

Doc. 300.1.2

Date: 20/06/2023

Higher Education Institution's Response

- **Higher Education Institution:**
University of Nicosia

- **Town:** Nicosia

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

In Greek:

Μηχανολογική Μηχανική (4 έτη, 240 ECTS, Πτυχίο)

In English:

Mechanical Engineering (4 years, 240 ECTS, Bachelor of Science)

- **Language(s) of instruction:** English
- **Programme's status:** Accredited
- **Concentrations (if any):** None

In Greek:

In English:



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>Improve the distribution of ECTS between basic education and advanced engineering courses. Namely,</p> <ul style="list-style-type: none"> o the total number of ECTS for the Mathematics should be reduced to no more than 18 ECTS, o the total number of ECTS for the Sciences (Physics and Chemistry) to no more than 12 ECTS, o the total number of ECTS for English language to no more than 8 ECTS and 	<p>A comparison with the structure of similar programs in Cypriot as well as American universities (with the 4-year system of studies which is followed at UNIC) reveals that all of our mathematics courses are necessary. There isn't much we can do, bearing in mind that Engineering requires a very strong background in Mathematics. Furthermore, as our incoming students come from a number of continents and countries with a diverse background in mathematics, we need to make sure they all reach a certain level which will enable them to attend and understand difficult advanced engineering courses.</p> <p>It has been decided to reduce the number of ECTS in Sciences to 16 ECTS by removing the requirement for CHEM-106 General Chemistry and PHYS-150 General Physics I and make these two courses optional. Thus, students will be taking only PHYS-160 General Physics II (Electromagnetics) and either CHEM-160 or PHYS-150.</p> <p>The course ENGL-101 English Composition has been removed from the Language Requirements section, thus leaving only one course (6 ECTS) in that section. Students who may need to take ENGL-101 will be able to do so but the ECTS's of the course will not</p>	

<p>o the number of ECTS for specialty courses must be enhanced bringing the value of BSc thesis to 30 ECTS.</p>	<p>count towards the 240 ECTS's required for graduation.</p> <p>Regarding the BSc Capstone Design Project, we consider 30 ECTS to be excessive for a 4-year 240 ECTS's program of study. Usually, we assign 30 ECTS to a Master Thesis, not an undergraduate Capstone Design Project. However, we agree to enhance it and make it 18 ECTS. At the same time, the Major Electives section (specialty courses) will be further enhanced and allow students to take 36 ECTS (6 courses) instead of 30 ECTS (5 courses).</p> <p>The revised program pathway is shown in Annex 1 along with the revised recommended semester breakdown.</p>	
<p>The number of offered elective courses needs to be limited in relation to the number of third and fourth year students available per semester.</p>	<p>The number of offered elective courses is already limited in relation to the number of third- and fourth-year students considering that there is a requirement for a minimum number of registered students for an elective course to be offered.</p>	
<p>Internship opportunities must be elaborated, ideally with the engagement of industrial partners, and offered to students with the number of ECTS corresponding to the respective load.</p>	<p>The MENG-491 Internship course requires 150-180 hours of placement with a company/ organization. Some students have already taken advantage of the internships. More specifically:</p> <ul style="list-style-type: none"> - Summer 2021: 2 students - Fall 2021: 2 students - Spring 2022: 3 students - Summer 2022: 2 students - Fall 2022: 1 student - Spring 2023: 1 student <p>Total: 11 students</p> <p>The total number is satisfactory considering</p> <p>(a) the number of students who graduated/are graduating,</p> <p>(b) the fact that students from Greece cannot take internships in</p>	

	<p>summer semesters and they prefer an elective course instead, (c) that students with low CPA prefer an elective and not to spend time in an internship program, especially in Fall/Spring semesters, and (d) that there are students who work in non-mechanical engineering fields to financially support their studies.</p> <p>The department in collaboration with UNIC's Careers Office will approach more companies and sign partnership agreements which will further increase the possibilities for internships by our students.</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>Encourage academic exchanges and mobility programmes including local and international internships for students.</p>	<p>We are already receiving a number of students from other European partners. Now that the number of students in the program has increased (21, 19, and 27 new students, respectively, joined the program in the last 3 academic years) we will further encourage our students to apply for mobility in the EU. This way we will have two-way exchanges and our students will also benefit from the Erasmus+ experience both in terms of study mobilities and traineeships. As far as local internships are concerned, please see the relevant point in section 1 above.</p>	
<p>Significantly enhance laboratories and other experimental facilities available to the students.</p>	<p>Since launching the program back in 2017, we have continuously and steadily enriched our laboratory facilities and equipment. We will continue to do so by including in our annual budget money for more specialized equipment which will further enhance our labs and other facilities and will enable both students and faculty to carry out research beyond covering the needs for experimentation as part of courses. We have recently submitted the CAPEX budget for the 2023-24 fiscal year in which over €50K was included in order to acquire new equipment/apparatus for the Mechanical Engineering Lab.</p> <p>The updated table in Annex 2 shows how the courses which include laboratory components are served with our current physical spaces and laboratory equipment.</p>	

<p>Elaborate, formalise, and enforce safety procedures for students in laboratories.</p>	<p>A manual on Mechanical Engineering Laboratory Environmental, Health and Safety Issues has been prepared (Annex 3) and will be distributed to all students at the beginning of their studies. Furthermore, it will be available on our Departmental and Programmatic webpages. Students will be expected to read the manual and follow the safety instructions. Also, where needed, labels have been placed on laboratory equipment.</p>	
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3. Teaching staff (ESG 1.5)

Areas of improvement and recommendations by EEC	Actions Taken by the Institution	For Official Use ONLY
<p>Significantly enhance ‘human capital’ with core expertise closely relevant to the Mechanical Engineering programme, e.g. by recruiting to permanent positions adjunct academic personnel already participating in the programme, and by making strategic investments into new faculty members.</p>	<p>We will begin by selecting two of our current Adjunct Faculty and converting their status of employment to tenure-track Teaching Research Faculty (TRF). At the same time, we will recruit new Adjunct Faculty from the industry and other academic institutions who will utilize their expertise and undertake the teaching of specialized Mechanical Engineering courses, both compulsory and elective. In the longer term, provided that the number of new incoming students continues to be satisfactory, we will consider opening additional tenure-track Teaching Research Faculty positions as needed.</p>	
<p>Improving gender balance should be given attention in the recruitment process.</p>	<p>We will bear this in mind in our call for applications and selection procedure.</p>	
<p>Encourage academic exchanges and mobility programmes for training existing personnel.</p>	<p>We will intensify our effort in encouraging academic exchanges and mobilities. Especially with the hiring of new Adjunct and tenure-track faculty, it will be feasible for all faculty members to go on such short-term training programs.</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
<p>Increase promotion of the programme to attract more students, and</p>	<p>The Program and the Department are employing several methods in order to attract more local students to the program. They visit high schools and talk about the engineering profession and our programs, organize a number of workshops throughout the year where high schoolers are invited, and organize a summer school for teenagers.</p> <p>Furthermore, the Office of Admissions in cooperation with our recruitment office in Greece, organize a number of recruitment campaigns throughout the year and a couple of recruiting tours during the summer months, with the participation of faculty representatives.</p> <p>Lastly, the UNIC International Recruitment Unit, throughout the year, participates in international Academic Exhibitions in Middle East, Africa and Russian Federation, sends personnel on tours to these regions and employs a Calling Center with over 20 people engaging with hundreds of international applicants throughout the year.</p>	
<p>Recruit new faculty with background in Mechanical Engineering.</p>	<p>This has already been addressed in section 3 of this report.</p>	

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>It is necessary to enhance expertise and to increase the number of respective teaching personnel on full-time positions in advanced and elective courses with specialisation closer to the programme subject. It will also be necessary to hire sufficient Special Teaching Staff to meet the needs of the programme's laboratories.</p>	<p>As already mentioned in section 3 of this report, two Teaching Research Faculty (TRF) will be hired to start with. As the program grows in terms of the number of students, more full-time TRF will be hired.</p> <p>Regarding the laboratory sessions of those courses which include a lab (see Annex 2), the faculty member who teaches the theoretical part is also responsible for the practical component. In any case, a lab assistant will be available in order to help during the laboratory sessions.</p>	



6. Additional for doctoral programmes
(ALL ESG)

Areas of improvement and recommendations by EEC	Actions Taken by the Institution	For Official Use ONLY






7. Eligibility (Joint programme) (ALL ESG)

Areas of improvement and recommendations by EEC	Actions Taken by the Institution	For Official Use ONLY

B. Conclusions and final remarks

Conclusions and final remarks by EEC	Actions Taken by the Institution	For Official Use ONLY
Significantly enhance 'human capital' with core expertise closely relevant to the Mechanical Engineering programme, e.g. by recruiting to permanent positions adjunct academic personnel already participating in the programme, and by making strategic investments into new faculty members.	Has already been addressed in section 3 of this report.	
Improving gender balance should be implemented in the recruitment process.	Has already been addressed in section 3 of this report.	
Actively promote academic exchanges and mobility programs for training existing personnel.	Has already been addressed in section 3 of this report.	
Significantly enhance specialised laboratories and other experimental facilities available to the students.	Has already been addressed in section 2 of this report.	
Elaborate and enforce safety procedures for students and personnel training.	Has already been addressed in section 2 of this report.	
Improve the distribution of ECTS by enhancing advanced engineering courses and BSc thesis.	Has already been addressed in section 1 of this report.	
Facilitate internship opportunities.	Has already been addressed in sections 1 and 2 of this report.	

C. Higher Education Institution academic representatives

<i>Name</i>	<i>Position</i>	<i>Signature</i>
George Gregoriou	Dean, School of Sciences and Engineering	
Stelios Neophytou	Head, Department of Engineering	
Elias Yfantis	Coordinator, Mechanical Engineering program	

Date: June 20 2023

