Doc. 300.1.1

Date: 13th December 2024

External Evaluation Report

(Conventional-face-to-face programme of study)

- **Higher Education Institution:** University of Central Lancashire Cyprus (UCLan Cyprus)
- **Town:** Larnaca
- **School/Faculty (if applicable):** School of Sciences
- **Department/ Sector:**
- **Programme of study- Name (Duration, ECTS, Cycle)**

  In Greek:

  Μαθηματικά και Στατιστική [4 ακαδημαϊκά έτη, 240 ECTS, Πτυχίο (BSc)]

  In English:

  Mathematics and Statistics [4 academic years, 240 ECTS, BSc (Hons)]
- **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].

Introduction

On Dec. 12, 2024, we conducted the on-site visit at UCLan Cyprus, arriving at 09:30 am and leaving at 5:45 pm. We had meetings with the leadership of the University and the program, its faculty, staff and students, as well as external stakeholders, and toured the facility. We were able to ask for clarifications on all our questions and found an open, welcoming atmosphere.

In addition to the submitted documents, we received the prior External Evaluation Report and had the opportunity to study teaching materials and student artefacts.

While we found the program to be compliant in nearly all aspects, we give numerous recommendations for improvement, also to make it more future-proof. We understand that some of these might be hard to implement given the administrative restrictions, but we urge the program leadership to continue to find solutions.

A. External Evaluation Committee (EEC)

Name	*Position*	*University*
Tuomas Hytönen	Professor	Aalto University, Finland
Bernhard Lamel	Professor	University of Vienna, Austria
Dimitrios Fouskakis	Professor	National Technical University of Athens, Greece
Constantinos Tsioutis	Ph.D. Student	University of Cyprus

B. 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:*
  - *is a part of the strategic management of the program.*
  - *focuses on the achievement of special goals related to the quality assurance of the study program.*
  - *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*
    - *is developed with input from industry leaders and other stakeholders (i.e. industry leaders, professional bodies/associations, social partners, NGO's, governmental agencies) to align with professional standards.*
    - *integrates employer surveys to adapt to evolving workplace demands.*
    - *regularly utilizes alumni feedback for long-term effectiveness assessment.*
    - *is published and implemented by all 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*
  - *Aligns course learning outcomes with student assessments using rubrics to ensure objectives are met.*

- *Connects each course's aims and objectives with the programme's overall aims and objectives through mapping, aligning with the institutional strategy.*
- *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*
  - collaborates with industry experts for curriculum development.
  - conducts joint reviews with external academic specialists to maintain academic rigor.
  - performs periodic assessments with external stakeholders to ensure continuous alignment with market needs.
  - establishes collaboration with international educational institutions or/& other relevant international bodies for a global perspective.
  - conducts regular feedback sessions with local community leaders for societal relevance.

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*

In addition, the program has established mechanisms of transparency & communication to ensure that

- Professional bodies validate program descriptions and outcomes.
- Community leaders actively participate in ensuring that the program's public information is relevant and resonates with the local and societal context.
- External auditors review public information for accuracy & consistency vis-à-vis the actual implementation of the program.
- Industry-specific & societal information is regularly updated with expert inputs.
- Alumni testimonials are included for a realistic portrayal of program outcomes.

1.4 Information management

Standards

- *Information for the effective management of the programme of study is collected, monitored and analysed using specific indicators and data i.e:*
  - *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*
  - *industry trend analysis.*
  - *feedback mechanisms from external partners/stakeholders*
  - *data exchanges with professional networks*
  - *employer insights concerning career readiness*

- *Students and staff are involved in providing and analysing information and planning follow-up activities.*

Findings

The program "Mathematics and Statistics" is well established and has a unique position in the Cyprus higher education environment, as the only English-language program in those areas. We think that developments such as in the fields of AI and data science support the need for well-prepared graduates from this program, and that the program can leverage its existing strengths to prepare students even better for the current needs of the industry.

As opposed to many programs with similar titles, which typically do mathematics or statistics (requiring a selection of one of these specializations), the program under review truly exposes its students to both mathematics and statistics, and with its strong applied focus, positions them well for a variety of pathways after graduation.

All of the information about the program is readily publicly available.

At the moment, the student cohorts are rather small (less than 10 students) and there is an excellent relationship between the students and their teachers, as we found from conversations with the faculty and the students. Students find themselves very well supported both individually and as a group and the small size of the program also leads to a lot of interaction between the students and the faculty.

We observed gender balance both in faculty and student body composition. Also, the percentage of international students is rather high.

The established procedures for Quality Assurance are comprehensive and successfully followed. However, the adherence to two different accreditation schemes leads to long run-up times for major changes in the program. The information on the student population, progression, and satisfaction is collected and analyzed, and is shown by examples to be acted upon.

Students are very satisfied with the program; it has very low fail rates and virtually no drop-outs. The student workload is in accordance with the ECTS credits of the courses.

Students are well informed about possible career paths and have the chance to interact with graduates from the program and industry professionals in a yearly event. The inclusion of lecturers with active industry experience also exposes the students to possible career paths.

The program is, as noted above, rather small in terms of student population, which raises the question of financial sustainability. However, we were pleased to learn that the university leadership considers the program to be a strategic priority for UCLan Cyprus and indicates its continuing support.

Strengths

- Small program with lots of individual attention
- Unique profile as the only English-language program in these areas in Cyprus
- Strong applied focus

- Strong quality assurance mechanisms
- Very high student satisfaction
- Excellent organization of the program

Areas of improvement and recommendations

- In general, we recommend the introduction of open source, freely available, free of charge computational tools (R and Python) in the first year of studies. Therefore, all courses in the following years, particularly in the areas of Statistics and Probability, can make use of the skills students developed in the first year, yielding a more complete educational experience and better employability for the students. R and Python have moved to become industry standards, and we do not see the need to expose students to Matlab, SPSS, or Stata.
- Introducing even more elective choices, especially in the first two years, as started with the introduction of the university elective, would give students the option to sharpen their study focus. Synergies with existing programs at UCLan might be obtained by incorporating Machine/Statistical Learning courses. In addition, courses with a general focus on pedagogical aspects, for students who want to become teachers, or more broad subjects in mathematics (e.g. history of mathematics) would be welcomed by the student population.
- We found that some courses have overlaps:
    - Regression Analysis has significant overlap with Computational Statistics and Data Analysis.
    - Time Series shares a number of common topics with Financial and Actuarial Statistics.
- The content and delivery of some of the courses do not reflect the latest achievements and state-of-the-art in pedagogy. Some of these require only minor adjustments, while some others might be the focus of a possible redesign. In more detail:
    - Probability and Statistics (MA1862) is delivered without the use of any statistical package (e.g. R), and in the syllabus Excel is mentioned! We highly encourage the adoption of R in this course, both for computing and visualization purposes. In addition, the course should focus on understanding statistical ideas and interpreting the results instead of memorizing formulas and calculating expressions by hand.
    - Introduction to Applied Mathematics (MA1841) and Numerical Methods (MA2852) rely on Matlab. Most of the content can probably be delivered using Python as well. Stakeholders' input stated that Python is becoming the industry standard in these fields. Preparing the students with Python will benefit their employability.
    - Nonparametric statistics and survey methodology (MA2xxx) is an artificial combination of two distinct subjects. We suggest splitting the course. In addition, nonparametric statistics nowadays is outdated and can be replaced using modern computational methods, such as Monte-Carlo schemes or bootstrap resampling.
    - In Regression analysis (MA2xxx), we believe that a final assignment, implemented in R or Python, instead of a written exam, would benefit the students. We also believe that the title does not correctly reflect the current content of the course, and we suggest a title such as "Linear and generalized linear models".
    - Computational statistics and data analysis (MA3872), which is currently the first course exposing students to R, focuses on implementing earlier learned material in R. If R is adopted

earlier in the curriculum as we suggest, the repetition would become unnecessary, and the course should be restructured to focus on computational methods in statistics, i.e. density estimation, Monte-Carlo methods and variance reduction, resampling methods like bootstrap and jackknife, cross validation ideas, etc.
    - Financial and actuarial statistics (MA3xxx) is an artificial combination of two distinct subjects. We suggest splitting the course. In addition, the financial statistics could be replaced by an econometrics course, and we highly encourage the adoption of appropriate statistical packages for implementation purposes.
- We very much welcome the introduction of a Topics in Statistics (MA3xxx) course. However, the current content of the course is limited to operational research and biostatistics (epidemiology and survival analysis). We suggest the following changes:
    - An independent operational research course should be considered as an elective.
    - A broad and generic description of course contents for a "topics" course would be beneficial because it would make the delivery of different topics depending on the teacher of the course possible, exposing students to more faculty research interests.
- The naming of the courses Introduction to Real Analysis (MA1821) and Further Real Analysis (MA2821) deviates from continental practice, where such titles typically refer to much more advanced topics in the Lebesgue theory of integration. Suggested alternative names could be "Real Numbers and Continuity" and "Differentiation and Integration" respectively.

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

Sub-area		***Non-compliant/ Partially Compliant/Compliant***
1.1	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

2.1 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.*
- *Detailed schedules in course materials are included, explicitly stating the expected hours for lectures, self-study, and group projects, ensuring transparency in time allocation.*
- *A system is integrated where each learning activity is assigned a weight proportional to its importance and time requirement, aiding in balanced curriculum design.*

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.*

- *The expected hours for different components of practical training, such as lab work, fieldwork, and internships are clearly documented in the training manuals*
- *A weighting system is applied to various practical training elements, reflecting their significance in the overall learning outcomes and student workload.*

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.*
  - *The time allocation for each assessment task isexplicitly stated in course outlines, ensuring students are aware of the expected workload.*
  - *A balanced assessment weighting strategy is implemented, considering the complexity and learning objectives of each task, to ensure fair evaluation of student performance.*

Findings

The small size of the program allows the teaching staff to have a close connection with the students and react to their individual needs. The planning and organization of the teaching activities is undertaken with great care for student success. The processes for verification and moderation ensure fair and equitable assessment practices.

Strengths

- Small classes mean a lot of individual attention.
- Teachers can track the student's progress and focus on their individual needs.
- Assessment procedures are clear, and continuous assessment is used in all courses.
- Monitoring system for early warnings because of a possible fail is in place.

- The introduction of the placement module will provide students with the opportunity for hands-on training to practice application of the learned materials.
- The introduction of the Topics in Statistics course will expose students to modern applications in statistics.

Areas of improvement and recommendations

- Partial exams (mid-year) might help students to keep continuously working (apart from the exercises) since the majority of courses are year-long.
- Consistent use of presentations for student assignments (feasible because of the cohort size) would safeguard against improper use of AI.
- We believe that the duration of the placement should be increased. The current plan calls for 15 days which this committee and the external stakeholders find short. We think that a duration of at least 4-5 weeks (except for a teaching internship, which requires more preparation time) would be much better to get students truly exposed to working in the industry. Based on a 40-hour workweek, this still leaves 90 (or 50) hours of a traditional 10 ECTS module for reflection and presentation.
- Assessment (written exams, exercises and assignments) in probability and statistics courses should integrate interpretation of the findings, which should be carried out with the help of software (e.g. R). In addition, the small size of the cohort would allow exams in applied statistical courses to be carried out in the computer lab.

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

Sub-area		***Non-compliant/ Partially Compliant/Compliant***
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.*

Findings

The program is relatively young and so is its faculty. Currently, no full professor resides in the program. However, all the teaching staff have the necessary qualifications to teach the courses assigned to them. They are supported from the Teaching Toolkit and are required to become fellows of the HEA exposing them to continued training on their teaching. Some of them are research-active while others concentrate on teaching and administration.

Strengths

- The teaching staff works well as a team and collaborates with each other.
- The program coordinator is enthusiastic about the program and communicates a coherent vision.
- The workload for the teaching staff is reasonable.
- Some Associate Lecturers bring outside expertise in applications.
- Students get involved with faculty research on an individual basis.

Areas of improvement and recommendations

- A wider advertisement of positions could lead to more international recruitment.
- It would be good to introduce new courses featuring some faculty research or incorporate aspects of it into existing courses.
- A clear pathway to promotion (depending on individual merit instead of financial constraints) would be important for recruitment and retention of good faculty.

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

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

Findings

The admission requirements are clearly documented, albeit some not-so-clear leeway exists based on individual merit. Scholarship eligibility criteria are also clearly communicated. Student progression is well monitored and very successful in practice. The recognition procedures are very comprehensive and flexible.

Strengths

- Very clear established procedures.
- The double degree award gives access to both EU and UK markets and is accompanied by a diploma supplement, as well as an SAS certification.

Areas of improvement and recommendations

- A wider marketing strategy would yield a greater variety of international students.
- The year-long module structure makes it hard for students to participate in exchange, both incoming and outgoing. This seems hard to address for administrative constraints, but we urge the administration to work towards a solution.
- A clear communication of requirements for individual merit consideration would be good.

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

Sub-area		***Non-compliant/ Partially Compliant/Compliant***
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.*
- *Students receive support in research-led teaching through engagement in research projects, mentorship from research-active faculty, and access to resources that enhance their research skills and critical engagement with current studies.*

Findings

Teaching and Learning Resources are available to the students via the Blackboard System. The lecture rooms are state-of-the-art, and the facilities are overall in great shape. Administrative mechanisms for student support are comprehensive (including help with settling in Cyprus and access to accommodation). Human support resources are readily accessible to the students. Student mobility is limited.

Strengths

- There are great facilities and well-equipped lecture halls.
- Students feel that administrators care about their well-being and know that they can talk to someone.
- Administrators have an open-door policy.
- The small size of the university allows also for individual attention regarding human and student support.

Areas of improvement and recommendations

- The library is rather small (physical space) and the collection of books available to the students is limited (there are rather many empty shelves). Building up a good collection of (physical) books would yield a more welcoming learning environment.
- As before, student mobility is limited due to administrative constraints.

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

Sub-area		***Non-compliant/ Partially Compliant/Compliant***
5.1	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.*

Findings

N/A

Strengths

N/A

Areas of improvement and recommendations

N/A

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

Sub-area		***Non-compliant/ Partially Compliant/Compliant***
6.1	Selection criteria and requirements	Not applicable
6.2	Proposal and dissertation	Not applicable
6.3	Supervision and committees	Not applicable

C. Conclusions and final remarks

Study Program and Design:

- **Unique Position:** The Mathematics and Statistics program is the only English-language degree in Cyprus in these fields, with a strong focus on both mathematics and statistics, unlike many single-specialization programs.
- **Industry Alignment:** With growing fields like AI and data science, the program is well-positioned to produce industry-ready graduates.
- **Student Experience:** Small cohorts foster close student-faculty relationships, personalized support, and a collaborative environment.
- **Diversity:** Gender balance and a high proportion of international students contribute to a diverse community.
- **Quality Assurance:** Robust procedures are in place, though dual accreditation schemes can slow program developments. Data on student performance and satisfaction is effectively collected and acted upon.
- **Sustainability:** Despite its small size, the program is a strategic priority for the University and enjoys institutional support.

Student-Centered Learning, Teaching, and Assessment:

- **Personalized Approach:** Small class sizes enable tailored teaching, with a focus on individual needs and success.
- **Assessment Integrity:** Processes for verification and moderation ensure fair, equitable assessment practices.

Teaching Staff:

- **Young Faculty:** The faculty is relatively new and currently lacks a full Professor.
- **Qualifications and Support:** All staff meet teaching requirements and benefit from structured training, including HEA fellowships.
- **Balance of Roles:** Some faculty are research-active, while others focus on teaching and administration.

Student Admission, Progression, Recognition, and Certification:

- **Transparent Admission:** Entry requirements and scholarship criteria are clearly communicated, with some flexibility for individual merit.
- **High Success Rates:** Student progression is closely monitored, with low dropout rates and successful outcomes.
- **Comprehensive Recognition:** The recognition and certification processes are well-established and flexible.

Learning Resources and Student Support:

- **Resources:** Students have access to robust teaching materials via Blackboard, state-of-the-art lecture rooms, and well-maintained facilities.
- **Support Services:** Comprehensive administrative and human support mechanisms, including assistance with settling in Cyprus and housing, are available.
- **Mobility:** Student mobility opportunities remain limited.

For each of the evaluation areas, we have listed the strengths and given numerous recommendations for improvement, in particular for possible future development of the program. These should not be misconstrued as a criticism of the program as it is now, but rather as possible ways to imagine the future of the program.

For the development of the quality assurance process itself, we suggest that more attention should be paid to the relevance and conciseness of the quality assurance application documents. For the current evaluation, these documents, including the appendices, consisted of about 500 pages, where some of the information is very generic and not specific to the program under evaluation, while some other information is repeated in slightly different form in several places. For the external panel to be able to efficiently concentrate on the key issues in the evaluation, it would be beneficial for the institution under evaluation to make more effort to concisely and systematically present the topics on which feedback is sought. As a specific suggestion, we propose that the application material should routinely include the previous external evaluation report and a short letter by the institution explaining how the suggestions of the previous report have been implemented. Moreover, the information that was nicely summarized in the slides that were shown to us during the onsite visit would have been helpful to have already in combination with the application documents to be studied before arriving onsite.

D. Signatures of the EEC

Name	*Signature*
Tuomas Hytönen	
Bernhard Lamel	
Dimitrios Fouskakis	
Constantinos Tsioutis	

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