



AI is an amplifier of human intelligence & when people are smarter, better things happen: people are more productive, happier & the economy thrives

Yann LeCun, Professor, NYU, Chief AI Scientist, Meta

Data is the new science. Big data holds the answers.

Pat Gelsinger, CEO, VMware

Why AI and Data Science?

Artificial Intelligence is focused on creating systems that can perceive, learn, reason, and make decisions. It combines computational methods and data-driven techniques to enable machines to perform tasks requiring human-like intelligence. *Data Science* is an interdisciplinary field focused on study and engineering of data through computational and statistical techniques, in order to answer questions, and develop explanatory and predictive models. Their joint impact is **reshaping industries, accelerating discovery, and unlocking innovations that redefine how we live, work, and create.**

A data scientist is someone who can obtain, scrub, explore, model and interpret data, blending hacking, statistics and machine learning. Data scientists not only are adept at working with data, but appreciate data itself as a first-class product.

Hillary Mason, Data Scientist, Accel, Scientist Emeritus, bitly, co-founder, HackNY

The Master of Science in Data Science

Our MSc in **AI & Data Science** integrates advanced artificial intelligence with rigorous data science, building on a curriculum rich in machine learning and computational methods. The program equips students to transform data into intelligent solutions, combining strong technical foundations with hands-on projects, industry exposure, and collaboration with expert faculty—preparing graduates to excel in a rapidly evolving, AI-driven world.

By 2030, two-thirds of employers plan to hire talent with specific AI skills.

World Economic Forum. The Future of Jobs Report 2025

The Informatics and Statistics Departments, Athens University of Economics and Business

The MSc Program is offered jointly by the Departments of Informatics and Statistics of the Athens University of Economics and Business. The Informatics and Statistics Departments have been in existence since 1984. They are offering two high-quality undergraduate and many graduate programs in Computer Science, Information Systems, Statistics and related disciplines. Both departments have active research programs and faculty that are at the forefront of Machine and Statistical Learning, Deep Learning, Big Data Management, Causal Inference, Visualization, Social Network analysis, Time Series analysis and more.

Athens University of Economics and Business (AUEB) was founded in 1920. It is considered one of the most competitive universities, at the European level, in the fields of Economics, Business Administration, Informatics, Statistics, Marketing, Accounting and Finance. AUEB was the first Greek University to establish postgraduate studies, at the Master's as well as the doctoral level. Today it enrolls over 2000 students in 35 part-time and full-time Master's level postgraduate programs with a duration of 1 to 2 years.

Program's Target audience

This full-time program is designed for excellent recent graduates and for early-career professionals who are ready to devote a year to developing deep expertise in AI and data science. Ideal candidates bring strong analytical and technical skills from fields such as engineering, mathematics, statistics, finance, economics, operations research, and computer science. They are motivated to work intensively with data and AI technologies, applying quantitative and computational methods to uncover patterns, build predictive and learning models, and support intelligent decision-making and automated task performance.

Applicants should have foundational programming experience and solid preparation in mathematics and quantitative reasoning, supported by demonstrated academic achievement. In assessing applications, the admissions committee considers the whole profile—academic record, skills, motivation, and growth potential—aiming to form a diverse cohort of students who can fully engage with and benefit from a demanding, immersive year of study.

AI is at the forefront of corporate transformation, but without the right talent, businesses will struggle to move from ambition to implementation."

Bain and Company, Widening talent gap threatens executives' AI ambitions

Program Structure

The Full Time (FT) program is a 1-year program. Students need to complete 60 units of coursework, of which 46 units of core courses and 14 units of electives. Full courses are worth 5-7 units, half courses are worth 3 units. After completion of coursework, students undertake an intense 3-month integrated Capstone Project in collaboration with industry, with joint academic and industrial supervision, for 15 units.

Before the beginning of classes students are required to complete 1-3 preparatory courses in Statistics, Mathematics, and Computer Science, as decided by the Admissions Committee. Each course comprises 4 3-hour lectures and a final exam.

Attendance of lectures and laboratory sessions is mandatory. The maximum number of students per academic year is forty (40).

Tuition Fees

The Full Time (FT) program fees are €6000.

Curriculum:

Core courses:

Probability and Statistics for data analysis

Practical Data Science

Large Scale Data Science

Machine Learning and Computational Statistics

Numerical Optimization and Large Scale Linear Algebra

Text Analytics

Legal, ethical and policy issues in data science

Data Visualization and Communication

Electives (indicative list):

Data mining

Deep Learning

Bayesian Statistics and Simulation Methods

Social Network Analysis

Big Data Systems and Techniques

Time series and Forecasting methods

Optimization

Marketing and Sales Analytics

Data Science Challenge

Data Science for Biology and Medicine

Knowledge Graphs with LLMs