

Doc. 300.1.2

Date: 11 July 2022

Higher Education Institution's Response

- **Higher Education Institution:**
Limassol International University
Formerly Cyprus International Institute of Management
- **Town: Nicosia and Limassol**
 - **Programme of study**
Name (Duration, ECTS, Cycle)
In Greek:
In English:
BSc Computing and Business Technologies (4 years full-time or 6 years part-time, 240 ECTS, 1st Cycle)
Language(s) of instruction: English
- **Programme's status: New**
- **Concentrations (if any): None**
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. 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 300.1.1/1 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. The answers' documentation should be brief and accurate and supported by the relevant documentation. Referral to annexes should be made only when necessary.*
- *In particular, under each assessment area and by using the 2nd column of each table, the HEI must respond on the following:*
 - *the areas of improvement and recommendations of the EEC*
 - *the conclusions and final remarks noted by the EEC*
- *The institution should respond to the EEC comments, in the designated area next each comment. The comments of the EEC should be copied from the EEC report **without any interference** in the content.*
- *In case of annexes, those should be attached and sent on separate document(s). Each document should be in *.pdf format and named as annex1, annex2, etc.*

1. Study programme and study programme's design and development (ESG 1.1, 1.2, 1.7, 1.8, 1.9)

Areas of improvement and recommendations by EEC	Actions Taken by the Institution	For official use Only
<p>The minutes of the meetings of the quality assurance committee can be accessible upon request, but are not publicly available by default. The EEC recommends that this practice is amended, so that the schedule of the planned meetings of the quality assurance committee and their respective minutes are posted on the institution's intranet and made accessible to all internal stakeholders.</p>	<p>We confirm that since the beginning of 2022 all administration and faculty committee meetings, including those of the Quality Assurance Committee are scheduled for the year on fixed dates and recorded in the Outlook Calendar of the institution (ANNEX 1), available to all concerned. Minutes are now posted on the institution's intranet and available to internal stakeholders on a "need to know" basis for GDPR reasons.</p>	<p>Choose an item.</p>
<p>Minutes should be detailed and adhere to the usual standards. They form evidence of quality assurance. Such administrative practices should be exercised appropriately. The sample of minutes that the EEC saw were more reminiscent of extremely brief overviews, rather than proper minutes.</p>	<p>The administrative practice of minute taking has been revised to a) adhere to the usual minute-taking standards with sufficient detail: agenda of issues, participants, views expressed, decisions taken, actions arising, and next steps; b) the record of meetings and minutes are kept in a special depository as evidence of quality assurance</p>	<p>Choose an item.</p>
<p>External stakeholders are involved in the quality assurance process on an ad hoc basis. The EEC recommends that external stakeholders are involved in the quality assurance process in a structured and systematic way, not only on an ad hoc basis.</p>	<p>External stakeholders are involved in the quality assurance process in a structured and systematic way, not only on an ad hoc basis. The involvement of business leaders has been a part of the design of CIIM academic programmes from the very beginning of CIIM (which was established by a group of visionary business leaders and a team of prominent academics); their involvement continues today. Regular meetings take place between the Dean, the Programme Directors, and the external stakeholders. While external stakeholders (alumni, employers, community leaders, and external academics) are not formal members of the QA committee they are regularly consulted and invited to participate in meetings as advisors. Their views are also solicited through surveys and focus groups. Following the EEC recommendation, we have further systematized and institutionalized the process. At a minimum, an alumnus/a, a business/community leader, and an external academic will be present in all QA meetings, as non-voting participants.</p>	

<p>The EEC noted that, on few occasions, items that had gone through the quality assurance process, were incomplete (for instance, course descriptions without workload specifications) or substandard (for instance, listing “Object-Oriented Programming for Dummies” as the primary textbook for a bachelors programming course). The EEC recommends that the quality assurance process is carefully monitored, so that results meet CYQAA standards and so that a culture of quality is promoted.</p>	<p>It should be clarified that the BSc Computing is a new programme to be offered prospectively by the University. The programme and its course descriptors went through quality assurance in their design stage. The listing of “Object-Oriented Programming for Dummies” as the primary textbook for a bachelors programming course, is obviously an error; it was intended as an informal introductory text for beginners to be followed by other more academic texts; inadvertently the latter were omitted. The descriptor has now been revised to include:</p> <p><u>General:</u> “Object-Oriented Programming Languages: Interpretation (Undergraduate Topics in Computer Science), by Iain D. Craig,</p> <p><u>Textbook for C++:</u> “The C++ Programming Language”, 4th Edition by Bjarne Stroustrup</p> <p><u>Textbook for Java:</u> “Object-Oriented Design and Patterns” 2nd Edition by Cay S. Horstmann</p> <p><u>Textbook for UML:</u> Learning UML 2.0: A Pragmatic Introduction to UML 1st Edition, by Russ Miles Kim Hamilton</p> <p>The EEC is right that the quality assurance process must be carefully monitored, so that results meet CYQAA standards and a culture of quality are maintained. For this reason, we have established QA Committees at three levels: department, school and university. Furthermore, the monitoring of the quality assurance process is assigned to the internal auditor.</p>	<p>Choose an item.</p>
<p>Courses of 6 ECTS in this program of study can be offered over the course of two weeks, designed to have approximately 28 hours of lectures and a minimum of 150 hours of learning effort on behalf of the student. This model of offering 28 hours of lectures and expecting a minimum of 150 hours of personal learning effort practically means that students need to make, as a minimum, approximately 5 times as much effort by themselves than by interacting in the class with instructors. This ratio is not in line with international standards.</p>	<p>This EEC comment is due to a misunderstanding from mixing figures from CIIM Masters programmes and to LIU undergraduate programmes. All undergraduate programmes at LIU including the BSc Computing and Business Technologies, are semester-based, not modular like the Masters programmes at CIIM. Course is 7.5 ECTS and are taught over a semester 12weeks-long 2 sessions per week, 90 minutes each session. Therefore, the class contact time for each course is 36 hours (see ANNEX 2). from the application and the presentation of the BSC Computing programme. The corresponding learning effort per course is 150 hours. Therefore, the ratio is not 1:5 but 1:4 which is in line with international standards. That this is mix-up on the part of the EEC of the undergraduate with the Masters programme is evident from their comment “This was also practically confirmed during the meeting between the EEC and students: when</p>	<p>Choose an item.</p>



<p>Typically, the amount of hours spent in the class should be much higher than one fifth of the overall work load when measured in hours. This was also practically confirmed during the meeting between the EEC and students: when asked about the amount of time spent to study outside contact hours, none of the students used up five times more time that their lecture hours. The EEC recommends that the ratio of contact-hours versus non-contact hours becomes more balanced. Given that 1 ECTS is equivalent to 25-30 hours of study (both contact and non-contact) approximately, a course of 6 ECTS should be designed to have more than 28 hours of lectures.</p>	<p>asked about the amount of time spent to study outside contact hours, none of the students used up five times more time that their lecture hours". All students present were Master students, since we have no undergraduates and we will not have until the programme is launched when the University is licensed and commences operations. Indeed, the BSc in Computing, designed with 36 hours lectures per semester course, has been in full compliance with both international standards and the EEC recommendations "that the ratio of contact-hours versus non-contact hours becomes more balanced with more than 28 hours of lectures".</p>	
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2. Student – centred learning, teaching and assessment (ESG 1.3)

Areas of improvement and recommendations by EEC	Actions Taken by the Institution	For official use Only
<p>Internal or external moderation of grades is not used. The director of the program of study has the task to review all grades. This practice can result in a very increased workload for the program director during exam time, especially as the number of students increases. This can in turn compromise the amount of time that the program director can actually spend on each student exam. Overall, this practice is neither optimal, nor sustainable, as student numbers increase. The EEC recommends that some form of grade moderation is introduced.</p>	<p>The director of the program of study has the task to review the grade analytics in terms of distribution, average grade, variance, possible grade inflation, conformity with the suggested grading curve, and historical trends, not individual grades since comparative grade analytics and dashboards accompany the Grade Excel sheet submitted by the instructors (ANNEX 3), this practice does not result in much increased workload for the program director during exam time, even with the increased number of students. Based on 32 years of experience with the current system the Programme Director devotes about an hour for each course. Any irregularities such as grade inflation, an unusual number of failures, grade concentration etc. are referred to both the instructor for corrective action and the QA Committee for review.</p> <p>The grade moderation in terms of the grading of individual exams is done by the QA Committee, as part of its quality monitoring role, through sampling: 3-5 exams with very low grades, and 3-5 exams with very high grades are sampled from each course and reviewed by the members of the QA Committee, which can access outside expertise if needed. Sampled Second Marking, and Double Marking may also be employed in problematic cases The QA also examines student complaints about grades in <i>ad hoc</i> sessions.</p> <p>This method of grade moderation was introduced to us by our external examiner many years ago, it was sanctioned by EFMD in 5 consecutive accreditations and by CYQAA in more than 10 accreditations.</p> <p>The introduction of grading rubric in recent years has helped ensure that grades are fair, valid and reliable, and that assessment criteria have been applied consistently. It ensures consistency in marking between individual markers, within cohorts and across time (see ANNEX 4).</p>	<p>Choose an item.</p>
<p>The EEC was informed that it is possible for teaching staff to use students as teaching assistants in this program, and that such student teaching assistants could, for instance, handle the grading. The EEC recommends that this form of grading is moderated by the course instructor.</p>	<p>Never in CIIM’s 32-year history have exams graded by student assistants; in fact, this prohibited by our internal regulations. The comment was made by a newly-hired professor who has requested that we allow this because this was the practice at his/her previous institution. Such practice has not been approved and it is not being contemplated until LIU has 2nd year, or higher, PhD students. In that case , the grading will be moderated by the course instructor, exactly as the EEC recommends.</p>	<p>Choose an item.</p>

The EEC also recommends that course learning objectives are closely mapped to the study programme objectives	It is a long standing rule and practice for CIIM to map course intended learning outcomes (CILOs) against programme intended learning outcomes (PILOs), see ANNEX 5.	Choose an item.
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3. Teaching staff (ESG 1.5)

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There appears to be no pedagogical or didactic training for teaching staff. This should be prioritized by the institute and implemented as soon as possible. Activities within this area should be diverse (spanning compulsory and optional elements) and target all instructors of little to medium teaching experience.	At CIIM-LIU there has always been continuous pedagogic training and instructional innovation, for which CIIM is widely known. In the past, these were largely ad hoc but since last year they have been formalized and incorporated in the Faculty Handbook. There is now a policy and a formal process of faculty development involving regular T&L workshops and seminars and peer-observation in teaching to the spread of good practice. See Faculty Development Policy in ANNEX 6 At the same time we developed the “Learner-Centered, Problem-Based Teaching & Learning Model: an Instructors’ Manual with innovative in teaching and learning methods described and tested (see ANNEX 7)	Choose an item.
Furthermore, the department’s policy on the distribution of teaching and research load is not consistent with what staff members told the EEC during the visit. There is a discrepancy between the two. This should be amended.	Teaching and administrative workloads have recently been reduced by 20-40% to enable faculty, especially new junior recruits to focus on their research and deliver the expected results, as we consider them the seeds for the long-term success of the Department. The “up to 40 ECTS” (180 hours/year) teaching load applies only to a few faculty members on fixed-time contract who have been with CIIM for several years focusing more on teaching than research. They still have the option of reduced teaching in order to do more research if they so choose and there is funding to buy off part of their teaching. Teaching and administrative workloads have been reduced by 20-40% for new junior tenure-track faculty to enable them to focus more on their research and deliver the expected results, as we consider them the seeds for the long-term success of the Department. They are given reduced teaching load in the range of 20-30 ECTS (2 courses in each semester, or less) and 40-55% of their time allocated to research. This has resulted in two tracks faculty: research-oriented faculty with 110-140 class contact hours per year; and teaching-oriented faculty 160-180 class contact hours per year.	Choose an item.

	<p>However, everyone is expected to do both teaching and research to fulfill their contractual obligations but at different relative proportions to avail the institution of the gains of specialization according to comparative advantage theory and experience.</p>	
<p>Click or tap here to enter text. The EEC was informed that a sabbatical policy is in place, but that no one has ever made use of it. The EEC was orally informed by faculty staff that there is currently a 7 year waiting period for it. According to the institute's documentation, sabbaticals are available after 7-10 years of successful teaching. The EEC recommends that the sabbatical policy and its implementation are revised carefully, so that teaching staff have the opportunity to make use of it in practice, not only in principle. The EEC further recommends that the period of 7-10 years is shortened to, for instance ,6 years.</p>	<p>Following the EEC recommendation, to revise the sabbatical policy and its implementation so that teaching staff have the opportunity to make use of it in practice, not only in principle, we revised the policy to allow faculty to take half a year sabbatical every 3.5 years of service, or a full year after 7 years of service. This has been welcomed by the faculty.</p>	<p>Choose an item.</p>
<p>The number of teaching staff is sufficient for the current student intake, but not for the projected student intake. The EEC was informed that hirings have been planned and that no great difficulties are anticipated in recruiting faculty members. The EEC recommends that recruitment, development and retainment of staff is organized carefully.</p>	<p>A faculty recruitment strategy has been in operation for a year through advertising in multiple academic job sites. We received over 1,000 applications with some 150 applications for faculty positions in the Department of information Technologies which were assessed by the Faculty Selection & Promotion Committee. Four new faculty members were hired for the Department, two senior and two junior. Four additional faculty members are scheduled to be recruited for the Department over the next two years.</p> <p>University-wide the current staffing is adequate for the existing programmes and possibly the first-year courses of the new programmes. The CIIM-LIU Faculty Hiring Plan (ANNEX 8) provides for the hiring of 12 additional faculty members in the period 9/2022-8/2024, of whom:</p> <p>A. <u>Five tenure-track faculty members, in addition to the 5 already hired, for the undergraduate programmes in the areas of:</u></p> <ul style="list-style-type: none"> • 2 in Economics (for the Department of Law and Social Science) • 2 Computer Science (for the Department of Information Technologies) • 2 Business Management/HRM (for the Department of Business & Finance) 	<p>Choose an item.</p>

	<ul style="list-style-type: none"> • 2 Law (for the Department of Law and Social Science) • 1 Quantitative Methods/Statistics (for all Departments) <p>B. <u>Three tenured Faculty members, in addition to the 4 already hired for the PhD and DBA programs in the areas of:</u></p> <ul style="list-style-type: none"> • 1 Strategic Management (for the PhD Mgt & DBA) • 1 Sustainability & Green Management (for the PhD Mgt & DBA) • 1 Data Science (for the PhD in Data Science) <p>These positions have been already advertised and applicants are being screened for appointments commencing in 2023 and 2024.</p>	
<p>The maximum number of students that can be supervised by teaching staff seems to be 15, which is quite high, given the goal of the institute to promote research. Teaching staff could potentially supervise even more than this maximum number of students. The EEC recommends that careful load balancing is adhered to, to safeguard research time.</p>	<p>While the maximum number of students that can be supervised by teaching staff is set at 15 most faculty members supervise only about 5-10 final projects per year for Masters programmes. It is very rare, indeed, that a faculty member will take more than 10 such projects, and when they do some of them are inactive or dormant. The average time commitment of a faculty member is 5-8 hours of advising per project, or a total of between 25-80 hours (3% of their working time) which is fully in line with the EEC's recommendation <i>"that careful load balancing is adhered to, to safeguard research time"</i>.</p>	<p>Choose an item.</p>
<p>Very recent publications of faculty members were not made available to the EEC. It is recommended that the institute streamlines its procedure for collecting this information, so that it can be readily accessible.</p>	<p>With the introduction of the tenure system in early 2021 and the recruitment of 9 new faculty members (3 tenured full professors, 1 tenured Associate Professor, 5 tenure-track Assistant Professors and 1 tenure-track Lecturer), over the past 12 months, the number and quality of publications in high impact journals has increased considerably and compares favourably with other small private universities in Cyprus and the region. EEC had access to the CIIM-LIU Research Repository up to 2020 submitted with our University application, which did not include the publications of the newly recruited faculty, nor the publications of existing faculty during 2021-22. Attached is the updated Research Repository with all the recent publications (ANNEX 9).</p>	

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

Areas of improvement and recommendations by EEC	Actions Taken by the Institution	For official use Only
It is not clear if students completing the program will receive recognition through the Technical Chamber of Cyprus (ETEK), which is the engineering regulatory body in Cyprus. This point should be clarified.	Like graduates of competitor computers programmes LIU BSC Computing graduates will not receive automatic recognition from the Technical Chamber of Cyprus (ETEK). There is a procedure they must follow. However, most computer science graduates do not apply since neither the government nor the industry require recognition by ETEK for computer science-related degrees.	Choose an item.
There may be delays before teaching staff can get an overview of a student's progress "while all the marks are entered into the system". There are good practices in place for formative feedback but perhaps the central systems might be augmented by Department infrastructure to provide an early warning if someone is struggling across a number of different courses.	This may be an issue with modular Masters programmes, which is unlikely to arise with semester-based undergraduate programmes. In any case, the University ERP system we are in the process of acquiring will have embedded early warning systems about a variety of matters when early feedback is needed, including student performance, which will also be monitor with frequent quizzes, midterms and team-work. It is also a key responsibility of the Programme Director and the Director of Academic Affairs to continuously monitor student academic performance across different courses.	Choose an item.
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5. Learning resources and student support (ESG 1.6)

Areas of improvement and recommendations by EEC	Actions Taken by the Institution	For official use Only
<p>There are currently 20 computers in the computer lab in Nicosia, 5 computers in the library, and 10 computers in the computer lab in Limassol. This number of machines is low for the projected number of students. The EEC was informed of plans to increase the number of machines, however the neither the timeline for doing so, nor the number of machines to be bought was concrete. The EEC recommends that concrete, realistic plans are drafted and carried out.</p>	<p>The IT infrastructure of the teaching laboratory includes hardware, software, access to countrywide resources, and access to the cloud. In terms of hardware, the number of computers increased by 33% to 30 machines in the Nicosia lab and by 60% to 16 in the Limassol lab. These computers have reasonably fast processors (>2.5 GHz), sufficient memory storage (0.5-1 Terabyte), and RAM (>4GB). Our plans to increase the number of student machines in the computer labs from the current number of 50 to 150 will be implemented in two phases: 50 new machines in advance of the launching of the undergraduate programmes and another 50 machines the following year. The expected student intake of all three undergraduate programmes will not exceed 100 and will probably lower with one third being the students of BSc computer growing at the rate of 10% a year according to our timeline.</p>	<p>Choose an item.</p>
<p>In principle there is access to GPUs, but it is not clear how many GPUs this relates to. It is also not clear if anyone has ever made use of this yet. There does not seem to be any scheduling plan in place, in case GPU demand exceeds availability. The EEC recommends that this point is addressed, especially given the strategic decision of the department to intensify research efforts. GPUs relate to both research topics that are investigated by current staff members and also to teaching themes in the program of study.</p>	<p>There are GPU cards installed on five computers in Nicosia and five in Limassol. They will be used for the course on artificial intelligence for training of neural networks. They will also be used for student projects that involve neural networks as well as for big data. They will also be used for the research projects of PhD students when that program begins as well as more extensively for the research of the faculty.</p> <p>If the need arises, we plan to use Google cloud for educational purposes related to the Tensor Flow library. In particular, the Google Collab will be used that makes available limited use of GPUs and more availability on a use per pay basis.</p> <p>In addition, the university also has access to the computing facilities of “The Cyprus Institute (Cyl)” that include the use of GPU computing and supercomputing.</p>	<p>Choose an item.</p>
<p>Currently there is no access to Linux machines for students, even though operating systems is part of the curriculum. There is an intention to rectify this, however no plan was presented to the EEC. Different alternative ways of giving students access to linux machines were presented, but it was not clear which, if any, of these would be used, with</p>	<p>There are dual boot computers with choice for Windows/Linux. On a first phase, there is dual boot Windows/Linux on ten computers in the laboratory in Nicosia and on five computers in the laboratory in Limassol. If more are needed, there is possibility to install dual boot on more computers. The distribution of Linux that we will install will be Ubuntu.</p> <p>Linux will be used for the course of Operating Systems. It will also be used for parts of other courses as well. For example, for the course on object-oriented programming both operating systems will be used for C++ programming.</p>	<p>Choose an item.</p>



what timeline and capacity. A concrete plan needs to be made and implemented as soon as possible, so that students starting on this program of study have exposure to different operating systems in a hands on way.	Examples of Integrated Development Environments (IDEs) that will be used are NetBeans on Linux and MS Visual Studio on Windows. Both operating systems will also be used sometimes for the data science courses and for the course on artificial intelligence.	
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6. Additional for doctoral programmes (ALL ESG)

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7. Eligibility (Joint programme) (ALL ESG)




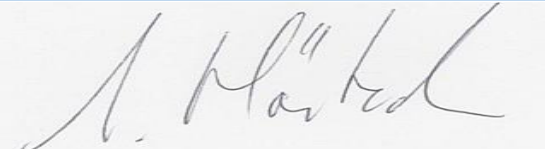


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B. Conclusions and final remarks

Conclusions and final remarks by EEC	Actions Taken by the Institution	For official use Only
The EEC concludes that most of the standards of CYQAA are met by this program of study and that a few of the standards are partially met. This reports details and justifies the grounds of this assessment.	We thank the EEC for their positive assessment and their constructive recommendations for improvement, which we implemented in full and reported here along with the necessary documentation.	Choose an item.
Overall, the program of study is placed in a phase of expansion of the institute. These are excellent conditions for helping this program grow and become successful	The BSc in Computing and Business Technologies is indeed a major part of the transformation of CIIM into a University. The EEC constructive recommendations will help this program grow and become successful. Thank you.	Choose an item.
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C.

D. Higher Education Institution academic representatives

Name	Position	Signature
Professor Theodore Panayotou	Rector (Formerly Director CIIM)	
Professor Doron Sonsino	Vice Rector and Dean of Law & Social Science School	
Associate Professor Theodosis Mourouzis	Dean of Technology & Innovation School	
Professor Waldemar Pfoertsch	Director of Research Centre and Dean of Business School	
Assistant Professor Stathis Hadjidemetriou	Chairman Department of Information Technologies	
Assistant Professor Christodoulos Efstathiades	Coordinator of BSc in Computing and Business Technologies	

Date: 11 July 2022

