every company, organisation, public body or governmental agency today relies on data in some form. This means that the need for in-house staff skilled in the management, analysis and visualisation of quantitative data is growing increasingly crucial to sectors from environment, meteorology, transport and logistics to pharma, medicine, utilities and finance.

Whether you're already working with data or aiming to enter into the growing world of AI-powered decision-making, the Master of Applied Statistics (MAS) equips you with the tools to systematically handle complex datasets, uncover trends and make informed inferences that can be utilised in a range of strategic, commercial, operational, and financial contexts.

The program gives you a unique combination of skills as it combines **hands-on training** in data wrangling with **applied statistical analysis**, enabling you to complete the process from raw data to valuable knowledge that can be used as a solid basis for assessments, predictions and decision support.

WHY CHOOSE MAS?

CAREER IMPACT

With MAS, you will achieve expertise in a unique combination of advanced statistical modelling, machine learning integration, data visualisation, and predictive analytics.

The intersection of statistics, AI, and data science opens a number of career opportunities as you will have strong skills within systematic transformation of raw information into strategic knowledge with immediate applicability to your field of expertise.

COMPANY IMPACT

Companies offering their employees the MAS programme will gain in-house skills for utilizing their quantitative data for a range of purposes – operational **optimisation,** strategic and financial decision making, product development, marketing and sales optimisation, etc.

Through the continual focus on hands-on application onto real-world data, graduates will be able to strengthen their companies' data-based decision making, enabling speedy benefit and value-generation from the investment in their employees.

FUTURE-PROOF CV

By choosing the MAS programme, you will gain a future-proof competence profile that will not only enable you to advance within your current field but also to switch career paths in the future, should you wish to, as the skills gained in the MAS programme are applicable to a wide range of professional fields.

STRONG PROFESSIONAL NETWORK

The MAS programme is an entry into a lifelong professional network with your co-students and lecturers, as well as students from following years.

"There is a general shortage in Denmark of professionals who can design data collection based on business requirements, draw valid conclusions from data, and deploy modern data processing tools at scale. In our view, the type of mathematical and statistical competencies offered by the MAS programme are critical for the rollout of data-driven industrial innovation and optimization.

Furthermore, we expect the programme to produce critically thinking specialists who can both ensure responsible and professional data collection and use – and evaluate the AI-based services that are increasingly being offered in the digital marketplace.

Thomas Asger Hansen,
Director,
Group Data^AI, Grundfos
Information Solutions

GRUNDFOS

PRACTICAL INFORMATION

PARTICIPANT PROFILE

This programme is open to individuals with diverse professional backgrounds and interests, making it accessible to a wide range of applicants.

The common denominator is working with quantitative data and needing the skillset to transform these data into valuable knowledge for the company/organisation, clients, citizens and/or society at large.

DURATION AND SCOPE

The MAS programme is a part-time study programme that has been planned as an intensive, coherent two-year programme. The programme combines two semesters of courses (1st and 3rd semester) with two semesters of problem-based project work (2nd and 4th semester), ensuring a close connection between theory and practice in the skillset gained during the programme. Participants should expect a weekly workload of 15-20 hours.

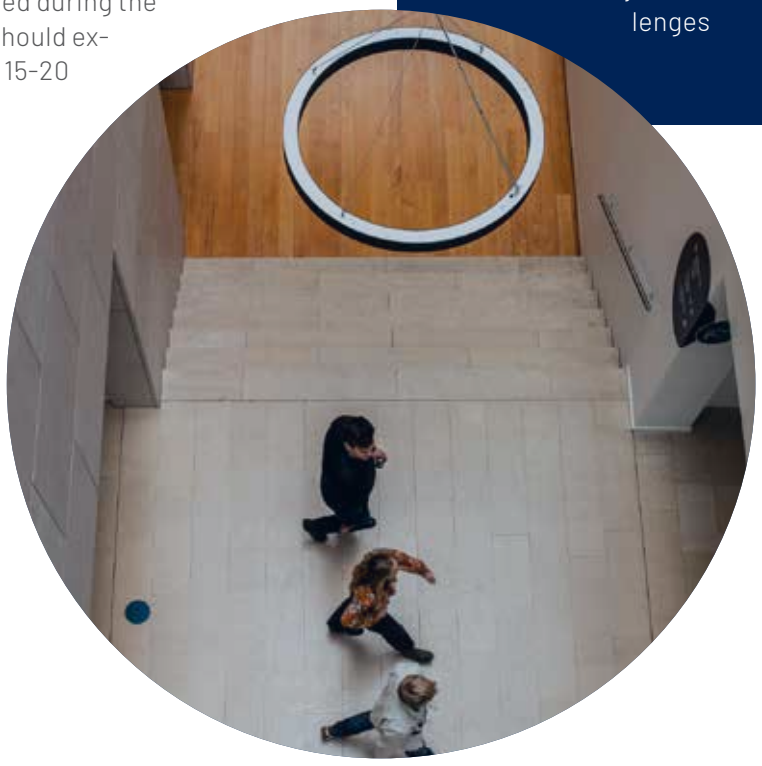
OUTCOME

The Master of Applied Statistics equips you with an advanced skillset and state-of-the-art knowledge that will enable you to take on a dynamic role in the field of data analysis and visualisation.

Hands-on programming skills: Gain practical programming skills (Python) for all aspects of data wrangling, including data cleaning, data transformation, data preparation and data visualisation.

In-depth analytical skills: Gain statistical analysis skills enabling you to critically analyse the knowledge provided by the data.

Application of machine learning / AI to data analysis: Gain insight into current Machine Learning and AI techniques and their applicability to specific analysis tasks, including ethical challenges



STRUCTURE OF THE PROGRAMME

The program is structured in four semesters, two semesters of courses and two semesters of project work. Each course semester consists of three courses, and the lectures will take place in a combination of appx. 7 online sessions and 5 on-site seminars in Aalborg (or other major city).

The first semester consists of the following course modules:
Programming for data wrangling and visualisation (5 ECTS)
Introduction to statistics (5 ECTS)
Introduction to AI techniques (5 ECTS)

Second semester (project module)
Project: Statistical modelling of your own data OR Applications of AI on your own data (15 ECTS)

The third semester consists of the following course modules:
Advanced data wrangling and visualisation (5 ECTS)
Advanced statistics (5 ECTS)
Advanced AI (5 ECTS)

Fourth semester (project module)
Master project (15 ECTS)

UNIQUE COMBINATION OF THEORY AND PRACTICE

The Master of Applied Statistics provides you with a unique competence profile of theoretical and hands-on knowledge and skills, including:

Systematic data mastery: Learn to navigate the complete data lifecycle – from collection and cleaning to analysis and interpretation. You'll master industry-standard tools and methodologies that ensure your insights are both reliable and actionable.

Statistical foundation for AI: Understand how robust statistical principles enhance AI applications. The program teaches you to build AI systems that are not just powerful, but statistically sound and interpretable.

Real-world application: Concepts are taught through practical, industry-relevant examples. You'll work with actual datasets from diverse fields, including your own if you can bring the data, learning to identify patterns and trends that matter in professional contexts.

World-class academic environment
The MAS programme has been developed in a collaboration between the Department of Mathematical Sciences and the Department of Computer Science at Aalborg University, thereby combining resources from two leading departments within the field.

Through Aalborg University's acclaimed practice-oriented Problem-Based Learning (PBL) approach, the programme ensures a close connection between theory and practice, including Bring Your Own Data project work. In addition, students will participate in workshops, study groups, supervision sessions and exercises, all of which may take place online.

ADMISSION

Admission to the Master's programme requires that the applicant has completed a relevant qualifying programme. Furthermore, admission requires that the applicant has 2 years of relevant work experience after completion of the qualifying programme. This may include, tasks within:

- Quantitative methods
- Data processing
- Data analysis / Business analysis
- Quality control
- Programming

Aalborg University may allow admission to applicants who do not fulfil the admission requirements but who are considered to have the necessary prerequisites to accomplish the study programme. The requirement of relevant professional experience cannot be exempted.

Admission fee
Full programme: DKK 40,000 per semester
(Non-EU: DKK 55,000)

Start of study & application deadline
The MAS programme starts every other year in February, first time in February 2026. The application deadline is November 10 the previous year. It is, however, possible to submit your application after this deadline, as we will survey applications until the start of study.

Language
Course materials and lectures will be in English.

WORKING WITHIN ONE OF THESE SECTORS?

- THEN THE MAS PROGRAMME IS RELEVANT FOR YOU!

FINANCE AND BANKING

ENERGY SECTOR, INCLUDING TRADING

ENVIRONMENT

BIOLOGISTS AND CHEMICAL ENGINEERS

PHARMA/MEDICINE/HEALTHCARE PROFESSIONALS

TRADERS

DEFENCE AND ASSOCIATED INDUSTRIES

PUBLIC AGENCIES, INCLUDING TECHNICAL ADMINISTRATION

TRANSPORT AND LOGISTICS PROFESSIONALS

UTILITY SECTOR PROFESSIONALS

COMPANIES PROVIDING PRODUCTS THAT UTILISE IOT AND OTHER DATA-COLLECTING TECHNOLOGIES

OTHER PROFESSIONALS WORKING WITH OR HAVING ACCESS TO LARGE AMOUNTS OF DATA

WISH TO FOLLOW SINGLE COURSES INSTEAD OF FULL PROGRAMME?

If you wish to follow single courses instead of the full programme, you can enrol for each course individually.

Spring semester 1 (first time spring 2026)
- Programming for Data Wrangling and Visualisation
- Introduction to Statistics
- Introduction to AI Techniques

Spring semester 3 (first time spring 2027)
- Advanced Data Wrangling and Visualisation
- Advanced Statistics
- Advanced AI

Each course equals 5 ECTS and is subject to an admission fee of DKK 15,000 (DKK 19,000 non EU)

FOR MORE INFORMATION:

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