



INTERNATIONAL
HELLENIC
UNIVERSITY

School of Science and Technology

Master of Science in
Energy Systems



Master of Science in Energy Systems

MSc in Energy Systems

Energy and its sustainability is a key global issue for modern society.

Major emphasis is placed on the optimisation of modern energy systems, with sustainability a vital focus in any effort to solve the wide-ranging energy problems that we face today.

The sustainable management of modern energy supplies dominates as an issue of public as well as specialist concern, along with the need to increase the integration of renewable energy sources in current energy grids.

In addition, the issue of confronting the environmental impact of current fossil-fuel power plants and their transition to cleaner energy remains a top priority and a challenge for modern engineering. The energy industry is so wide and varied and so critical to our everyday lives that it can offer an interesting career choice for anyone.

The postgraduate programme is designed to equip graduates with a broad training in, and understanding of, the following fields, with in-depth knowledge in one of them:

- Energy Management
- Renewable Energy
- Fossil Fuels and Environmental Protection



Programme Structure

The programme consists of four core courses and two required specialised courses for your chosen stream*, three elective courses for your stream and a master's dissertation. The elective courses for each of the three streams are available from a selection of subjects. They provide you with the opportunity to acquire in-depth knowledge within the specific subject area.

The core courses help you to develop strong interdisciplinary technological, managerial and legal knowledge.

**Streams will be implemented depending upon student demand*

The Timetable

The MSc is a 12-month full-time programme of study. The same programme may be offered in a two-year part-time study mode.



1. Core Courses

These courses are required for all three streams of specialisation

- Intro to Energy Technology Systems
- Intro to Energy Economics and Quantitative Methods
- Energy Project Valuation and Financing
- Energy Law in Europe

2. The Required and Elective Courses

The student chooses one of the three streams of specialisation and takes the two required courses for that stream, followed by three elective courses from the choice for that stream. The elective modules represent a rich variety of subject areas.* Some are shared between the three different streams of the postgraduate programme.

**Some of the elective courses may not be offered in a particular year, depending entirely on student demand.*

Energy Systems Management Stream

Required Courses for stream

- Fossil Fuels and Renewable Energy Economics
- Energy Markets, Trading and Risk Management

Electives:

- Energy, Strategic Management and Enterprise
- Emission Allowance Markets
- Environmental Law & Policy for Natural Resources & Energy
- Energy Transportation
- Energy Efficiency & Savings

Renewable Energy Stream

Required Courses for stream

- Renewable Energy I - Hydro, Tidal Wave and Bio-Energy
- Renewable Energy II - Wind, Solar and Geothermal

Electives:

- Energy Transmission and Storage
- Autonomous Energy Networks (Smart Grids)
- Hydrogen Energy
- Sustainable Built Environment
- Urban Energy Systems
- Energy Conversion Technologies
- Energy Efficiency and Savings

Fossil Fuel and Environmental Protection Stream

Required Courses for stream

- Clean Fossil Fuels
- Environmental Pollution and Control Emissions

Electives:

- Energy Transmission and Storage
- Fuel Cells Systems
- Sustainable Transport
- Nuclear Energy Systems
- Urban Energy Systems
- Energy Efficiency and Savings



Masters dissertation

As a part of the MSc programme, you work on a 3-month project relating to your academic interests and career aspirations. The Masters dissertation provides a good opportunity to apply theory and concepts learned in various courses to a real-world technological environment.

Admissions

While admission to the IHU is competitive, our admissions policy vigorously supports equality of opportunity. We are focused on building a student community which includes men and women from different backgrounds, abilities, economic circumstances, perspectives, races, religions and national origins.

When to Apply

IHU operates on a rolling admissions basis. This means that candidates apply for and are admitted to our programmes all year round. We suggest, however, that you apply as early as possible to ensure a quick response and place availability. We aim to provide decisions within two weeks of receiving your complete application. Please ensure that you complete the application form fully and submit all your supporting documents for us to make an informed decision.

Entry Requirements

For your application* for the IHU Masters to be considered you need:

- a good university degree from a recognised University (certified copy and transcript)
- a good IELTS or TOEFL score or a Certificate of Proficiency for graduates from non-English-speaking universities
- two academic references (both referees should have direct knowledge of your suitability for the specific Master programme)

A personal interview may be required

**Applications can be downloaded from our website: www.tech.ihu.edu.gr*

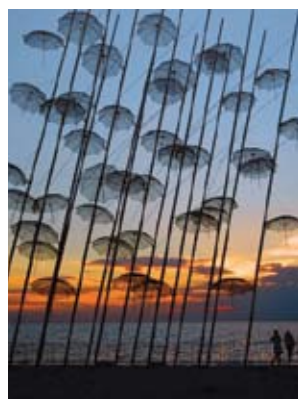
Scholarships

Scholarships are available for exceptional candidates where financial need can be demonstrated.

Our Facilities

IHU is located on property specifically developed for facilitating modern learning. Equipped with state of the art information technology tools including online databases, a sophisticated e-learning platform, as well as an excellent learning resource centre providing a comprehensive, up-to-date selection of books and journals and an attractive area for study.

The campus is located conveniently close to Thessaloniki's Makedonia International Airport. Access to the city centre is easy.



Our Identity

The International Hellenic University (IHU) is Greece's first state university where programmes are taught exclusively in English.

With backing from the Greek State and the regional business community, the IHU aims to become one of Europe's key research institutions attracting leading academics and outstanding students from South East Europe (SEE) and across the world.



Our Strategy

- Provide research and education that meets the needs of the international community.
- Enhance understanding of the economic, socio-political and technological issues facing the region through teaching and research of the highest academic standard.
- Create an internationally diverse student and faculty community inspiring greater intercultural understanding.

The School of Science and Technology

Our strategic mission is to develop programmes that address the technological needs of SE Europe, in order to provide students with the knowledge and skills to secure a successful career in today's highly competitive job market.



The School is offering two MSc programmes in Energy Systems and in Information and Communication Technology Systems, both based on an interdisciplinary approach, combining the necessary technical knowledge with the increasingly important managerial skills and understanding of the regulatory and financial framework which are vital to today's technology manager.

Teaching staff of both international and national renown with long experience in research and teaching comprise our pool of visiting and resident faculty.

The School is increasingly developing strong industry linkages in applied research projects, focusing on areas of mutual interest. Excellence in the programmes offered is ensured by the proper synthesis of:

- modern curricula
- the best educators
- cooperation with the most active European research teams
- the respective qualifications of the students
- links and cooperation with industries in the wider European region



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