

Doc. 300.1.2

Date: 8th November 2021

Higher Education Institution's Response

- **Higher Education Institution:**
University of Central Lancashire Cyprus

- **Town:** Larnaca

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

In Greek:

Μηχανική Ηλεκτρονικών Υπολογιστών (4 έτη, 240 ECTS, Πτυχίο)

In English:

Computer Engineering (4 academic years, 240 ECTS, Bachelor)

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

- **Programme's status:** New

- **Concentrations (if any):** N/A

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 2019” [N. 136 (I)/2015 to N. 35(I)/2019].

UCLAN CYPRUS NOTE

We would like to thank the members of the External Evaluation Committee (EEC) for their valuable feedback regarding the accreditation of the BEng (Hons) Computer Engineering programme offered by the School of Sciences at UCLan Cyprus. We are very pleased that the Committee recognises the strengths of the programme as a result of the high-quality work of the academic team involved in the design and delivery of the programme. We are committed to maintain the excellent student learning experience we offer and continue evaluating and enhancing the programme’s quality of teaching and learning. As such, we have taken into due consideration the Committee’s constructive feedback and have embraced it in efforts to develop further the BEng (Hons) Computer Engineering programme, as it is illustrated in the following sections.

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 or 300.1.1/2 or 300.1.1/3 or 300.1.1/4) 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 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 or 300.1.1/2 or 300.1.1/3 or 300.1.1/4).*
- *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, 1.7, 1.8, 1.9)

Findings

The content and the learning outcomes of the program are in line with the current standards and expectations in the sector.

The general quality assurance adheres to the standards of the department / school and are followed for the program with a clear governance structure. There is an internal quality monitoring program.

The language of instruction and all the teaching material are in English.

The program structure and the distribution of courses in semesters are clearly and properly identified with a coherent list of compulsory and elective courses.

The academic staff teaching the courses have the appropriate qualification, consistently with the program. All permanent faculty members hold a doctoral degree in a relevant subject. Their teaching load is consistent with the sector. The courses are taught mostly by permanent staff and only a few non-permanent staff supporting the program.

UCLAN Cyprus has appropriate internal regulations and processes for the introduction of new programs of study, their development, monitoring, evaluation and review. In particular, the internal quality committee of the university is responsible to develop and to apply the quality assurance policy of the university. The School of Sciences complies with the university quality assurance policy.

The program is in line with the ETEK requirements for registration.

Strengths

The programme is well-structured and offers a good level of specialisation for the current job market.

As the student cohort is relatively small with a high staff to student ratio, students are individually followed and advised.

There is adequate information on the various indicators for the program.

There are policies for IP protection of work done by students.

There is the possibility of exchange and short courses between UCLan UK and UCLan Cyprus.

Areas of improvement and recommendations

The program may benefit from some more optional modules such as databases, compilers, etc., to enable students to design/code/implement/integrate systems. In addition, the place of algorithms and data structures in the program should be considered carefully, given that these topics are foundational within computing. The stream of courses on computer programming and the programming languages covered by the program should be revised.

Admission criteria are not explicitly indicated in the website information, but this being a small program admission is currently easy to handle by individual guidance. A strategic plan of the department is not publicly available on the department's website.

UCLan Cyprus Response

“The program may benefit from some more optional modules such as databases, compilers, etc., to enable students to design/code/implement/integrate systems. In addition, the place of algorithms and data structures in the program should be considered carefully, given that these topics are foundational within computing. The stream of courses on computer programming and the programming languages covered by the program should be revised.”

We would like to thank the EEC for the valid recommendation regarding the position of algorithms and data structures within the programme. Taking this into consideration the programme team proposes the following changes:

- “CO1406: Algorithms and data structures” Make compulsory (and keep in Year 2).
- “CO1417: Explorations in computing”: Change to optional and move to Year 2.
- “CO1508: Computer Systems and Security”: Move to Year 1 (and keep compulsory).

In addition, the programme team will consider changing the programming languages used within the programming modules to the ones which could be considered more useful for computer Engineers (C, C++, python).

Moreover, regarding the EEC’s comment that it will be beneficial for the programme to include more optional modules (e.g. databases, compilers), the programme team proposes the following two additional optional modules, which can provide student the opportunity to broaden their knowledge in database systems:

- Introduce “CO1605: System Analysis and Database Design” as optional in Year 2.
- Introduce “CO2701: Database Systems” as Optional in Year 3.

The module descriptors of both modules can be found in Appendix I.

“Admission criteria are not explicitly indicated in the website information, but this being a small program admission is currently easy to handle by individual guidance. A strategic plan of the department is not publicly available on the department’s website.”

The programme admission criteria will be explicitly indicated on the website once the programme is validated. The admission criteria are:

“For entry to year 1 of the programme, the normal requirement is a score of 16.5/20 or above in the Apolytirion (High School Leaving Certificate), including subject areas such as Mathematics, Science or Technology; or 96 A level points in subject areas such as Mathematics, Science or Technology; or any other international equivalent. Proof of English Language knowledge to a score of at least IELTS 5.5, or other equivalent according to the Common European Framework of Reference for Languages (CEFR).”



“A strategic plan of the department is not publicly available on the department’s website.”

The observation of the EEC is correct. The strategic plan of the Department is available internally to the Department members (School Board), but it is not publicly available on the Department’s website. The Department’s vision and mission are available on the Department’s website as required by the CyQAA and it can be found at <https://www.uclancyprus.ac.cy/school/school-of-sciences/>.

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

Findings

The process of teaching and learning supports individual and social development of the students.

The modes of delivery of teaching and learning are appropriate, in line with international standards and are suitable to achieve the expected learning outcomes.

There is good evidence that excellent guidance and support from the teachers are in place.

Appropriate procedures for receiving student feedback and for dealing with students' complaints are in place.

The EEC panel met some students and alumni. They were particularly satisfied and pleased with their studies. A number of students expressed mostly positive aspects of their bachelor degree and only a few negative aspects were pointed out.

There is a low student-staff ratio and the students have commented that the instructors are accessible and helpful. A shared positive view was the assistance and good communication students have had with the teaching staff especially during covid restrictions. The students have expressed their gratitude towards the availability of the academic staff as they got quick responses and everyone was open at all times to communication. When there was a space for improvement the professors were always there to assist and provide extra support.

Assignments and homework were considered to be helpful for the students to enhance their skills and knowledge.

Another positive interpretation of the students was the wide range of employment opportunities through internships, practical sessions, seminars and workshops.

In contrast, some of the disadvantages that have emerged were mostly due to covid restrictions. Some students did not prefer online lectures because they were easily distracted and it caused inconvenience for their academic progress. Similarly, they could not access the lab due to the restrictions and thus made them stay behind on practical courses. Lastly, only online communication and the lack of regular face-to-face interaction was seen as a limitation that sometimes caused confusion in some students.

Strengths

The students are given the opportunity for placement in industry. The internship program and the integration of external speakers in the program is effective and well appreciated by the students.

The link between CS and EE within the School is strategically exploited to deliver a program with a clear specialization to achieve the intended learning outcomes and meet the needs of the stakeholders and job market.

Students are mostly satisfied with their academic studies, the professors and the staff. The communication level is proven to be great.

Areas of improvement and recommendations

Explicit effort can be made to monitor and ensure that assessment is consistent across the courses.

Student feedback should be aggregated (without personal information) and communicated back to the students. The courses should adopt a light-weight questionnaire mid-way to give lecturers immediate feedback which can be addressed in the latter half of the course. This will complement the more weighty end-of-course questionnaire for course evaluation.

Some restrictions due to covid could be addressed in order for everyone to feel that they have not stayed behind in their studies.

UCLan Cyprus Response

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Overall, assessment methods are specified in each module descriptor. All learning outcomes in a module are assessed with the mode of assessment specified for each outcome of the assignment. The general assessment strategy applied within the programme includes two summative assessment components for each 10-ECTS module. These two assessment components are typically one coursework and one final exam. Coursework can either include lab-work reporting, assignments and/or in-class tests depending on the nature of the module (e.g. in-class test for mathematics and/or physics related modules, coding assignments for programming related modules, lab-work reporting for lab-based modules and simulation/problem-based assignments for more theoretical modules). The team will continue monitoring assessments across all the modules of the programme to ensure consistency.

“Student feedback should be aggregated (without personal information) and communicated back to the students. The courses should adopt a light-weight questionnaire mid-way to give lecturers immediate feedback which can be addressed in the latter half of the course. This will complement the weightier end-of-course questionnaire for course evaluation”.

It is the current practise of the University, across all programmes, to collect intermediate anonymous student feedback via Module Feedback Questionnaires (MFQs) at the mid-point of each module, allowing the lecturers to address any arising matters timely, in the best interest of the students. Additional anonymous student feedback is also collected at the end of the module delivery for further consideration and improvements for subsequent deliveries of the modules.

In addition to the MFQs, further feedback regarding the modules, programme, student experience and the University in general is collected through the Student Staff Liaison Committee (SSLC) meetings, which take place twice a year (before the end of each semester). During the SSLC meetings, student representatives for each year of each programme, meet with the Course Leader of their programme and the academic team to discuss any arising matters for their specific cohorts as well as their overall learning experience, learning resources available, University services, etc.

SSLC meetings are formal and the meeting minutes, action points and resolution of actions are made available to all the students of the programme through the programme's Blackboard page.

It should be noted that collection of feedback is through electronic questionnaires, allowing all students to participate, even if they are limited to online attendance due to Covid-19 restrictive measures. Similarly, the SSLC meetings with student representatives can be held via online means during restrictive Covid-19 measures, allowing all representatives to participate without limitation.

3. Teaching staff (ESG 1.5)

Findings

The EEC considered the submitted documentation and met with staff to understand the clarity and fairness of the approach on how the university recruits, appoints, inducts and supports academic staff in delivering high quality teaching, research and student experience. Based on these, the recruitment and selection procedure seems to be fair and clear. Newly appointed staff undergo a probation process, and all staff are subject to an annual performance evaluation review. Processes and guidelines for progression and promotion are in place.

One of the main criteria for recruiting faculty staff is their research quality. In addition, faculty (and even non-faculty) staff are offered a program of professional development in didactics.

The CVs of existing staff demonstrate very good evidence of appointed academic staff having prior and relevant teaching and research experience in other higher education institutions. Research expertise and publication records are relevant and consistent to the program of study.

Faculty staff must have obtained a PhD in the area of their teaching or a closely related area. This is adequate for achieving the objectives and planned learning outcomes of the study programme and to ensure quality in teaching. A small number of instructors without a PhD are also employed to teach in the programme.

The allocation of hours to teaching and research is healthy, balanced, and promotes professional growth of the faculty. Promotion of faculty staff takes into account the quality of their teaching, research activity, and societal outreach.

A plan to appoint new staff to support the expected growth of the student cohort due to the program is in place.

Strengths

The teaching staff is highly commended by the students for the quality of their teaching and for the level of support they offer.

The majority of the faculty staff are research-active and there is evidence of an excellent relation between staff and students.

Faculty staff collaborate in the fields of teaching and research within the university and with partners outside.

The use of new technologies is encouraged in teaching.

The gender balance among teaching staff is healthy.

Areas of improvement and recommendations

None

UCLan Cyprus Response

We would like to thank the EEC for the positive feedback.

4. Student admission, progression, recognition and certification

(ESG 1.4)

Findings

Appropriate admission requirements are in place and clearly communicated.

There is evidence that students receive appropriate certificates and recognition upon completion of the program, as well as that the program adheres to various national and international standards.

The EEC also observed that student progress in the degree program is adequately tracked and assisted by exams and other forms of assessment so that students can progress in their studies from year to year. Academic advisors and tutors are available to support and monitor student progression and attainment.

The EEC observed that there are clear policies and procedures supporting students' feedback.

Admission criteria and requirements can range to suit different educational backgrounds and access qualifications.

Strengths

The EEC observed a high level of satisfaction among students about the program of study and the support they receive (e.g., employment opportunities after graduation) based on students' feedback during this evaluation process. Overall, the impression is that students acquire knowledge, progress with flexibility in their studies, and develop critical thinking.

Areas of improvement and recommendations

It may be advantageous to actively promote and advertise the positive values and high potential of this program to prospective students (e.g., through secondary school promotion) and to the relevant stakeholders, in order to attract them.

UCLan Cyprus Response

“It may be advantageous to actively promote and advertise the positive values and high potential of this program to prospective students (e.g., through secondary school promotion) and to the relevant stakeholders, in order to attract them.”

We would like to thank the EEC for the recommendation with which we are in agreement. The programme team together with the marketing department will actively promote the programme’s unique attributes and positive values through various channels/activities and to all the relevant stakeholders. These will include visits and delivery of motivational presentations to secondary schools, and organisation of engaging activities related the field of Computer Engineering at the premises of the University, targeting secondary students.

5. Learning resources and student support (ESG 1.6)

Findings

Students are offered adequate and readily accessible teaching and learning resources. These resources are fit for purpose and support the study program.

The modes of teaching and learning are heterogeneous, flexible and student-centered. Students seem to be informed about the available resources.

There is sufficient evidence of human support, in the form of student advisors, student counselling, and student affairs, e.g. for recruitment, internships, student exchange, psychological support, student complaints, and so on.

These human resources are adequate to support the study program.

Physical facilities (labs and lecture rooms) are well equipped, well maintained and in pristine conditions.

Strengths

Excellent resources and facilities are available for the program.

Areas of improvement and recommendations

The rate of female students in this field is very low. A proactive strategy for attracting female students to the program should be defined and implemented.

UCLan Cyprus Response

“The rate of female students in this field is very low. A proactive strategy for attracting female students to the program should be defined and implemented.”

One measure we have been utilising and will continue to do so, is to promote current staff members as role models. The faculty team planned to be involved in the programme has a good gender balance (8 women, 8 men), allowing us further opportunities to recruit women to enrol to the programme.

We will also continue to run relevant actions that aim at promoting gender balance in the programme, such as the involvement of fellow academics (Dr Josephina Antoniou and Prof Irene Polycarpou) as president and member of the ACM Women chapter in Cyprus, and the organisation of events such as Code Cyprus (codecyprus.org) that aim at promoting the value of coding to girls and boys in secondary schools in Cyprus.

We agree with the EEC that female participation in the field of Computer Engineering is low, something that it is indicated by several statistics and the international level. The School and the programme team is committed to strengthen their efforts towards this cause.

6. Additional for doctoral programmes (ALL ESG)

NA



7. Eligibility (Joint programme)
(ALL ESG)

NA

B. Conclusions and final remarks

The EEC panel reviewed and examined the materials provided by UCLan Cyprus pertaining to its four-year Computer Engineering program. The one-day site visit was held on 22.09.2021.

The panel was presented with detailed information about the degree program. During the site visit, the panel met university, school and department leadership peers and met professors, teachers and administrators. It also met current and past students of the School.

Based on the examination and evaluation of the accreditation materials and the remote site visit, the EEC concludes that the required standards are met.

The EEC identified a number of key strengths that make the program likely to succeed in attracting applicants and to provide valuable graduates to the industry of the sector.


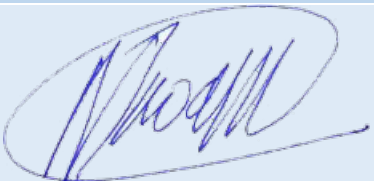


The EEC also identified a number of key areas for improvement and therefore, the following recommendations are made:

- The place of the course on algorithms and data structures should be considered carefully.
- Admission criteria should be explicitly indicated in the website information.
- A strategic plan of the school should be publicly available on the website.
- Student feedback should be aggregated (without personal information) and communicated back to the students.
- A strategy for attracting female students to the program should be defined and implemented.

UCLan Cyprus Response

We would like to once more thank the EEC members for their constructive feedback and valuable comments. The BEng Computer Engineering team is committed to continue all the best practices identified by the EEC and capitalise on the recommendations for improvement to strengthen the programme and its market appeal. All the EEC's recommendations have been addressed in the previous sections.

C. Higher Education Institution academic representatives

<i>Name</i>	<i>Position</i>	<i>Signature</i>
Prof. Irene Polycarpou	Head of School of Sciences Chair of School of Sciences Academic Standards and Quality Assurance Committee	
Assoc. Prof. Nearchos Paspallis	Deputy Head of School of Sciences Co-Course Leader of BEng (Hons) Computer Engineering programme Member of School of Sciences Academic Standards and Quality Assurance Committee	
Assoc. Prof. Marios Raspopoulos	Co-Course Leader of BEng (Hons) Computer Engineering programme	
Dr Cosmina Theodoulou	Chair, University Academic Standards and Quality Assurance Committee	

Date: 8th November 2021

