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# **External Evaluation Report**

# (Departmental)

- Higher Education Institution:
  - **University of Cyprus**
- Town: Nicosia
- School/Faculty: Faculty of Pure and Applied Sciences
- Department: Computer Science
- Programme(s) of study under evaluation
   Name (Duration, ECTS, Cycle)

## **Programme 1**

In Greek:

Διδακτορικό στην Πληροφορική

In English: Ph.D. in Computer Science (240 ECTS)

## **Programme 2**

In Greek:

Μάστερ στην Επιστήμη της Πληροφορικής

In English:

Master in Computer Science (3 Semesters, 90 ECTS, Postgraduate Program)

# **Programme 3**

In Greek:

Μάστερ σε Προηγμένες Τεχνολογίες Πληροφορικής (Επαγγελματικό Πρόγραμμα)

In English:

Master in Advanced Information Technologies (Professional Programme) (3 Semesters, 90 ECTS, Postgraduate Program)

• Department's Status: Currently Operating





# ΦΟΡΕΑΣ ΔΙΑΣΦΑΛΙΣΗΣ ΚΑΙ ΠΙΣΤΟΠΟΙΗΣΗΣ ΤΗΣ ΠΟΙΟΤΗΤΑΣ ΤΗΣ ΑΝΩΤΕΡΗΣ ΕΚΠΑΙΔΕΎΣΗΣ THE CYPRUS AGENCY OF QUALITY ASSURANCE AND ACCREDITATION IN HIGHER EDUCATION



The present document has been prepared within the framework of the authority and competencies of the Cyprus Agency of Quality Assurance and Accreditation in Higher Education, according to the provisions of the "Quality Assurance and Accreditation of Higher Education and the Establishment and Operation of an Agency on Related Matters Laws of 2015 to 2019" [N. 136 (I)/2015 to N. 35(I)/2019].



#### A. Introduction

This part includes basic information regarding the onsite visit.

Members of the External Evaluation Committee (EEC) reviewed and examined the accreditation reports provided by the Department of Computer Science at the University of Cyprus pertaining to the Master in Computer Science, Master in Advanced Information Technologies, and Ph.D. in Computer Science programs. The reports were evaluated individually before the remote site visit on 20-21 October, 2020. The EEC had a preliminary remote meeting on 16 October to discuss the evaluation process, the provided reports and documentation and prepare for the remote site visit. The committee had a virtual tour of the facilities through two online videos with additional photos of the buildings and facilities. The committee work was supported by digital office tools for the virtual site visit and the preparation of the evaluation report. During the remote site visit, the EEC was presented with the detailed organization, structure, and curricula of the Department of Computer Science and the three programs being evaluated. The EEC had meetings with the university, Department and program leadership, professors, teachers and current and past students of the programs. The EEC received answers to open questions based on reading the three accreditation reports. The EEC received answers to identified open questions during the remote site visit as well as substantial additional insights pertaining to the operation, structure and future plans of the Department and the programs. Based on the three accreditation reports and the remote site visit the EEC can conclude that the Department and the three programs being evaluated have high standards and meet the quality expectations. This evaluation report describes how the standards are met and provides additional suggestions for improving the program.



# B. External Evaluation Committee (EEC)

Name	Position	University
Sasu Tarkoma	Head of Department, Professor	University of Helsinki, Finland
D. K. Arvind	Professor	University of Edinburgh, UK
Tomaso Aste	Professor	UCL, UK
Christodoula Ioannou	Student of Computer Science	Cyprus University of Technology

#### Guidelines on content and structure of the report

- The external evaluation report follows the structure of assessment areas and sub-areas.
- Under each assessment area there are quality indicators (criteria) to be scored by the EEC
  on a scale from one (1) to five (5), based on the degree of compliance for the above
  mentioned quality indicators (criteria). The scale used is explained below:

1 or 2: Non-compliant

3: Partially compliant

4 or 5: Compliant

- The EEC must justify the numerical scores provided for the quality indicators (criteria) by specifying (if any) the deficiencies.
- It is pointed out that, in the case of indicators (criteria) that cannot be applied due to the status of the Department, N/A (= Not Applicable) should be noted and a detailed explanation should be provided on the Department's corresponding policy regarding the specific quality indicator.
- In addition, for each assessment area, it is important to provide information regarding the compliance with the requirements. In particular, the following must be included:

#### **Findings**

A short description of the situation in the Department based on evidence from the Department's application and the site - visit.

#### **Strengths**

A list of strengths, e.g. examples of good practices, achievements, innovative solutions etc.

#### Areas of improvement and recommendations

A list of problem areas followed by or linked to the recommendations of how to improve the situation.

• The report may also address other issues which the EEC finds relevant.

#### 1. Department's academic profile and orientation

(ESG 1.1, 1.2, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9)

#### **Sub-areas**

- 1.1 Mission and strategic planning
- 1.2 Connecting with society
- 1.3 Development processes

#### Mark from 1 to 5 the degree of compliance for each quality indicator/criterion

1 or 2: Non-compliant

3: Partially compliant

4 or 5: Compliant

### Quality indicators/criteria 1. Department's academic profile and orientation 1.1 Mission and strategic planning 1 - 5 1.1.1 The Department has formally adopted a mission statement, which is available 4 to the public and easily accessible. 1.1.2 The Department has developed its strategic planning aiming at fulfilling its 3 mission. 1.1.3 The Department's strategic planning includes short, medium-term and long-3 term goals and objectives, which are periodically revised and adapted. 1.1.4 The programmes of study offered by the Department reflect its academic 5 profile and are aligned with the European and international practice. 1.1.5 The academic community is involved in shaping and monitoring the 4 implementation of the Department's development strategies. 1.1.6 Stakeholders such as academics, students, graduates and other professional and scientific associations participate in the Department's development strategy. 1.1.7 The mechanism for collecting and analysing data and indicators needed to effectively design the Department's academic development is adequate and effective. Justify the numerical scores provided for the quality indicators (criteria) by specifying (if any) the

The Department appears to be well organized and functioning. All standard procedures have been thought through and applied wisely. There are no relevant deficiencies.

However, from the analysis of the paperwork we remark that the Department's mission statement was not fully clear and the strategic planning did not appear to be fully systematic. The Department is recommended to focus on strategy development given the current research and teaching competence areas while considering future recruitments.

Additionally, provide information on the following:

- 1. Coherence and compatibility among programmes of study offered by the Department.
- 2. Coherence and compatibility among Departments within the School/Faculty (to which the Department under evaluation belongs).

Click to enter text.

The offered study programmes are broad, coherent and well-integrated. The Department seems to 'sit well' within the overall University organization. Its range of expertise and teaching offer are unique and well-integrated within the University.

#### Provide suggestions for changes in case of incompatibility.

The staff number is sufficient for the present offer however it is optimized to its minimum. This is a considerable risk for the University. At the present the Department is in a very fragile state: if staff leave the Department pursuing other career paths or retire the Department may have significant challenges in delivering the present programmes. It is recommended that the university increases the number of staff so as to create overlaps between competences in a way to avoid fragilities in future.

#### 1. Department's academic profile and orientation

1.2 Connecting with society		1 - 5
1.2.1	The Department has effective mechanisms to assess the needs and demands of society and takes them into account in its various activities.	4
1.2.2	The Department provides sufficient information to the public about its activities and offered programmes of study.	4
1.2.3	The Department ensures that its operation and activities have a positive impact on society.	5
1.2.4	The Department has an effective communication mechanism with its graduates.	5

Justify the numerical scores provided for the quality indicators (criteria) by specifying (if any) the deficiencies.

The Department is engaged in several outreaching activities including the involvement of schools. Further, actions to improve gender and ethnic equality in student enrolment are recommended.

1. Department's academic profile and orientation			
1.3 Dev	elopment processes	1 - 5	
1.3.1	Effective procedures and measures are in place to attract and select teaching staff to ensure that they possess the formal and substantive skills to teach, carry out research and effectively carry out their work.	4	
1.3.2	Planning teaching staff recruitment and their professional development is in line with the Department's academic development plan.	4	
1.3.3	The Department applies an effective strategy of attracting high-level students from Cyprus and abroad.	3	
1.3.4	The funding processes for the operation of the Department and the continuous improvement of the quality of its programmes of study are adequate and transparent.	4	

Justify the numerical scores provided for the quality indicators (criteria) by specifying (if any) the deficiencies.

Click to enter text.

The Department is clearly performing well and has adequate procedures to guarantee quality. It would be very important for the future development that a larger fraction of the Department income would be re-invested in the Department itself. It appears that at the moment the Department is an important source of income for the university.

The Department does not have many international staff members, students or visitors. One recent visiting lecturer was reported from Portugal. Nationality of UCY Faculty Members: 74% Cypriots, 23% Greek, 3% other countries (Italy, Austria, Germany, USA & Canada). Internationalization is part of the strategic planning of the university. The three programs are taught in Greek and thus the students are mainly Cypriot.

Click to enter text.

#### **Findings**

A short description of the situation in the Department based on evidence from the Department's application and the site - visit.

The M.Sc. program was started in 1997 and it was the first Computer Science M.Sc. program in Cyprus at the time. The Department covers the essential areas of Computer Science with the high-level representative course areas including theory, artificial intelligence, computer systems, and applications. At the time of the remote site visit, the Department had 21 staff members. The ratio internal to external teachers is 9:1. There Departmental Colloquia with presentations by the faculty members and researchers. The study program coordination is the responsibility of several committees, namely the Departmental Council and the Committee of Postgraduate Studies



(comprised of three faculty members), and the Dissertation Advisory Committee formed for each PhD student.

The curricula are regularly reviewed, student feedback is considered, and industry feedback is gathered in order to ensure industry relevance. The degree programs and administrative staff monitor course success rates and the general status of students in the program of study. Each student has an academic advisor. The academic staff has weekly office hours.

The Department connects students with research through emphasizing the connection between research and education, a research methods course that presents also active research projects at the Department, and through research based graduate theses. The PhD students are connected with research laboratories and projects. There are 24 Departmental research laboratories.

The Department appears in very good health from the infrastructure, the student numbers, the relations between staff members and its overall organization.

#### **Strengths**

A list of strengths, e.g. examples of good practices, achievements, innovative solutions etc.

The Department has very good practices implemented making it robust and trustworthy.

The Department has a supportive and friendly culture emphasizing working together and taking student feedback into account.

The students have a very favorable situation with personal academic advice and courses with excellent student-to-teacher ratio (22 students per academic staff member).

The Department has extensive Erasmus+ Agreements with universities: a total of 49 agreements.

#### Areas of improvement and recommendations

A list of problem areas followed by or linked to the recommendations of how to improve the situation.

The faculty size should be increased to maintain the present offer and avoid fragilities especially related to a number of members of staff that will go to retirement soon.

Given the current trend towards internationalization in education and research it is highly recommended to increase international faculty recruitment and through this support education by expanding the course portfolio given in English. This development is expected to result in higher numbers of international students for M.Sc. and Ph.D. levels.

There is no fixed set of courses given in English. We recommend developing the English language course offering. This will support international incoming students and offer also possibilities for visiting lecturers.

The number of female students has decreased significantly in recent years with the lowest number of female students in 2019. While being low the current share of female students at the Department is comparable to the situation in Computer Science in Europe. Targeted actions to improve gender and ethnic equality in student enrolment are recommended.

Only 30% of the M.Sc. students graduate in 4 semesters. This is explained by a high number of part-time students and students working as professionals. The EEC recommends the Department to analyze possible obstacles that the students are facing while doing part-time study.

# Please select what is appropriate for each of the following sub-areas:

Sub-area	Non-compliant / Partially Compliant / Compliant
1.1 Mission and strategic planning	Compliant
1.2 Connecting with society	Compliant
1.3 Development processes	Compliant

## 2. Quality Assurance

(ESG 1.1, 1.2, 1.3, 1.4, 1.6, 1.7, 1.8)

#### Sub-areas

- 2.1 System and quality assurance strategy
- 2.2 Quality assurance for the programmes of study

#### Mark from 1 to 5 the degree of compliance for each quality indicator/criterion

1 or 2: Non-compliant

3: Partially compliant

4 or 5: Compliant

Quality indicators/criteria			
2. Quality Assurance			
2.1 Sys	tem and q	uality assurance strategy	1 - 5
2.1.1	-	rtment has a policy for quality assurance that is made public and forms Institution's strategic management.	5
2.1.2		takeholders develop and implement a policy for quality assurance appropriate structures and processes, while involving external ers.	5
2.1.3		artment's policy for quality assurance supports guarding against e of any kind or discrimination against students or staff.	5
2.1.4	The quality assurance system adequately covers all the functions and sectors of the Department's activities:		
	2.1.4.1	Teaching and learning	4
	2.1.4.2	Research	4
	2.1.4.3	The connection with society	4
	2.1.4.4	Management and support services	4
2.1.5	The quality assurance system promotes a culture of quality. 5		5
Justify the numerical scores provided for the quality indicators (criteria) by specifying (if any) the deficiencies.			

Click to enter text.

Procedures for quality assurance are well implemented. The Department is structured with the appropriate structure of committees and the decision-making flow is clear transparent and appears to be participated by all members

2. Quality Assurance			
2.2 Qua	lity assurance for the programmes of study	1 - 5	
2.2.1	The responsibility for decision-making and monitoring the implementation of the programmes of study offered by the Department lies with the teaching staff.	5	
2.2.2	The system and criteria for assessing students' performance in the subjects of the programmes of studies offered by the Department are clear, sufficient and known to the students.		
2.2.3	The quality control system refers to specific indicators and is effective.	4	
2.2.4	The results from student assessments are used to improve the programmes of study.	5	
2.2.5	The policy dealing with plagiarism committed by students as well as mechanisms for identifying and preventing it are effective.	5	
2.2.6	The established procedures for examining students' objections/ disagreements on issues of student evaluation or academic ethics are effective.	4	
2.2.7	The Department publishes information related to the programmes of study, credit units, learning outcomes, methodology, student admission criteria, completion of studies, facilities, number of teaching staff and the expertise of teaching staff.		
2.2.8	The Department has a clear and consistent policy on the admission criteria for students in the various programmes of studies offered.		
2.2.9	The Department flexibly uses a variety of pedagogical methods.	4	
2.2.10	The Department systematically collects data in relation to the academic performance of students, implements procedures for evaluating such data and has a relevant policy in place.		
2.2.11	The Department analyses and publishes graduate employment information. 4		
2.2.12	The Department ensures adequate and appropriate learning resources in European and international standards and/or international practices, particular		
	2.2.12.1 Building facilities	4	
	2.2.12.2 Library	5	



# ΦΟΡΕΑΣ ΔΙΑΣΦΑΛΙΣΗΣ ΚΑΙ ΠΙΣΤΟΠΟΙΗΣΗΣ ΤΗΣ ΠΟΙΟΤΗΤΑΣ ΤΗΣ ΑΝΩΤΕΡΗΣ ΕΚΠΑΙΔΕΎΣΗΣ THE CYPRUS AGENCY OF QUALITY ASSURANCE AND ACCREDITATION IN HIGHER EDUCATION

	2.2.12.3	Rooms for theoretical, practical and laboratory lessons	4
	2.2.12.4	Technological infrastructure	4
	2.2.12.5	Academic support	4
2.2.13		student welfare service that supports students in regard to academic, problems and difficulties.	5
2.2.14	needs of a	artment's mechanisms, processes and infrastructure consider the a diverse student population such as mature, part-time, employed and nal students as well as students with disabilities.	4
2.2.15		g of each student is provided and the number of students per each at teaching member is adequate.	5
2.2.16	•	ision of quality doctoral studies is ensured through doctoral studies is, which are publicly available.	5
2.2.17	teaching	ber of doctoral students, under the supervision of a member of the staff, enables continuous and effective feedback to the students and s with the European and international standards.	5
2.2.18		artment has mechanisms and funds to support writing and attending ces of doctoral candidates.	5
2.2.19	There is a	a clear policy on authorship and intellectual property.	4
Justify the numerical scores provided for the quality indicators (criteria) by specifying (if any) the deficiencies.  Students are provided with a world-class quality programmes of study and adequate			
Students	Students are provided with a world-class quality programmes or study and adequate		

#### **Findings**

infrastructures.

A short description of the situation in the Department based on evidence from the Department's application and the site - visit.

The university has the Committee of Internal Quality Assurance and a Quality Assurance policy for the quality of teaching. The university-wide Centre for Teaching and Learning oversees the quality of teaching and learning, for example through anonymous questionnaires, and obtaining student feedback at the end of each semester. The results are communicated to the Department and the teaching staff.

The Departmental level Quality Assurance is performed by the Committee of Postgraduate Studies that is overseen by the Departmental Council. The Departmental Council has seven student representatives. Each student has an academic advisor. The Committee of Postgraduate Studies regularly reviews the curricula and also gathers feedback from the industry in order to

ensure renewal and industry relevance. The Committee and administrative staff monitor course success rates and the general status of students in the program of study.

The Department has plagiarism detection systems and processes in place. Possible incidents are handled by the Disciplinary Committee.

The Social Support Office of Academic Affairs and Student Welfare Service provide financial support and counselling services. On the Departmental level the academic advisor monitors the academic progress and provides advice. The academic staff has weekly office hours.

In all, the Department has the necessary quality assurance processes and services in operation.

#### Strengths

A list of strengths, e.g. examples of good practices, achievements, innovative solutions etc.

Quality assurance is part of the operations at the Department with well-defined committees and processes.

#### Areas of improvement and recommendations

A list of problem areas followed by or linked to the recommendations of how to improve the situation.

Increasing the resourcing of the Department is recommended to maintain and improve the present quality of the education delivered and to make the Department more robust and readier for future challenges.

## Please $\sqrt{ }$ what is appropriate for each of the following sub-areas:

Sub-area	Non-compliant / Partially Compliant / Compliant
2.1 System and quality assurance strategy	Compliant
2.2 Quality assurance for the programmes of study	Compliant

#### 3. Administration

(ESG 1.1, 1.3, 1.6)

# Mark from 1 to 5 the degree of compliance for each quality indicator/criterion

1 or 2: Non-compliant

3: Partially compliant

4 or 5: Compliant

Quality indicators/criteria		
3. Admi	nistration	1 - 5
3.1	The administrative structure is in line with the legislation and the Department's mission.	4
3.2	The members of the teaching and administrative staff and the students participate, at a satisfactory degree and on the basis of specified procedures, in the management of the Department.	4
3.3	The administrative staff adequately supports the operation of the Department.	5
3.4	Adequate allocation of competences and responsibilities is ensured so that in academic matters, decisions are made by academics and the Department's council competently exercises legal control over such decisions.	4
3.5	The Department applies effective procedures to ensure transparency in the decision-making process.	5
3.6	Statutory sessions of the Department are held and minutes are kept.	5
3.7	The Department's council operates systematically and autonomously and exercise the full powers provided for by the law and / or the constitution of the Department without the intervention or involvement of a body or person outside the law provisions.	4
3.8	The manner in which the Department's council operates and the procedures for disseminating and implementing their decisions are clearly formulated and implemented precisely and effectively.	5
3.9	The Department applies procedures for the prevention and disciplinary control of academic misconduct of students, teaching and administrative staff, including plagiarism.	5
3.10	The Department has appropriate procedures for dealing with students' complaints.	4



Justify the numerical scores provided for the quality indicators (criteria) by specifying (if any) the deficiencies.

The administrative structure and processes of the Department are well defined and solid. The Department has plagiarism detection systems and processes in place. Possible incidents are handled by the Disciplinary Committee.

#### **Findings**

A short description of the situation in the Department based on evidence from the Department's application and the site - visit.

The administrative structure of the Department is well defined and it is based on various committees of which the most important is the Department Council that consists of academic and student members. The processes and operations are documented and transparent. The approved and signed minutes of each meeting of the Council are kept in printed form by the Secretariat of the Department and are accessible to all members of the Departmental Council. The Social Support Office of Academic Affairs and Student Welfare Service provide financial support and counselling services. On the Departmental level the academic advisor monitors the academic progress and provides advice. The academic staff have weekly office hours.

#### Strengths

A list of strengths, e.g. examples of good practices, achievements, innovative solutions etc.

The student representatives in the Departmental Council help in connecting the student and teacher communities.

The Committee of Postgraduate Studies regularly reviews the curricula and also gathers feedback from the industry in order to ensure renewal and industry relevance. The Committee and administrative staff monitor course success rates and the general status of students in the program of study.

#### Areas of improvement and recommendations

A list of problem areas followed by or linked to the recommendations of how to improve the situation.

The EEC recommends to continue developing instruments for gathering student feedback and ideas regarding the development of the degree programs and the Department.

#### Please select what is appropriate for the following assessment area:

Assessment area	Non-compliant / Partially Compliant / Compliant
3. Administration	Compliant

# 4. Learning and Teaching

(ESG 1.2, 1.3, 1.4, 1.9)

#### Sub-areas

- 4.1 Planning the programmes of study
- 4.2 Organisation of teaching

#### Mark from 1 to 5 the degree of compliance for each quality indicator/criterion

1 or 2: Non-compliant

3: Partially compliant

4 or 5: Compliant

	Quality indicators/criteria		
4. Lea	4. Learning and Teaching		
4.1 Pla	nning the programmes of study	1 - 5	
4.1.1	The Department provides an effective system for designing, approving, monitoring and periodically reviewing the programmes of study.	5	
4.1.2	Students and other stakeholders, including employers, are actively involved on the programmes' review and development.	4	
4.1.3	The content of the programmes of study, the assignments and the final exams correspond to the appropriate level as indicated by the European Qualifications Framework (EQF).	5	
4.1.4	The programmes of study are in compliance with the existing legislation and meet the professional qualifications requirements in the professional courses, where applicable.	5	
4.1.5	The Department ensures that its programmes of study integrate effectively theory and practice.	5	
_	Justify the numerical scores provided for the quality indicators (criteria) by specifying (if any) the deficiencies.		
The De	The Department is performing well under all the above criteria.		
4. Learning and Teaching			
4.2 Organisation of teaching			
4.2.1	The Department establishes student admission criteria for each programme, which are adhered to consistently.	5	





# ΦΟΡΕΑΣ ΔΙΑΣΦΑΛΙΣΗΣ ΚΑΙ ΠΙΣΤΟΠΟΙΗΣΗΣ ΤΗΣ ΠΟΙΟΤΗΤΑΣ ΤΗΣ ΑΝΩΤΕΡΗΣ ΕΚΠΑΙΔΕΥΣΗΣ THE CYPRUS AGENCY OF QUALITY ASSURANCE AND ACCREDITATION IN HIGHER EDUCATION



4.2.2	Recognition of prior studies and credit transfer is regulated by procedures and regulations that are in line with European standards and/or international practices.	5		
4.2.3	The number of students in the teaching rooms is suitable for theoretical, practical and laboratory lessons.	5		
4.2.4	The teaching staff of the Department has regular and effective communication with their students, promoting mutual respect within the learner-teacher relationship.	5		
4.2.5	Student-centred learning and teaching plays an important role in stimulating students' motivation, self-reflection and engagement in the learning process.	4		
4.2.6	The teaching staff of the Department provides timely and effective feedback to their students.	5		
4.2.7	The criteria and the method of assessment as well as the criteria for marking are published in advance.	5		
4.2.8	The assessment allows students to demonstrate the extent to which the intended learning outcomes have been achieved.	5		
Justify	Justify the numerical scores provided for the quality indicators (criteria) by specifying (if any)			

Justify the numerical scores provided for the quality indicators (criteria) by specifying (if any) the deficiencies.

The Department has a good and well-implemented practice that is at international standards.

#### **Findings**

A short description of the situation in the Department based on evidence from the Department's application and the site - visit.

The learning and teaching processes and practices at the Department are in line with the expected world-standards in this sector.

#### Strengths

A list of strengths, e.g. examples of good practices, achievements, innovative solutions etc.

The degree programs have a very good structure and support. They are working well and providing high quality education.

The curricula is regularly reviewed to ensure renewal and industry relevance. The course success rates are monitored as well as the general status of students.

#### Areas of improvement and recommendations

A list of problem areas followed by or linked to the recommendations of how to improve the situation.

Staff numbers should be increased to avoid future criticalities.

It is highly recommended to increase international faculty recruitment and through this support education by expanding the course portfolio given in English. This development is expected to result in higher numbers of international students for M.Sc. and Ph.D. levels.

It is recommended to establish an Industry Advisory Board for systematic and regular feedback from the industry.

#### Please select what is appropriate for each of the following sub-areas:

Sub-area	Non-compliant / Partially Compliant / Compliant
4.1 Planning the programmes of study	Compliant
4.2 Organisation of teaching	Compliant

#### **5. Teaching Staff** (ESG 1.5)

#### Mark from 1 to 5 the degree of compliance for each quality indicator/criterion

1 or 2: Non-compliant

3: Partially compliant

4 or 5: Compliant

Quality indicators/criteria		
5. Teaching Staff		1 - 5
5.1	The number of teaching staff - full-time and exclusive work - and the subject area of the staff sufficiently support the programmes of study.	4
5.2	The teaching staff of the Department has the relevant formal and substantive qualifications for teaching the individual subjects as described in the relevant legislation.	5
5.3	The visiting Professors' subject areas adequately support the Department's programmes of study.	4
5.4	The special teaching staff and special scientists have the required qualifications, sufficient professional experience and expertise to teach a limited number of programmes of study.	4
5.5	The ratio of special teaching staff to the total number of teaching staff is satisfactory.	4
5.6	The ratio of the number of subjects of the programme of study taught by teaching staff working fulltime and exclusively to the number of subjects taught by part-time teaching staff ensures the quality of the programme of study.	4
5.7	The ratio of the number of students to the total number of teaching staff is sufficient to support and ensure the quality of the programme of study.	4
5.8	Feedback processes for teaching staff in regard to the evaluation of their teaching work, by the students, are satisfactory.	4

Justify the numerical scores provided for the quality indicators (criteria) by specifying (if any) the deficiencies.

The teaching staff is excellent, dedicated and well-selected and qualified. The Department is efficient providing high quality teaching with limited resources.

#### Also, write the following:

- Number of teaching staff working full-time and having exclusive work
- Number of special teaching staff working full-time and having exclusive work
- Number of visiting Professors
- Number of special scientists on lease services

There is some reliance on external staff that is not recommended on the longer run, however it brings in the Department information about industry practices. Increase in the number of permanent academic staff is recommended.

#### **Findings**

A short description of the situation in the Department based on evidence from the Department's application and the site - visit.

Overall, the EEC found a well-functioning Department able to deliver high quality teaching with the present resources.

#### **Strengths**

A list of strengths, e.g. examples of good practices, achievements, innovative solutions etc.

The infrastructure is adequate and the study/work environments appear to be of good quality.

There is a good understanding of objectives that appears to be shared among teaching, research and administrative staff.

#### Areas of improvement and recommendations

A list of problem areas followed by or linked to the recommendations of how to improve the situation.

At the present the Department is in a vulnerable situation in terms of the teaching staff size that should be addressed by investing in new staff members and ensuring continuity given the near-future retirements.

Please  $\sqrt{ }$  what is appropriate for the following assessment area:

Assessment area	Non-compliant / Partially Compliant / Compliant
5. Teaching Staff	Compliant

# ΦΟΡΕΑΣ ΔΙΑΣΦΑΛΙΣΗΣ ΚΑΙ ΠΙΣΤΟΠΟΙΗΣΗΣ ΤΗΣ ΠΟΙΟΤΗΤΑΣ ΤΗΣ ΑΝΩΤΕΡΗΣ ΕΚΠΑΙΔΕΎΣΗΣ THE CYPRUS AGENCY OF QUALITY ASSURANCE AND ACCREDITATION IN HIGHER EDUCATION



#### 6. Research

the deficiencies.

(ESG 1.1, 1.3, 1.5, 1.6)

# Mark from 1 to 5 the degree of compliance for each quality indicator/criterion

1 or 2: Non-compliant

3: Partially compliant

4 or 5: Compliant

Quality indicators/criteria		
6. Research		
6.1	The Department has a research policy formulated in line with its mission.	4
6.2	The Department consistently applies internal regulations and procedures of research activity, which promote the set out research policy and ensure compliance with the regulations of research projects financing programmes.	4
6.3	The Department provides adequate facilities and equipment to cover the staff and students' research activities.	5
6.4	The Department has the appropriate mechanisms for the development of students' research skills.	4
6.5	The results of the teaching staff research activity are published to a satisfactory extent in international journals which work with critics, international conferences, conference proceedings, publications, etc. The Department also uses an open access policy for publications, which is consistent with the corresponding national and European policy.	4
6.6	The Department ensures that research results are integrated into teaching and, to the extent applicable, promotes and implements a policy of transferring know-how to society and the production sector.	5
6.7	The Department provides mechanisms which ensure compliance with international rules of research ethics, both in relation to research activity and the rights of researchers.	4
6.8	The external, non-governmental, funding of research activities of teaching staff is similar to other Departments in Cyprus and abroad.	4
6.9	The policy, indirect or direct of internal funding of the research activities of the teaching staff is satisfactory, based on European and international practices.	4
Justify the numerical scores provided for the quality indicators (criteria) by specifying (if any)		

The Department is performing well at a good international standard level. All policies are well integrated internally into departmental processes and rules.

#### **Findings**

A short description of the situation in the Department based on evidence from the Department's application and the site - visit.

The academic staff members have a good research record and are engaged and active in research. All academic staff members appear aware of the importance of research and many are contributing to research at top international standards. Research is considered important and valued at all levels from PhD students that are encouraged to publish during their thesis work to the promotion mechanism of the academic staff.

#### Strengths

A list of strengths, e.g. examples of good practices, achievements, innovative solutions etc.

A good, clear and healthy research practice has been implemented. The staff members appear to be highly motivated and have sufficient time and resources to pursue their own research.

#### Areas of improvement and recommendations

A list of problem areas followed by or linked to the recommendations of how to improve the situation.

It is recommended to increase staff number hiring on research directions that are already present in the Department so as to create thematic research groups. This will also provide a more robust structure for teaching (not relying on a single member of staff) and for research (creating a collaborative environment). It is also recommended to consider expansion of some areas that are currently underrepresented such as financial computing and the digital economy. These are hot topics that will not only attract students but will also create synergies with an industry and government sector that is presently emerging in Cyprus.

Please  $\sqrt{ }$  what is appropriate for the following assessment area:

Assessment area	Non-compliant / Partially Compliant / Compliant
6. Research	Compliant

#### 7. Resources (ESG 1.6)

#### Mark from 1 to 5 the degree of compliance for each quality indicator/criterion

1 or 2: Non-compliant

3: Partially compliant

4 or 5: Compliant

Quality indicators/criteria		
7. Resources		1 - 5
7.1	The Department has sufficient financial resources to support its functions, managed by the Institutional and Departmental bodies.	4
7.2	The Department follows sound and efficient management of the available financial resources in order to develop academically and research wise.	5
7.3	The Department's profits and donations are used for its development and for the benefit of the university community.	5
7.4	The Department's budget is appropriate for its mission and adequate for the implementation of strategic planning.	4
7.5	The Department carries out an assessment of the risks and sustainability of the programmes of study and adequately provides feedback on their operation.	4
7.6	The Department's external audit and the transparent management of its finances are ensured.	5
7.7	The fitness-for-purpose of support facilities and services is periodically reviewed.	5

Justify the numerical scores provided for the quality indicators (criteria) by specifying (if any) the deficiencies.

The Department has adequate resources; however, it is in a fragile situation from the resourcing point of view and additional investments appear to be necessary. The university is recommended to consider allowing the Department to use a larger fraction of the income it produces for investing in areas that critically need expansion and consolidation.

#### **Findings**

A short description of the situation in the Department based on evidence from the Department's application and the site - visit.

The EEC was virtually guided through the Department, observing the resources and facilities, and asking questions from the members of academic and administrative staff and students. The overall perception is that the Department has adequate resources and infrastructure to meet the present

expectations and duties in education and research. However, the current operation is optimized to the present situation and places the Department and its capability to deliver the degree programs and research outcomes under a fragile status.

#### Strengths

A list of strengths, e.g. examples of good practices, achievements, innovative solutions etc.

The Department is well managed and resources are adequately used to provide excellent quality of services and outputs. The Department is well equipped for expansion that could include both strengthening the existing areas and opening to new ones. This is a good time for computer science across the world being at the basis and fuelling the current industry innovation. There is a need for computer scientists in all areas of industry, services and government activities. Thus it is strategic to invest in this Department.

#### Areas of improvement and recommendations

A list of problem areas followed by or linked to the recommendations of how to improve the situation.

The Department is in a fragile condition. Staff numbers should be increased to avoid future risks associated with the near-future retirements. Furthermore, the reliance on single members of staff in critical educational and research areas is risky and expanding these areas creating research groups will be a recommendable strategic move. The Department is producing outcomes that justify this expansion and it is certainly able to increase student numbers in order to sustain this expansion.

#### Please $\sqrt{ }$ what is appropriate for the following assessment area:

Assessment area	Non-compliant / Partially Compliant / Compliant
7. Resources	Compliant



#### Conclusions and final remarks

Please provide constructive conclusions and final remarks, which may form the basis upon which improvements of the quality of the Department under review may be achieved.

The EEC evaluated the Department and the three degree programs based on the provided accreditation reports and the remote site visit. The EEC monitored online teaching on two courses. Based on the provided information the EEC concludes that the Department and the three programs being evaluated have high standards and meet the quality expectations. Overall, the Department has an excellent environment and culture that advocates working together and integrating students in the community. The EEC has identified a number of areas in which the Department can make improvements and strengthen its profile and impact.

The Department covers the essential areas of Computer Science with the high-level representative course areas including theory, artificial intelligence, computer systems, and applications. The vision and mission of the Faculty was not fully clear to the EEC and the Department is recommended to engage in community wide planning of the mission for the future. Since Computer Science is a very actively developing area including a wide number of subdisciplines it is important to have a coherent and focused plan on what topics to emphasize in recruitments. The EEC recommends to consider new focus areas for the MSc and PhD study programs, such as financial computing and digital economy related topics that are strong sectors in Cyprus.

Given the current trend towards internationalization in education and research it is highly recommended to increase international faculty recruitment and through this support education by expanding the course portfolio given in English. This development is expected to result in higher numbers of international students for M.Sc. and Ph.D. levels. The EEC recommends the Department to develop the English language course offering. This will support international incoming students and offer also possibilities for visiting lecturers.

The number of female students has decreased significantly in recent years with the lowest number of female students in 2019. While being low the current share of female students at the Department is comparable to the situation in Computer Science in Europe. Actions to improve gender and ethnic equality in student enrolment are recommended.

The Department is facing many retirements in the near future. In the current model of the university professorial positions do not necessarily continue in the same field and department with retirements. Therefore, the Department is recommended to make a recruitment plan considering the strategy of the Department, development needs and industry requirements. The current faculty size is 21 members and many areas of Computer Science have only one professor. The Department is in a fragile state with the current personnel structure and the EEC recommends the strengthening of the Department's focus areas and teaching capabilities with additional recruitments. During the site visit it was mentioned that two new professorial positions are in the process of being confirmed. The EEC views these two positions and further investments into professorial recruitment at the Department crucial elements in raising the research and educational impact of the unit benefiting the university, society and industry. This would also result in the strengthening of the international offering and profile of the Department as well as better cater for the increasing demands for experts by the industry.

# Signatures of the EEC

Name	Signature
Sasu Tarkoma	S
D. K. Arvind	D.L.Aw.
Tomaso Aste	Comas Ant
Christodoula Ioannou	

Date: November 4, 2020



