

#### HELLENIC REPUBLIC UNIVERSITY OF THE PELOPONNESE

## SCHOOL OF ECONOMICS AND TECHNOLOGY

MSC IN COMPUTER SCIENCE Akadimaikou G K Vlachou, 22131 Tripolis, Greece, Tel +30 2710372169, website: http://dit.uop.gr/msc-inf

#### **DIPLOMA SUPPLEMENT**

This Diploma Supplement model was developed by the European Commission, Council of Europe and UNESCO/CEPES. The purpose of the supplement is to provide sufficient independent data to improve the international 'transparency' and fair academic and professional recognition of qualifications. It is designed to provide a description of the nature, level, context, content and status of the studies that were pursued and successfully completed by the individual named on the original accompanying qualification and it is free from any value judgments, equivalence statements or suggestions about recognition. Information in all eight sections should be provided. Where information is not provided, an explanation should give the reason why.

#### 1. INFORMATION IDENTIFYING THE HOLDER OF THE QUALIFICATION

Family Name: 1.1

2.

Given Name: 1.2

**THESSALONIKI** 1.3 Place of Birth:

1.4 Date of birth, Place, Country (day month.year): - THESSALONIKI

1.5 Student identification number or code:

# INFORMATION IDENTIFYING THE QUALIFICATION

2.1 Name of qualification and title conferred (in original language):

MSc in Computer Science

#### 2.2 Main field(s) of study for the qualification:

Computer Science

The above study field is an interdisciplinary one and is classified under knowledge area 0618 ('Inter-disciplinary programmes and qualifications involving information and communication technologies'), as defined in the UNESCO ISCED 2013 classification.

#### 2.3 Name and status of awarding institution (in original language):

UNIVERSITY OF THE PELOPONNESE

The University of Peloponnese is established in 2002 (Presidential Decree 13/2000) as a Legal Entity of Public Law

- 2.4 Name and status of institution (if different from 2.3) administering studies: As in 2.3
- 2.5 Language(s) of instruction/examination: Greek

#### INFORMATION OF THE LEVEL OF THE QUALIFICATION 3.

#### 3.1 Level of qualification:

Level in accordance with the Greek system of studies: Postgraduate / Level in accordance to the Bologna Process: 2nd cycle of studies / Level in accordance to the Hellenic Qualification Framework: 7 / Level in accordance to the UNESCO ISCED 2011 classification: 7

#### 3.2 Official length of programme:

Minimum length of studies: Three (3) semesters or one year and a half

Number of weeks for teaching and examinations per academic year: 32 (26 for teaching and 6 for examinations) Note: Furthermore, there are 2 additional (optional) weeks per semester for lectures and 3 for additional examinations on September.

Total students' workload for the whole duration of studies: 2,250 hours

Number of ECTS credits required for graduation: 90

#### 3.3 Access requirements:

BSc (Ptychio/Diploma) in Informatics or relevant field + Decision of the department's general assembly, after assessing the applicant's profile

#### 4 INFORMATION ON THE CONTENTS AND RESULTS GAINED

#### 4.1 Mode of study:

Full-time study or equivalent.

#### 4.2 Programme requirements:

A. Prerequisites for graduation

The following prerequisites have to be fulfilled for a student to graduate from the Faculty of Informatics and Telecommunications of the University of the Peloponnese:

- Successful completion of 8 courses which account for 60 ECTS credits.
- Successful completion of the one-semester postgraduate thesis, which accounts for 30 ECTS (3<sup>rd</sup> semester). The above requirements correspond to a total number of 90 ECTS credits.

<u>Notes:</u> a) All courses last one semester. b) The postgraduate thesis is defended before a three-member committee.

### B. Expected learning outcomes and graduates' competences

Students of the Department of Informatics and Telecommunications that have successfully graduated and obtained a degree in the field of Computer Science and Technology will:

Knowledge and understanding

- Have acquired the necessary knowledge on working principles on the fields of information systems, networks, services and applications.
- Know the fundamental issues of the disciplinary fields of Informatics and will be able to propose scientifically grounded and innovative solutions in the field of ICT applications, as well as to estimate the cost-benefit ratio of each solution.
- Understand the principles of economical and managerial aspects of running projects related to Informatics.
- Understand issues related to social, legal, educational end ethical aspects of Informatics.

Application of knowledge and understanding

- Be capable of applying their knowledge and understanding so as to become effective professionals
- Possess appropriate skills to develop sector-specific solutions.
- Have the ability to apply the theories of informatics in modern information systems, as well as in related research areas.
- Have the potential to recognize the tools and techniques suitable for the problems at hand and apply them effectively, so as to successfully complete complex projects.
- Be able to conduct experiments that involve tests and measurements, as well as analyze, interpret and present the produced results.
- Have the ability to undertake and successfully execute projects both as individuals and as members of a technical team.
- Be capable of working effectively in a team in order to manage, design, test certify the performance of ICT systems.

#### Judgement

- Will be capable of recognizing, formulating and solving problems in the design, management and evolution of ICT systems.
- Have the potential to carry out experimental testing and assess the performance of ICT
  hardware/software, as well as evaluate the extent to which an implemented system conforms to its
  specifications.
- Understand scientific and technical publications and be able to formulate their personal opinion on their importance and implications.

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- Be able to retrieve and use bibliographical sources, standards and regulations concerning scientific issues, products and systems.
- Have the capability to formulate holistic views, considering scientific, social and ethical aspects of the problem at hand, and be aware of the ethical aspects relevant to their professional, research and development activities.
- Demonstrate insight into the potential limitations of technology, the role it plays in the society and the personal responsibility on its use, including social, economic, environmental and work aspects.
- Be able to determine their needs to acquire new knowledge and continuously extend their knowledge and skills.

#### Communication

- Be proficient in communicating problems, ideas, solutions, technical information effectively and efficiently, in writing and orally, to both specialist and non-specialist collocutors.
- Have the capability produce technical reports on the activities carried out and present summaries of the key results in group discussions.

#### Learning

- Be able to recognize and adapt to new methods, techniques and instruments used in all phases of ICT systems' and applications' lifecycle.
- Have the capacity to follow scientific and technological developments in the ICT domain and determine needs for further knowledge acquisition and skill development.
- Have the potential to continue further studies in all fields of informatics.

### 4.3 Programme details (modules or units studied and individual grades/marks/credits obtained):

Subjects that the student has successfully attended as well as subjects for which the student has received recognition or exemption:

Subject	Code	Semes- ter	ECTS credits	Grade	Examination period	Percentiles PR=100*n/N
Software architecture	αρχιτ-λογ	1	7.5	10	FEBR 2020-2021	100%
Information management for the Internet	διαχ-πλη-διαδ	1	7.5	10	FEBR 2020-2021	100%
Topics in information systems	θεμ-πλη-συσ	1	7.5	10	FEBR 2020-2021	100%
Discrete system simulation techniques	τεχν-προ-δια-συ	1	7.5	10	FEBR 2020-2021	100%
Mobile device application development	ανα-εφα-κιν-τερ	2	7.5	10	JUNE 2020-2021	100%
Smart cities	ευφυ-πολ	2	7.5	10	JUNE 2020-2021	100%
Data visualization	οπτικ-δεδ	2	7.5	10	JUNE 2020-2021	100%
Digital game design	σχεδ-ψηφ-παιχν	2	7.5	10	JUNE 2020-2021	100%
M.Sc. Thesis	διπλ-εργα	3	30.0	10	FEBR 2021-2022	100%
TOTAL			90			

Thesis title: «Ανάπτυξη εφαρμογής κινητών τερματικών για ασφαλή κρυπτογράφηση δεδομένων». Grade: 10.00 ECTS: 30 The thesis was defended before a committee.

#### Explanatory notes:

- \* There are three examination periods: The February examination period for the examination of all courses offered during the winter semester (1st, 3rd semester), the June examination period for the examination of all courses offered during the spring semester (2nd), and the September examination period during which courses of both winter and spring semesters are examined.
- \* The ECTS column depicts the European Credit Transfer and Accumulation System units for learning activities (courses, seminars, theses, etc.)

Note 1: Percentiles are not computed when the number of students that achieved a passing grade in the relevant examination period is not sufficient to warrant statistical significance of the percentile values. Moreover, percentiles are not computed for composite courses; for these courses, the effective percentile ranking is conveyed by the percentiles of their constituent parts.

## 4.4 Grading scheme and, if available, grade distribution guidance:

#### A. Grading system

Student achievement in each course or other educational activity is given in integer grades on a scale of 0 to 10. Successful grades are those equal to 6 or higher. In percentages in the centigrade scale, and given that the maximum performance is 100%, the required minimum performance for success equals to 60%.

The graduation grade is given in decimal numbers with one decimal digit and ranges from 6.0 to 10.0. The graduation grade is complemented with one of the qualitative descriptions "Excellent", "Very Good", and "Good", according to the grade as follows:

"Excellent" ("Άριστα"):	For grades from 8.8 up to 10.0	or	from 88% up to 100%
"Very Good" ("Λίαν Καλώς"):	For grades from 7.2 up to 8.79	or	from 72% up to 87.9%
"Good" ("Καλώς"):	For grades from 6.0 up to 7.19	or	from 60% up to 71.9%

The above three qualitative descriptions are used only for the graduation grade and not for the performance of students in the various courses and other educational activities in the context of the study programme.

### B. Calculating the graduation grade

The graduation grade is calculated taking into account the grades of all required courses and other educational activities of the study programme; the weight coefficient of each course or educational activity is equal to the number of ECTS credits assigned to the course.

#### 4.5 Overall classification of the qualification (in original language):

"EXCELLENT" ("API $\Sigma$ TA") (Grade: )

#### 5 INFORMATION ON THE FUNCTION OF THE QUALIFICATION

### 5.1 Access to further study:

The qualification "Diploma" (" $\Delta i\pi \lambda \omega \mu \alpha$ "), as a 2<sup>nd</sup> cycle degree, provides access to PhD/Doctoral (3rd cycle) studies.

### 5.2 Professional status (if applicable):

A person who has obtained the qualification "Diploma" (" $\Delta i\pi \lambda \omega \mu \alpha$ "), in the field of Computer Science provided by the M.Sc. in Computer Science of the University of the Peloponnese, is qualified for posts or positions in the following areas:

- i) computer software and hardware
- ii) informatics
- iii) internet services and applications
- iv) computer graphics systems and applications, signal processing systems and applications, image processing systems and applications, speech processing systems and applications.

#### 6 ADDITIONAL INFORMATION

#### 6.1 Other information:

The University of the Peloponnese was founded with the issuance of the Presidential Decree 13/01-02-2000. The seat of the University is in Tripolis, while its 9 schools and 22 departments are located in the five capitals of the prefectures in the region of the Peloponnese, as well as in Patras.

The operation of the University was inaugurated on September 20th of 2002 and, up to now, the University has accomplished to recruit highly rated academic staff and to establish a considerable network of European and international cooperations. Its human capital includes 273 professors, 89 special teaching staff, 160 administrative staff members, while more than 25.000 undergraduate students, postgraduate students and Ph.D. candidates are enrolled; additionally, 1.300 students are enrolled in lifelong learning programmes.

The main goal of the University of the Peloponnese is to contribute to the development of higher education within the region of the Peloponnese, setting high standards regarding studies, research and teaching, in order to meet the needs of a modern University with national, European and international impact.

The University of the Peloponnese, pursuing its goal, aspires to transfer the existing knowledge through teaching, create new knowledge through research activities, and to shape responsible citizens, sensitive to social needs. In parallel, it aspires to offer to its students all the necessary qualifications for their scientific and professional career. In this context, it strives to instill to its students the mentality and principles of entrepreneurship, and has integrated the practicum in its study programmes.

The University of the Peloponnese seeks to develop its relationships with the local society, to contribute to the addressing of the social, cultural and developmental needs of the region, and to be itself a key driver for regional growth, through the dissemination of scientific knowledge. At the same time, the University of the

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Peloponnese has included internationalization among its top priorities, and it develops continuously and consistently its European and international profile, through its research activities. It has established an institutional-level policy for supporting mobility within Europe, and offers additional funding to cover part of the expenses for student travels. Quality and quality assurance are set as the primary objective throughout the whole spectrum of the University's operation; the university continuously formulates and evolves flexible and effective control procedures to support teaching and research activities.

The M.Sc. in Computer Science was founded in 2018, being the successor of the M.Sc. in Computer Science and Technology, which was founded in 2008. The M.Sc. strives to offer to its students the opportunity to study the most recent and advanced scientific and technological developments in the field of computer science. During their studies, the students of the M.Sc. will study research issues, experiment, analyze and draw conclusions based on the results of their experiments. Many graduates of the M.Sc. continue their studies as Ph.D. candidates. Through its carefully designed learning procedure, the M.Sc. offers to its students the necessary knowledge and skills to help them develop into proficient scientists and professionals, emphasizing beyond the necessary transfer of knowledge to students- on the development of their judgement, their research intuition, and their capability to follow and digest the scientific and technological developments in the field of Computer Science. To succeed in these goals, the M.Sc. endeavors to inspire the students on the subjects they chose to study, and create for them an interesting and fruitful learning experience.

The Department of Informatics and Telecommunications of the School of Economy and Technology of the University of the Peloponnese was founded with the issuance of the Presidential Decree 70/28-05-2013, according to which the Department of Computer Science and Technology and the Department of Telecommunications Science and Technology were merged to form the Department of Informatics and Telecommunications. The Department of Informatics and Telecommunications enrolled its first students in academic year 2013-2014; the former departments had enrolled their first students in academic year 2002-2003. On a yearly basis, the Department of Informatics and Telecommunications enrolls approximately 240 undergraduate and 50 postgraduate students, who follow an up-to-date study programme. One of the Department's main goals is to promote the active participation of the students in all the Department's activities, so as to acquire solid scientific foundations as well as experience in both research and practical issues, covering different areas of Informatics and Telecommunications. The professional rights of the graduates of the Department have been established with the issuance of the Presidential Decree 44/08-04-2009; these rights are equivalent to the ones granted to graduates of respective departments in other Greek Universities. Another main goal of the Department is the development of intense research activity in various areas of Informatics and Telecommunications, as well as the participation in national- and European-level research and development projects. The Department's faculty members have considerable publication records, and have published numerous papers in distinguished scientific journals; they have also developed important international cooperations with relevant Departments abroad and participate in scientific boards and committees of highly ranked scientific journal and conferences.

#### 6.2 Further information sources

M.Sc. in Computer Science and Technology
Department of Informatics and Telecommunications:
University of the Peloponnese:
Ministry of Education and Religious Affairs:
Hellenic Authority for Higher Education:

https://cs-msc.uop.gr/ http://dit.uop.gr http://www.uop.gr http://www.ypepth.gr https://www.ethaae.gr/

- 7 CERTIFICATION OF THE SUPPLEMENT
- 7.1 Date: 4/4/2022
- 7.2 Name and Signature:

THE RECTOR
OF THE UNIVERSITY OF PELOPONNESE
ATHANASIOS K. KATSIS

- 7.3 Capacity:
- **7.4** Stamp:

### 8 INFORMATION ON THE NATIONAL HIGHER EDUCATION SYSTEM

### (i) Structure and functioning

According to the current legislation (law 4485/2017), higher education consists of two parallel sectors: a) the University sector, (Universities, Polytechnics and the School of Fine Arts) and

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b) the Technological sector (Technological Educational Institutes and the School of Pedagogic and Technological Education) Certain issues were adjusted, concerning the governance of higher education along with the general guidelines of expanded participation, increased transparency, accountability and extended autonomy of all higher education institutions. There are also State Non-university Tertiary Institutes, offering vocationally oriented courses of shorter duration (two to three years). It is noted that according to the provisions of laws 4521/2018, 4559/2018, 4588/2018 και 4610/2019, all Technological Educational Institutions were merged into universities.

#### (ii) Access

(iii) Qualifications

Entrance to the various Schools of the Universities (Panepistimio) and Technological Educational Institutions (Technologiko Ekpedeftiko Idryma - TEI) depends on the achievement score attained on the National Exams and on the Certificate obtained by the High School (Lyceum) graduates. Admission to higher education institutions depends on the number of available places (numerus clausus) and on the candidates' ranked preferences among the higher education schools/ departments.

Students who successfully complete their studies at Higher Education Institutes (Universities and TEIs) are awarded a Ptychio (Degree of first cycle of studies). First cycle programmes last from four years for most fields to five years for engineering and certain other fields of science and six years for medicine. The Ptychio provides access to employment or further study at the post-graduate level that includes the one-year second cycle leading to the second degree, Metaptychiako Diploma Eidikefsis - equivalent to the Master's degree - and the third cycle of studies leading to the doctorate degree, Didaktoriko Diploma. The successful completion of certain study programmes of the first cycle that have a duration of at least 10 (ten) semesters and meeting the criteria of Law 4485/2017, lead to the award of an integrated masters degree, in the specialty of the department. Students that were enrolled in departments of the former TEI at the time that law 4610/2019 /Government Gazette70/B/07.05.2019 was put into effect, complete the study programme of the Department of the Technological Educational Institute they had been admitted in, and are either awarded the corresponding qualification at the level of the Technological Educational Institute, or attend additional courses from the study programme of the corresponding University department, and are then awarded a University-level degree.

Recent legislation (Law 3374/2005) on quality assurance in Higher Education, the Credit Transfer System and the Diploma Supplement defines the framework and criteria for evaluation of University/TEI departments and for the accreditation of student degrees. These measures aim at promoting student mobility and contributing to the creation of a European Higher Education Area, as this is defined by the Bologna Process. A detailed description of the Greek Education System is offered in EYRYDICE:

http://www.eurydice.org

https://eacea.ec.europa.eu/national-policies/eurydice/content/greece en

