CE*SE*

Aristotle University of Thessaloniki
School of Engineering · Chemistry · Agriculture

GREECE'S FIRST ENGLISH-TAUGHT CLEAN-ENERGY BSC

Clean Energy Science & *Engineering.*

A four-year, English-taught **Bachelor of Science** that places clean energy at the centre of engineering education — delivered by three Schools of a research-intensive European public university, with accessible tuition for international students.

4 yrs	240	Level 6	40	€8,000
8 SEMESTERS	ECTS CREDITS	EQF	PLACES / YEAR	TUITION / YEAR

2026
FIRST INTAKE

School of Chemistry · Mechanical Engineering · School of Agriculture

01 — THE PROGRAMME

Clean energy, *engineered* from the first year.

Many programmes approach the energy transition through policy or debate. This BSc places engineering analysis, laboratory work and system design at the centre of the student experience. From the first semesters, students model, build, measure and improve real energy systems — working across thermofluids, electrochemical and hydrogen storage, clean combustion, smart grids and life-cycle assessment. Three Schools of Aristotle University of Thessaloniki contribute the full clean-energy value chain, from fundamental science to applied technology.

School of Chemistry

SCIENTIFIC FOUNDATIONS

Electrochemistry, materials chemistry and molecular processes explain how energy is stored, converted and transported in batteries, fuel cells and hydrogen technologies.

Contribution · **Science**

School of Mechanical Engineering

ENGINEERING DESIGN

Thermofluids, combustion, energy systems and smart grids connect scientific principles with engineered installations and infrastructure. Mechanical Engineering coordinates the programme.

Contribution · **Engineering** · coordinating School

School of Agriculture

APPLIED SYSTEMS

Biomass, bioenergy, land use and life-cycle impact connect clean-energy technologies with food systems, water resources and environmental performance in applied production contexts.

Contribution · **Application**

3	31	240	1st
participating Schools	researchers in the global top 2%	ECTS · Bologna / EHEA aligned	in Greece · agricultural sciences

02 — WHAT YOU STUDY

A multidisciplinary foundation for *clean energy.*

The eight-semester curriculum (240 ECTS) progresses from scientific foundations to energy materials, conversion technologies, system-level design and evidence-based sustainability assessment — combining lectures, laboratory work, computation and project-based learning throughout.

01

Fundamental Sciences for Energy

The mathematical, physical, chemical and computational foundations needed to analyse complex energy problems with scientific rigour.

PHYSICS · CHEMISTRY · CALCULUS · PROGRAMMING

02

Energy Chemistry & Materials

The materials, electrochemical principles and molecular processes that underpin batteries, hydrogen systems, catalysis and energy conversion.

ENERGY MATERIALS · ELECTROCHEMISTRY · STORAGE

03

Energy, Environment & Agriculture

The links between bioenergy, biomass, resource circularity and the environmental performance of energy systems in applied contexts.

BIOENERGY · BIOMASS · LIFE-CYCLE

04

Renewable & Clean Energy Technologies

Solar, wind, hydro, geothermal, marine, hydrogen and clean-combustion technologies, with advanced conversion pathways.

RENEWABLES · HYDROGEN · CLEAN COMBUSTION

05

Energy Systems & Sustainability

System modelling, plant design, smart grids, optimisation and sustainability assessment for informed technical and strategic decisions.

SYSTEMS · SMART GRIDS · OPTIMISATION

↳

Two final-year projects

A Senior Project and a Capstone Project integrate science, engineering and sustainability into original, supervised academic work.

SENIOR PROJECT · CAPSTONE

8	17	240	EN
semesters of full-time study	courses with laboratory components	ECTS · EQF Level 6	taught entirely in English

03 — OUTCOMES

Graduates who design, evaluate and *optimise* energy systems.

The degree prepares graduates for technical roles across the energy sector and for advanced study at master's and doctoral level in Greece and internationally. Representative pathways linked to the curriculum include:

01 **Clean Energy Systems Engineer**
Design and integrate energy systems from generation to storage and end use.

02 **Sustainability & Energy Consultant**
Assess impact and translate technical evidence into decarbonisation strategy.

03 **Energy Systems Analyst**
Model demand and performance across grids, plants and hybrid assets.

04 **Hydrogen & Energy Storage Specialist**
Develop and evaluate hydrogen, battery and electrochemical storage.

05 **Clean Technology Analyst**
Evaluate emerging technologies on technical, environmental and economic terms.

06 **Research & Development Engineer**
Prototype and test materials, processes and components for energy technology.

07 **Renewable Energy Engineer**
Size, evaluate and deploy renewable and hybrid energy installations.

Taught inside a research-intensive university.

The teaching staff across the three Schools form a substantial, active research body.

46
teaching staff across three Schools

4,005
journal articles (career total)

118,522
Scopus citations · self-citations excluded

23.65
average Scopus h-index

At the frontier: AUTh research reaches from the ports of Europe — through the €9.7M Horizon Europe **POSEIDON** project on e-methanol shipping fuels — to the International Space Station, where AUTh teams have studied heat transfer in microgravity with the **European Space Agency**.

04 — JOIN THE PROGRAMME

Applications are open for *September 2026.*

AWARD	**Bachelor of Science (BSc)** · EQF Level 6
DURATION	4 years · 8 semesters · full-time
CREDITS	240 ECTS · aligned with the European Higher Education Area
LANGUAGE	English throughout · B2 (CEFR) required
PLACES	Up to **40** students per year · selective intake
TUITION	**€8,000** per year · €32,000 over the full degree
FIRST INTAKE	Academic year 2026–2027
DELIVERED BY	Mechanical Engineering (coordinating), Chemistry & Agriculture

Living in Thessaloniki

Greece's second-largest city is a coastal, walkable university hub for Northern Greece and the Balkans — with a rich cultural scene and an accessible cost of living for international students.

€600–800 · estimated monthly student budget

90+ · direct flight destinations

Metro + bus · fast, modern public transport

What you'll submit

Entry is open to candidates with a school-leaving qualification giving access to higher education, including study in mathematics, physics and chemistry.

Identity document & translated diploma

Transcript · B2 English certificate

Motivation letter (≤500 words) & CV

Engineer the *clean-energy transition.*

Review the full entry requirements, fees and deadlines, and submit your interest through the programme website.

APPLY →