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# External Evaluation Report (Conventional-face-to-face programme of study)

- **Higher Education Institution:**

The Cyprus Institute

- **Town:** Nicosia

- **School/Faculty (if applicable):** The Cyprus Institute Graduate School

- **Department/ Sector:** The Cyprus Institute Graduate School

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

Μάστερ στις Περιβαλλοντικές Επιστήμες

(1 χρόνο, 90 ECTS, MSc/1.5 χρόνο, 120 ECTS, MPhil)

- In English:**

Master in Environmental Sciences

(1 year, 90 ECTS, MSc/1.5 years, 120 ECTS, MPhil)

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

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

- **Concentrations (if any):**

**In Greek:** Concentrations

**In English:** Concentrations



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 External Evaluation Committee (EEC) reviewed the documents provided by The Cyprus Institute (Cyl) for their MSc/MPhil in Environmental Sciences.

The EEC members made the on-site visit to the Cyl on 04 March 2024. During the visit, the EEC met a number of staff members who are contributing to the programme in terms of its administration, management and teaching. They also visited the relevant laboratories: High Performance Computing Facility (i.e. Cy-Tera supercomputing Lab), Unmanned Systems Research Laboratory, Instrumentation for Nanoparticle Synthesis and Characterisation Laboratory, Linear Fresnel Facility, and the Graduate School.

During the visit, there were sessions to directly interact and discuss various aspects of the programme with the administrative staff, teaching staff, and graduates as well as the leadership team including the President and Head of the Graduate School.

This report follows the structure and the template provided by the Cyprus Agency for Quality Assurance and Accreditation in Higher Education (CYQAA). It presents the external evaluation committee's findings under the following sections:

- (1) Study programme - the design and development of the study programme;
- (2) Student - student centred learning, teaching and assessment;
- (3) Teaching staff;
- (4) Student admission, progression, recognition and certification;
- (5) Learning resources and student support; and
- (6) Conclusions and final remarks.

The findings under each section are provided under the three key areas:

- (1) Findings
- (2) Strengths; and
- (3) Areas of improvement and recommendations.

The report finally provides conclusions and final remarks, including constructive suggestions to follow in future.

The on-site visit to the Cyl was very well planned and organised. The staff and the students were extremely helpful. They were motivated and enthusiastically participated in open discussions. All of this allowed the EEC to assess various aspects and gather the information presented in this report.

## B. External Evaluation Committee (EEC)

<i>Name</i>	<i>Position</i>	<i>University</i>
Professor Prashant Kumar (Chair)	Professor & Chair in Quality and Health; Founding Director, Global Centre for Clean Air Research (GCARE) & Co-Director, Institute for Sustainability	University of Surrey, United Kingdom
Laurens Ganzeveld (Member)	Assistant professor, Meteorology and Air Quality, Department of Environmental Sciences	Wageningen University, Netherlands
Paraskevi Nomikou (Member)	Associate Professor, Laboratory of Physical Geography Department of Geology and Geoenvironment	National and Kapodistrian University of Athens, Greece
Constantina Varnava (Member)	Doctoral Student	University of Cyprus, Cyprus

## 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 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?*
- *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 MSc/MPhil programme in Environmental Sciences, run by the Cyl Graduate School, is undergoing its evaluation. The programme has been offered to students from 2018-2023 having two tracks: (1) Atmospheric Sciences, and (2) Meteorology. The renewed programme aims to more optimally “Exploit capacity and growth of the Atmosphere and Climate Division of the Energy Environment and Water Research Center (EEWRC)” and to “Fill in the gap in post-graduate environmental science education in Cyprus and the eastern Mediterranean and Middle East (EMME)” (presentation by Panos Hadjinicolaou, MSc/MPhil Programme Academic Coordinator). As such the renewed MSc/MPhil Environmental Sciences contains three tracks; Meteorology and Atmospheric Sciences, Water Sciences and Sustainable Energy. Besides a more content-wise motivated modification of the MSc/MPhil programme, another important motivation to modify the MSc programme is to attract more students. From 2018-2022 there have been a total of 23 students (Meteorology 8, Atmosphere 15) joining the programme and currently (academic year 2023) there are no new students. The MSc/MPhil programme is also set-up to educate masters students to potentially pursue a Phd study at Cyl and where the small group of students might be sufficient to fill in some of the available PhD positions on Environmental Sciences at Cyl. Given this small number of MSc students, the programme has obviously one major advantage for the students; there is nearly a 2:1 student to staff ratio. On the other hand, not having many fellow MSc/MPhil students, this might pose limitations on peer-interactions, e.g., cohort building, sharing different (international, cultural) perspectives on climate and global change issues. However, with the small number of students it also implies that the faculty staff does not receive significant general feedback on their teaching activities and skills. It is also obvious that with the current large faculty staff involved in the management and teaching of the programme that this is not a (economically) viable status of the MSc/MPhil programme and that there is an urgency to attract more students.

### Strengths

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

- The faculty staff involved in teaching the MSc/MPhil Environmental Sciences consists of Cyl researchers that all have very good research records (inferred from the discussions but mostly from their individual CVs) and working on some of the challenging topics in regional and global environmental changes.

- Given the very high faculty staff - student ratio, this obviously offers the students optimal access to relevant knowledge and practical skills.
- Another strong feature of the renewed MSc programme is the internship (6 weeks - 6 months), which allows students to get further practical experience working in the professional environment. Here the positioning of Cyl with many direct links with Industry offers a unique opportunity, not only regarding knowledge utilization but a selling point to convince potential candidate students to join the Cyl MSc/MPhil programme with optimal career-options. This is a feature less likely present at (EU) universities also offering MSc/MPhil programmes on Environmental Sciences.
- Another strength of the programme at Cyl is the access to all the research facilities (also shown to the EEC) and which offers the students all the options to get hands-on training on research methods.
- The new MSc programme on Environmental Sciences integrating, through a selection of compulsory courses on the themes of atmosphere, water cycle and sustainable energy, followed by track-specific elective courses, offers a broader perspective on the multidisciplinary component of global and climate change.

#### 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 renewed MSc/MPhil programme seems to have been developed mostly driven by securing that the research staff at Cyl can provide their input on their fields of expertise rather than developing a programme that starts from a general description (problem statement, programme objectives, learning outcomes etc.). Design of the programme in terms of courses, activities, assessment strategies, etc., should mostly rely on selecting those faculty staff members with the specific research- and, most importantly academic teaching expertise. The EEC recommends shifting focus from fitting staff and their research areas into the MSc/MPhil programme, to designing the programme itself first and then aligning individual staff expertise through taught courses.
- This process of redesigning the programme could also benefit from having more meetings with the faculty staff on jointly discussing and collaborating on the redesign of the programme. We specifically mention this based on discussions with the faculty staff members indicating that there has been one meeting that has resulted in the current proposed revised set-up of the programme.
- The EEC observed that with the redesign of the programme, which initially had a focus on atmospheric sciences, into a broader programme on environmental sciences, that the dual aim of (1) training students for practical weather service careers, and (2) introducing students into the fundamental of atmospheric dynamics and climate, seems to complicate a more optimal redesign of the programme. Why introduce a student interested in pursuing a career in weather services into the water cycle and sustainable energy or vice versa? There might be obvious reasons to do so (predictions on maximising solar and wind energy production) but these important motivations for the restructuring of the programme should be evident in

the programmes general description, objective, learning outcomes and even at a higher level of detail, the course descriptions. Here, the EEC wishes to note that they might have missed receiving some essential information on the redesigned programme; the overall programme description (and learning outcomes).

- Regarding the previously indicated areas of improvements with respect to the redesign of the MSc/MPhil programme, we recommend reviewing the current proposed set-up, as described in Conclusions.
- Also given that the redesign of the MSc/MPhil programme is also aiming to involve recently hired faculty staff members in the teaching activities at Cyl. It seems that for some of these new faculty staff members, being introduced into academic teaching, that they get involved also through mentorship by other senior staff members with demonstrated teaching skills and/or educational training programme on 'teaching in higher education' (train-the trainers).

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

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

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

### Sub-areas

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

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

#### Standards

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

### 2.2 Practical training

#### Standards

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

### 2.3 Student assessment

#### Standards

- *Assessment is consistent, fairly applied to all students and carried out in accordance with the stated procedures.*
- *Assessment is appropriate, transparent, objective and supports the development of the learner.*
- *The criteria for 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 learning process.*
- *Assessment, where possible, is carried out by more than one examiner.*
- *A formal procedure for student appeals is in place.*
- *Assessors are familiar with existing testing and examination methods and receive support in developing their own skills in this field.*
- *The regulations for assessment take into account mitigating circumstances.*

*You may also consider the following questions:*

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

### Findings

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

- The EEC expresses considerable satisfaction based on the elements extracted from the application for external evaluation and the findings derived from the onsite visit.
- Specifically, the MSc/MPhil in Environmental Sciences is acknowledged for its commendable promotion of research excellence and its role in equipping students with advanced methodologies situated at the forefront of interconnected issues encompassing Meteorology and Atmospheric Sciences, Water Sciences and Sustainability Energy.
- The delineated learning outcomes are aligned with the European qualifications framework, thereby affording students a plethora of employment and academic prospects. Furthermore, the provision of the Student Handbook, available upon expression of interest by a candidate, is notable for its lucid explication of pertinent subject matters.

### Strengths

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

- The teaching and learning process is structured to facilitate students' individual and social development through a diverse range of exposure to experimental methods and modelling tools.
- A limited number of students, maintaining a low student-to-faculty ratio of 2:1, are actively encouraged to participate in shaping the learning experience.
- Students benefit from thorough consultations with mentors to guide their academic endeavors.
- The programme prioritises student-centeredness, offering flexible arrangements to accommodate diverse student needs.
- Students enjoy access to comprehensive facilities, including classrooms, laboratories, and esteemed libraries such as those affiliated with the University of Cyprus and the University of Illinois.
- The caliber of the MSc/MPhil's thesis ensures its suitability for submission to high-impact journals and provides a robust foundation for further academic pursuits, as evidenced by the fact that 80% of programme graduates are currently pursuing doctoral studies at the Cyl, and some of them managed to publish papers in top-ranked journals.
- The Cyl's Equal Opportunities Policy fosters an inclusive environment, celebrates diversity, and unequivocally condemns all forms of discrimination.
- The relatively modest programme fees contribute to its financial sustainability while enhancing its competitiveness.
- An extensive network facilitates increased interaction between Cyl personnel and international/European partners, facilitating robust mobility opportunities for both students and staff. This includes participation in the Erasmus+ programme, which extends mobility opportunities to individuals who may not otherwise have access to such initiatives.

### 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.*

- Although the assessment criteria are explicitly outlined in the Course Handbook, they may also encompass a broader foundation in physical sciences, including physics, biology, chemistry, etc., rather than being exclusively confined to natural sciences, mathematics, and engineering.
- To enhance the programme's competitiveness, the introduction of a part-time mode is recommended, along with the provision of an online option for the theoretical components of the courses.
- Given the institute's emphasis on research, it is proposed that the distribution of weightage between final examinations and research activities, such as literature reviews, projects, and presentations, be re-evaluated.
- The EEC advocates for a closer collaboration between teaching and administrative personnel to offer students not only academic pathways but also alternatives for industrial employment. Establishing a dedicated career center is also deemed advisable.

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

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

### 3. Teaching staff (ESG 1.5)

#### Sub-areas

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

#### **3.1 Teaching staff recruitment and development**

##### Standards

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

#### **3.2 Teaching staff number and status**

##### Standards

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

#### **3.3 Synergies of teaching and research**

##### Standards

- *The teaching staff collaborate in the fields of teaching and research within the HEI and with partners outside (practitioners in their fields, employers, and staff members at other HEIs in Cyprus or abroad).*



- *Scholarly activity to strengthen the link between education and research is encouraged.*
- *The teaching staff publications are within the discipline.*
- *Teaching staff studies and publications are closely related to the programme's courses.*
- *The allocation of teaching hours compared to the time for research activity is appropriate.*

*You may also consider the following questions:*

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

### Findings

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

- The teaching staff involved in teaching of the MSc/MPhil programme courses mainly consists of the permanent and visiting researchers of Cyl. Some of them also have acquired their academic teaching qualifications in previous employment, mostly at European universities.
- There is also new staff recruitment who got exposed to teaching for the first time through this MSc/MPhil programme.

### Strengths

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

- The main strength of the large number of teaching staff involved in offering the programme, is not only the intensive supervision having this 2:1 student-to staff ratio, but their excellent research records securing the access by the students to all the applied research methods (modelling, measurements) and facilities.
- Through the strong component of knowledge utilisation and involvement of the teaching staff members in spin-off, their link to industry, it also offers a short line for the students with respect to their career options.
- Given the high research activity of the teaching staff, they are adept at aligning MSc/MPhil projects with ongoing research endeavors. This integration provides students with exposure

to cutting-edge research, enabling them to produce theses worthy of publication in recognised international journals.

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 main area for improvement, especially anticipating that the renewed MSc/MPhil programme will attract in future more students, appears to be a more systematic training of the faculty staff in academic teaching skills. It is imperative that staff have access to training opportunities in teaching pedagogy to refine their instructional methods. While many staff members possess extensive research experience and may have received training earlier in their careers, there is currently a lack of provision for ongoing professional development, particularly for new staff.
- Mentoring of the new staff members on their introduction in teaching at Cyl by those colleagues having an academic education record appears to be already done also as part also of the revision of the MSc/MPhil programme
- The EEC recommends further use of internal and external opportunities for training on academic education since this would not only enable staff to adopt new techniques and approaches in their teaching but also enhance the overall student experience. This need becomes more pronounced as the student cohort will indeed expand in future, benefiting not only this particular MSc/MPhil programme but also similar programmes across Cyl. Potential avenues for such training include exploring opportunities within the higher education sector in Cyprus, online courses offered by institutions in Europe or the UK (such as those provided by Higher Education Institute in the UK), or even considering the recruitment of experts in the field who could provide support and training for teaching programmes institute-wide, including initial training for PhD students.

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

Sub-area		<i>Non-compliant/ Partially Compliant/Compliant</i>
3.1	Teaching staff recruitment and development	Partially 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)

##### Sub-areas

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

##### 4.1 Student admission, processes and criteria

###### Standards

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

##### 4.2 Student progression

###### Standards

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

##### 4.3 Student recognition

###### Standards

- *Pre-defined and published regulations regarding student recognition are in place.*
- *Fair recognition of higher education qualifications, periods of study and prior learning, including the recognition of non-formal and informal learning, are essential components for ensuring the students' progress in their studies, while promoting mobility.*
- *Appropriate recognition procedures are in place that rely on:*
  - *institutional practice for recognition being in line with the principles of the Lisbon Recognition Convention*

- *cooperation with other institutions, quality assurance agencies and the national ENIC/NARIC centre with a view to ensuring coherent recognition across the country*

#### **4.4 Student certification**

##### Standards

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

*You may also consider the following questions:*

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

##### Findings

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

- Pre-established regulations governing student admission, progression, recognition, and certification are meticulously documented in the "Student Handbook," which is disseminated to prospective candidates upon their expression of interest and is also available online.
- The MSc/MPhil programme is meticulously crafted to facilitate seamless student advancement, with examination and assignment content meticulously aligned with the programme's level and the allocated European Credit Transfer and Accumulation System (ECTS) credits.

##### Strengths

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

- A high student to faculty ratio ensures that students have ready access to their instructors should they encounter challenges within a course. The mentorship system provides comprehensive support to students, aiding them in matters pertaining to academic progression, including but not limited to course selection, periodic review of progress at the conclusion of each term, and guidance regarding pertinent academic resources.

- Furthermore, the certification granted by the Cyl is supplemented by a diploma addendum that adheres to both European and international benchmarks.
- The integration of a cohesive curriculum serves to facilitate a seamless transition to doctoral-level studies.

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 intensifying efforts to enhance the visibility of the master's programme, extending its reach beyond the local community to international markets. Details of some specific suggestions can be seen under the conclusions section.
- Furthermore, the EEC advocates for bolstering employment opportunities within the industry, mirroring the support provided to the academic sector. This suggestion aligns with the current trend where a significant proportion (70%) of Cyl graduates find employment within academia.

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

Sub-area		<i>Non-compliant/ Partially Compliant/Compliant</i>
4.1	Student admission, processes and criteria	Compliant
4.2	Student progression	Compliant
4.3	Student recognition	Compliant
4.4	Student 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

- *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.*

- The programme adheres rigorously to globally competitive standards concerning learning resources and student support.
- Emphasising a student-centered approach, the learning process encompasses flexible and accessible modes, encompassing teaching and learning environments, materials, aids, and equipment tailored to meet the needs of the programme effectively.

### Strengths

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

- Students are granted access to a physical library situated within the Graduate School building and its premises, as well as complimentary access to the University of Cyprus library system as external members. Additionally, they enjoy unrestricted access to the e-library resources offered by the University of Illinois.
- Moreover, students have access to a unique opportunity to engage in research activities utilising the institute's cutting-edge facilities and advanced IT infrastructure, thereby gaining exposure to the latest methodologies and techniques.
- Comprehensive tutoring and student counseling services are provided to facilitate the academic, professional, and personal development of students through structured Mentor/Supervisor schemes.
- The Cyl actively fosters international collaborations through various avenues, including participation in International Credit Mobility projects and Erasmus+ mobility programmes. These initiatives enable the exchange of both staff and students for study, teaching, or training purposes.
- The institution ensures holistic student support, catering to the diverse needs of the student body, including those with special requirements, thus fostering an inclusive learning environment.

### 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 absence of a dedicated Students Information System as well as Online Learning Platform presents a significant impediment to the efficient management of Graduate School operations and the optimal streamlining of associated processes and the course materials to be made available online to enrolled MSc/MPhil students.
- Furthermore, the limited student population poses challenges in the comprehensive collection of key performance indicators, including statistics related to student demographics, academic progression, satisfaction levels, attrition rates, and post-graduation career trajectories.



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

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

## 6. Additional for doctoral programmes (ALL ESG) - NA

### 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:**

<b>Sub-area</b>		<b>Non-compliant/ Partially Compliant/Compliant</b>
6.1	Selection criteria and requirements	Not applicable



6.2	Proposal and dissertation	Not applicable
6.3	Supervision and committees	Not applicable

## D. 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 was very pleased with the organisation of the on-site visit, which was meticulously planned by the Cyl. The EEC concluded that:

- The Cyl has an excellent scientific infrastructure, and granting MSc students access to it has presented an incredible opportunity for them to enhance their technical skills through practical, hands-on experience.
- All the 21 MSc students to date from the programme have gotten employment. This 100% job rate is impressive and is quite a unique feature of the programme.
- The student mentoring is excellent, as reflected by students during interactions with them. They greatly appreciated the overall support from the Graduate School who have gone above and beyond to support the students during challenging times such as the COVID-19.
- Embedding the transfer skill course is excellent for the students to learn such important skills and prepare them for their future steps.
- Since the MSc programme has limited students, it almost gives an incredibly higher staff to student ratio (nearly 1 staff every 2 students), allowing extensive opportunities for interaction with the members of the teaching staff.
- Access to world-class instrumentation and experimental facilities in relevant fields empowers MSc students to conduct research on cutting-edge topics. This is exemplified by the high-quality theses presented to the external committee, which showcase the utilisation of these facilities and expertise. Several of these thesis works have been published in top-ranked journals, highlighting the exceptional achievement of MSc students in securing publication in prestigious outlets.
- The strong connections between Cyl and the industry constitute a distinctive feature of the MSc programme. This linkage provides students with valuable internship opportunities, as they engage with industrial partners who may become their future employers. Additionally, it facilitates the transformation of academic research from MSc projects into tangible products or services.
- The teaching team comprises esteemed researchers, providing students the invaluable opportunity to collaborate directly with them. Moreover, they seamlessly integrate cutting-edge research into their teaching, providing students with unparalleled access to the latest developments in the field. This offering not only facilitates training from the foremost researchers but also enriches the educational experience for students.

Overall, the programme has numerous strengths that make it a unique MSc/MPhil programme with significant potential for further enhancement. The following final remarks offer suggestions aimed at further improving the programme's quality and maximising its offerings:

- To date, the programme has graduated 21 MSc students over a five-year period, averaging approximately four students per year. Currently, there are no on-site students enrolled in the programme. The committee strongly suggests to the Cyl to implement measures aimed at

increasing the number of MSc students in the programme to double digits, aiming for at least ten or more students. This approach will offer several advantages for both Cyl and its students. It will optimise staff time, ensuring that resources are utilised efficiently by accommodating a larger cohort of students rather than running full courses for a handful. For students, a larger peer group will facilitate networking opportunities, enabling them to learn from diverse perspectives, cultures, and build valuable connections for the future. Additionally, a larger student cohort enhances the feedback mechanism by allowing for anonymity in evaluations, which is challenging to achieve in smaller groups.

- In terms of expanding the student cohort, the external committee noted that the programme's marketing efforts have not effectively reached a wider audience. While some dissemination has occurred through social media and local newspapers, the majority of student enrollments have been generated through word of mouth. To address this, a comprehensive marketing strategy is necessary. This strategy should include conducting market surveys to gauge demand for the programme, identifying priority countries in Europe (e.g., Greece, as well as potential secondary targets), Asia (e.g., China, India), and Africa. By prioritising the top five countries initially, opportunities for recruitment can be maximised. Additionally, establishing recruitment agents in these countries can help channel student interest toward the programme. While concerns were raised about the budget allocation for these activities, it is important to recognise that the benefits of such investments will far outweigh the costs, making it a worthwhile endeavor.
- As noted in Section 3, the EEC observed that there is currently a lack of provision for professional academic teaching training, particularly for new staff. A need for such training becomes more pronounced as the student cohort expands in future. Potential avenues for such training include exploring opportunities within the higher education sector in Cyprus, online courses offered by institutions in Europe or the UK (such as those provided by Higher Education Institute in the UK), or even considering the recruitment of experts in academic education.
- There are two more new tracks (water and energy) needed to this MSc/MPhil programme. As a result, the introduction of new core and elective modules presents several challenges that must be addressed and reflected in programme descriptions, as well as in brochures and recruitment materials where applicable.
  - Firstly, there is a concern regarding compulsory courses that diverge significantly from the students' chosen area of specialisation. In an MSc/MPhil programme where students typically seek to deepen their knowledge and expertise in specific topics, mandatory courses in unrelated areas may deter potential applicants and lead to attrition after enrollment. This poses a potential risk to the programme's long-term viability. To address this, a comprehensive strategy is needed that goes beyond simply exposing students to a broad range of subjects. This strategy should involve a thorough review of the programme structure, considering the introduction of general foundational courses followed by specialised compulsory and elective modules tailored to students' interests and career goals.
  - Secondly, the introduction of new tracks raises concerns about the relevance of the existing programme title, MSc Environmental Science, particularly in accommodating 'water' and 'energy' areas, which are substantial enough in themselves to warrant standalone programs. While alternative titles like MSc Energy & Environmental

Science or Innovation in Sustainable Development have been proposed and discussed, a more holistic approach is needed to ensure that any changes to the programme title align with its overarching objectives. This entails shifting focus from fitting staff and their research areas into the MSc program to designing the programme itself first and then aligning individual staff expertise through taught courses. Nonetheless, as student numbers increase in future, most staff members will have the opportunity to get involved through supervision of MSc projects.

- Thirdly, it is crucial to harmonise the course contents not only for the assessment of modules but also to ensure fairness to students who have similar offerings within the programme. Currently, many modules have varying weightages of assessment that lack equivalence with each other. Furthermore, inconsistencies in learning outcomes and course descriptions across modules may cause dissatisfaction among students enrolled in different tracks.
- Lastly, the entry requirements for the programme currently encompass criteria such as natural science, mathematics, and engineering. However, given the interdisciplinary nature of the course, it may need to be broadened to ensure prospective students feel a sense of belonging. Additionally, the programme description presented to the outside world requires revision to align its contents and harmonise them accordingly with recruitment campaigns, ensuring that the programme's strengths are clearly and visibly communicated.
- International mobility opportunities, such as those provided by the Erasmus programme, offer excellent avenues for students to pursue short-term placements with international collaborators. While PhD students have largely taken advantage of this opportunity, there is potential to further explore and expand this aspect to benefit MSc students as well in the future.
- A few other areas to consider would be:
  - Considering the feedback gathered from past students, opening the programme as a part-time course could serve multiple purposes: supporting the increase in the student cohort and providing opportunities for individuals with full-time jobs. This expansion would enhance the programme's outreach and impact.
  - As the programme is expected to grow in the future, there is a need to explore the development of an online teaching and learning platform. This platform would make resources readily available to students and provide a forum for course-related discussions. Implementing such a platform would streamline communication, saving staff time on individual emails, while also standardising teaching methods through digitalisation. Such platforms can be sourced from external suppliers and could also support other programmes of the Cyl. This move would align the programme with other institutions, ultimately enhancing the overall student experience.
  - Currently, EDI (equality, diversity, and inclusion) is not formally practiced within the programme. Although Cyl's Equal Opportunities Policy follows EDI principles, it is advisable to formalise its operation and increase awareness among students as it will become more important as student numbers increase in future.
  - The current employment rate for students in the programme stands at 100%, but challenges may arise as student numbers increase. To address this, the Graduate School and Innovation Office could collaborate on developing a strategic plan to



connect students with Cyl's extensive network of industrial partners. This could involve introducing students to potential employers or arranging campus interviews to expand placement opportunities. Such initiatives would not only enhance the programme's reputation but also enrich the overall student experience, making it a unique and appealing choice for students within and beyond Cyprus.

Overall, this MSc/MPhil programme exhibits remarkable strengths, and the EEC wholeheartedly recommends its continuation. Furthermore, the EEC encourages ongoing efforts to implement the suggestions provided, thereby further enhancing the programme's comprehensiveness, enriching the student experience, and maximising its impact.





## E. Signatures of the EEC

<i>Name</i>	<i>Signature</i>
Professor Prashant Kumar (Chair)	
Laurens Ganzeveld (Member)	
Paraskevi Nomikou (Member)	
Constantina Varnava (Member)	

**Date:** 05 March 2024