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External Evaluation Report

(Programmatic within the framework of Departmental Evaluation)

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

Programme 1 – [Title 1]

In Greek:

Διδακτορικό στην Πληροφορική

In English:

Ph.D. in Computer Science (240 ECTS)

Language(s) of instruction: Greek

Programme 2 – [Title 2]

In Greek:

Μάστερ στην Επιστήμη της Πληροφορικής

In English:

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

Language(s) of instruction: Greek

Programme 3 – [Title 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)

Language(s) of instruction: Greek



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)

<i>Name</i>	<i>Position</i>	<i>University</i>
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

C. Guidelines on content and structure of the report

- *The external evaluation report follows the structure of assessment areas.*
- *At the beginning of each assessment area there is a box presenting:*
 - sub-areas*
 - standards which are relevant to the European Standards and Guidelines (ESG)*
 - some questions that EEC may find useful.*
- *The questions aim at facilitating the understanding of each assessment area and at illustrating the range of topics covered by the standards.*
- *Under each assessment area it is important to provide information regarding the compliance with the requirements of each sub-area. In particular, the following must be included:*

Findings

A short description of the situation in the Higher Education Institution (HEI), based on elements from the application for external evaluation and on findings from the onsite 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 to be dealt with, followed by or linked to the recommendations of how to improve the situation.

- *The EEC should state the compliance for each sub-area (Non-compliant, Partially compliant, Compliant), which must be in agreement with everything stated in the report. It is pointed out that, in the case of standards that cannot be applied due to the status of the HEI and/or of the programme of study, N/A (= Not Applicable) should be noted.*
- *The EEC should state the conclusions and final remarks regarding each programme of study as a whole.*
- **The report may also address other issues which the EEC finds relevant.**

1. Study programme and study programme's design and development

(ESG 1.1, 1.2, 1.7, 1.8, 1.9)

Sub-areas

- 1.1. Policy for quality assurance
- 1.2. Design, approval, on-going monitoring and review
- 1.3. Public information
- 1.4. Information management

1.1 Policy for quality assurance

Standards

- *Policy for quality assurance of the programme of study:*
 - *has a formal status and is publicly available*
 - *supports the organisation of the quality assurance system through appropriate structures, regulations and processes*
 - *supports teaching, administrative staff and students to take on their responsibilities in quality assurance*
 - *ensures academic integrity and freedom and is vigilant against academic fraud*
 - *guards against intolerance of any kind or discrimination against the students or staff*
 - *supports the involvement of external stakeholders*

1.2 Design, approval, on-going monitoring and review

Standards

- *The programme of study:*
 - *is designed with overall programme objectives that are in line with the institutional strategy and have explicit intended learning outcomes*
 - *is designed by involving students and other stakeholders*
 - *benefits from external expertise*
 - *reflects the four purposes of higher education of the Council of Europe (preparation for sustainable employment, personal development, preparation for life as active citizens in democratic societies, the development and maintenance, through teaching, learning and research, of a broad, advanced knowledge base)*
 - *is designed so that it enables smooth student progression*
 - *is designed so that the exams' and assignments' content corresponds to the level of the programme and the number of ECTS*
 - *defines the expected student workload in ECTS*
 - *includes well-structured placement opportunities where appropriate*
 - *is subject to a formal institutional approval process*

- *results in a qualification that is clearly specified and communicated, and refers to the correct level of the National Qualifications Framework for Higher Education and, consequently, to the Framework for Qualifications of the European Higher Education Area*
- *is regularly monitored in the light of the latest research in the given discipline, thus ensuring that the programme is up-to-date*
- *is periodically reviewed so that it takes into account the changing needs of society, the students' workload, progression and completion, the effectiveness of procedures for assessment of students, student expectations, needs and satisfaction in relation to the programme*
- *is reviewed and revised regularly involving students and other stakeholders*

1.3 Public information

Standards

- *Regarding the programme of study, clear, accurate, up-to date and readily accessible information is published about:*
 - *selection criteria*
 - *intended learning outcomes*
 - *qualification awarded*
 - *teaching, learning and assessment procedures*
 - *pass rates*
 - *learning opportunities available to the students*
 - *graduate employment information*

1.4 Information management

Standards

- *Information for the effective management of the programme of study is collected, monitored and analysed:*
 - *key performance indicators*
 - *profile of the student population*
 - *student progression, success and drop-out rates*
 - *students' satisfaction with their programmes*
 - *learning resources and student support available*
 - *career paths of graduates*
- *Students and staff are involved in providing and analysing information and planning follow-up activities.*

You may also consider the following questions:

- *What is the procedure for quality assurance of the programme and who is involved?*
- *Who is involved in the study programme's design and development (launching, changing, internal evaluation) and what is taken into account (strategies, the needs of society, etc.)?*
- *How/to what extent are students themselves involved in the development of the content of their studies?*
- *Please evaluate a) whether the study programme remains current and consistent with developments in society (labour market, digital technologies, etc.), and b) whether the content and objectives of the study programme are in accordance with each other?*
- *Do the content and the delivery of the programme correspond to the European Qualifications Framework (EQF)?*
- *How is coherence of the study programme ensured, i.e., logical sequence and coherence of courses? How are substantial overlaps between courses avoided? How is it ensured that the teaching staff is aware of the content and outputs of their colleagues' work within the same study programme?*
- *How does the study programme support development of the learners' general competencies (including digital literacy, foreign language skills, entrepreneurship, communication and teamwork skills)?*
- *What are the scope and objectives of the foundation courses in the study programme (where appropriate)? What are the pass rates?*
- *How long does it take a student on average to graduate? Is the graduation rate for the study programme analogous to other European programmes with similar content? What is the pass rate per course/semester?*
- ***How is it ensured that the actual student workload is in accordance with the workload expressed by ECTS?***
- *What are the opportunities for international students to participate in the study programme (courses/modules taught in a foreign language)?*
- *Is information related to the programme of study publicly available?*
- *How is the HEI evaluating the success of its graduates in the labor market? What is the feedback from graduates of the study programme on their employment and/or continuation of studies?*
- *Have the results of student feedback been analysed and taken into account, and how (e.g., when planning in-service training for the teaching staff)?*
- *What are the reasons for dropping out (voluntary withdrawal)? What has been done to reduce the number of such students?*

Findings

A short description of the situation in the Higher Education Institution (HEI), based on elements from the application for external evaluation and on findings from the onsite visit.

Findings for Ph.D. in Computer Science

The PhD students are connected with research laboratories and projects. There are 24 Departmental research laboratories. 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.

Findings for Master in Computer Science

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.

Findings for Master in Advanced Information Technologies

Same as for the Master in Computer Science.

Strengths

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

Strengths for Ph.D. in Computer Science

Students are offered a study programme that is at international standards both for topics, quality of teaching, resources and infrastructures.

The PhD students are connected with research laboratories and projects. There are 24 Departmental research laboratories.

Strengths for Master in Computer Science

Students are offered a study programme that is at international standards both for topics, quality of teaching, resources and infrastructures.

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.

Strengths for Master in Advanced Information Technologies

The study program has very good connections with the industry and received feedback regarding industry relevance.

Areas of improvement and recommendations

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

Areas of improvement and recommendations for Ph.D. in Computer Science

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.

Areas of improvement and recommendations for Master in Computer Science

The number of female students has decreased significantly in recent years with the lowest number of female students in 2019. Actions to improve gender and ethnic equality in student enrolment are recommended.

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

The programme is good and well resourced. We however see a fragility risk related to the delivery of a such a broad offering with the present size of staff.

The mechanism for approving of new master's programs appears to involve significant delays across the different steps across the university.

Areas of improvement and recommendations for Master in Advanced Information Technologies

Same as for the Master in Computer Science

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

Sub-area		Non-compliant/ Partially Compliant/Compliant		
		<i>Prog. 1</i>	<i>Prog. 2</i>	<i>Prog. 3</i>
1.1	Policy for quality assurance	Compliant	Compliant	Compliant
1.2	Design, approval, on-going monitoring and review	Compliant	Compliant	Compliant



1.3	Public information	Compliant	Compliant	Compliant
1.4	Information management	Compliant	Compliant	Compliant

2. Student – centred learning, teaching and assessment (ESG 1.3)

Sub-areas

- 2.1 Process of teaching and learning and student-centred teaching methodology
- 2.2 Practical training
- 2.3 Student assessment

2.1 Process of teaching and learning and student-centred teaching methodology

Standards

- *The process of teaching and learning supports students' individual and social development.*
- *The process of teaching and learning is flexible, considers different modes of delivery, where appropriate, uses a variety of pedagogical methods and facilitates the achievement of planned learning outcomes.*
- *Students are encouraged to take an active role in creating the learning process.*
- *The implementation of student-centered learning and teaching encourages a sense of autonomy in the learner, while ensuring adequate guidance and support from the teacher.*
- *Teaching methods, tools and material used in teaching are modern, effective, support the use of modern educational technologies and are regularly updated.*
- *Mutual respect within the learner-teacher relationship is promoted.*
- *The implementation of student-centred learning and teaching respects and attends to the diversity of students and their needs, enabling flexible learning paths.*
- *Appropriate procedures for dealing with students' complaints regarding the process of teaching and learning are set.*

2.2 Practical training

Standards

- *Practical and theoretical studies are interconnected.*
- *The organisation and the content of practical training, if applicable, support achievement of planned learning outcomes and meet the needs of the stakeholders.*

2.3 Student assessment

Standards

- *Assessment is consistent, fairly applied to all students and carried out in accordance with the stated procedures.*
- *Assessment is appropriate, transparent, objective and supports the development of the learner.*

- *The criteria for and method of assessment, as well as criteria for marking, are published in advance.*
- *Assessment allows students to demonstrate the extent to which the intended learning outcomes have been achieved. Students are given feedback, which, if necessary, is linked to advice on the learning process.*
- *Assessment, where possible, is carried out by more than one examiner.*
- *A formal procedure for student appeals is in place.*
- *Assessors are familiar with existing testing and examination methods and receive support in developing their own skills in this field.*
- *The regulations for assessment take into account mitigating circumstances.*

You may also consider the following questions:

- *How is it monitored that the teaching staff base their teaching and assessment methods on objectives and intended learning outcomes? Provide samples of examination papers (if available).*
- *How are students' different abilities, learning needs and learning opportunities taken into consideration when conducting educational activities?*
- *How is the development of students' general competencies (including digital skills) supported in educational activities?*
- *How is it ensured that innovative teaching methods, learning environments and learning aids that support learning are diverse and used in educational activities?*
- *Is the teaching staff using new technology in order to make the teaching process more effective?*
- *How is it ensured that theory and practice are interconnected in teaching and learning?*
- *How is practical training organised (finding practical training positions, guidelines for practical training, supervision, reporting, feedback, etc.)? What role does practical training have in achieving the objectives of the study programme? What is student feedback on the content and arrangement of practical training?*
- ***Are students actively involved in research? How is student involvement in research set up?***
- *How is supervision of student research papers (seminar papers, projects, theses, etc.) organised?*
- ***Do students' assessments correspond to the European Qualifications Framework (EQF)?***
- *How are the assessment methods chosen and to what extent do students get supportive feedback on their academic progress during their studies?*
- *How is the objectivity and relevance of student assessment ensured (assessment of the degree of achievement of the intended learning outcomes)?*

Findings

A short description of the situation in the Higher Education Institution (HEI), based on elements from the application for external evaluation and on findings from the onsite visit.

The EEC was guided through the processes and practices of the Department pertaining to the delivery of the degree programs and the assessment of the students. The processes and practices were clearly presented and the staff members demonstrated excellent knowledge and expertise regarding the Department and the degree programs. The Department makes emphasizes the wellbeing and learning of the students

Findings for Ph.D. in Computer Science

The PhD students appear to have excellent guidance from their supervisors. They are guided in learning how to perform original research through both taught courses and hands-on research activities.

Findings for Master in Computer Science

The Department emphasizes students' wellbeing and having a supportive and encouraging learning environment. The structure of the program reflects well the student needs for both what concerns education and personal and mental wellbeing.

Findings for Master in Advanced Information Technologies

This degree program is designed to provide the students with more practical knowledge and experience with emphasis on applications and industry relevance.

Strengths

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

The processes are well structured and clear. There is an overall understanding of the requirements for delivering of the programmes at international standards.

The students are well looked-after, they have quality teaching and clear guidance. There is a very good student-teacher ratio. The degree programs have adequate resources.

Strengths for Ph.D. in Computer Science

The program is well designed with a hybrid model between the US system of training through courses and the UK system with research only guided learning.

Strengths for Master in Computer Science

Students have access to good learning facilities and excellent lecturers with study plans that are well calibrated.

Strengths for Master in Advanced Information Technologies

This degree program offering covers interesting, important and timely topics.

Areas of improvement and recommendations

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

Areas of improvement and recommendations for Ph.D. in Computer Science

Stronger student mobility program could offer students a broader range of opportunities.

Areas of improvement and recommendations for Master in Computer Science

The programme covers very well fundamental areas of computer science as well as some more applied domains. However, a stronger connection with industry, perhaps through a partnership or an industry board, could offer the students useful insights on industry practices and industry needs making them better prepared for their job seeking at the end of the programme.

Areas of improvement and recommendations for Master in Advanced Information Technologies

Stronger links with other universities and industry could offer students a broader range of opportunities.

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

Sub-area		Non-compliant/ Partially Compliant/Compliant		
		<i>Prog. 1</i>	<i>Prog. 2</i>	<i>Prog. 3</i>
2.1	Process of teaching and learning and student-centred teaching methodology	Compliant	Compliant	Compliant
2.2	Practical training	Compliant	Compliant	Compliant
2.3	Student assessment	Compliant	Compliant	Compliant

3. Teaching staff (ESG 1.5)

Sub-areas

- 3.1. Teaching staff recruitment and development**
- 3.2. Teaching staff number and status**
- 3.3. Synergies of teaching and research**

3.1. Teaching staff recruitment and development

Standards

- *Institutions ensure the competence of their teaching staff.*
- *Fair, transparent and clear processes for the recruitment and development of the teaching staff are set up.*
- *Teaching staff qualifications are adequate to achieve the objectives and planned learning outcomes of the study programme, and to ensure quality and sustainability of the teaching and learning.*
- *The teaching staff is regularly engaged in professional and teaching-skills training and development.*
- *Promotion of the teaching staff takes into account the quality of their teaching, their research activity, the development of their teaching skills and their mobility.*
- *Innovation in teaching methods and the use of new technologies is encouraged.*
- *Conditions of employment that recognise the importance of teaching are followed.*
- *Recognised visiting teaching staff participates in teaching the study programme.*

3.2. Teaching staff number and status

Standards

- *The number of the teaching staff is adequate to support the programme of study.*
- *The teaching staff status (rank, full/part time) is appropriate to offer a quality programme of study.*
- *Visiting staff number does not exceed the number of the permanent staff.*

3.3. Synergies of teaching and research

Standards

- *The teaching staff collaborate in the fields of teaching and research within the HEI and with partners outside (practitioners in their fields, employers, and staff members at other HEIs in Cyprus or abroad).*
- *Scholarly activity to strengthen the link between education and research is encouraged.*
- *The teaching staff publications are within the discipline.*
- *Teaching staff studies and publications are closely related to the programme's courses.*

- *The allocation of teaching hours compared to the time for research activity is appropriate.*

You may also consider the following questions:

- *How are the members of the teaching staff supported with regard to the development of their teaching skills? How is feedback given to members of the teaching staff regarding their teaching results and teaching skills?*
- *How is the teaching performance assessed? How does their teaching performance affect their remuneration, evaluation and/or selection?*
- *Is teaching connected with research?*
- *Does the HEI involve visiting teaching staff from other HEIs in Cyprus and abroad?*
- *What is the number, workload, qualifications and status of the teaching staff (rank, full/part timers)?*
- *Is student evaluation conducted on the teaching staff? If yes, have the results of student feedback been analysed and taken into account, and how (e.g., when planning in-service training for the teaching staff)?*

Findings

A short description of the situation in the Higher Education Institution (HEI), based on elements from the application for external evaluation and on findings from the onsite visit.

We were introduced to the teaching staff and we had the opportunity to talk with the students. We listened to presentations and asked questions. The review was in-depth and complete. The visit demonstrated that there is a good, clear and fair recruiting process in place and that staff members are excellent researchers and well-prepared lecturers.

Strengths

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

The present student-teacher ratio is sufficient. However, the present situation is fragile and expansion in the staff number must be considered. There is a good proportion between junior staff and senior staff at professorial positions.

The teaching reflects well the research (and vice versa) we have been told that staff teach only subjects that they are familiar with and are involved in active research lines. This is a very good practice.

Areas of improvement and recommendations

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

The number of teaching staff should be increased to better cover some areas and to avoid the looming risk associated with the retirement of some of the senior members of staff.

Teaching and research are well integrated however in most of the cases the topic is covered by only one researcher. This is not ideal from the research point of view because the researcher is operating in isolation, but it is also not ideal from a teaching perspective, because the absence of the researcher (for any reason) will cease the delivery of that topic making the programme vulnerable.

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

Sub-area		<i>Non-compliant/ Partially Compliant/Compliant</i>		
		<i>Prog 1.</i>	<i>Prog 2.</i>	<i>Prog 3.</i>
3.1	Teaching staff recruitment and development	Compliant	Compliant	Compliant
3.2	Teaching staff number and status	Compliant	Compliant	Compliant
3.3	Synergies of teaching and research	Compliant	Compliant	Compliant

4. Student admission, progression, recognition and certification (ESG 1.4)

Sub-areas

- 4.1. Student admission, processes and criteria
- 4.2. Student progression
- 4.3. Student recognition
- 4.4. Student certification

4.1 Student admission, processes and criteria

Standards

- *Pre-defined and published regulations regarding student admission are in place.*
- *Access policies, admission processes and criteria are implemented consistently and in a transparent manner.*

4.2 Student progression

Standards

- *Pre-defined and published regulations regarding student progression are in place.*
- *Processes and tools to collect, monitor and act on information on student progression, are in place.*

4.3 Student recognition

Standards

- *Pre-defined and published regulations regarding student recognition are in place.*
- *Fair recognition of higher education qualifications, periods of study and prior learning, including the recognition of non-formal and informal learning, are essential components for ensuring the students' progress in their studies, while promoting mobility.*
- *Appropriate recognition procedures are in place that rely on:*
 - *institutional practice for recognition being in line with the principles of the Lisbon Recognition Convention*
 - *cooperation with other institutions, quality assurance agencies and the national ENIC/NARIC centre with a view to ensuring coherent recognition across the country*

4.4 Student certification

Standards

- *Pre-defined and published regulations regarding student certification are in place.*
- *Students receive certification explaining the qualification gained, including achieved learning outcomes and the context, level, content and status of the studies that were pursued and successfully completed.*

You may also consider the following questions:

- *Are the admission requirements for the study programme appropriate? How is the students' prior preparation/education assessed (including the level of international students, for example)?*
- *How is the procedure of recognition for prior learning and work experience ensured, including recognition of study results acquired at foreign higher education institutions?*
- *Is the certification of the HEI accompanied by a diploma supplement, which is in line with European and international standards?*

Findings

A short description of the situation in the Higher Education Institution (HEI), based on elements from the application for external evaluation and on findings from the onsite visit.

Findings for Ph.D. in Computer Science

The doctoral programme conducted over six semesters combines good practices from the UK and North American systems, in terms of its structure, qualifying examinations, and thesis defence. The dissertation topics cover a good spread of fundamental areas in Computer Science, and the doctoral students are well-integrated into the research environment of the Department. The supervisor is the main academic guide for their thesis work which is reviewed annually by a thesis committee of the supervisor and two other academic staff members.

Findings for Masters in Computer Science

The Masters programme is conducted over three semesters and includes both taught courses and a major individual project conducted over the length of the final semester under the guidance of a member of the teaching staff. All courses combine different modes of assessment and the end-of-semester written examination does not constitute more than 60% of the overall marks.

Findings for Masters in Advanced Information Technologies

This Masters programme is similar to the Masters in Computer Science in the first two semesters of taught courses, but instead of the individual project these students take more taught courses in the final semester. This course is targeted at students who are currently working, or those who wish to train for a job in the IT industry.

Strengths

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

Strengths for Ph.D. in Computer Science

Student applications are reviewed by a Post Graduate Committee who involve the prospective supervisor early in interview and selection process which ensures that the students once admitted have a supervisor appointed to guide their research.

Early career faculty are given positive discrimination in terms of access to doctoral students, and funding for equipment and travel to conferences.

PhD students attached to funded projects get additional funding to top up their scholarship stipend.

Students are employed in responsible positions in international companies and academia.

Strengths for Master in Computer Science

The admissions criteria for the MSc programme is competitive – the equivalent of Upper-Second classification in their undergraduate degree ensuring a good quality of students entering the programme.

The MSc students benefit from being taught by well-qualified teaching staff whose annual load is reasonable at two undergraduate and one postgraduate courses.

The MSc students benefit from well-trained teaching staff – all junior teaching staff on the MSc programme are mentored by a senior member and newly-appointed staff are provided with training in good practices at the Centre for Teaching and Evaluation.

The feedback from MSc students on the teaching is taken seriously and reviewed by the Departmental Chair and acted upon.

The course has a good mix of teaching over two semesters and an individual project over the final semester which is supervised by the teaching staff in their research area of expertise.

Strengths for Master in Advanced Information Technologies [Title 3]

The same as for the Master in Computer Science.

Areas of improvement and recommendations

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

Areas of improvement and recommendations for Ph.D. in Computer Science

The completion rate for PhD students is a cause for concern and needs to be investigated further for causes and the issues addressed.

The current scholarship stipend seems inadequate for Nicosia and needs to be revised in line with the cost of living index.

Areas of improvement and recommendations for Master in Computer Science

Masters students who studied in the undergraduate course in the same university do not have a wide choice of courses to choose from at the Masters level where they encounter substantial new material.

The courses can benefit from a mid-term review questionnaire where students can provide feedback which can be taken into account in the rest of the course.

The choice of projects are initiated by the students in the middle of the second semester when they approach teaching staff for project topics. An alternative approach which will be more student-friendly would be for the teaching staff to collect a list of prospective project topics and descriptions proposed for the MSc students which is published in the middle of the second semester and students can pick three choices in the hope of being allocated one of these.

Areas of improvement and recommendations for Master in Advanced Information Technologies

The same as for the Master in Computer Science with the exception of the list of prospective project topics

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

Sub-area		<i>Non-compliant/ Partially Compliant/Compliant</i>		
		<i>Prog. 1</i>	<i>Prog. 2</i>	<i>Prog. 3</i>
4.1	Student admission, processes and criteria	Compliant	compliant	Compliant



4.2	Student progression	Partially compliant	Partially compliant	Partially compliant
4.3	Student recognition	Compliant	Compliant	Compliant
4.4	Student certification	Compliant	Compliant	Compliant

5. Learning resources and student support (ESG 1.6)

Sub-areas

5.1. Teaching and Learning resources

5.2. Physical resources

5.3. Human support resources

5.4. Student support

5.1 Teaching and Learning resources

Standards

- *Adequate and readily accessible teaching and learning resources (teaching and learning environments, materials, aids and equipment) are provided to students and support the achievement of objectives in the study programme.*
- *Adequacy of resources is ensured for changing circumstances (change in student numbers, etc.).*
- *All resources are fit for purpose.*
- *Student-centred learning and flexible modes of learning and teaching, are taken into account when allocating, planning and providing the learning resources.*

5.2 Physical resources

Standards

- *Physical resources, i.e. premises, libraries, study facilities, IT infrastructure, are adequate to support the study programme.*
- *Adequacy of resources is ensured for changing circumstances (change in student numbers, etc.).*
- *All resources are fit for purpose and students are informed about the services available to them.*

5.3 Human support resources

Standards

- *Human support resources, i.e. tutors/mentors, counsellors, other advisers, qualified administrative staff, are adequate to support the study programme.*
- *Adequacy of resources is ensured for changing circumstances (change in student numbers, etc.).*
- *All resources are fit for purpose and students are informed about the services available to them.*

5.4 Student support

Standards

- *Student support is provided covering the needs of a diverse student population, such as mature, part-time, employed and international students and students with special needs.*
- *Students are informed about the services available to them.*
- *Student-centred learning and flexible modes of learning and teaching, are taken into account when allocating, planning and providing student support.*
- *Students' mobility within and across higher education systems is encouraged and supported.*

You may also consider the following questions:

- *Evaluate the supply of teaching materials and equipment (including teaching labs, expendable materials, etc.), the condition of classrooms, adequacy of financial resources to conduct the study programme and achieve its objectives. What needs to be supplemented/ improved?*
- *What is the feedback from the teaching staff on the availability of teaching materials, classrooms, etc.?*
- *Are the resources in accordance with actual (changing) needs and contemporary requirements? How is the effectiveness of using resources ensured?*
- *What are the resource-related trends and future risks (risks arising from changing numbers of students, obsolescence of teaching equipment, etc.)? How are these trends taken into account and how are the risks mitigated?*
- *Evaluate student feedback on support services. Based on student feedback, which support services (including information flow, counselling) need further development?*
- *How is student learning within the standard period of study supported (student counselling, flexibility of the study programme, etc.)?*
- *How students' special needs are considered (different capabilities, different levels of academic preparation, special needs due to physical disabilities, etc.)?*
- *How is student mobility being supported?*

Findings

A short description of the situation in the Higher Education Institution (HEI), based on elements from the application for external evaluation and on findings from the onsite visit.

All academic staff have a high research activity that goes side by side with the research undertaken by the doctoral students. They have an electronic system that students receive feedback on their projects and examinations in the courses they take, as well as other information concerning the course, such as the course outline. All the PhD and Masters students participate in an orientation week at the start of the academic year when they are introduced to the staff and facilities of the Department and university provides. They are also registered in the library and introduced to the on-line access to the journals.

Findings for Ph.D. in Computer Science

The PhD programme is well administered with support provided for research and pastoral care. The laboratories are well-resourced and students are attached to their supervisors at the start of their doctoral research. A thesis review committee ensures annual progress and is also a sounding board for students other than their own supervisor.

Findings for Master in Computer Science

The Masters students are well catered for in terms of dedicated teaching staff and well-resourced laboratories for their coursework. There is a plurality of assessment methods in addition to the traditional end-of-semester written examination. The project is a substantial piece of individual practical work which is supervised by a member of teaching staff and is well-integrated with their research work.

Findings for Master in Advanced Information Technologies

The same as for the Master in Computer Science with the exception of the project part.

Strengths

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

Teaching is evaluated at the end of each semester by the students who fill in special questionnaires about the teaching of the course. The questionnaires are processed by the Center for Teaching and Learning. In this way they encourage and reward the quality of teaching. They have an electronic system that students receive feedback on their projects and examinations in the courses they take, as well as other information concerning the course, such as the course outline.

Strengths for Ph.D. in Computer Science

The students start their PhD with a supervisor in place as they participate in the interview process as potential supervisors.

A thesis committee reviews progress at the end of each year and the members are available for the student to consult in between the annual reviews.

The Department is flexible in accommodating students who have to take up employment towards the end of their three years which can also be abused by students who either take too long to complete their thesis or drop out of the system completely.

PhD Students attend courses in soft skills provided by the Graduate School.

Strengths for Master in Computer Science

The Masters students have access to a number of well-resourced laboratories for practical work which complements the theoretical topics covered in the lectures.

The teaching laboratories are upgraded reasonably often with new hardware and platforms.

New members of staff are given priority for their courses in terms of ordering reference books in the library and equipment for their laboratory.

Strengths for Master in Advanced Information Technologies

The same as for the Master in Computer Science.

Areas of improvement and recommendations

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

Areas of improvement and recommendations for Ph.D. in Computer Science

The Department should track more strictly the doctoral students who have not submitted after three years to improve the completion rates and ensure that they do not slip through the system.

The Department should support at a departmental level placement of their PhD students in internships in research projects or in industry in areas which complements their research.

Areas of improvement and recommendations for Master in Computer Science

The Department should consider a process of addressing any special circumstances that students encounter over the course of a semester or during the examination period, such as illness, mental health issues, bereavement, etc. which can be taken into account when determining their performance in courses.

The Department should consider adjustments schedules for students with disabilities which was not elaborated in evaluation material and during the site visit.

The University should consider support for student housing which seems to be at a premium in Nicosia.

Areas of improvement and recommendations for Master in Advanced Information Technologies

The same as for the Master in Computer Science.

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

Sub-area		<i>Non-compliant/ Partially Compliant/Compliant</i>		
		<i>Prog. 1</i>	<i>Prog. 2</i>	<i>Prog. 3</i>
5.1	Teaching and Learning resources	Compliant	Compliant	Compliant
5.2	Physical resources	Compliant	Compliant	Compliant
5.3	Human support resources	Compliant	Compliant	Compliant
5.4	Student support	Partially compliant	Compliant	Compliant

6. Additional for doctoral programmes (ALL ESG)

Sub-areas

6.1. Selection criteria and requirements

6.2. Proposal and dissertation

6.3. Supervision and committees

6.1 Selection criteria and requirements

Standards

- *Specific criteria that the potential students need to meet for admission in the programme, as well as how the selection procedures are made, are defined.*
- *The following requirements of the doctoral degree programme are analysed and published:*
 - *the stages of completion*
 - *the minimum and maximum time of completing the programme*
 - *the examinations*
 - *the procedures for supporting and accepting the student's proposal*
 - *the criteria for obtaining the Ph.D. degree*

6.2 Proposal and dissertation

Standards

- *Specific and clear guidelines for the writing of the proposal and the dissertation are set regarding:*
 - *the chapters that are contained*
 - *the system used for the presentation of each chapter, sub-chapters and bibliography*
 - *the minimum word limit*
 - *the binding, the cover page and the prologue pages, including the pages supporting the authenticity, originality and importance of the dissertation, as well as the reference to the committee for the final evaluation*
- *There is a plagiarism check system. Information is provided on the detection of plagiarism and the consequences in case of such misconduct.*
- *The process of submitting the dissertation to the university library is set.*

6.3 Supervision and committees

Standards

- *The composition, the procedure and the criteria for the formation of the advisory committee (to whom the doctoral student submits the research proposal) are determined.*
- *The composition, the procedure and the criteria for the formation of the examining committee (to whom the doctoral student defends his/her dissertation), are determined.*
- *The duties of the supervisor-chairperson and the other members of the advisory committee towards the student are determined and include:*
 - *regular meetings*
 - *reports per semester and feedback from supervisors*
 - *support for writing research papers*
 - *participation in conferences*
- *The number of doctoral students that each chairperson supervises at the same time are determined.*

You may also consider the following questions:

- *How is the scientific quality of the PhD thesis ensured?*
- *Is there a link between the doctoral programmes of study and the society? What is the value of the obtained degree outside academia and in the labour market?*
- *Can you please provide us with some dissertation samples?*

Findings

A short description of the situation in the Higher Education Institution (HEI), based on elements from the application for external evaluation and on findings from the onsite visit.

The program is organized with several stages of completion and minimum and maximum times are defined. The Ph. D. examination event (defence) has a public presentation followed by a closed-door discussion by the examiners. The criteria for obtaining the degree are clear and the main focus is on high quality research. Publication of the results in peer-reviewed journals is encouraged although cannot be enforced due to University rules.

Strengths

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

Ph.D. students are offered a very good program of study with clear intermediate goals and opportunities to increase their knowledge while progressing through a guided but independent research path. The supervisors are very knowledgeable of the relevant processes and supervise and mentor students in the different stages of the Ph.D. process.

Areas of improvement and recommendations

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

There is a large number of students that register to the Ph.D. and then do not continue the studies. We have been told that these are not real discontinuations rather students that apply in several programmes and then choose one based on their preferences. This may be unavoidable but there could be an opportunity to try to retain some of these students perhaps engaging with them early on when the decision on where to go is not definite yet.

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

Sub-areas		<i>Non-compliant/ Partially Compliant/Compliant</i>
6.1	Selection criteria and requirements	Compliant
6.2	Proposal and dissertation	Compliant
6.3	Supervision and committees	Compliant

D. Conclusions and final remarks

Please provide constructive conclusions and final remarks, which may form the basis upon which improvements of the quality of each programme of study under review may be achieved, with emphasis on the correspondence with the EQF.

The EEC evaluated the three degree programs based on the provided accreditation reports and the remote site visit. The EEC was invited to view online teaching on two courses. Based on the provided information the EEC concludes that 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 degree programs can make improvements.

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.



E. Signatures of the EEC

<i>Name</i>	<i>Signature</i>
Sasu Tarkoma	
D. K. Arvind	
Tomaso Aste	
Christodoula Ioannou	

Date: November 4, 2020

