Doc. 300.1.1/2

Date: Date.

External Evaluation Report (E-learning programme of study)

- **Higher Education Institution:**

  UCLan Cyprus

- **Town: Larnaca**

- **School/Faculty (if applicable): Computing**

- **Department/ Sector: School of Sciences**

- **Programme of study- Name (Duration, ECTS, Cycle)**

  In Greek:

  Μεταπτυχιακό στην Ασφάλεια Κυβερνοχώρου

  In English:

  MSc Cyber Security

- **Language(s) of instruction: English**

- **Programme's status: Currently Operating**

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ΚΥΠΡΙΑΚΗ ΔΗΜΟΚΡΑΤΙΑ
REPUBLIC OF CYPRUS

A. Introduction

B. Members of the External Evaluation Committee (EEC) reviewed and examined the accreditation reports provided by the School of Sciences at the University of Central Lancashire, Cyprus (UCLan Cyprus) relating to the MSc. in Cybersecurity. The EEC members evaluated the reports individually before the remote site visit on the 4th February 2021. The committee was provided access to video and presentation materials (a virtual tour) of the facilities. The EEC work was supported by digital office tools for the virtual site visit (Zoom) 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 program being evaluated. The EEC had meetings with the university, School and program leadership, professors, teachers, and current and past students of the programs. The EEC identified open questions and discussion points based on the provided materials. The EEC received answers to identified open questions during the remote site visit. In addition, the EEC received significant additional details and information regarding the MSc program and the School of Sciences pertaining to their operation, structure, and future plans. Based on the provided information, namely the accreditation report, and the remote site visit, the EEC can conclude that the School of Sciences and the program being evaluated have high standards and meet the quality expectations. This evaluation report describes how the standards are met and provides additional recommendations for improving the program.

C. External Evaluation Committee (EEC)

Name	Position	University
Kevin Curran	Professor of Cyber Security	Ulster University
Gregory O'Hare	Professor of Computer Science	University College Dublin (UCD)
Santi Caballé Llobet	Professor of Learning Engineering	Open University of Catalonia
Michalis Charalambides	Student Representative	Technical University of Cyprus
Name	Position	University
Name	Position	University

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D. 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 the 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?***

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- *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.

The University and the School advocate student-centred learning and the evaluated program has a relatively small number of students resulting in a favourable student-teacher ratio. The students appear to enjoy solid tutoring and mentoring in the course. The small numbers engender familiarity with the staff and render them more accessible and potentially more approachable. There would seem to be a significant emphasis upon student learning support and the students themselves seem to both recognize and value such.

As a private university, there is a focus on education with an emphasis on degree programs that are self-sustaining in terms of finances. Therefore, the workload profile of the staff is teaching-oriented; however, research is an integral part of the strategy and the aspirations of the university, and while this is clearly evident an environment needs to be maintained that fully recognizes, measures and rewards research endeavour.

UCLan Cyprus has a very strong engagement and linkage with UCLan UK at Preston. Joint planning of education appears to work very well. It is important that UCLan Cyprus continues to leverage resources and skills at UCLan Preston and conversely that UCLan Preston leverages emerging expertise at UCLan Cyprus. This relationship can prove mutually beneficial.

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

The School is well-managed and the small size of the faculty supports the joint planning and delivery of education. The team spirit appears to be very good with a palpable sense of collegiality. Overall morale and collegiality seems to be high which results in a collective direction of travel for the School.

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.

As the expansion of the School continues so the challenge of retaining the effective communication with both students and faculty will grow. Growth management needs to be mirrored with resource expansion and scalable communication protocols.

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

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

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

Sub-areas

2.2 Process of teaching and learning and student-centred teaching methodology
2.3 Practical training
2.4 Student assessment
2.5 Study guides structure, content and interactive activities

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

Standards

- *The e-learning methodology is appropriate for the particular programme of study.*
- *Expected teleconferences for presentations, discussion and question-answer sessions, and guidance are set.*
- *A specific plan is developed to safeguard and assess the interaction:*
  - *among students*
  - *between students and teaching staff*
  - *between students and study guides/material of study*
- *Training, guidance and support are provided to the students focusing on interaction and the specificities of e-learning.*
- *The process of teaching and learning supports students' individual and social development.*
- *The process of teaching and learning is flexible, considers different modes of e-learning 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 e-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

- *A complete assessment framework is designed, focusing on e-learning methodology, including clearly defined evaluation criteria for student assignments and the final examination.*
- *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 the 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 e-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.*

2.4 Study guides structure, content and interactive activities

Standards

- *A study guide for each course, fully aligned with e-learning philosophy and methodology and the need for student interaction with the material is developed. The study guide should include, for each course week / module, the following:*

- *Clearly defined objectives and expected learning outcomes of the programme, of the modules and activities in an organised and coherent manner*
- *Presentation of course material, and students' activities on a weekly basis, in a variety of ways and means (e.g. printed material, electronic material, teleconferencing, multimedia)*
- ***Weekly schedule of interactive activities and exercises (i.e. simulations, problem solving, scenarios, argumentation)***
- *Clear instructions for creating posts, discussion, and feedback*
- *Self-assessment exercises and self-correction guide*
- *Bibliographic references and suggestions for further study*
- *Number of assignments/papers and their topics, along with instructions and additional study material*
- *Synopsis*

- *Study guides, material and activities are appropriate for the level of the programme according to the EQF.*

You may also consider the following questions:

- *Is the nature of the programme compatible with e-learning delivery?*
- *How do the programme, the material, the facilities, and the guidelines safeguard the interaction between students, students and teaching staff, students and the material?*
- *How many students upload their work and discuss it in the platform during the semester?*
- *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?*

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- ***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 MSc program results in a degree from UCLan Cyprus and a degree from UCLan UK, accredited by the Cyprus Agency of Quality Assurance and Accreditation in Higher Education (DIPAE) and respectively by the Quality Assurance Agency UK, respectively. Thus, the planning, implementation, and quality assurance of the MSc is synchronized between Cyprus and UK committees and boards drawing from best practices in the two countries.

The nature of the programme is compatible with distance learning delivery and the methodology provided is appropriate for the particular programme of study.

The University's learning management system supports online teaching, learning and administrative processes. This is a Blackboard installation with all the basic online services available. The platform usage is combined with MS Teams to specifically provide both synchronous and asynchronous tools to support the interaction needs of students with the lecturers, the other students and with the materials. The platform also provides e-assessment procedures through quizzes with automatic feedback in order to assess students' knowledge. The provision of more complex forms of e-assessment to assess competences and skills, such as critical thinking, communication and teamwork, was not shown.

The proposed courses have a complete syllabus plus a weekly study guide that includes relevant information: learning objectives and outcomes, learning and teaching strategy, assessment procedures, module pass requirements, material to use, activities to perform, lab-supported practical tasks, self-assessment exercises, primary and complementary bibliographic references and recommended study time. Each course has an adequate number of hours of synchronous communication between teacher and students.

Formative assessment of the courses is based on submitted reports with provision of feedback during the course counting up to 50% of the final grade while summative assessment is based on a mandatory final onsite exam counting up to 50% of the final grade. Assessment procedure is completed with a number of online quiz-based assignments during the course. Optional formative (self-assessment) activities are included in the weekly study guides in order to self-evaluate student knowledge and skills of the course.

Collaboration among teachers and students (and among students) is conducted through the online forums of the subject and other forums that can be created ad-hoc for facing special needs. In addition, collaboration among students is promoted by collaborative activities during live lectures and in virtual laboratories.

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

The MSc emphasizes real-life relevance and graduate employment situations as well as industry requirements and needs are routinely monitored.

The staff are well aware of the quality assurance policy and it is an *integral* part of the everyday operations.

The students benefit from a very good student-teacher ratio and student feedback is very positive. It was clear that staff were going above and beyond what could be reasonably be expected in answering queries and being responsive in a timely manner.

The assessment allows students to demonstrate the extent to which the intended learning outcomes have been achieved. The number of students in the teaching rooms is suitable for theoretical, practical and laboratory lessons.

Student workload is designed for and a regime is agreed before the start of academic terms. Movement of coursework deadlines is discouraged in order to maintain a workload balance for students and avoid coursework clustering. This is managed effectively and communicated clearly with staff and students.

The EEC considers the weekly study guides a best practice to determine the work to be done every week for the students.

The EEC recognizes the many benefits of collaboration among students promoted by collaborative activities organized in online teams, though it was not detailed the procedure, assessment and specific support available for these activities.

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 believes that onsite final exams may not be in line with the learning style of online students, and learning models based on continuous assessment during the course could be reinforced instead. In addition, the use of peer-assessment as well as gamification strategies are encouraged to increase the student levels of motivation and engagement with the e-assessment process.

From the documentation provided and the information gathered from the meeting, it was not clear if formative assessment provides feedback based on rubrics, nor whether these rubrics are shared with students. In addition, more sophisticated forms of feedback based on intelligent tutoring systems and conversational pedagogical agents could be considered to support immediate and automatic feedback to students and self-evaluate their advances.

The university' learning management system provides learning analytics tools for monitoring student performance based on collecting information from the student with lower grades, poor participation or with undelivered activities. However, the EEC believes that more sophisticated forms of learning analytics mechanisms based on AI and specifically machine learning could be used to monitor and predict student performance and dropout in order to be able to provide timely corrective measures. This is strongly recommended in the case of the University's expansion plans through increasing the academic portfolio and student ratio per virtual classroom.

The EEC notes the desire to facilitate synchronous learning and indeed acknowledges the benefits that can derive from such.

While the EEC recognises the benefits of any form of collaboration among students, the online synchronous collaboration among students was perceived as problematic if the program is open internationally and attended by students from different time zones. It was not clear how the university would support this type of collaboration from the coordination perspective.

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

Sub-area		Non-compliant/ Partially Compliant/Compliant
2	Process of teaching and learning and student-centred teaching methodology	Compliant
2.2	Practical training	Compliant
2.3	Student assessment	Compliant
2.4	Study guides structure, content and interactive activities	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.*
- *Training, guidance and support are provided to the teaching staff focusing on interaction and the specificities of e-learning.*
- *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:

- *Is the teaching staff qualified to teach in the e-learning programme of study?*
- *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.

There is evidence of an appreciation of high-quality research.

Staff seem generally motivated to engage in research and would appear to have an ambition to produce high quality and impactful research.

The university provides certificated training programs to faculty members in the form of professional development workshops, seminars relevant to distance learning.

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

The teaching staff seems to have regular and effective communication with their students and provide timely and effective feedback to their students. Students were very complimentary of access to staff and appreciate the criteria and the method of assessment as well as the criteria for marking being published in advance. The learning process is properly designed to achieve the expected learning outcomes.

Staff seem aware of the need for adherence to research ethics, FAIR principles, and GDPR compliance. Overall, staff seems to understand research ethics.

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 recommends that research activities be supported and facilitated and that this is accommodated explicitly as case studies, use cases and experiential pieces within teaching particularly taught postgraduate programmes.

It was unclear to the EEC as to why National restrictions (30?) by the AQAA would be placed on student programme cohorts. This was deemed particularly confusing when the programme was delivered through distance learning. The EEC would invite reflection upon this as this could unfairly disadvantage UCLan Cyprus in attracting overseas students.

Enhanced engagement and patronage with industry is encouraged. Industry should be encouraged to for example:

- Provide guest lectures;
- Sponsor dissertation prizes;
- Sponsor research travel bursaries;

It is noted that the School engages with joint shared dissertation topics. However the benefits generally from engagement overall must be mutually beneficial.

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

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

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

<u>**Sub-areas**</u>

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:*
  - o *institutional practice for recognition being in line with the principles of the Lisbon Recognition Convention*
  - o *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.

The students benefit from a very good student-teacher ratio and student feedback is very positive.

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

Modules have been aligned with professional certification. The EEC noted that there had been regularisation of entry requirements across masters programmes. The EEC also noted the desire to deliver synchronous learning and embrace

active learning. Furthermore, the panel welcomed the desire to build an inclusive and integrated *learning community.* It was also noted that real world relevant examples were incorporated into the curriculum.

Further strengths were noted around the very low drop out rate (reported at 4%). In addition, student feedback was actively sought at module end and on an on-going basis throughout module delivery.

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 noted that some information critical to students was dispersed throughout the university website. Perhaps someone could conduct a trial student registration and follow the pathways that a 'real' student would face to ascertain the completeness of induction material supplied.

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

Sub-area		Non-compliant/ Partially Compliant/Compliant
4	udent admission, processes and criteria	Compliant
4.2	Student progression	Compliant
4.3	udent recognition	Compliant
4.4	udent certification	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

- *Weekly interactive activities per each course are set.*
- *The e-learning material and activities take advantage of the capabilities offered by the virtual and audio-visual environment and the following are applied:*
  - *Simulations in virtual environments*
  - *Problem solving scenarios*
  - *Interactive learning and formative assessment games*
  - *Interactive weekly activities with image, sound and unlimited possibilities for reality reconstruction and further processing based on hypotheses*
  - *They have the ability to transfer students to real-life situations, make decisions, and study the consequences of their decisions*
  - *They help in building skills both in experiences and attitudes like in real life and also in experiencing - not just memorizing knowledge*
- *A pedagogical planning unit for e-learning, which is responsible for the support of the e-learning unit and addresses the requirements for study materials, interactive activities and formative assessment in accordance to international standards, is established.*
- *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 e-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.

Overall, the programs receive feedback from the industry and the graduating students appear to have excellent career prospects in the industry. One student is using the course as a stepping stone to a PhD. The interviewed students emphasized the value of the course in their career progression.

Students are given sufficient registration guidelines.

The University has a distance learning unit responsible for providing pedagogical and technical support for designing, creating, implementing and evaluating online courses. The unit addresses the requirements for study materials, interactive activities and formative and summative assessment in accordance with international standards.

The University also provides a handbook with academic regulations underpinned by the university procedures and policies with guidelines for the development and delivery of learning in general and distance learning in particular that establishes the main characteristics a distance learning course should have. It is a good reference that guarantees the quality and homogeneity of the distance learning course.

The EEC noted the provision of E3HUB as a distance learning portal. This seemed to provide the appropriate support for students registered on this programme.

Strengths

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

The building facilities that were assessed based on the provided videos appear to be excellent and remote education is implemented following good practices. The laboratories and IT infrastructure support studies and research activities. There is adequate capacity for students.

Procedures are revised regularly. A case in point is the categorisation of plagiarism cases. Students are made aware of resources through induction training. Procedures are in place for receipt of coursework.

The distance learning unit, even if not shown in detail during the meeting, is considered a best practice, due to its potential structure, resources, infrastructures and services devoted to enhanced distance learning. The EEC believes that it can be a powerful support for guaranteeing and maintaining the quality of the provided teaching while providing a good ground to faculty members to face distance learning.

The University's handbook is a useful resource that guarantees the quality and homogeneity of the distance learning courses and provides a good ground to faculty members to face distance learning. The EEC also believes that continually evaluating the quality assurance of distance learning by non-mandatory external accreditation organizations is a good practice.

When delivering programmes through distance learning, effective access to learning resources is critical. Remote access to library and learning resources was facilitated effectively. The EEC note the provision of online videos to support remote library resource access through the Athens login. Furthermore, online resource training through How To? videos and remote team meeting support are provided.

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.

Even though the online courses include a good variety of learning materials (videos, papers, e-books, etc.) which is good for distance learning, the EEC believes that some considerations should be taken into account for the video lectures and video materials to be more usable and accessible for students: make them shorter, include the teacher in all the videos to provide non-verbal communication, and add subtitles for accessibility questions.

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

Sub-area		Non-compliant/ Partially Compliant/Compliant
5	Teaching and Learning resources	Compliant
5.2	Physical resources	Compliant
5.3	Human support resources	Compliant
5.4	Student support	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.

Click or tap here to enter text.

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

Click or tap here to enter text.

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.

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
6	Selection criteria and requirements	Choose answer
6.2	Proposal and dissertation	Choose answer
6.3	Supervision and committees	Choose answer

7. Additional for joint programmes *(ALL ESG)*

Sub-areas
- 7.1 **Legal framework and cooperation agreement**
- 7.2 **The joint programme**

7.1 **Legal framework and cooperation agreement**

Standards

- *The joint programme is offered in accordance with legal frameworks of the relevant national higher education systems.*
- *The terms and conditions of the joint programme are laid down in a cooperation agreement. The agreement in particular covers the following issues:*
  - *Denomination of the degree(s) awarded in the programme*

    o *Coordination and responsibilities of the partners involved regarding management and financial organisation, including funding, sharing of costs and income, resources for mobility of staff and students*
    o *Admission and selection procedures for students*
    o *Mobility of students and teaching staff*
    o *Examination regulations, student assessment methods, recognition of credits and degree awarding procedures*
    o *Handling of different semester periods, if existent*

7.2 The joint programme

Standards

- *The partner universities apply joint internal quality assurance processes.*
- *The joint programme is offered jointly, involving all cooperating universities in the design, delivery and further development of the programme.*
- *Aims and learning outcomes are clearly stated, including a joint syllabus, language policy, as well as an account of the intended added value of the programme.*
- *Study counselling and mobility plans are efficient and take into account the needs of different kinds of students.*

You may also consider the following questions:

- *Does the joint study programme conform to the requirements of a study programme offered at the specific level?*
- *Is there a system that assures the quality of joint provision and guarantees that the aims of the programme are met?*
- *Do the mechanisms for ensuring the quality of the joint study programme take into consideration the European Standards and Guidelines (ESG)? Are they adopted by all the universities involved?*
- *Is the division of responsibilities in ensuring quality clearly defined among the partner universities?*
- *Is relevant information about the programme, e.g. admission requirements and procedures, course catalogue, examination and assessment procedures, well documented and published by taking into account the specific needs of students?*
- *What is the added value of the programme of study?*
- *Is there a sustainable funding strategy among the partner universities? Explain.*

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

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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.

Click or tap here to enter text.

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

Click or tap here to enter text.

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.

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*
7	Legal framework and cooperation agreement	Choose answer
7.2	The joint programme	Choose answer

E. Conclusions and final remarks

Please provide constructive conclusions and final remarks which may form the basis upon which improvements of the quality of the programme of study under review may be achieved, with emphasis on the correspondence with the EQF.
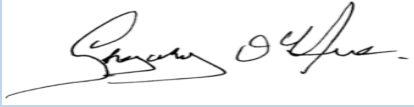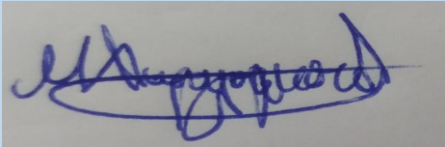
The EEC evaluated the M.Sc. in Cybersecurity based on the provided accreditation reports and the remote site visit. The School and the program were found to have high standards and meet the quality expectations. Based on the materials and the site visit, the EEC has identified a number of areas in which the School and the MSc can make improvements to strengthening their profile and increasing impact.

The program provides practice and industry-oriented cybersecurity education that is aligned with professional requirements. The program structure is versatile and involves the necessary laboratory and cloud-based experiments

to promote an empirical understanding of cybersecurity topics. The modules and their key focus areas are relevant and interesting including IoT, industrial systems, ethical hacking, and information warfare. The program receives feedback from the industry regarding the topics.

F. Signatures of the EEC

Name	Signature
Kevin Curran	*Kevin Curran*
Gregory O'Hare	
Santi Caballé Llobet	
Michalis Charalambides	
Click to enter Name	
Click to enter Name	

Date: 5th February 2021