



**TECHNICAL UNIVERSITY  
OF CRETE**



**At a Glance**  
**A short portrait**  
**of the Technical University of Crete**

# About

The Technical University of Crete was founded in 1977 and admitted its first students in 1984. The Institution provides undergraduate and graduate studies in modern engineering fields.



## FIGURES

as per 2023-2024

Students	<b>6.863</b>
MSc students	<b>519</b>
Ph.D. Candidates	<b>232</b>
Professors	<b>122</b>
Laboratory Staff	<b>95</b>
Schools	<b>5</b>



## Mission

TUC is a focused, mature and dynamic University with a clear mission: to expand knowledge and benefit society through research integrated with education. In this endeavour, the pursuit of excellence is the driving force. More than 70 laboratories with prime equipment, high technology infrastructure and eminently qualified personnel, as well as 120 faculty and staff members with international academic background attest to the level of excellence in education and research conducted at the University. This profile ranks the Technical University of Crete amongst the most prominent research institutions in Greece.



*“TUC is an excellent Higher Education Establishment in both teaching and research. It is well-equipped, in a good campus and, with few exceptions, is well staffed, especially in what regards its professors”*

*according to the External Evaluation Report (September 2021) by the Hellenic Quality Assurance & Accreditation Agency*

# Schools

TUC comprises five Schools with integrated master programs leading to a Diploma in Engineering (MEng)

## ● **School of Production Engineering and Management (1984)**

[www.pem.tuc.gr](http://www.pem.tuc.gr)

The School places emphasis on modern technologies, production systems, management and decision-making, finance, operational research as well as ergonomic design, control systems, materials, energy and environment, mechatronics and robotics. The curriculum provides a solid foundation in mathematics, physics, chemistry, mechanics and informatics. It also provides a comprehensive engineering education while allowing students to focus on specific areas in Production Engineering and Management.

## ● **School of Mineral Resources Engineering (1987)**

[www.mred.tuc.gr](http://www.mred.tuc.gr)

The mission of the School is to offer high quality, scientific know-how and skills to its graduates and become a reference point in research, exploitation, and utilization of mineral raw materials, energy resources, geotechnics and environmental geotechnology both in Greece and internationally. It aims to educate competent young engineers, develop innovative research, support the sustainable development and social cohesion. Addressing today's demands and ideas for science and technology, the School of Mineral Resources Engineering puts a strong emphasis on the development of novel disciplines or subjects that have not been adequately developed up to now in Greece. It continuously updates its curriculum, while its orientation is constantly guided by the research interests of its members. Thus, it follows the state of the art in technology and sustainable development, keeping always in mind the sequence of human, mineral resources, environment and economical development.

## ● **School of Electrical and Computer Engineering (1990)**

[www.ece.tuc.gr](http://www.ece.tuc.gr)

The studies at the School of Electrical and Computer Engineering (ECE) of the Technical University of Crete are aimed at the education and high-level technical training of engineers in modern technology subjects found in the fields of IT, electronics and computer architecture, telecommunications, electric energy systems, and automatic control

systems. Its purpose is for the students to acquire the necessary theoretical knowledge which will allow them to understand in depth the fundamental principles of new technologies in all the above areas, so that they can adapt and follow easily any new developments in any sector.

## ● **School of Chemical and Environmental Engineering (1997)**

[www.chenveng.tuc.gr](http://www.chenveng.tuc.gr)

The mission of the School of Chemical and Environmental Engineering is to train engineers with high qualifications and skills and provide the necessary background for them to deal with and serve the country's scientific process and market activities. At the same time, the School has a strong international presence in research aiming to develop innovative solutions to current environmental and sustainability problems. Today, the Chemical Engineer and the Environmental Engineer are called on to undertake a leading role in developing new technologies and materials, in the restoration, protection and management of the environment while bearing in mind the ultimate aim of sustainable development.

The objectives of the School of Chemical Engineering and Environmental Engineering are the training of Certified Engineer scientists with high qualifications, skills and background to serve the modern scientific research and production process in cutting-edge issues related to the fields of Chemical Engineering and Environmental Engineering.

## ● **School of Architecture (2004)**

[www.arch.tuc.gr](http://www.arch.tuc.gr)

The School aims at educating and high training in a wide spectrum of knowledge covering subjects in art, technology and science, connecting theory and design. According to its founding law its mission is the cultivation and promotion of knowledge through teaching and research in the scientific fields of architecture, urban design and planning, architectural technology, preservation and restoration of monuments, as well as the environmental-ecological dimension of architectural design. The Program of Study covers the above subject areas with courses in Architectural Design, Urban design and Planning, Digital Technologies in Architectural Design, History and Theory of Architecture and Art, Landscape Architecture, History of City and Urban Design, Architectural Technology, Visual Arts, Restoration of Buildings. It is also supplemented with general knowledge from physical and social sciences.

# Academics

## Undergraduate Programs

All undergraduate programs are integrated master programs leading to a Diploma in Engineering (MEng). The minimum length of study is ten semesters (5 years). A total of 300 credits are required for an undergraduate degree (i.e. the workload of a full-time academic year corresponds to 60 credits). Most courses offered are compulsory, but there is also a wide variety of elective courses. Most courses include lectures, tutorials, laboratory assignments, practical training, seminars and other activities, including educational visits to industries and field trips. To be eligible for graduation a student must complete nine semesters of course work and prepare a Diploma Thesis under the supervision of one or more faculty members during the 10th semester.

*“TUC’s curricula are up-to-date according to high international standards.”*

*External Evaluation Report of TUC (March 2016)*



## Postgraduate Programs

The Technical University of Crete is committed to staying at the forefront of educational and intellectual development in the areas of research and teaching both in Greece and internationally. This commitment is reflected in the wide range of M.Sc. and Ph.D. programs run by five Schools of the Institution and the growing number of graduate student population. The five Engineering Schools offer more than 15 postgraduate programs. Courses are usually taught in Greek and subject to the discretion of the professor, they may be taught in English. Several of the latter programs are joint and are taught in English. The duration of postgraduate studies at the Master’s level is two semesters (minimum). Students applying for admission to these programs should normally have an overall grade point average of 7,5 as well as very good knowledge of English. Students are expected to maintain this average throughout their postgraduate studies. Each School selects its postgraduate students among applicants from Greece and abroad. Successful postgraduate students or research assistants may receive scholarships. Doctoral degrees are awarded by each School upon the completion of a Ph.D. dissertation and a successful open defense.



*“...excellent job placement for graduates of certain Schools due to quality training”.*

*External Evaluation Report of TUC (March 2016)*







## Research

The Technical University of Crete is particularly active in conducting basic, technological and applied research that promotes science and growth, respects academic ethics and supports cooperation with International Organization and Institutions. The research and development projects, managed by the Research Committee, are funded by the European Union, the General Secretariat for Research and Technology, the Ministry of Education, the Region of Crete, local administration organizations and many private businesses. A large number of TUC undergraduate and postgraduate students are employed in these projects, in this way, they benefit from the best possible training and they familiarize with conducting research. Development and assessment of research projects occurs within various focus areas such as environmental engineering, chemical engineering, electrical and computer engineering, architecture, mineral resources engineering, production engineering and management.

### Following are the research excellence areas of TUC:

- Transportation Modelling and Control
- Transportation Modelling and Control
- Multi-Criteria Analysis and Financial Engineering
- Robotics and Autonomous Vehicles
- Big Data Analytics and Machine Learning
- (Bio-) Chemical Processes for Environmental Protection
- Water Resources Management under Climate Change
- Restoration of Historical Buildings
- Sustainable Urban Transportation
- Electric Energy Systems
- Energy Efficiency in Buildings
- Geodesy and satellite Altimetry
- Transformable Intelligent Environments

## Excellence in Research

WORLD'S TOP  
**2%**  
SCIENTISTS LIST  
STANFORD UNIVERSITY

### In 2022

TUC was ranked 2<sup>nd</sup> in Research, according to HAHE Report

### In 2022

TUC was ranked between 251-300, for Young Universities Ranking and between 601-800 for Engineering Subject Ranking, according to Times Higher Education

### 36 TUC faculty members

in the Stanford List for 2022 and 2023



# Research Funding

TUC has coordinated and participated in many national and EU research programs over the years. These include, among others, Horizon 2020, LIFE-environment programs, FP5 and FP6 and

FP7 programs, National research programs funded by the General Secretariat for Research and Technology. Several research contracts are funded by industrial sponsors and many structural grants are funded by the Ministry of Education for fostering research. In addition, scholarships are granted at the postgraduate level for conducting research.



# Technology Transfer Office

The mission of the Technology Transfer Office (TTO-TUC) is to leverage the results of the research conducted at the Technical University of Crete for the benefit of society, through procedures aligned with the institution's academic principles

and code of ethics. TTO-TUC serves as a bridge between the academic community and the market, undertaking various responsibilities, including the exploitation of research results, management of Intellectual Property Rights (IPRs), support for the establishment of spin-off companies, entrepreneurial mentoring of teams, networking with public/ private entities, the industry and companies, as well as preparation for accessing funding.

## Advisory Services:

- Business Maturation of Research Outcomes
- Intellectual Property Rights (IPR) Enforcement
- Establishment of Spin-Off Companies

## Services to Researchers:

- Information on the Utilization of Research Results
  - Mapping and Promotion of Research Results
  - Awareness-Raising Activities for Technology Transfer
- Offering innovation spaces for nurturing and supporting ideas.

## Services to Institutions and Enterprises:

- Networking between TUC Researchers and Laboratories with the Market
  - Supporting Collaborations between TUC and the Market
- Offering a fabrication space for design and rapid prototyping



## Outreach policy Campus Events

In the context of its outreach policy, TUC organizes two main Campus Events:

### Science and Technology Fair “Thelma Mavridou”

The Technical University of Crete prides itself on being a STEM ambassador and contributing to the creation of new educational pathways and public engagement in Sciences, Technology, Engineering and Mathematics. The main goal is to design and implement initiatives which encourage students to dare, to doubt, to explore, to share, to apply, to innovate. Since 2013, TUC has been raising awareness of the critical role that STEM education plays, by organizing a “Science and Technology Fair” for children between 6 and 12 years old. On that day, children have the opportunity to participate in experiments, be part of science projects and most importantly to feel that they are concurrently part of a magical and a real world.

### The Open Day Event

The Open Day is an event which offers an opportunity to prospective students to visit the campus and experience what it is like to be a student at TUC. All services and academic Schools are open, so visitors may be informed on a wide range of issues, such as academics, research activities, student support services, campus activities and so on.

## Working towards a Green University

The Technical University of Crete is currently focusing on achieving sustainable development through a green university oriented policy. Sustainable solutions have been implemented to reduce the environmental impact of campus activities. In addition, considerable efforts are being made to promote a culture of sustainability among students and simultaneously create a healthier, safer, and more environmentally friendly campus for all university members.



## Internationalization & International Cooperation

Internationalization is one of the cornerstones of TUC’s Strategy for the period 2023-2026. Through internationalization, TUC seeks to achieve the highest international standards in academics, teaching, and research. It is the aim of TUC to enable its students to successfully compete in today’s global employment market. The Technical University of Crete has established close cooperation with many European, Asian and American universities, at both the academic and research level.



## TUC: Proud partner of EURECA-PRO European University

EURECA-PRO has a two-fold societal and planetary mission. Through its novel approach, on the one hand, it holistically contributes to the highly topical issue of Sustainable Consumption and Production under the umbrella of Sustainable Development Goal 12, and on the other hand it effectively contributes to the development of the European Higher Education Area complementarily to Sustainable Development Goal 4.

In the first project phase of EURECA-PRO (2020-2023), the partner universities laid the foundation for the international and interdisciplinary cooperation among researchers, staff and students to build a strong and strategic university alliance. It introduced new study programmes on Responsible Consumption and Production and established research groups and 6 lighthouse missions as well as an international renowned conference on RCP. In the next phase (2023-2027) the alliance will continue making headway towards becoming the centre of excellence in Europe for education and research on responsible consumption and production as well as moving towards the long-term goal of creating a virtual and integrated European campus until 2040.





## CONTACT

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