

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 M.Sc. in AI and 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 Department of the 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 in Europe in the fields of Economics, Business Administration, Informatics, Statistics, Finance, Marketing, and Accounting. AUEB was the first Greek University to establish graduate 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 graduate programs with a duration of 1 to 2 years.

Program's Target audience

The program is ideal for early- and mid-career professionals with at least two years of full-time experience who want to harness the power of AI and data to drive insight and innovation in their organizations. It is especially suited to those responsible for gathering, measuring, and analyzing information across the private or public sector. Professionals in consulting, banking, market research, quantitative marketing, IT, Business Intelligence, finance, and operations—as well as managers seeking to improve performance or create business value through intelligent, data-driven decision making—are strongly encouraged to apply.

An academic background in engineering, computer science, math/statistics, economics, or other quantitative field usually provides a solid foundation for the Program. Recent programming

experience and facility with mathematical concepts and quantitative techniques are necessary and required.

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 Part Time (PT) program is a 2-year program. Students need to complete 75 units of coursework, of which 46 units of core courses and 29 units of electives. Full courses are worth 5-7 units, half courses are worth 3 units. Students can under rare circumstances replace 15 units of coursework with an integrated Capstone Project in collaboration with industry, or a faculty-supervised research thesis, with Director approval.

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 four 3-hour lectures and a final exam.

Required classes take place twice a week, 6:00-9:00pm. Attendance of lectures and laboratory sessions is mandatory. The maximum number of students per academic year is forty (40).

Tuition Fees

The Part Time (PT) Program fees are €7500.

Curriculum

Core courses:

Probability and Statistics for data analysis
Practical Data Science
Large Scale Data Management
Machine Learning and Computational Statistics
Numerical Optimization and Large Scale Linear Algebra
Data visualization and communication
Text Analytics
Legal, ethical and policy issues in data science

Electives (indicative list):

Deep Learning
Data mining
Social Network Analysis
Bayesian Statistics and Simulation Methods
Big Data Systems and Techniques
Data Science Challenge
Time series and Forecasting methods
Optimization
Applied Customer Analytics
Introduction to Quantitative Finance and Risk Management
Data Science for Biology and Medicine
Knowledge Graphs with LLMs



MSc in

Data Science

ATHENS UNIVERSITY OF
ECONOMICS & BUSINESS

For more information please visit:

<http://datascience.aueb.gr/>

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