



## Target Audience

The MSc in Data Science is designed mainly for graduates with a STEM (Science, Technology, Engineering and Mathematics) degree. Graduates from social sciences (e.g. economics) with strong background in statistics and quantitative methods and basic knowledge of databases and programming could also apply.

## Career Path

According to the European Commission's European Data Market study, the number of "data companies" as well as the need for "data workers" are already high and it is expected to grow even more in the near future. Depending on the focus of studies and skills, there are several career paths to follow; the list below, although non-exhaustive, covers the spectrum of roles that can be played in an organisation:

- Data management professional
- Data engineer/data architect
- Business analyst
- Data analyst/data scientist
- Machine learning researcher

In addition to technical skills gained through study, our students benefit from the University's excellent Careers Office. Thus, graduate students are fully prepared to stand out in the job market.



## The University

The **International Hellenic University (IHU)** is the first and only Greek **public** University where programmes are taught **exclusively in English**. It is located in Thessaloniki, a vibrant student metropolis.

We are focused on attracting leading academics and outstanding students from Europe and across the world.

## Where to find us

### School of Science and Technology

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MSc in

Data Science



# MSc in Data Science

## The Programme

Data Science is an interdisciplinary field that combines a multitude of different disciplines such as artificial intelligence and machine learning, statistics and mathematics, database and big data technology, software development and algorithmics. The goal of data scientists is to make sense of large volumes of different forms of real-world data that may come from the entire spectrum of human activity. The MSc in Data Science has been designed to provide state-of-the-art knowledge in the fields listed above, combined with essential business skills. The lecture series by leading academic instructors along with projects and dissertation work will enable students to graduate well-equipped and highly competitive at the international level.

Turning Data  
into Knowledge!



## Programme Structure

### The Core Courses

#### First Term

- ▶ Programming for Data Science
- ▶ Data Science for Business: Theory and Practice
- ▶ Statistical Methods for Data Science
- ▶ Machine Learning Principles and Concepts
- ▶ Advanced Database Systems

#### Second Term

- ▶ Exploratory Data Analysis and Visualization
- ▶ Big Data and Cloud Computing
- ▶ Data Mining

### The Elective Courses *(Choice of two Elective Courses)*

- ▶ Natural Language Processing and Text Mining
- ▶ Information Retrieval
- ▶ Advanced Machine Learning
- ▶ Knowledge Management in the Web
- ▶ Multimedia Data Analysis
- ▶ Social Media and Online Community Management
- ▶ Consulting Project

### The Dissertation

During the third term, students work on their Masters Dissertation project, the subject area which is relevant to their programme of studies and their interests. The dissertation provides a good opportunity to apply theory and concepts learned in different courses to a real-world Data Science problem or challenge. Students are supervised throughout their projects by a member of the academic faculty and the academic associates. After submission of the dissertation, students present their projects to classmates and faculty at a special event.

## Schedule

### Duration of the Programme

**14-month full-time** (FT) or **26-month part-time** (PT). Teaching takes place on **weekday afternoons**.

## Admissions

Our admissions policy supports equality of opportunity. We are focused on building a student community from various backgrounds and national origin. To be considered for a Master's programme, candidates are required to have:

- ▶ A good university degree from a recognised University
- ▶ An English language certificate with a good score (IELTS or TOEFL or Proficiency or TOEIC)

## Scholarships

The International Hellenic University offers **full-scholarships** to **exceptional prospective students**. To be eligible for the scholarship, you need to provide evidence of academic excellence such as a first class bachelor degree or an official document from the School that you have been among the top graduates of your class.

Furthermore, the IHU offers financial assistance to incoming students in the form of **tuition fee reductions**. Award criteria include academic achievement at undergraduate level, the candidate's command of English language and overall profile.