Department of Computer Science

FACULTY of PURE and APPLIED SCIENCES
Introduction

Computer Science is the science of the management of information. On the one hand, it creates the necessary theoretical background that makes the efficient use of huge amounts of data feasible. On the other hand, it focuses on practical applications in digital computational systems that utilize the theoretical results, and make them useful for various areas of human activity, increasing citizen’s daily possibilities. The increasing importance and applicability of Computer Science have contributed to rendering the Department of Computer Science as one of the most dynamic and competitive departments of the University of Cyprus, that has also gained international recognition. The Department of Computer Science is one of the five departments of the Faculty of Pure and Applied Sciences of the University of Cyprus, consisting of 22 faculty members. The high quality of the knowledge provided by the Department, as well as its reputation, are proven by the constant high interest shown by candidates. In the last years, the Department accepts 90 undergraduate and 20-25 postgraduate new students every year.

Knowledge Areas

- Computer Architecture
- Networks and Systems Security
- Database Systems and Data Management
- Computer Graphics and Virtual Reality
- Internet Computing
- Computer Networks and Distributed Computing
- Theoretical Computer Science
- Artificial Intelligence and Machine Learning
- Software Engineering
Programmes of Study

Both the undergraduate and the postgraduate programmes of study have been designed in order to address the latest developments in the area of Computer Science, as well as to offer students a complete programme, that puts equal emphasis on theoretical background, technological knowledge and experimental methodologies of Computer Science. During their studies, undergraduate students attend a number of compulsory and elective courses and have the opportunity to follow one of the provided specializations (Computer Networks, Fundamentals of Computer Science, Big Data and Internet Computing, Real World Computation, Artificial Intelligence, Software Engineering, Digital and Embedded Systems), or a combination of different areas. The capabilities and the high educational level of our graduates are recognized by the local labor market but also internationally, as our graduates show distinguished performance either by being employed in the local industry after their graduation, or by pursuing postgraduate degrees at top universities in Europe and the United States.

On postgraduate level, the Department offers:

- Doctoral Programme of Studies
- Master Programmes:
  - Master in Computer Science
  - Professional Master in Advanced Information Technologies
  - Master in Cognitive Systems (in English online, offered jointly by the Open University of Cyprus, the Department of Computer Science and the Department of Psychology of the University of Cyprus)
  - Master in Data Science (in English, offered jointly by the Department of Business and Public Administration, the Department of Computer Science and the Department of Mathematics and Statistics of the University of Cyprus)
  - Master in Artificial Intelligence (in English, in collaboration with three other universities in Europe, one Research Centre, and four small and mid-size enterprises)

ERASMUS + and Other Student Mobility Programmes

The students of the Department of Computer Science have the opportunity, if they wish so, to spend one or two semesters of their studies at European universities. In the framework of the Erasmus+ Programme, the Department maintains agreements for students’ exchanges with universities in different European countries, such as Greece, Spain, Portugal, the Czech Republic, the Netherlands, Germany, Denmark, Sweden, France, Lithuania, Italy, and Austria. The students that participate in the Erasmus+ programme are compensated for their travel expenses and receive a monthly allowance. Students also have the opportunity to study at other international universities in third-party countries, via the Erasmus+ International Programme, as well as participate in exchange programmes, such as the students exchange programme with Texas A & M University in the United States and the educational programme funded by HUAWEI in China.
ACADEMIC EXCELLENCE

Via the continuous efforts of the Departmental personnel on teaching and research, on the improvement of computer equipment, and on attracting new staff members, the Department of Computer Science has established itself on an international level. The Department is characterized by the constantly updated programmes of study, the instructor to student ratio, the fruitful link between teaching and research, and the continuous interaction with the labor market. The quality level of the Department is supported by the following objective measures:

- A large number of graduates have received recognition by the Cypriot, as well as the international academic community and the labor market.
- The scientific outputs of the members of the Department are annually presented in peer-reviewed journals and scientific conferences in Computer Science; they gain international recognition, and they are cited by the international scientific community and the industry.
  - Computer Science books are authored and published by the members of the Department.
  - The Department participates in a large number of research and development programmes, which are funded by the EU, as well as national and international organisations.
  - Memoranda of cooperation have been signed with companies that utilize computer science technologies, semi-governmental bodies, and start-ups, with the aim of connecting students with the labor market on the one hand, and on transferring knowledge and innovation, via the pioneering research conducted at the Department by its academics, on the other hand. In the framework of their studies, students have the opportunity to perform an internship in a real working environment.

GOALS of the Department

The Department of Computer Science aims at:

- Contributing to international research on Computer Science.
- Fostering knowledge in all Computer Science fields (via teaching and the Department’s international presence).
- Being a leader in the effective application of Computer Science in the local industry and services in the wider Cypriot area.

DEPARTMENT of COMPUTER SCIENCE and SOCIETY

The mission of the Department is to cultivate and promote scientific knowledge and research in the area of Computer Science, preparing its graduates for a successful professional path. The Department places special emphasis on the connection and continuous communication with the local industry, creating via its graduates a communication channel with the Cypriot area. By organizing educational conferences, open days (such as the Computer Science Open Day), and technology competitions (such as Logipaignion) for High School and Junior High School students, the Department aims at informing, enlightening, and encouraging young people to know more about the professional perspectives offered by the scientific field of Computer Science.
Student Testimonials

**Dr. MARIOS BELK,** Graduate of the Department of Computer Science, Ph.D. Graduate, Co-founder and CEO of Cognitive UX Ltd and Special Scientist at the Department of Computer Science

My studies at the Department of Computer Science and my contact with distinguished professors and scientists have given me the necessary foundations for my professional training. My involvement in research programmes led to my specialization in human-centric interactive systems. Recently, I have co-founded a company active in the area of Computer Science in Germany and Cyprus, with the aim of developing innovative products and services. I am also involved in European research programmes, and I teach at the University of Cyprus as well as the Open University of Cyprus.

**Dr. CONSTANTINOS COSTA,** Ph.D. Graduate, Visiting Research Assistant Professor at University of Pittsburgh

The Department of Computer Science at the University of Cyprus has given me the necessary knowledge and experience in order to continue a successful academic career. Having a degree, an M.Sc. and a Ph.D. in Computer Science, I have managed to obtain a visiting position and at the same time teach undergraduate and postgraduate courses at the Department of Computer Science at the University of Pittsburgh. My research work during my studies, as well as my subsequent research at the University of Pittsburgh have been published in top scientific conferences on Data Management (e.g., VLDB, IEEE ICDE, IEEE MDM).

**ATHINA PAPHTITOU,** Graduate of the Department of Computer Science, Master Graduate, Full-stack Developer, Delivery Hero Cyprus LTD

I have a degree and a Master’s degree in Computer Science. My studies at the Department of Computer Science, at undergraduate and postgraduate level, have given me important knowledge in the areas of object-oriented programming, algorithms, design patterns and databases, that I use as a Full-stack Developer at Delivery Hero Cyprus LTD (Foody). Via my studies, I have discovered my interest in following software and web application development methodologies in practice, something that urged me to work in this field. Also, via course projects, I had the opportunity to visit various companies and gain practical experience in the labor market.

**LAMPROS PETROU,** Graduate of the Department of Computer Science, Software Development Engineer, Amazon Web Services

My undergraduate studies at the Department of Computer Science of University of Cyprus have provided me with a solid foundation for my postgraduate studies, as well as for my subsequent professional career. The knowledge I gained from courses, such as Algorithms and Complexity, Systems Programming, Parallel Processing and others, as well as the discussions with teachers and my participation and distinctions in international programming competitions, have helped me at every step in my path. The Department can offer incredible opportunities, as long as the students want to pursue them!

**ANDREAS TSOULOUPAS,**
Graduate of the Department of Computer Science

As an undergraduate student at the University of Cyprus, I had the opportunity to enrich and widen my knowledge spectrum by attending the well-structured curriculum offered by the Department of Computer Science. The Department of Computer Science consists of a number of exceptional people and scientists, always ready to provide their help, serving our science. It should be mentioned that the opportunities offered via the collaboration of the Department with other universities and organizations internationally, set the pathway for a successful professional career.
Indicative Student Distinctions

- Undergraduate students Orpheas van Rooij, Marcos Charalambous, Demetris Kaizer and Master student Michalis Papaevripides were distinguished for finding a WordPress vulnerability in 2021.
- Undergraduate students Loukia Vasiliou, Christodoulos Loukaides, Pantelis Panayiotou and Angelos Savva were among the winners of Reload Greece Young Entrepreneurs Programme 2019-2020 competition.
- Undergraduate students Marios Paphites, Valentinos Pariza and Ioannis Evgeniou won the 1st prize at Digital Championship Competition Cyprus 2020.
- Ph.D. graduate Constantinos Costa was among the finalists for the 2019 ERCIM Cor Baayen Young Researcher Award.
- Master student George Demosthenous won the 1st award in the Students in Research Competition - FOITO 2019 in the thematic area of Social Sciences and Humanities.
- Undergraduate students Raphael Loizou, Adamos Ttofari and Andronikos Charalampous won the 1st award in the ACM ICPC Cyprus 2019 Competition.
- Undergraduate students Christodoulos Constantinides, Constantinos Demetriou and Chrysis Eftychiou won the 2nd award in the ACM ICPC Cyprus 2019 Competition.
- Master graduate George Nicolaides, Ph.D. graduate George Matthaiou and their collaborator George Larkou won the Entrepreneur of University of Cyprus Award at the 4th Innovation and Entrepreneurship Forum 2019.
- Master students Zacharias Georgiou and Moyses Symeonides won the Audience Award at the 4th Innovation and Entrepreneurship Forum 2019.