Doc. 300.3.1/1

External Evaluation Report

(Programmatic within the framework of Departmental Evaluation)

Date: Date.2025-06-28

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

Programme 1 – Bachelor

In Greek:
Πληροφορική (4 ακαδημαϊκά έτη, 240 ECTS, Πτυχίο(BSc))
In English:
Computer Science (4 academic years, 240 ECTS, Bachelor(BSc))
Language(s) of instruction: English

Programme 2 – Doctorate

In Greek:
Πληροφορική (3 ακαδημαϊκά έτη, 180 ECTS, Διδακτορικό(PhD))
In English:
Computer Science (3 academic years, 180 ECTS, Doctorate(PhD))
Language(s) of instruction: English

Programme 3 –

In Greek:
Programme Name
In English:
Programme Name
Language(s) of instruction: Language(s)

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 2021 [L.136(I)/2015 – L.132(I)/2021].

A. Introduction

This part includes basic information regarding the onsite visit.

The onsite visit to the Department of Compute Science (henceforth: "the Department") at the University of Nicosia (henceforth: "UNIC") took place on June 26, 2025, during which the External Evaluation Committee (henceforth: "EEC") was accompanied by Ms. Natasa Kazakeou from the Cyprus Agency of Quality Assurance and Accreditation (henceforth: "CYQAA"). The EEC was tasked with evaluating the Department, as well as the two programmes:

- The BSc in Computer Science
- The PhD in Computer Science

This onsite visit followed a visit by the same EEC to the emerging Athens campus of UNIC (henceforth: "UNIC-Athens"), on May 29, 2025, where the EEC evaluated the Athens extension of the Department, as well the opportunity to deliver two Bachelors programmes in Computer Science and in Data Science at UNIC-Athens, which are currently being offered at UNIC.

In advance of the onsite visit to UNIC, the Department had already received the EEC report of the UNIC-Athens evaluation of the Department and the Bachelors programme in Computer Science, and were, therefore, able to respond to the report by proposing procedural and curriculum updates.

As part of the evaluation of the extension of the Department at UNIC-Athens, the EEC had already seen (on 29/5) presentations of the University, the School, and the Department structures, policies, and procedures, as well as the presentation of the BSc in Computer Science. Therefore, the EEC requested that the corresponding presentations during the visit to UNIC on 26/6 concentrated on any updates introduced since the 29/5.

This report will — as appropriate — make references to these updates, and their relative impact on the evaluation of compliance within the different areas and sub-areas.

The EEC appreciated the agility of the Department Head and the Rector, in reacting to and providing constructive proposals for, addressing the different recommendations that the EEC had advanced in the reports following the UNIC-Athens visit.

As the EEC was tasked with also evaluating the PhD programme, the EEC met with its Director, and with several PhD supervisors, and had a comprehensive presentation of the programme, followed by a discussion on its vision, strategy, and attractiveness.

The EEC met with the administrative staff (Registrar, Library, Campus and Health, Advising, Admissions) at UNIC as well as with student and graduate representatives and external stakeholders.

In particular, the EEC met the following people from among the University, School, and Department management: P. Pouyioutas (Rector), P. Angelides (Vice Rector of Academic Affairs), D. Drikakis (Dean of the School of Sciences and Engineering), M. Nestoros (Associate Dean of the School of Sciences an Engineering, UNIC), A. Stassopoulou (Head of the Department, UNIC), I. Dionysiou (Associate Head of Department), N. Ioannides (Director of Academic Affairs, UNIC), C. Mavromoustakis (Programme Director, PhD in Computer Science), V. Stylianou (Programme director, BSc in Computer Science, UNIC).

The ECC also met with L. Agathokleous (Office of the Vice Rector for Academic Affairs), C. Theocleous (Director of Academic Advicing, UNIC), M. Charalambous (Director of Library, UNIC), M. Panayiotou (Registrar, UNIC), E. Theodorou (Head of the Office of the Vice Rector for Faculty and Research), E. Theodoulou (Library Officer), and M. Michael (Head of Erasmus office)

From among the network of industrial partners of UNIC, the ECC met with K. Kosta (Head of Security, ISFX Financial), D. Kotzias (Software Engineer, Google Brain), G. Pallis (Department of Computer Science, University of Cyprus), G. Mastorakis (Department of Management Science and Technology, Hellenic Mediterranean University)

The EEC wishes to express its gratitude to these staff members and external stakeholders for having made themselves available, and for engaging in intense, deep, and constructive discussions and exchanges —as well as to all the faculty members from the Department that were present, and participating in constructive and interesting discussions.

Finally, the EEC had the privilege to meet with a set of students and graduates from the BSc programmes in Computer Science, as well as with PhD students both in their first, and last year. This provided us with — in additional to insights on the programme structure and "academic" attractiveness — valuable insights in the experience of being a student in a programme in the Department at UNIC.

A couple of days prior to the site visit, and by way of the Ms. Kazakaiu from CYQAA, the EEC shared an extensive list of requested information and documents with UNIC. The EEC wishes to express its gratitude to the presenters during the sessions of the site-visit, who had made last-minute changes to their presentations, to provide us with the information requested.

The EEC was granted access to all the information, and to all the people/stakeholders, that we requested, from UNIC. The students and graduates, from the programmes being assessed, were thoughtful and respectful in their comments — and patience with the numerous questions, whose answers greatly helped in writing this report.

The EEC wishes to thank both the officers from the CYQAA and the personnel from UNIC, for making the site visit both pleasant and informative.

B. External Evaluation Committee (EEC)

Name	*Position*	*University*
Thomas Heide Clausen	Professor (Chair)	Ecole Polytechnique, FR
Damal K. Arvind	Professor (Member)	University of Edinburgh, UK
Mykola Pechenizkiy	Professor (Member)	Eindhoven University of Technology, NL
Yiannis Zapitis	Professional Body Representative (Member)	Cyprus Scientific and Technical Chamber (ETEK)
Elina Mavrikiou	Student (Student Member)	University of Cyprus
Name	Position	University

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:*

  (a)sub-areas

  (b)*standards which are relevant to the European Standards and Guidelines (ESG)*

  (c)*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. **Policy for quality assurance**
2. **Design, approval, on-going monitoring and review**
3. **Public information**
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*

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*

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*

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 Bachelor

- The BSc in Computer Science has been offered since 2007 with a mature syllabus based on the IEEE/ACM guidelines.
- Processes are in place for the design, approval and monitoring of the delivery of courses.
- The Department has a well-developed delivery mechanisms including the Moodle Learning Management System.
- Mentoring takes place of recently-appointed lecturers for up to 5 years in all aspects of course delivery, ranging from syllabus planning, observation-based feedback on lecturing style, examination paper setting and marking.
- There is a large choice of elective courses, although their descriptions should be reviewed. It should be clarified whether all these courses are available each year to all students who have taken the prerequisite courses.
- Each course grants a specific, well-defined, and à priori known number of ECTS credits.
- The existence of the BSc in Computer Science, as well as its structure, content, admissions requirement, learning outcomes, etc., are available on the Department website, and easily accessible.
- The Department has proposed a process during the on-site visit, to consult with internal and external stakeholders to ensure its regular maintenance, and alignment with the current needs of society.
- The programme contains options for industrial placements for students who so desire.

Findings for Doctorate

- The PhD in Computer Science is a recent programme at UNIC compared to the undergraduate degree programmes in Computer Science, having graduated 2 students, with 10 current students in various stages of completion of their PhD.
- The Department competently implements the university policy and processes to the letter regarding admissions, tracking, evaluation, supervision, etc.
- The ECTS credits associated with the various activities and years are clearly indicated.
- The existence of the PhD in computer science, as well as its structure, content, admissions requirement, learning outcomes, etc., are available on the Department website, and easily accessible.

Strengths

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

Strengths for Bachelor

- The Department has a well-developed delivery mechanisms including the Moodle Learning Management System.
- The Department has mechanisms in place for seeking advice on a need-to basis from external stakeholders from industry on trends and priorities for new courses.
- A mechanism is in place to act promptly on students' anonymous feedback to improve all aspects of course delivery.
- The graduates from the Degree are well regarded by industrial stakeholders who host them as interns and employ them after graduation.
- The students on the Degree feel well prepared for employment in the IT industry.

Strengths for Doctorate

- Although unscientific to generalise from a small sample, the quality of the graduates seems to be very good.
- Currently active PhD students are very satisfied with their experience of study at UNIC, including the supervisory process, with the quality of interaction with their supervisors, and with their advancement through the programme.
- The EEC also observes that the assessment of doctoral dissertations is subject to a rigorous process, including external evaluators, written reports for both the thesis and the via assessment.
- Two PhD theses that the EEC examined are of a high quality.
- PhD candidates the EEC talked to demonstrate a good level of independence and quality of research output.

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 Bachelor

- At the recent (May 29, 2025) evaluation of the programme, as part of the evaluation by the EEC of the UNIC-Athens extension of the Department, the EEC found that the material taught in the compulsory courses in the BSc in Computer Science degree needed urgent revision and update to reflect the rapid changes in the field, to better align with the EQF-6 standards. The EEC also gave several concrete suggestions for curriculum updates (creation of a course on the mathematical foundations for CS, creation of a course in programming paradigms, unifying of courses in algorithms and data structures, introduction of a compulsory course in ML, ….).

  The Department has implemented the recommendations the EEC proposed, and the EEC is satisfied with the content of these new, or restructured, courses. **The department deserves credits for their swift reactivity to these recommendations**.

  Notwithstanding, discussions during the onsite visit permitted confirming a couple of courses where there still was room for modernisation, and some "thematic areas" where there still is room for evolution:

  - The present required course "Network and Data Communication" does not provide the learning outcomes / competencies expected (how to write a networked app/server, understand how to configure / set up a network, understand how to debug network problems). Rather it treats more advanced topics, as well as outdated topics (TokenRing, FDDI, the OSI model..) — all of which, while perhaps intellectually/historically interesting, does not contribute to the skills that are expected for every student with a BSc in CS.

    The EEC would like to **strongly recommend** the following:
    - The current course "Network and Data Communication" should be renamed "Further Studies in Networking Technologies" (or something similar), made an elective, and moved to a later semester. The EEC strongly recommends to also elide "outdated" technologies from the course content (except if they are useful as a pedagogical device).

    - The current elective course "Internet Technologies" should be renamed "Network and Data Communication", and made a required course in the BSc in CS. The EEC strongly recommends to, in this course, provide significant lab exercises and projects allowing students to acquire skills in "modern" network programming (writing non-trivial client/server, REST, parsing json/xml), network configuration (components of a computer network, IP addresses, routers, switches, DHCP/DNS servers) and network debugging.

  - The EEC **strongly recommends** that the present course "Internet of Things and Wearable Computing" be updated, along the following axis:
    - Emphasise the key feature of resource constraints (processing cycles, memory and energy) in battery-powered IoT platforms, which has led to development of lean operating systems, MAC protocols for duty cycling, mesh - and point-to-point networking protocols, and IEEE standards such as 802.15.4.
    - Introduce machine learning models for classification of IMU sensors for human activity classification which introduces students to real-time analysis of time-series data from wearable devices.

  - The thematic area of "Cybersecurity and Privacy" is very attractive, and there are interesting evolutions possible that would strengthen the profile and employability of the graduates following it. To this end:

    - The EEC wishes to **strongly recommend** that, within a short horizon, an elective course in "Cybergovernance" is introduced: there is a significant need of professionals with both a technical baggage and an operational understanding of that area.

    - The EEC **recommends** reflections on the place of the concept of a "blockchain" in its programme. It currently is mentioned in the course "Network Security" (though, has little — if any — relation to network security). If it is a concept that the department estimates the graduates should all be familiar with, perhaps it would he better

covered in the required course COMP-431? Likewise, if the department estimates that the notion of a "blockchain" is relevant to cybersecurity professionals, then should the course "Blockchain Programming" be part of the electives of the "Cybersecurity and Privacy" thematic area?

- The EEC **suggest** medium-term reflections on, for want of a better term, "modern platforms" — Virtualisation, Containerisation, co-tenancy, and the issues that systems deployment via microservices bring, is likely to become significant topics for cybersecurity professionals in the near future. The EEC suggests that reflections might lead to a programme update when the programme is submitted for accreditation in the next cycle?

- The EEC took a holistic review of three courses: COMP335 - Computer Organisation and Architecture; COMP417 - Parallel and Distributed Computing; and COMP475 Internet of Things and Wearable Computer. Although there exists an optional course on Compilers, it was evident that Computer Science students can gain a degree without exposure to any compiler concepts. The EEC strongly recommends the following:
  - In COMP335, introduce the concept of Reduced Instruction Set Architectures (RISC) as covered in Hennesey and Patterson (the recommended textbook for the course) and emphasise why they are good targets for compilers; the different stages in a typical RISC compiler and a programming exercise in implementing a simple parser.
  - COMP 417 would benefit from some modernisation by removing outdated message-passing, distributed memory architectures and introducing many-core multithreaded architectures instead; introduce a topic in modern parallelising compilers for multithreaded architectures.

Areas of improvement and recommendations for Doctorate

- The EEC believes that the Department, in view of its undeniable qualities, has underperformed in terms of PhD student recruitment. The EEC does not claim to have a *magic recipe*, but rather than fatalistically accepting the situation, the Department should develop a multi-pronged and multi-year strategy, better marketing the doctoral programme both internally and externally. The EEC respectfully provides the following — ***non-prescriptive*** — suggestions as inspiration for the department when devising such a strategy:

  - Refining the messaging towards BSc and MSc students regarding what the "life of a PhD student" is about with the ambition to attract UNIC undergraduates and increase the conversion rate of Bachelors-to-PhD students.
    The current understanding among the students seems to be that it is *"write an endless stream of papers, for low pay"* — whereas a better, and more accurate, messaging would be *"work on a really cool topic for 3 years, without a boss/client breathing down your neck. And with really smart and cool people, while even getting paid for it"*.
    It is likely that the current understanding is due to BSc students simply never having been proactively informed about what a PhD entails.

  - Exposing BSc and MSc students to research earlier. For example, through:
    - Inviting them to the departmental "Research Days", relevant seminar series, engage high-achieving students in presenting their theses, industry lab internship outcomes.
    - Offering BSc/MSc final-year-projects that are related to research projects, in which PhD students are involved and naturally can be engaged in co-supervision of the student project.
    - Enabling BSc students to do their "industry placement" (COMP-492) as a "research lab placement", encouraging students to get a taste of research. Consider introducing a choice between internal research lab and external academic or industry lab internships.
    - Consider broader and more systematic engagement of relevant industry in branding and defining the image and essence of the PhD program.

  - Engaging with external stakeholders and making strategic agreements on branding and defining the image and essence of the department's PhD program.

  - Consider broader and more systematic engagement of relevant industry. During the meeting, EEC heard concrete and enthusiastic suggestions from the department's academic and industry partners on how to make the PhD positions more attractive.
  - Involve industrial partners to make the industrial value of the PhD known.
  - Consider defining joint co-funded PhD projects, industry lab internships for PhDs, joint research events etc.
  - Organise regular seminars with representatives from industry, who themselves have a PhD, to illustrate the value of this degree in a multitude of different careers.
  - Consider making an agreement with Meta, Google Brain and other connections at top industry labs such they can commit to mentor 1 PhD per year and potentially to offer an internship as a follow up.

- Conducting market research, developing a strategy on attracting talented international PhDs and making an investment plan to support it, *e.g.,* as simple as offering a possibility for the 1st year PhD students to attend a top conference or summer school even if they did not get publishable results yet.

- Solicit the academic support services for assistance and inspiration. The EEC asked, during the site visit with the administrative personnel, if they had any ideas, and spontaneously the head librarian suggested that as the library has copies of all PhD theses, perhaps she could help create better visibility for those — to make the PhD programmes more well known. Similarly, the ERASMUS office has an impressive network, that perhaps can be solicited when sharing open PhD positions.

- The EEC notes that elsewhere in Europe, most PhD-students undertake their PhD fresh out of their BSc/MSc. Further, in many places in Europe, a PhD is a full-time occupation and PhD students are either salaried, or they have a stipend allowing them to not seek paid work in parallel to their PhD.
  The advantage of targeting students fresh out of their BSs/MSc is, that they are typically younger — and, thus, also generally more adventurous, interested in and able to move for their PhD (no family ties, no mortgage, no small children, …)

- In view of the fact that a considerable amount of the department funding is through EU projects, and given that in other EU countries, EU projects are able to provide PhD student salaries/stipends aligned with the local national market, the EEC encourages that the Department investigates such opportunities. The advantage of offering a PhD with a "living wage" salary/stipend is, that it makes it easier for foreign students to project themselves into a new country: no dependency on family support, no requirements to fend for a student-job, etc.
- Consider funding Teaching Assistant positions for PhD students to support teaching staff in delivering their courses, and involve them in their research.
- To conclude, the EEC sees a lot of potential to (1) making the currently available PhD position more attractive and (2) developing a more attractive ecosystem with a thriving PhD program.

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

Sub-area		***Non-compliant/ Partially Compliant/Compliant***	
		Bachelor	*Doctorate*
1.1	Policy for quality assurance	Compliant	Compliant
1.2	Design, approval, on-going monitoring and review	Compliant	Compliant
1.3	Public information	Compliant	Compliant
1.4	Information management	Compliant	Compliant

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

Sub-areas

1. **Process of teaching and learning and student-centred teaching methodology**
2. **Practical training**
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. 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.*

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.

Findings for Bachelor

- The ECC observes that the intended practical training of students appears to be rather limited throughout the curriculum – particular the industry placement is short and optional, the final project is also short.
- The EEC observes that learning goals in the courses are not all fully aligned with assessment methods.
- Students report that they can actively engage with the material through hands-on practice, and real datasets. However, their hands-on experience is limited, and they do not always feel well prepared for internships or jobs after the graduation.
- UNIC has a track record of involving students in research. However, structurally, there is no involvement of students in research as part of the curriculum. There is also no training in research methods.
- The EEC observes that inquiry-based and problem-based learning or challenge-based learning do not appear frequently as a learning method.
- Group assignments are practised. However, the EEC observed from the discussion with students that they do not seem to be benefiting from collaborative and peer learning. On the contrary, they mentioned that it is not uncommon for a minority of students do the work while the group are free-riding.

Findings for Doctorate

- The EEC observes that the (admittedly, small number of) candidates having gone through the doctoral programme to date, and those that are currently in the programme, all expressed great satisfaction with the supervisory process, with the quality of interaction with their supervisors, and with their advancement through the programme.
- The EEC also observes that the assessment of doctoral dissertations is subject to a rigorous process, including external evaluators, written reports for both the thesis and the via assessment.

Strengths

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

Strengths for Bachelor

- The students reflect positively on receiving timely grading and feedback on their work.
- The students reflect positively on availability of education staff for face-to-face meetings
- The students reflect positively on possibilities to do internships with industry

Strengths for Doctorate

See "Strengths for Bachelor"

- Currently active PhD students are very satisfied with guidance and feedback from their supervisors.
- The assessment of doctoral dissertations is subject to a rigorous process, including external evaluators, written reports for both the thesis and the via assessment

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 Bachelor

- The EEC suggests introducing elements of challenge-based learning (*e.g.,* data challenges, hackathons, case studies, *e.g.,* from science or application domains that are focal areas of the department.).

- The EEC suggests introducing elements of collaborative and peer learning, *e.g.,* code reviews and pair programming, peer evaluation of ML pitfalls from conceptualisation to modelling to evaluation, reproducing results, discussing privacy and ethical issues, etc.
- The EEC recommends establishing and continuously growing a PhD-Teaching Assistant (TA) program that can facilitate closer supervision and mentorship of student groups and individual students.

Areas of improvement and recommendations for Doctorate

- The EEC recommends establishing and continuously growing a PhD-Teaching Assistant (TA) programme that can facilitate closer supervision and mentorship of student groups and individual students — as well as contribute towards financing a stipend for the PhD students.
- The EEC recommends considering introducing the option for industrial internships during the PhD, for students who are interested in both attaining the highest level of academic training, and in an industrial career. Additionally this can further enrich their interest and skills in applied and application-inspired research, achieving higher levels of external validity and practical relevance, and project development

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

Sub-area		***Non-compliant/ Partially Compliant/Compliant***	
		Bachelor	*Doctorate*
2.1	Process of teaching and learning and student-centred teaching methodology	Compliant	Compliant
2.2	Practical training	Compliant	Compliant
2.3	Student assessment	Compliant	Compliant

3. Teaching staff *(ESG 1.5)*

Sub-areas

1. **Teaching staff recruitment and development**
2. **Teaching staff number and status**
3. **Synergies of teaching and research**

4.

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.*

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. 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.

Findings for Bachelor

- The EEC finds that the Department has a commendable and complete process for on-boarding new faculty members: a mandatory 12-week training programme, mentorship from senior faculty members
- The EEC finds that the processes for recruitment of faculty members, as well as their career advancement and other professional procedures, are well documented and available.

Findings for Doctorate

See "Findings for Bachelor"

Strengths

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

Strengths for Bachelor

- The faculty members within the Department are active researchers in their fields. They conduct application-inspired research aiming to make societal impact. They contribute to Open Science, *e.g.,* by publishing open datasets that can foster research development on societally important topics notably, in healthcare.
- There are indicators of a very good faculty–student engagement within the Department
- There are indicators of a very good engagement between Alumni and the Department
- Faculty members are well-informed about quality assurance aspects including individual course improvement, and on how to deal with potential misconduct of students.
- Faculty members are well-informed about the student safety aspects.
- The Department provides mentorship for new hires, and informs them about expectation for promotion to higher ranks.
- New hires may apply for, and can obtain, an UNIC seed-grant.

Strengths for Doctorate

See "Findings for Bachelor" — in addition to which the following also applies:

- The composition of a "supervisory team" ensures that a junior or inexperienced PhD advisor will not "be left alone" in case any issues arise along the 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.

Areas of improvement and recommendations for Bachelor

- The EEC recommends establishing and continuously growing a PhD-Teaching Assistant (TA) program to boost the development of robust and vibrant ecosystem facilitating reduced load, and higher quality research and education, synergy between research and education and industrial collaboration.
- The EEC also recommends enhancing their programme for Visiting Professors for the same reasons, as well as to foster further help with establishing a more competitive course offering and strengthening the curriculum, research strategy and education vision of the department.

- The EEC suggests providing pedagogical training beyond the current requirement helping existing staff and especially for to-be-hired staff to develop rich portfolio of teaching methods including flipped classrooms, challenged-based learning, and research-inspired education.

Areas of improvement and recommendations for Doctorate

- The EEC **strongly recommends** that the Department establishes a multi-pronged strategic plan (discussed elsewhere in this report) for how to increase the number of PhD students — and, therefore, the number of faculty members who can become experienced as doctoral advisors. Not only is this to the benefit of the PhD students and the University, but it is key for the individual faculty members' professional development, and career development. Furthermore, a critical mass of PhD students is necessary for creating a thriving research environment.

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

Sub-area		***Non-compliant/ Partially Compliant/Compliant***	
		Bachelor	*Doctorate*
3.1	Teaching staff recruitment and development	Compliant	Compliant
3.2	Teaching staff number and status	Compliant	Compliant
3.3	Synergies of teaching and research	Compliant	Compliant

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

Sub-areas

1. **Student admission, processes and criteria**
2. **Student progression**
3. **Student recognition**
4. **Student certification**

5.

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.*

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.*

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. 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 Bachelor

- The requirements for admission to the BSc courses are stated clearly in the publicly available website.
- The English language requirements are mentioned
- The ECTS credits for the courses are explicitly stated
- The process for credit transfer is documented
- Well-refined student admissions processes are established
- Well-documented student progress tracking is in place

Findings for Doctorate

- The requirements for admission to the BSc courses are stated clearly in the publicly available website.
- The English language requirements are mentioned
- The ECTS credits for the courses are explicitly stated
- Well-refined student admissions processes are established
- Well-documented student progress tracking is in place, leaving a clear "paper-trail" of all key milestones, meetings, etc. towards graduation.

Strengths

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

Strengths for Bachelor

- The university has name recognition
- The well-tested processes for admission have been refined over many years
- The university rules and regulations are complete, detailed, clear, and easily accessible, and competently implemented by the Department.

Strengths for Doctorate

See "Strengths for Bachelor"

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 Bachelor

Click or tap here to enter text.

Areas of improvement and recommendations for Doctorate

Click or tap here to enter text.

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

Sub-area		***Non-compliant/ Partially Compliant/Compliant***	
		Bachelor	*Doctorate*
4.1	Student admission, processes and criteria	Compliant	Compliant
4.2	Student progression	Compliant	Compliant
4.3	Student recognition	Compliant	Compliant
4.4	Student certification	Compliant	Compliant

5. **Learning resources and student support** *(ESG 1.6)*

Sub-areas

1. **Teaching and Learning resources**
2. **Physical resources**
3. **Human support resources**
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.

Findings for Bachelor

- The university uses Moodle as its LMS — and the Department has processes ensuring that it is used extensively, giving students access to their learning resources wherever they are.
- The library is extensive — and well integrated with the LMS.
- The library provides on-line access for students, supporting flexible working patterns and environments.
- The Department has extensive computer labs, as well as specialised facilities for VR, Robotics, etc.
- The Department is hosted at the main campus of the University, thus with easy access to all facilities (Recreational, housing, …)

Findings for Doctorate

See "Findings for Bachelor"

Strengths

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

Strengths for Bachelor

- The physical, human support, and student support resources are excellent.

Strengths for Doctorate

See "Strengths for Bachelor"

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 Bachelor

Click or tap here to enter text.

Areas of improvement and recommendations for Doctorate

Click or tap here to enter text.

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

Sub-area		***Non-compliant/ Partially Compliant/Compliant***	
		Bachelor	*Doctorate*
5.1	Teaching and Learning resources	Compliant	Compliant
5.2	Physical resources	Compliant	Compliant
5.3	Human support resources	Compliant	Compliant
5.4	Student support	Compliant	Compliant

6. **Additional for doctoral programmes** *(ALL ESG)*

Sub-areas

1. **Selection criteria and requirements**
2. **Proposal and dissertation**
3. **Supervision and committees**

7.

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*

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.*

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 university has a complete and thoroughly documented process for everything from selection criteria for doctoral candidates, through the admissions and selection process, and through to graduation.
- The Department implements that process competently — and adds to the process an "individual interview" between the anticipated "main supervisor" and the "candidate".
- As part of this process:
    - The minimum and maximum duration for a PhD (be that part-time or full-time) are explicitly documented, and is in compliance with the legislation (3-8 years)
    - The process for elaboration of, format of and requirement to, and acceptance of, the proposal is well defined — as is the examination procedure clear and well defined.
    - The requirements for the degree being awarded — both the process and the formal requirements — are well documented, clear, and aligned with international standards.
- The composition and role of each member in the supervisory committee is clearly defined, and the limits in terms of supervisory capacity well defined and respected.
- The PhD students in the department are well supported in the process of writing and publishing papers - as evidenced by the publication record of the graduated, and final-year, students that the EEC have examined.

Strengths

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

- The doctoral programme being small, it is difficult for the EEC to identify any trends, or identify any particularly "outstanding" accomplishment — it is logically difficult to determine who is the one actually standing out.
- That being said, the doctoral programme seems solid and well thought out.

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 **strongly recommends** that the Department establishes a multi-pronged strategic plan (discussed elsewhere in this report) for how to increase the number of PhD students — and, therefore, the number of faculty members who can become experienced as doctoral advisors. Not only is this to the benefit of the PhD students and the University, but it is key for the individual faculty members' professional development, and career development.

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

Sub-areas		***Non-compliant/ Partially Compliant/Compliant***
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 recognises the good quality of the educational programmes offered by Department — as evidenced by both the student satisfaction, and by the documented employability of graduates from the programmes as presently delivered at UNIC.

The onsite visit by the EEC, as part of this evaluation, followed a visit by the same EEC to the emerging Athens campus of UNIC, on May 29, 2025, where the EEC evaluated the Athens extension of the Department, as well the opportunity for delivery at UNIC-Athens of two Bachelors programmes in Computer Science and in Data Science, already being offered at UNIC.

As such, in advance of the onsite visit to UNIC, the Department had received the EEC report from the UNIC-Athens evaluation regarding the Department and the BSc — and were able to respond to those by proposing procedural and curriculum updates.

The EEC is impressed by the agility that the Department has exhibited, in adapting the BSc programme in CS following the report from the May 29 visit. The EEC recognises that its recommendations were followed, and that the department proposed both processes and curriculum changes, thus improving and updating the programme.

Notwithstanding, the EEC has found that there are a couple of courses within the BSc programme, where there is still room for modernisation — as well as some "thematic areas" where there is scope for evolution. Notably, the EEC recommends revisiting the content of the set of courses around "computer networking", the courses around "computer architectures" and the courses around "cybersecurity". The EEC believes that a relatively modest effort would be required, for a significant improvement to the programme, and encourages the Department to undertake this effort.

The Doctoral programme is robust in its structure and monitoring, and is qualitatively on a good track — however is behind the curve in PhD student recruitment: given the number of faculty members in the Department, they should have ***significantly*** more PhD students

Towards this end, the EEC ***strongly recommends*** that the Department establishes a multi-pronged strategic plan (discussed elsewhere in this report) to increase the number of PhD students — and, therefore, raise the number of faculty members who can become experienced as doctoral advisors. Not only is this to the benefit of the PhD students and the University, but it is key for the individual faculty members' professional and career development. To this end, the EEC recommends the Department to conduct market research for understanding how to attract relevant international PhD students.

Overall, the EEC finds that the Department is well run, and has an effective and dynamic Head who manages to carry the department forward in the right direction. The EEC finds that the faculty members strive to attain high quality in their offerings, are experienced instructors and professors, and are enthusiastic about both the programmes, and their research. This gives the EEC confidence that they will be able to competently address the various recommendations given in this report.

E. Signatures of the EEC

Name	*Signature*
Thomas Heide Clausen	
Damal K. Arvind	
Mykola Pechenizkiy	
Yiannis Zapitis	
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