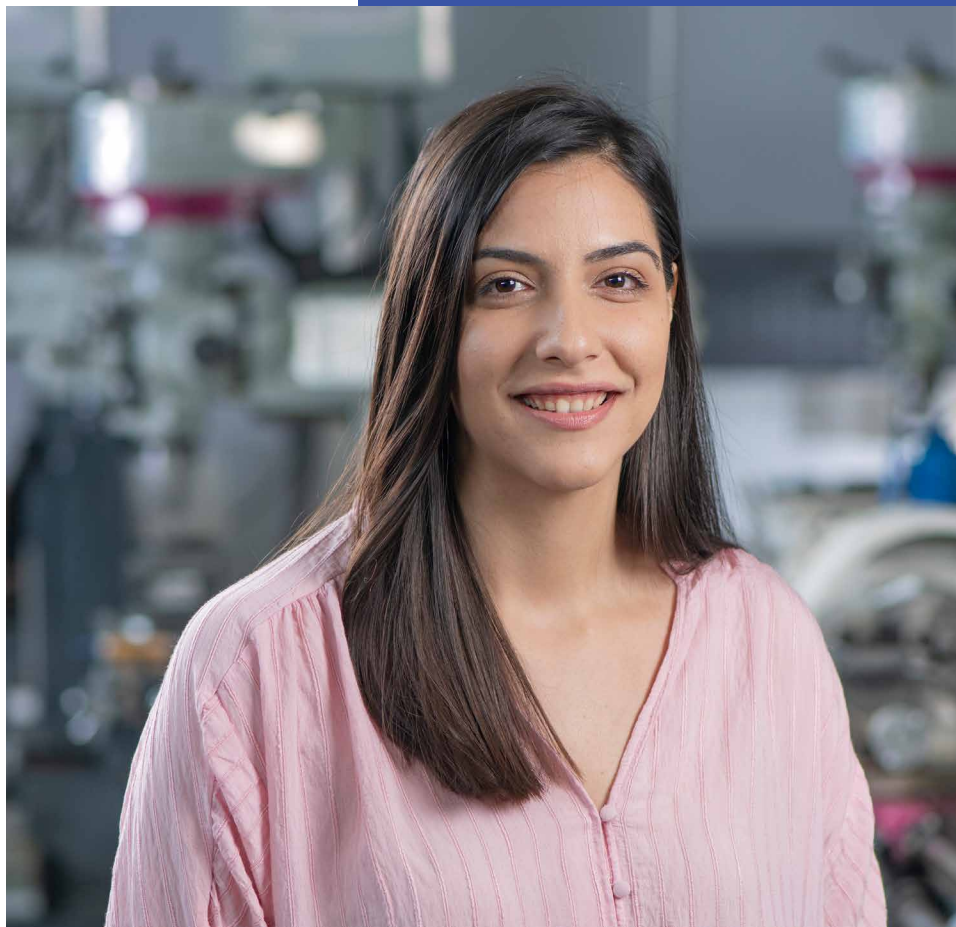

Mechanical Engineering



FREDERICK UNIVERSITY

Creative Thinking and Scientific Analysis

Extending the limits of the world!

If the idea of combining Mathematics, Physics, and Creative Design excites you, then Mechanical Engineering is the right choice for you. One of the most diverse and versatile engineering fields, Mechanical Engineering is the science of designing, developing and operating machines and engines. It is also the field determining the optimum functions of our existing technologies. It pushes medicine forward, invents new materials, and develops green technologies. It invents new manufacturing processes and improves existing ones. In a nutshell, Mechanical Engineering is the science behind every bit of machinery, extending the limits of our world and improving the quality of our lives.

The Department of Mechanical Engineering of Frederick University is built on the solid foundations of a more than 30-year experience and expertise in higher education in the area of Mechanical Engineering - from Frederick Institute of Technology until its upgrade to a University in 2007.

BSc in Mechanical Engineering

Mechanical Engineers design and build almost everything that keeps our lives in motion: green technologies and the energy industry, medical care, the automotive industry, robotics, the construction industry, automation. You will gain valuable theoretical knowledge and practical training, and you will have the opportunity to develop critical thinking; to be trained in problem-solving; to explore new technologies in the modern laboratories of the Department of Mechanical Engineering; to try out new machines; to respond to environmental and technological challenges. The program offers general engineering as well as specialized courses, supported by laboratories with state-of-the-art equipment, which is constantly upgraded and updated.

Specialization in Hydrocarbon Engineering

In addition to the general direction of Mechanical Engineering, the program offers a specialization in Hydrocarbon Engineering. By choosing this pathway you will be prepared to work in hydrocarbon exploration and processing. You will gain technical know-how in drilling and reservoir characterization, analysis and design of pipeline systems, industrial process (refineries and petrochemicals) and simulations.

The Mechanical Engineering degree is recognized by KY.S.ATS, the competent authority of the Republic of Cyprus for the recognition of higher education qualifications. It is fully recognized by the Cyprus Scientific and Technical Chamber (E TEK) and, as a graduate, you will be able to become its member and practice the profession. In addition, Frederick University has been recognized by the Hellenic National Academic Recognition and Information Center (Hellenic NARIC), as an accredited university equivalent to the Greek Universities, and - upon obtaining a Master's degree - the graduates of the program can become members of the Technical Chamber of Greece (TEE).



We have developed an **anthropomorphic model** that “breathes”: it has a heart, lungs, and a liver, functioning just like real organs in a body. It currently serves the field of Nuclear Medicine and it aims to contribute to the improvement of public health.



We designed and built three Formula-type racing cars. The mechanics, design, and materials of each new version are improved, in accordance to the latest developments in aerodynamics and motorsport technology. We have also built an electric car that runs on photovoltaics!



We store hydrogen! The transition from fossil fuels towards renewable energy requires the development of hydrogen storage methods, and this is what we do: we store hydrogen in metal hydrides (solid-state) at densities higher than those of liquid hydrogen, contributing to the transition towards a green economy.



The academic staff of the Department of Mechanical Engineering is trained in all fields of Engineering -from energy to aerospace, and from construction to nuclear medicine-with scientific research and collaborations of international calibre.



Once you complete your studies, you will be able to join the innovative Training Program for Marine Engineers of the Cyprus Marine Technology Academy (CyMarTA) of Frederick University. It is a program aimed exclusively at graduate Mechanical Engineers and offers excellent employment prospects. You will specialize in ship engines and have the opportunity to work as a Third, Second, and Chief Engineer on ships and then as a Manager in the shipping industry, a market with excellent growth potential and very high earnings.



The department's valuable connections with the industry will provide you with the opportunity to gain rich practical experience, work on real projects and connect with future employers.



“The excellent track record of the professors at the Department of Mechanical Engineering of Frederick University is incomparable. Collaborating with them is crucial. The fact that a student has the opportunity to share his/her ideas and discuss with the professors is a great inspiration and motivation. ”

Kyrillos Sehata, graduate

“My love for math and my passion for physics showed me the way: and, so, I decided to study mechanical engineering. I started looking through hundreds of universities in different countries around the world and among them the ones in Cyprus. I ended up studying Mechanical Engineering at Frederick University, and I feel that my choice is justified. Compared to my personal experience at a University abroad, the big difference is the personal contact and support we had from our professors. I think that you cannot develop this kind of relationship in major European universities. ”

Michelle Duri, graduate

“Frederick University’s Mechanical Engineering program helped me expand my knowledge in engineering on a theoretical and a practical level. With modern laboratories and a curriculum that meets today’s standards, it is easily compared to similar programs of leading Universities abroad. The professors are all highly knowledgeable in their respective fields. They stood by me throughout my studies, but also, after graduating, they helped me adapt quickly to the requirements of today’s job market. ”

Savvas Hatzigiagou, graduate

“My advice to anyone who wishes to study Engineering in Cyprus today is that the best choice is Frederick University. It provides its students with all the support they need, and its academic staff is highly experienced and very helpful. ”

Apostolos Parelis, graduate



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