Doc. 300.1.1

Date: Date.

External Evaluation Report

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

- **Higher Education Institution:**
Cyprus University of Technology
- **Town: Limassol**
- **School/Faculty (if applicable): Engineering and Technology**
- **Department/ Sector: Electrical Engineering, Computer Engineering and Informatics**
- **Programme of study- Name (Duration, ECTS, Cycle)**

  In Greek:

  Βιοϊατρική Μηχανική

  In English:

  Biomedical Engineering
- **Language(s) of instruction: English**
- **Programme's status:** Currently Operating
- **Concentrations (if any):**

  In Greek: 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].

In English: Concentrations

A. Introduction

This part includes basic information regarding the onsite visit.

The onsite visit took place on 25/2/2022. It was carried out using Zoom videoconferencing with all evaluators and key staff present. It started at 12pm and finished around 6pm. It included key presentations by the Vice Rector, the Internal Evaluation Committee, the Head of the Department and the Program Coordinator, as well as members of the teaching, administrative staff and students. A tour of the laboratories, library and workstations was conducted by both prerecorded video and live video.

B. External Evaluation Committee (EEC)

Name	*Position*	*University*
Ioannis Ragoussis	Professor	McGill
Anthony Aletras	Professor	Aristotle University of Thessaloniki
Periklis Pantazis	Professor	Imperial College London
Name	Position	University
Name	Position	University
Name	Position	University

C. Guidelines on content and structure of the report

- *The external evaluation report follows the structure of assessment areas*
- *At the beginning of each assessment area there is a box presenting:*
  (a) *sub-areas*
  (b) *standards which are relevant to the European Standards and Guidelines (ESG)*
  (c) *some questions that EEC may find useful.*
- *The questions aim at facilitating the understanding of each assessment area and at illustrating the range of topics covered by the standards.*
- *Under each assessment area, it is important to provide information regarding the compliance with the requirements of each sub-area. In particular, the following must be included:*

Findings

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

Strengths

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

Areas of improvement and recommendations

A list of problem areas to be dealt with, followed by or linked to the recommendations of how to improve the situation.

- *The EEC should state the compliance for each sub-area (Non-compliant, Partially compliant, Compliant), which must be in agreement with everything stated in the report. It is pointed out that, in the case of standards that cannot be applied due to the status of the HEI and/or of the programme of study, N/A (= Not Applicable) should be noted.*
- *The EEC should state the conclusions and final remarks regarding the programme of study as a whole.*
- ***The report may also address other issues which the EEC finds relevant.***

1. Study programme and study programme's design and development

(ESG 1.1, 1.2, 1.7, 1.8, 1.9)

Sub-areas

1.1 Policy for quality assurance
1.2 Design, approval, on-going monitoring and review
1.3 Public information
1.4 Information management

1.1 Policy for quality assurance

Standards

- *Policy for quality assurance of the programme of study:*
  - *has a formal status and is publicly available*
  - *supports the organisation of the quality assurance system through appropriate structures, regulations and processes*
  - *supports teaching, administrative staff and students to take on their responsibilities in quality assurance*
  - *ensures academic integrity and freedom and is vigilant against academic fraud*
  - *guards against intolerance of any kind or discrimination against the students or staff*
  - *supports the involvement of external stakeholders*

1.2 Design, approval, on-going monitoring and review

Standards

- *The programme of study:*
  - *is designed with overall programme objectives that are in line with the institutional strategy and have explicit intended learning outcomes*
  - *is designed by involving students and other stakeholders*
  - *benefits from external expertise*
  - *reflects the four purposes of higher education of the Council of Europe (preparation for sustainable employment, personal development, preparation for life as active citizens in democratic societies, the development and maintenance, through teaching, learning and research, of a broad, advanced knowledge base)*
  - *is designed so that it enables smooth student progression*
  - *is designed so that the exams' and assignments' content corresponds to the level of the programme and the number of ECTS*
  - *defines the expected student workload in ECTS*

- *includes well-structured placement opportunities where appropriate*
- *is subject to a formal institutional approval process*
- *results in a qualification that is clearly specified and communicated, and refers to the correct level of the National Qualifications Framework for Higher Education and, consequently, to the Framework for Qualifications of the European Higher Education Area*
- *is regularly monitored in the light of the latest research in the given discipline, thus ensuring that the programme is up-to-date*
- *is periodically reviewed so that it takes into account the changing needs of society, the students' workload, progression and completion, the effectiveness of procedures for assessment of students, student expectations, needs and satisfaction in relation to the programme*
- *is reviewed and revised regularly involving students and other stakeholders*

1.3 Public information

Standards

- *Regarding the programme of study, clear, accurate, up-to date and readily accessible information is published about:*
  - *selection criteria*
  - *intended learning outcomes*
  - *qualification awarded*
  - *teaching, learning and assessment procedures*
  - *pass rates*
  - *learning opportunities available to the students*
  - *graduate employment information*

1.4 Information management

Standards

- *Information for the effective management of the programme of study is collected, monitored and analysed:*
  - *key performance indicators*
  - *profile of the student population*
  - *student progression, success and drop-out rates*
  - *students' satisfaction with the programme*
  - *learning resources and student support available*
  - *career paths of graduates*

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

You may also consider the following questions:

- *What is the procedure for quality assurance of the programme and who is involved?*
- *Who is involved in the study programme's design and development (launching, changing, internal evaluation) and what is taken into account (strategies, the needs of society, etc.)?*
- *How/to what extent are students themselves involved in the development of the content of their studies?*
- *Please evaluate a) whether the study programme remains current and consistent with developments in society (labour market, digital technologies, etc.), and b) whether the content and objectives of the study programme are in accordance with each other?*
- *Do the content and the delivery of the programme correspond to the European Qualifications Framework (EQF)?*
- *How is coherence of the study programme ensured, i.e., logical sequence and coherence of courses? How are substantial overlaps between courses avoided? How is it ensured that the teaching staff is aware of the content and outputs of their colleagues' work within the same study programme?*
- *How does the study programme support development of the learners' general competencies (including digital literacy, foreign language skills, entrepreneurship, communication and teamwork skills)?*
- *What are the scope and objectives of the foundation courses in the study programme (where appropriate)? What are the pass rates?*
- *How long does it take a student on average to graduate? Is the graduation rate for the study programme analogous to other European programmes with similar content? What is the pass rate per course/semester?*
- ***How is it ensured that the actual student workload is in accordance with the workload expressed by ECTS?***
- *What are the opportunities for international students to participate in the study programme (courses/modules taught in a foreign language)?*
- *Is information related to the programme of study publicly available?*
- *How is the HEI evaluating the success of its graduates in the labor market? What is the feedback from graduates of the study programme on their employment and/or continuation of studies?*
- *Have the results of student feedback been analysed and taken into account, and how (e.g., when planning in-service training for the teaching staff)?*
- *What are the reasons for dropping out (voluntary withdrawal)? What has been done to reduce the number of such students?*

1.Study program and study program's design and development

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.

General Comments

The Cyprus University of Technology (CUT) is a relatively young, applied science and technology University, but has achieved very good ranking results in its category, with a highlight of 54th amongst Young Universities and 89th amongst Emerging Universities in the Times Higher Education Rankings in 2021.

The University is housed in a combination of modern and renovated historic buildings within and around Limassol, which appears a bit dispersed, but the renovated historic buildings add a sense of tradition and are within walking distance from each other. Libraries are in good condition and there is growth and development into three connected campuses.

The University is part of the European University of Technology (EUt+), funded by the European Union and branded as universities of the future. The CUT leadership is to be commended for the effort to participate successfully in this program. The funding situation is also very good with successes in the HORIZON2020 program (75 m euro and 250 funded projects), establishing an ERA chair etc.

The Masters course design takes into consideration the needs of the relevant local employers (industry or healthcare) in the course design, making it very relevant for the local society.

The study program is very much appreciated by the students and alumni interviewed, and who felt that the course gave them the foundation for successful careers in industry or academic research.

Masters Course specific comments

1. Policy for quality assurance

The Course has been accredited by the Cyprus Council of Recognition of Higher Education Qualifications, has a formal status and the relevant information is publicly available. It is the only Masters degree in Biomedical Engineering available in Cyprus.

A quality assurance committee is in place. Overall, structures, regulations and processes for quality assurance are in place and appropriate. The Department has undergone an external evaluation in 2015, which recommended Biomedical Engineering as a key area to focus.

Detailed course outlines are publicly available, regulations are available to students and staff.

The program requirements with and without thesis include 90 ECTS, which is the EQF for "second-cycle" degrees (90-120 ECTS).

The organization supports teaching, administrative staff and students, quality assessment methods are in place to evaluate the student assessment methods.

Extra support is available for students with disabilities or special needs, though extra mentoring, extra time during exams etc.

Students participate in research and international exchange programs are available (ERASMUS).

Career events are organized by the students' affair office.

2. Design, approval, on-going monitoring and review

Three faculty members manage the program, which is benchmarked vs similar programs in the USA and Europe**.**

The qualification is clearly specified and communicated, and refers to the correct level of the National Qualifications Framework for Higher Education, as well as to the Framework for Qualifications of the European Higher Education Area

A formal approval process is in place for any changes in the curriculum. The program is updated to meet technology advances, as well as employers and societal needs. Updates to the program go through a Program Committee and are approved by two councils.

Students play a key role in the evaluation of the program (twice a year) and participate in its development.

The Masters course includes three compulsory and 17 elective courses, as well as a thesis.

The elective courses include Biostatistics, Advanced Mathematics for Bioengineers and Numerical methods, which has to be commended. Also commendable is the inclusion of a course on Entrepreneurship for Biomedical Engineers, as well as the consideration of local employers' needs and the employment market overall. However, some courses (for example Tissue Engineering) were not implemented due to lack of interest or lack of local employment opportunities.

The compulsory courses are Medical Imaging, Advanced Medical Imaging and Biosensors.

Overall, the course program has emphasis on imaging and image processing, which is understandable in terms of immediate employment opportunities.

The labs are all well equipped with new equipment and good working space. Rooms look in very good condition with new furniture, while a good number of computer workstations are available.

In terms of space, we only note that the library could be bigger and able to accommodate a bigger number of workstations.

3. Public information

Course information is provided on the web, https://www.cut.ac.cy/studies/masters/master-programmes/eei-gr-bio/?languageId=1. The website is clear and informative. Admission requirements and application procedures were clearly laid out.
Scholarship and other financial support information and procedures is available publicly. Special scholarships are available for students from Africa.

Pass rates were presented during the external review, but publicly available information on pass rates has not been found.
Same for employment after graduation. Relevant information is collected but we have not seen it as publicly available.

4. Information management

A dedicated person is responsible for IT and information management.

Information on key performance indicators is collected including the profile of the student population, student progression, success and drop-out rates and students' satisfaction.

Data on the above were presented during the review.

Learning resources and student support available in form of well stocked libraries and IT resources.

Career paths of graduates and impressive figures on employment outcomes were presented.

Strengths

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

1.**CUT strengths**

Extrovert approach to funding

Member of EUt+ Universities

Two "Teaming for Excellence" research centres, funded.

Four Research Centres established, including a Cancer research Centre

ERC consolidator fund

Three English-taught master courses, collaboration with other European Universities.

Active growth and further development of the University

Active participation of students in governance

Provision of extracurricular professional environments for student employment, as well as in campus employment

2. Masters Course specific comments

The course is well constructed and covers well the pre-selected areas of focus.

Strong connection to local employment market and relevance to local needs

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 only issue identified was the lack of a close partnership with health sciences (e.g. school of nursing, medical school, etc.) and a lack of compulsory courses in anatomy and physiology, which will allow the engineering students to build a common "vocabulary" with the health sciences.

Integration of the local hospitals into the relevant training programs was not clear, this should be an area for further improvement.

In terms of the course content, there is a number of areas proposed for the development of the course:

1. In anticipation of the introduction of devices for molecular diagnostics, including next generation sequencing equipment in Medical Molecular Diagnostics Laboratories, it is worth to plan the development of courses that include, next to robotics, liquid handling system technology, fluidics/microfluidics and introduction to sequencing technology to prepare the next generation of bioengineers.
2. Manufacturing of therapeutics and bioprocessing is another area that needs to be considered.

3. Overall, the course in terms of its development, needs to anticipate future needs, as well as research needs/employment opportunities in the international student's countries of origin, which will further attract such students.
4. Last, a mandatory course in anatomy and physiology for engineers must be introduced in the curriculum.

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

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

Sub-areas

5.1 Process of teaching and learning and student-centred teaching methodology
5.2 Practical training
5.3 Student assessment

5.1 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.*

5.2 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.*

5.3 Student assessment

Standards

- *Assessment is consistent, fairly applied to all students and carried out in accordance with the stated procedures.*

- *Assessment is appropriate, transparent, objective and supports the development of the learner.*
- *The criteria for the method of assessment, as well as criteria for marking, are published in advance.*
- *Assessment allows students to demonstrate the extent to which the intended learning outcomes have been achieved. Students are given feedback, which, if necessary, is linked to advice on the learning process.*
- *Assessment, where possible, is carried out by more than one examiner.*
- *A formal procedure for student appeals is in place.*
- *Assessors are familiar with existing testing and examination methods and receive support in developing their own skills in this field.*
- *The regulations for assessment take into account mitigating circumstances.*

You may also consider the following questions:

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

Findings

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

5.1 Process of teaching and learning and student-centred teaching methodology

All individual courses have a very clear description of objectives, assessments and teaching methodology, which are monitored by the Biomedical Engineering Program Committee.

All courses have presentations, group discussion and laboratory demonstration components. This is the right mix of teaching methods for this type of course. The development of students' general competencies is supported by this mix of teaching methods and, in particular, through small group teaching. Students learn through hands-on experience and learn to operate state of the art equipment.

Individual workstations are available for all students; the students are able to access a range of communication and learning tools.

Overall practical training is a key component of this course, see below.

The number of research projects is impressive, students are able to develop their skills in several funded programs (about 13 examples were presented), covering a wide spectrum of applications.

5.2 Practical training

Practical training is achieved through modern infrastructure in form of five laboratories

a) The therapeutic ultrasound laboratory founded in 2021 headed by Christakis Damianou, enabling the students to perform research in the field of MRI guidance of therapeutic ultrasound in brain and heart, including the development of robotics. It is fully equipped, which allows the students to conduct their research in developing therapeutic applications.

b) The Photonics Laboratory is also well equipped, and currently focus on research related to the photonic chip in terms of laser-material interactions, and optical fibre sensors, chemical and bio sensors.

c) The Telemedicine and Telemetry research Laboratory. Was also well equipped, including a tele-robotic system, which allows a number of exciting student projects to be carried out. A collaboration with the University of Orleans in France is also established in the field of tele-echography.

d) The Biomechanics and Living Systems Analysis laboratory, has a very broad scope covering from diagnostic biomarkers to bioimplants and devices. This is too broad and this broad scope needs to be further evaluated and refined.

e) The Nanomechanics laboratory has also a broad scope including telemetry projects that link with telemetry and sensor development. Many EU collaborations are established by CUT in this field and offer exciting cutting edge technology projects to students.

5.3 Student assessment

Student assessment is carried out by applying a range of methods, tailored to individual courses. For example, in EEN 560 (Biosensors) the assessment includes a midterm exam (40%), assignments (10%) and a final exam (50%). Many courses apply a similar assessment methodology with adjustments to include exercises and 1-2 projects.

Other courses, for example the research methods course (EEN515) applies attendance to seminars (20%), research proposal (30%) and review writing (50%) as an assessment method. Overall, the methods of assessment include variety that allows students to be assessed on a number of complementary skills. All these correspond to the EQF standard.

Strengths

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

Overall, the strengths of the Masters program are the excellent laboratories and facilities, which allow individual students to obtain hands-on experience and develop a multitude of skills, as well as workstations to carry out their work. A high number of exciting, national and international research projects are available to the students, allowing them to develop their research skills and interests in cutting-edge technologies. The program coordinators and staff are to be commended for their efforts in securing research funding and for engaging the students in a wide spectrum of projects.

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.

No problem areas have been identified. We recommend the expansion and further development of the Biomechanics and Living Systems Analysis Laboratory to include more in-depth training on Biomarker discovery and Biomarker analysis, tissue culture and organoid systems, as well as Bio-production methodologies. Requesting additional funding to expand in these areas is recommended and fully supported by the committee.

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.*

You may also consider the following questions:

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

Findings

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

3.1 Teaching staff recruitment and development

The program's coordinator, Professor Christakis Damianou is a highly experienced senior academic.

The teaching staff consists of full-time academics occupied exclusively at the CUT with relevant expertise, research experience and strong academic credentials in terms of relevant publication and contributions to the Bioengineering/Biomedical Engineering field. Only 10% of staff is non-permanent faculty. Their number adequately supports the program of study. All staff has higher degrees than Masters.

Staff has been recruited from other Universities and Institutes in Cyprus, or Greece, with qualification that have been obtained in the USA, Canada and Europe. Staff is a mix of early, mid-career and senior professors, ranging from the assistant professor level to associate and full professor as well as junior staff. There are opportunities for career progression and further training though direct financial support and incentives to participate in grant applications and international working groups and consortia paving the way to allow career progression. Salaries are claimed to be at a relatively high, competitive level compared to other Universities in Cyprus

thus providing incentives for excellence. This is reflected in funding success and productive publication records.

However, we noted that the course will benefit from including staff with medical qualifications to teach the medically relevant parts of courses, or by engaging staff teaching in the Nursing Sciences/Rehabilitation Department.

Another issue is the underrepresentation of female instructors. Margarita Chli will start in the summer of 2022, so this is a step in the right direction.

3.2 Teaching staff number and status

There are 12 teaching staff, providing an excellent mixture of experience.

3.3 Synergies of teaching and research

The synergies between teaching and research are excellent. They are provided through numerous research programs and teaching laboratories that are also suitable for carrying out state-of-the art research.

Strengths

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

The number of staff engaged is high, the staff provide a good mixture of experience levels. Staff is productive in terms of publication records, and successful in obtaining funds for research programs. This in turn enhances the opportunities for cutting edge training and research offered to students.

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.

We propose to engage staff from either the affiliated Hospitals or the Department of Nursing to teach/contribute to the teaching of medical subjects. We also recommend focussing on attracting female instructor candidates.

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	compliant

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

Sub-areas

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

4.1 Student admission, processes and criteria

Standards

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

4.2 Student progression

Standards

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

4.3 Student recognition

Standards

- *Pre-defined and published regulations regarding student recognition are in place.*
- *Fair recognition of higher education qualifications, periods of study and prior learning, including the recognition of non-formal and informal learning, are essential components for ensuring the students' progress in their studies, while promoting mobility.*
- *Appropriate recognition procedures are in place that rely on:*
  - *institutional practice for recognition being in line with the principles of the Lisbon Recognition Convention*
  - *cooperation with other institutions, quality assurance agencies and the national ENIC/NARIC centre with a view to ensuring coherent recognition across the country*

4.4 Student certification

Standards

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

You may also consider the following questions:

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

Findings

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

4.1 Student admission, processes and criteria

The student admission requirements are very well defined and publicly available. Academic Transcripts and a CV are required, along with documentation on university degrees or a confirmation letter stating that these degrees will have been obtained by the time of the course's start. In addition, the candidates must submit a statement to justify their interest in the course as well as other supporting certificates and documents in terms of relevant work experience. Proof of English proficiency is required.

The evaluation process is completed by a course specific committee within 7-10 working days, assuming all required documents have been submitted. The applicants are able to monitor the status of their application from the Students Online Portal.

Admission criteria and their monitoring have been evaluated by the internal evaluation committee.

4.2 Student progression

Evaluation of student progression is monitored by a number of evaluation methods, which have proven to be effective and reduce the number of failing students, The continuous assessment system is favoured by students according to their own evaluation. Course evaluation by the

students indicates a positive evaluation of staff and an appreciation of the mentoring and teaching schemes in place. Overall, the quality of assessment methods and student support is high.

4.3 Student recognition

The admission process allows the students to provide supporting documentation and the opportunity to have their previous experiences and academic achievements recognized by the admission committee.

4.4 Student certification

The course is fully accredited, adheres to international EU and USA standards, the students receive appropriate documentation and detailed descriptions of the course content and their achievements.

Strengths

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

Full documentation on accreditations, detailed description of admission requirements, documentations and processes are available on line. Application is carried out through a dedicated portal.

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.

One area identified is the omission of information on optimal grades (GPA) that need to have been obtained in order to be successfully submitted.

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.*

You may also consider the following questions:

- *Evaluate the supply of teaching materials and equipment (including teaching labs, expendable materials, etc.), the condition of classrooms, adequacy of financial resources to conduct the study programme and achieve its objectives. What needs to be supplemented/ improved?*
- *What is the feedback from the teaching staff on the availability of teaching materials, classrooms, etc.?*
- *Are the resources in accordance with actual (changing) needs and contemporary requirements? How is the effectiveness of using resources ensured?*
- *What are the resource-related trends and future risks (risks arising from changing numbers of students, obsolescence of teaching equipment, etc.)? How are these trends taken into account and how are the risks mitigated?*
- *Evaluate student feedback on support services. Based on student feedback, which support services (including information flow, counselling) need further development?*
- *How is student learning within the standard period of study supported (student counselling, flexibility of the study programme, etc.)?*
- *How students' special needs are considered (different capabilities, different levels of academic preparation, special needs due to physical disabilities, etc.)?*
- *How is student mobility being supported?*

Findings

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

Click or tap here to enter text.

Strengths

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

5.1 Teaching and Learning resources

Teaching and learning environments, materials, and equipment provided to students are all modern, relevant and support the achievement of the objectives in the study program. As indicated in previous sections, the work areas are inviting, equipment is of high quality and a good number of workstations is provided to students. However, there is lack of room for expansion and increase of student numbers. Provisions for e-learning support have been set up.

5.2 Physical resources

All facilities that have been shown to the external evaluation committee indicate that laboratories, classrooms and workstations, libraries and IT infrastructure are adequate to support the study program.

5.3 Human support resources

A number of services are offered to students with at least one person dedicated to the Department: A Students Affair Office, a Library, a Research Office, IT and Accounting (two dedicated persons), as well as secretarial assistance and a lab assistant. These allocated personnel resources are able to provide consistent and strong support to the students.

5.4 Student support

Study support is provided through mentoring, financial support is provided through teaching assistantships and scholarships. This is very good, however, living costs in Limassol are high and thus puts financial pressure on students.

Overall, an interview with current students and alumni indicated an appreciation for the Department's efforts in student support and mentoring further strengthening the conclusion that the students of this Master's course are well supported.

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.

There were no serious problem areas found. However, one important point has been raised in terms of the planned expansion of infrastructure, laboratories and teaching areas, which is in hold since 2013. It is important for funds to be released in order to continue the expansion and capitalise on the success of the course by allowing an increase in student admissions at national and international level.

Since the Limassol living costs are high, an increase in the financial assistance given to students will be critical.

A minor recommendation is to improve the information that is available on-line about scholarship opportunities and any other form of support (accommodation etc) for international students, in English.

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.*

You may also consider the following questions:

- *How is the scientific quality of the PhD thesis ensured?*
- *Is there a link between the doctoral programmes of study and the society? What is the value of the obtained degree outside academia and in the labour market?*
- *Can you please provide us with some dissertation samples?*

Findings

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

Click or tap here to enter text.

Strengths

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

Click or tap here to enter text.

Areas of improvement and recommendations

A list of problem areas to be dealt with, followed by or linked to the recommendations of how to improve the situation.

Click or tap here to enter text.

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

Sub-area		***Non-compliant/ Partially Compliant/Compliant***
6.1	Selection criteria and requirements	Choose answer
6.2	Proposal and dissertation	Choose answer
6.3	Supervision and committees	Choose answer

D. Conclusions and final remarks

Please provide constructive conclusions and final remarks which may form the basis upon which improvements of the quality of the programme of study under review may be achieved, with emphasis on the correspondence with the EQF.

Strengths

- This is a well-organized and executed Masters Degree Course with many substantial strengths:
- The course is well constructed and covers well the pre-selected areas of focus. The teaching staff has depths of expertise and strong research records enabling high quality teaching coupled with research.
- Facilities and equipment are up to date.
- Excellent opportunities for exciting research projects through participation in national and international research programs, as well as through established connections with international partner Universities.
- Strong connection to local employment market and relevance to local needs is much appreciated by the students and this committee.
- Well-constructed student support system at the mentoring and financial support level.

Recommendations:

- To include medically qualified staff in the teaching of relevant subjects (potentially as guest lecturers) and to add a compulsory course of anatomy-physiology for engineers.
- We support the further expansion of the facilities to allow more students to be admitted.
- We recommend to plan ahead a further development of the course, based on developments in the field at international level, so that the course is also more relevant and attractive to international students.
- We support an effort to increase the level of scholarships to meet increased living costs.
- We recommend an effort to increase the percentage of female instructors amongst staff.

E. Signatures of the EEC

Name	*Signature*
Ioannis Ragoussis	
Anthony Aletras	
Periklis Pantazis	
Konstantina Kyriakou	
Click to enter Name	
Click to enter Name	

Date: 11/04/2022