

MSc in Management Science and Technology

ATHENS UNIVERSITY OF ECONOMICS AND BUSINESS

ΟΙΚΟΝΟΜΙΚΟ
ΠΑΝΕΠΙΣΤΗΜΙΟ
ΑΘΗΝΩΝ



ATHENS UNIVERSITY
OF ECONOMICS
AND BUSINESS

ΣΧΟΛΗ
ΔΙΟΙΚΗΣΗΣ
ΕΠΙΧΕΙΡΗΣΕΩΝ
SCHOOL OF
BUSINESS

ΜΕΤΑΠΤΥΧΙΑΚΟ
ΔΙΟΙΚΗΤΙΚΗ ΕΠΙΣΤΗΜΗ
& ΤΕΧΝΟΛΟΓΙΑ
MSc IN
MANAGEMENT SCIENCE
& TECHNOLOGY



Students attend courses from the four scientific areas supported by the Department of Management Science and Technology:

- Digital Technologies Management and e-Business
- Operational Research and Business Analytics
- Organizational Studies, Business Strategy and Innovation
- Supply Chain and Transportation Management

Objectives of the MSc in Management Science and Technology

The Department of Management Science and Technology is considered to be one of the top departments in the Greek Universities with regard to the grades in the national entrance examinations, the recent assessment by the Hellenic Quality Assurance and Accreditation Agency (HQA), the academic excellence recognized by international scientific associations and high-quality institutions but also the productive two-way interconnection with the business community.

Students admitted to the internationally oriented MSc (Master of Science) program in Management Science and Technology will have the ability to:

- Attend courses with advanced learning techniques in a **modern curriculum based on the following scientific areas**: a) Quantitative Methods, Operational Research and Business Analytics, b) Digital Technologies Management and e-Business, c) Organizational Studies, Business Strategy and Innovation, d) Supply Chain and Logistics Management.
- **Further specialize in academic work by utilizing the six major Research Laboratories of the Department** that rank among the top in European Business Schools based on their international collaborations, European R&D projects and scientific activity/output.
- **Prepare for professional certifications** in important functions/tools such as project management, business analysis, enterprise resource planning systems etc.
- **Gain access to dynamic and prospective workplaces** through their Field Study Project and the department's overall link with leading Greek enterprises and organizations.
- Continue their studies in the **doctoral program** of the Department, which already has 90+ graduates/PhDs who continue their successful academic career in Greece and also in countries such as USA, Switzerland, Great Britain, Denmark, Netherlands, Germany, Spain, Cyprus etc.
- **Create the conditions for an international career** as executives/analysts of extroverted Greek businesses or international business groups, but also as academics/researchers in highly valued universities/research institutes abroad.
- Take advantage of the **synergies between the six other Postgraduate Programs** (MBA/MSc) that the Department participates, such as International MBA, Business Analytics, Human Resource Management, Executive MBA, Heritage Management, Shipping and Finance Management, Public Administration Management.

Professor George I. Doukidis, Director
Associate Professor George Lekakos, Scientific Co-Ordinator

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MSc Program Curriculum

The MSc program consists of two educational components in two consecutive semesters: infrastructure education (50%) and the core fields in Management Science and Technology (50%). Finally, the program is complemented by a third semester of writing the Masters thesis with the supervision of a professor or a field study project in a company/organization.

The **first part on infrastructure knowledge** is structured around two axes:

1. The basic theoretical knowledge of infrastructure for a postgraduate program in Management Science and Technology that consist of the following compulsory full-unit courses:
 - Management and Organizations Theories
 - Managerial Decisions
 - Management of Information Systems
2. The supplementary basic knowledge required in relation to the undergraduate studies of the students. For example, a Technical University candidate should follow a course on microeconomics. The students choose six courses from the following half-unit courses:
 - Microeconomics
 - Organizational Behavior
 - Software Systems
 - Statistics for Decision Making
 - Production and Operations Management
 - Investment and Corporate Finance
 - Logistics Management

The **second part/semester** of the program is structured around the **four broadest scientific areas supported by the Department of Management Science and Technology**:

1. **Quantitative Methods, Operational Research and Analytics**, with the courses:
 - Advanced Topics in Management Science and Technology Combinatorial Optimization Techniques
 - Financial Engineering
 - Data Management
 - Business Analytics Techniques

2. **Digital Technologies Management and e-Business**, with the courses:

- E-commerce
- Digital Marketing
- Industrial Systems in the Digital Era
- Mobile Applications and Analysis of Social Media Networks
- Customer-oriented Information Systems
- Digital Entrepreneurship and Marketing in Tourism
- Cloud-based and Distributed Information Systems
- Digital Currencies and Digital Payment Systems

3. **Organizational Studies, Innovation and Business Strategy**, with the courses:

- Entrepreneurship and Innovation
- Business Strategy
- Knowledge, Learning and Innovative Networks Management
- Developing Skills for Management and Innovation
- Human Resources Management
- Total Quality Management
- Project and Program Management

4. **Supply Chain and Transportation Management**, with the courses:

- Management of Transport Systems
- Analysis and Planning of Distribution Systems
- Warehouse Management
- Management of Retail Systems

In most courses, there are specialized practical workshops where students familiarize themselves with the well-known systems and tools. Also, students participate in group assessments and projects and examine through case studies. The students choose ten of the above listed half-unit courses.

During the third semester, students alongside the elaboration of their diploma thesis or filed-study project, follow the Research Methodology Seminar that helps them to perform the dissertation properly and prepare them for the PhD thesis if they wish to continue.



Strategic Cooperations of the MSc Programm

Joint Certificate in Business Intelligence and Data Mining provided by SAS

The MSc Program in cooperation with SAS offers a Joint Certificate in Business Intelligence and Data Mining, which aims to train students in order to:

- 1) Gain access to data sources, manage data, and perform statistical analysis with the SAS Enterprise Guide
- 2) Investigate enormous amounts of data to find templates, trends and clusters and generate relevant reports using SAS Visual Analytics and
- 3) Apply prediction and discovery modeling techniques for important business problems using SAS Enterprise Miner.

The program includes both theoretical training through four selected courses of the MSc and practical training on the SAS platform. As part of the requirements of the certificate, students complete an assessment (Milestone Project) using realistic data of sufficient size, thus acquiring practical experience on how to analyze and exploit the SAS platform. Students also could perform internship on Business Analytics in collaborating companies.

Promoting Innovation and Entrepreneurship

The Master's program emphasizes on innovation and entrepreneurship and supports students in the development and implementation of their innovative ideas, in cooperation with the Innovation and Entrepreneurship Unit (ACEin) of the Athens University of Economics and Business (AUEB). Initiatives include:

- Experimental Business Idea Development Workshop that includes product development, market entry, organization & staffing, finance.
- Virtual Business Development and Management workshops where competitive student groups make business decisions in a real-life business simulation game.
- Specific courses (Innovation & Entrepreneurship, e-Business, etc.) where students develop sustainable and innovative business models, business plans for new companies etc.

Professional Certification in Project Management

The Project and Program Management course analyses the framework for successful Project Management in any type of sector and is aligned with the Project Management Institute (PMI) Framework. In particular the course prepares the students for one of the most popular PMP (Project Management Professional) certifications and Certified Associate in Project Management (CAPM). It also follows the ISO 21500 (Guidance on Project Management) standard. In this way, postgraduate students that successfully attend the course will be able to take part in examinations for PMP & CAPM certifications (if they choose to) and will also be able to support ISO21500 certification in enterprises.

Digital Marketing in Tourism by Google

Selected students from the Masters program participate in the "Digital Marketing in Tourism" course which is offered in collaboration with Google. As part of the course students use a variety of digital platforms and tools (adwords, analytics, programmatic) in developing the services in the tourism sector.

SAP University Alliances - University Competence Center

The MSc program, by participating in the SAP University Alliances / University Competence Center (SAP UA / UCC) program, offers to the students the opportunity to acquire SAP end-user skills. Through a practical hands-on approach, students acquire basic skills in using the main functions and subsystems of the SAP ERP system. In particular, they understand how key business processes interact with SAP ERP in functional areas such as Sales & Distribution (SD), Material Management (MM), Production Planning (PP), Financial Accounting (FI), Human Resource Management (HCM). Students attending the program have the ability to extend their SAP end-user knowledge and skills by leveraging access to training programs that prepare them for the SAP end user certification (TERP) by SAP SE. They also have the opportunity to do internship in an SAP environment in cooperation with SAP Hellas (Limited number of internship jobs).

Contact Information:

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