Doc. 300.1.2

Higher Education Institution's Response

Date: 07/02/2020

- **Higher Education Institution:**
  UCLan Cyprus
- **Town:** Larnaca
- **Programme of study**
  Name (Duration, ECTS, Cycle)

  In Greek:

  Πτυχίο Μαθηματικών και Στατιστικής (4 έτη, 240 ECTS, Πτυχίο)

  In English:

  BSc (Hons) Mathematics and Statistics (4 years, 240 ECTS, Bachelor's Degree)
- **Language(s) of instruction:** English
- **Programme's status:** New

The present document has been prepared within the framework of the authority and competencies of the Cyprus Agency of Quality Assurance and Accreditation in Higher Education, according to the provisions of the "Quality Assurance and Accreditation of Higher Education and the Establishment and Operation of an Agency on Related Matters Laws of 2015 to 2019" [N. 136 (I)/2015 to N. 35(I)/2019].

A. Guidelines on content and structure of the report

- *The Higher Education Institution (HEI) based on the External Evaluation Committee's (EEC's) evaluation report (Doc.300.1.1) must justify whether actions have been taken in improving the quality of the programme of study in each assessment area.*

- *In particular, under each assessment area, the HEI must respond on, without changing the format of the report:*

    - *the findings, strengths, areas of improvement and recommendations of the EEC*
    - *the deficiencies noted under the quality indicators (criteria)*
    - *the conclusions and final remarks noted by the EEC*

- *The HEI's response must follow below the EEC's comments, which must be copied from the external evaluation report (Doc. 300.1.1).*

- *In case of annexes, those should be attached and sent on a separate document.*

1. Study programme and study programme's design and development
(ESG 1.1, 1.2, 1.8, 1.9)

A.1 EEC Comment:

"Students should have the opportunity to benefit from classes in closely related topics during their later years of study, e.g. classes in computer science, analytics, or business."

A.2 UCLan Cyprus Response:

As recommended by the evaluation committee, the program has been updated and enhanced with the inclusion of university electives from other disciplines (Computing, Engineering, Psychology, Business, Economics, Marketing), so that students can benefit from additional topics which may be related to their field. Students will have the option to select one university elective in Year 3 and one in their final year of studies (year 4). The university elective module can be either 5 ECTS or 10 ECTS. More specifically, the following university electives will be available within Year 3 and Year 4 of the program:

- PS1040 Current Topics in Psychology
- PS1020 Introduction to Developmental and Social Psychology
- PS1640 Psychology of the Media
- PS1630 Topics in Forensic and Criminal Psychology
- CO1407 Introduction to Programming
- CO1406 Algorithms and Data Structures
- MG2107 Business Analysis and Operations
- CO2701 Database Systems
- EL2100 Signals and Control Systems
- MG3002 Business Statistics

The relevant module descriptors and updated structure of the program (to reflect the addition of university electives), can be found in Appendix A.

B.1 EEC Comments:

" While the expertise in Statistics is sufficient, the current staff composition is too narrow for a more general program in Mathematics and Statistics. For such a program, the hiring of full time staff with a more diverse background in Mathematics is required."

"The reliance on a very small number of individuals for certain key parts of the program is risky and introduces single point of failures. This is a particular concern for the areas in pure and applied mathematics, some of which are core elements of the program."

B.2 UCLan Cyprus Response is available in section 3. Teaching Staff.

2. Teaching, learning and student assessment
(ESG 1.3)

A.1 EEC Comment:

“There is a need to ensure that students have opportunities to work with teaching staff on active research projects.”

A.2 UCLan Cyprus Response:

Students at the undergraduate level can engage with research conducted by academics when such opportunities arise. For the proposed program of study this can be done through different activities, including but not limited to the following:

1. Discuss research interests with students

• Academics to discuss their research interest and current projects with the students and whenever appropriate, demonstrate areas where their research informs their teaching.

• Academics to make the most of modes of dissemination aimed at undergraduate students, so that to give further visibility of their research work to the students.

2. Involve students in research

• Academics will request/plan for undergraduate student researcher funding within their external funding research proposals.

• As academics work through research problems, will be advised to keep a running list of mini-projects/problems that might be suitable for undergraduate students and student will have the opportunity to work with the academics on those projects/problems beyond their curriculum.

• Students who will choose to do a Final Year project (MA3999) will be given the opportunity to work on topics related to their supervisor’s research interests.

3. Identify research-based activities

• Academics to highlight exhibitions, talks, debates, activities and other events that will enrich students’ experiences of their subject area.

• Develop students’ research activity through conferences and publications: academics of the program to mentor students wishing to write for academic publication and present papers or posters at conferences for the first time.

B.1 EEC Comments:

"Targeted hiring is needed to ensure sufficient breadth and depth across key parts of the curriculum.”

" A closer relation between teaching and research activities is required in some areas of pure and applied mathematics while this presents a lesser challenge in areas related to statistics."

B.2 UCLan Cyprus Response is available in section 3. Teaching Staff.

3. Teaching Staff
(ESG 1.5)

A.1 EEC recommendation to hire additional staff on the program with expertise in pure mathematics

“The program is highly reliant on two full time members of staff. This is a significant risk to the sustained and robust delivery of the program. There is an urgent need to recruit additional full time staff to ensure the delivery of the program, in particular in areas of pure and applied mathematics.”

A.2 UCLan Cyprus Response:

The University has proceeded with the appointment of a new full time academic member of staff with expertise in pure mathematics, to enhance the existing program team, according to the recommendation of the evaluation committee. The academic profile of the new member of staff can be found in Appendix B. The new appointment is effective from the new academic year on which the program (BSc (Hons) Mathematics and Statistics) will run (1st September 2020), pending final approval by DIPAE.

B.1 EEC Comment:

"The importance of maintaining and building the research profiles of the staff needs to be emphasized to ensure that the teaching is research informed."

B.2 UCLan Cyprus Response:

The University highly values academic research and research informed teaching is an integral part of the University’s Teaching and Learning strategy. Teaching and learning are research-informed as academic staff is encouraged and enabled to engage with research and use research outputs to inform their teaching. To support this, the University operates an academic staff workload model, which targets a balanced academic workload ratio of 40:40:20 between teaching, research and administrative responsibilities, respectively.

Additionally, the University has in place a Research Policy, which provides all the mechanisms and processes to support academic research. The policy includes support elements to conduct research (e.g. ethics compliance policy, research code of conduct, regulations and procedures of research work, copyrights and IP policy, etc.) as well as support elements for individual development (e.g. early career research mentoring scheme, organisation of research seminars and trainings, etc.). Also, all UCLan Cyprus academics have access to UCLan UK research support mechanisms (e.g. Grants and Funding Unit, Ethics and Integrity Unit, Research Excellence Unit, access to UK Research Office (UKRO), access to Research Professional, access to CLoK (UCLan's institutional repository - open access), access to UCLan Knowledge).

Furthermore, research informs teaching throughout the curriculum delivery in and out of the classroom as well as through the co- and extra-curricular activities taking place in each program of study. Program curriculum is frequently reviewed and updated according to the latest research findings in the field. Results of externally funded projects, outputs, publications and events (conferences, trainings, seminars, workshops, surveys) are embedded directly and/or indirectly in the course of teaching and learning, as learning activities and/or resources. Moreover, the conduct of student led projects and/or work placements reinforce the research dimension of the learning experience, as reflection logs, interactive research activities or edge research are required.

Overall, research informed teaching activities may include, but are not limited to the following and can be adapted to the level of study of the students:

- Learning material reflecting the latest research findings;
- Discussions of research findings, online materials, news items or practical scenarios;
- Library search of specific research sources;
- Design of short research questionnaires or surveys (short research studies);
- Discussion of research case studies;
- Writing of case studies, essay planning and problem questions;
- Group presentations, with or without group representative;

To supplement the above, the University, and each program specifically, organises research talks, seminars, and conferences, and engages students as attendees, volunteers and participants, to inspire them to delve deeper into their field of study and be exposed to the latest research finding in their field of study.

4. Students

(ESG 1.4, 1.6, 1.7)

A.1 EEC Comment:

"Clear marketing strategy will be required to recruit a sufficient number of well qualified students."

A.2 UCLan Cyprus Response:

Mathematics and statistics offer a diverse and rewarding range of careers. Examples include working in consultancies, accountancy and financial advisory, economics, financial products and services, banking sector, FOREX, big data, statistics and forecasting, insurance companies, IT and Computing, telecommunications, data analysis, actuarial science, research, education, healthcare, agriculture, just to name a few sectors.

BSc (Hons) Mathematics and Statistics is considered one of the unique programs offered by UCLan Cyprus, aiming to attract students with above-medium high school grades. In addition, this program is targeting Cypriots, European and International students who enjoy mathematics and statistics, and who understand that such a Degree will not only enhance their employability status and provide them with a competitive advantage in the labour market, but it will give them the opportunity and flexibility to work in various sectors.

UCLan Cyprus works closely with UCLan UK with regards to developing marketing strategies for both campuses, focusing on individual programs as well as the University as a whole.

As part of University's marketing strategy, a market analysis was performed for this specific discipline, including Cyprus, UK, EU and other international countries. Although the marketing team cannot openly promote the program until final approval from DIPAE is received, all the necessary steps within the marketing strategy have been taken and specific actions are ready to be deployed once the approval is received. Such actions are tailored to specific markets and audience identified, and include but are not limited to localised promotional activities (e.g. educational fairs, events, media, competitions, etc.), online activities (e.g. social media campaigns, articles, etc.), engagement of international recruitment agents, and many more.

Current key international markets for BSc (Hons) Mathematics and Statistics include India, Russia and Ukraine, Middle East, Egypt, Nigeria and other African counties, but also Europe.

Moreover, as part of its marketing strategy, the University has made it a tradition to offer special Scholarships to prospective students. The University is committed to offer special Scholarships for the BSc (Hons) Mathematics and Statistics of 50% of the Tuition Fee and in exceptional cases even full scholarships, aiming to recruit high quality students and become competitive. These scholarships will be announced once the program receives its approval.

B.1 EEC Comment:

" The ongoing development of exchange programs should be emphasized to ensure their sustainability. "

B.2 UCLan Cyprus Response:

UCLan Cyprus has signed the Erasmus + Charter for Higher Education 2014-2020 and students and members of staff have actively participated in mobilities under this framework. Inter-institutional collaborations under Erasmus + framework were established with more then 70 HEI in Europe and beyond. Students from UClan Cyprus have sucessfully participated in mobilities for study and training during the last 6 years. The University welcomed more then 70 students from 20 different European University in exchange programs (mostly Erasmus+) for study or trainings and will continue to offer Erasmus + opportunities to students from partner HEIs. This exchange experience

benefited our students and UClan Cyprus will continue to develop and increase these mobilities by engaging in the establishment of new inter-institutional agreements. Students from all programs of study, including those that will be enrolled in BSc (Hons) Mathematics and Statistics (following accreditation), are eligible and encouraged to participate in an Erasmus+ mobility program. Extending the portfolio of study of the University with new areas of expertise will allow to increase the number of collaborations and agreemnts between HEIs.

5. Resources
(ESG 1.6)

A.1 EEC Comment:

"An ongoing evaluation of the library needs is required."

A.2 UCLan Cyprus Response:

Different University mechanisms and processes are in place to ensure the ongoing evaluation of the library needs for each program of study, including the BSc (Hons) Mathematics and Statistics.

As part of the University's Annual Monitoring Process, at the conclusion of each module, module leaders have to review and reflect on the delivery of their modules and prepare a Module Leader Report for each module. The module leader report considers all aspects related to the delivery of the module (e.g. learning material, delivery schedule, assessments, resources, student feedback, lecturer feedback, etc.). As part of the resources for the module, module leaders must indicate any new or updating of existing learning resources, including books and other reading material. The module leader reports are then provided to the course leaders and inform the preparation of the Course Leader Report (an overall report for the program), reflecting the feedback for each module of the program. The course leader reports are then considered for the Head of School report as well as the resource budget allocation (including library budget) for the School (and each program). Any requested library needs are included in the budget for the next academic year. Before the start of the new academic year, requests are made to the library, so that they can obtain the requested resources.

Moreover, all the program modules have an electronic reading list that students can see automatically via the Blackboard space; however, students can also access these via the library website at http://cypruslists.central-lancashire.ac.uk/index.html where they can enter the module code to see the reading list associated with that module. Academic staff can manage their own reading lists by adding, editing and removing items from a reading list. It is possible to place any resource on a reading list from a book or journal (paper based or electronic) to a video, photograph or link to a webpage. Reading lists are updated every year, before the start of the academic year. The librarians and the academics work closely together to ensure that reading lists are updated and that sufficient and relevant resources are available in the library to support the students.

6. Additional for distance learning programmes

(ALL ESG)

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7. Additional for doctoral programmes

(ALL ESG)

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8. Additional for joint programmes

(ALL ESG)

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B. Conclusions and final remarks

The UCLan Cyprus team would like to thank the external evaluation committee members for their valuable and constructive comments and suggestions towards enhancing the BSc (Hons) Mathematics and Statistics program at UCLan Cyprus. We have addressed the comments provided by the Committee and we believe that the proposed recommendations have enabled us to significantly refine and strengthen the program and its market appeal.

C. Higher Education Institution academic representatives

Name	*Position*	*Signature*
Professor Irene Polycarpou	Head of School of Sciences and Chair of the School of Sciences Academic Standards and Quality Assurance Committee	
Dr Milto Hadjikyriakou	Course Leader of BSc Mathematics and Statistics	
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