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Doc. 300.1.1

[University of Cyprus]

[Master in Advanced Materials and Nanotechnology]

External

evaluation

report

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 and 2016" [N. 136 (I)/2015 and N. 47(I)/2016].

A. Introduction

B. External Evaluation Committee (EEC)

Name	Position	University
George Palasantzas	Professor	University of Groningen, NL
Artemis Stamboulis	Associate Professor	University of Birmingham, UK
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C. Guidelines on content and structure of the report

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

Standards

- *Policy for quality assurance of the program of study:*
    - *has a formal status and is publicly available*
    - *supports the organization 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*

- *The program of study:*
    - *is designed with overall program 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*
> - *defines the expected student workload in ECTS*
> - *includes well-structured placement opportunities where appropriate*
> - *is subject to a formal institutional approval process*
> - *results to 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 program 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, the student expectations, needs and satisfaction in relation to the program*
> - *is reviewed and revised regularly involving students and other stakeholders*
>
> - *Public information (clear, accurate, objective, up-to date and readily accessible):*
>   - *about the program of study offered*
>   - *the selection criteria*
>   - *the intended learning outcomes*
>   - *the qualification awarded*
>   - *the teaching, learning and assessment procedures*
>   - *the pass rates*
>   - *the learning opportunities available to the students*
>   - *graduate employment information*

Findings
1. The policy for quality assurance of the program reflects the above standards.
2. The learning outcomes are known.
3. All the information including assessment processes and methodologies are available to the students and teaching staff.
4. The master's program is typical of a program of study in other high-quality European Universities.

Strengths
1. There is a strong support by the administrative staff and the technical staff to achieve the objectives of the program study.
2. The academic staff is highly qualified and established in the international research community and is within the vision of the University of Cyprus according to research, innovation and creativity.
3. The available infrastructure (e.g., equipment) is sufficient and supports the achievements of the program.

Areas of improvement and recommendations
1. Interaction with stakeholders should be improved perhaps by increasing the interaction with the industry and other institutions abroad considering the limitation of industrial development in Cyprus.

2. The learning outcomes although known, they need to be clearly defined. The learning outcomes are not fully satisfied by the program design, specifically the learning outcomes 1 and 3 in section B of the program content, point 2. Consequently, improvement is necessary.

3. The structure of the program is too specialised for a master's program study and an improvement should be expected through the introduction of the English language as well as the new recruitment of the academic staff.

4. The structure of the program does not follow a progressive development from the fundamentals to more advanced and complex concepts with the consequence to become very challenging for students especially those with a non-engineering background. The program should be accessible to all science, technology and engineering backgrounds, in order to attract a larger number of high-quality students from abroad.

5. The choice of course is limited and is apparent that this is related to the number of available teaching staff. Recruitment of new academic staff should improve the situation.

6. Although the labs are currently located in different areas within the University, it is expected that the relocation of the labs to the new building in the new University Campus will improve significantly the integration of the program in the context of the Department of Mechanical Engineering and the research activities.

Note what is applicable for each quality indicator/criterion

1 or 2: Non-compliant

3 or 4: Non-compliant

5 or 6: Partially compliant

7 or 8: Substantially compliant

9 or 10: Fully compliant

Quality indicators/criteria			1 - 10
1.1	Quality assurance policy defines competences and procedures for the people involved.		8
1.2	Participation in quality assurance processes is ensured for:		
	1.2.1	the members of the teaching staff	8
	1.2.2	the members of the administrative staff	8
	1.2.3	the students	8
1.3	The guide and / or the regulations for quality assurance, provide detailed information and data for the support and management of the program of study.		8
1.4	The quality assurance process constitutes an academic process and it is not restricted by non-academic factors.		8

1.5		The organization of the educational process safeguards the quality implementation of the program's purpose, objectives and the achievement of the learning outcomes. Particularly, the following are taken into consideration:	
	1.5.1	The implementation of a specific academic calendar and its timely publication	8
	1.5.2	The disclosure of the program's curricula to the students, and their implementation by the teaching staff	8
	1.5.3	The course web-pages, updated with the relevant supplementary material	8
	1.5.4	The procedures for the fulfillment of undergraduate and postgraduate assignments / practical training	8
	1.5.5	The procedures for the conduct and the format of the examinations and for student assessment	8
	1.5.6	The effective provision of information to the students and the enhancement of their participation in the procedures for the improvement of the educational process	8
1.6		The purpose and objectives of the program of study are formulated in terms of expected learning outcomes and are consistent with the mission and the strategy of the institution.	8
1.7		The purpose and objectives of the program and the learning outcomes are utilized as a guide for the design of the program of study.	5
1.8		The following ensure the achievement of the program's purpose, objectives and the learning outcomes:	
	1.8.1	The number of courses	5
	1.8.2	The program's content	7
	1.8.3	The methods of assessment	7
	1.8.4	The teaching material	8
	1.8.5	The equipment	9
1.9		The expected learning outcomes of the program are known to the students and to the members of the teaching staff.	8
1.10		The learning process is properly designed to achieve the expected learning outcomes.	8
1.11		It is ensured that learning outcomes may be achieved within the specified timeframe.	8

1.12	The program, in addition to the courses focusing on the specific discipline, includes an adequate number of general education courses according to the European practice.	7
1.13	The content of the program's courses reflects the latest achievements / developments in science, arts, research and technology.	8
1.14	New research results are embodied in the content of the program of study.	8
1.15	The content of foundation courses is designed to prepare the students for the first year of their chosen undergraduate degree.	N/A
1.16	The program of study is structured in a consistent manner and in sequence, so that concepts operating as preconditions precede the teaching of other, more complex and cognitively more demanding, concepts.	5
1.17	The learning outcomes and the content of the program are consistent.	7
1.18	The European Credit Transfer System (ECTS) is applied and there is correspondence between credits, workload and expected learning outcomes per course and per semester for the student either he / she studies in a specific program or he/she is registered and studies simultaneously in additional programs of studies according to the European practice in higher education institutions.	8
1.19	The higher education qualification awarded to the students, corresponds to the purpose, objectives and the learning outcomes of the program.	8
1.20	The higher education qualification and the program of study, conform to the provisions of their corresponding professional and vocational bodies for the purpose of registration to these bodies.	N/A
1.21	Program's management with regard to its design, its approval, its monitoring and its review, is in place.	8
1.22	It is ensured that the program's management and development process is an academic process which operates without any non-academic interventions.	8
1.23	The program's collaborations with other institutions are compared positively with corresponding collaborations of other departments / programs of study in Europe and internationally.	8
1.24	Procedures are applied so that the program conforms to the scientific and professional activities of the graduates.	8
1.25	Indicators for the employability of graduates and the employability record of the department's graduates are described in the feasibility study.	8
1.26	The graduation rate for the program of study is analogous to other programs with similar content.	8
1.27	The program of study benefits the society.	8

1.28	Information relating to the program of study are posted publicly and include:		
	1.28.1	The provisions regarding unit credits	8
	1.28.2	The expected learning outcomes	8
	1.28.3	The methodology	8
	1.28.4	Course descriptions	8
	1.28.5	The program's structure	8
	1.28.6	The admission requirements	8
	1.28.7	The format and the procedures for student assessment	8
	1.28.8	The pass rates	8

Justify the answer you have provided for numerical scores 1 to 4 and 9 or 10, and note any additional comments you may have on each indicator/criterion.

1.6 This is not quite true as the program is designed according to the capacity of the research and teaching staff.

1.8.1 There is a lack of available courses and the number of choices that the students have is small. An issue is also the fact that some of the courses do not run always because of the small number of students. With the introduction of English language towards internationalisation however, it is expected that this will be improved.

1.8.2 New members of staff are joining the department and therefore it is expected that the program's content will be enhanced and not limited to specialized research areas.

1.8.5 There is enough infrastructure to support a modern and up to date teaching and research program.

1.9 The learning outcomes are known but they need to be clearly defined.

1.10 This has been substantially achieved.

1.15 This is a postgraduate program.

1.16 Only the thesis writing follows this type of structure however, the teaching part of the course does not have such a structure. In the contrary, it is more specialized and focused on certain areas of Advanced Materials and Nanotechnology. This is potentially unfavorable for the coherent and stable growth of the program in the future.

1.17 The learning outcomes 1 and 3 are not fully satisfied by the program design.

1.20 The program is a postgraduate program and not an undergraduate program.

1.26 Most students graduate with very few exceptions of part-time students.

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

Standards

- *The process of teaching and learning supports students' individual and social development and respects their needs.*
- *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.*
- *Practical and theoretical studies are interconnected.*
- *The organization and the content of practical training, if applicable, support achievement of planned learning outcomes and meet the needs of the stakeholders.*
- *Mutual respect within the learner-teacher relationship is promoted.*
- *Assessment is appropriate, transparent, objective and supports the development of the learner.*
- *The criteria for and 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.*

Findings

The teaching methods and the teaching staff satisfy the above standards.

Strengths
1. The communication and interaction among the students, the academic and support staff are of a high quality.
2. Research and teaching are strongly interrelated.
3. The methodology followed is of a high quality.

Areas of improvement and recommendations
1. Despite the low number of students can be positive for constructive teaching, it is also a limitation in terms of course viability. A manageable number of students (ca 10) would benefit the viability as well as meet the international standards for this type of programs.

Note what is applicable for each quality indicator/criterion

1 or 2: Non-compliant

3 or 4: Non-compliant

5 or 6: Partially compliant

7 or 8: Substantially compliant

9 or 10: Fully compliant

Quality indicators/criteria		1 - 10
2.1	The number of students in each class allows for constructive teaching and communication.	7
2.2	The number of students in each class compares positively to the current international standards and/or practices.	5
2.3	A policy for regular and effective communication, between the teaching staff and the students, is applied.	10
2.4	The methodology utilized in each course leads to the achievement of the course's purpose and objectives and those of the individual modules.	9
2.5	Formative assessment and feedback are provided to the students regularly.	8
2.6	The assessment system and criteria regarding student course performance, are clear, adequate, and known to the students.	8
2.7	Educational activities which encourage students' active participation in the learning process, are implemented.	8
2.8	Teaching incorporates the use of modern educational technologies that are consistent with international standards, including a platform for the electronic support of learning.	8
2.9	Teaching materials (books, manuals, journals, databases, and teaching notes) meet the requirements set by the methodology of the program's individual courses, and are updated regularly.	8
2.10	It is ensured that teaching and learning have been enlightened by research.	10
2.11	Students, teaching and administrative staff participate in research activities and projects.	7
2.12	Students are trained in the research process.	8

Justify the answer you have provided for numerical scores 1 to 4 and 9 or 10, and note any additional comments you may have on each indicator/criterion.

2.1 The number of students should increase.

2.3 There is a very strong interaction of the students with the academic and support staff (administrative and technical).

2.4 The methodology used is appropriate and contributes to the achievement of the course's purpose.

2.10 All the courses are taught by research active academic staff.

3 **Teaching Staff** (*ESG 1.5*)

Standards

- *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 program, and to ensure quality and sustainability of the teaching and learning.*
- *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).*
- *Recognised visiting teaching staff participate in teaching the study program.*
- *The teaching staff is regularly engaged in professional and teaching-skills training and development.*
- *Assessment of the teaching staff takes into account the quality of their teaching, their research activity, the development of their teaching skills and their mobility.*

Findings

Concerning the teaching staff, the standards above are fully compliant, including recruiting criteria, scientific background and research skills. The teaching staff is permanent, and it can support the program of study in the present form.

Strengths

The academic staff (teaching and research staff including coordinator of the program) are highly qualified and produce very high quality of research which is published in internationally recognised high impact factor journals.

Areas of improvement and recommendations

Considering that the number of academic staff and students is relatively small, it would be beneficial for the program to have these numbers increased and keep the ratio of student to staff at least 2:1.

Note what is applicable for each quality indicator/criterion

1 or 2: Non-compliant

3 or 4: Non-compliant

5 or 6: Partially compliant

7 or 8: Substantially compliant

9 or 10: Fully compliant

	Quality indicators/criteria	1 - 10
3.1	The number of full-time teaching staff, occupied exclusively at the institution, and their fields of expertise, adequately support the program of study.	8

3.2		The members of teaching staff for each course have the relevant formal and fundamental qualifications for teaching the course, as described by the legislation, including the following:	
	3.2.1	Subject specialization, preferably with a doctorate, in the discipline	10
	3.2.2	Publications within the discipline	10
3.3		The program attracts visiting professors of recognized academic standing.	8
3.4		The specializations of visiting professors adequately support the program of study.	8
3.5		Special teaching staff and special scientists have the necessary qualifications, adequate work experience and specialization to teach a limited number of courses in the program of study.	N/A
3.6		In every program of study the special teaching staff does not exceed 30% of the permanent teaching staff.	N/A
3.7		In the program of study, the ratio of the number of courses taught by full-time staff, occupied exclusively at the institution, to the number of courses taught by part-time staff, ensures the quality of the program of study.	8
3.8		The ratio of the number of students to the total number of teaching staff supports and safeguards of the program's quality.	8
3.9		The teaching load allows the conduct of research and contribution to society.	8
3.10		Future redundancies / retirements, expected recruitment and promotions of teaching staff safeguard the unimpeded implementation of the program of study within a five-year span.	8
3.11		The program's coordinator has the qualifications and experience to coordinate the program of study.	10
3.12		The results of the teaching staff's research activity are published in international journals with the peer-reviewing system, in international conferences, conference minutes, publications etc.	10
3.13		The teaching staff are provided with training opportunities in teaching methods, adult education and new technologies.	8
3.14		Feedback processes for teaching staff with regards to the evaluation of their teaching work, by the students, are satisfactory.	7

Justify the answer you have provided for numerical scores 1 to 4 and 9 or 10, and note any additional comments you may have on each indicator/criterion.

3.2 The curricula of the teaching staff are of high scientific level and well-tailored for the Program requirements.

3.5 – 3.6 There are no special teaching staff involved in the program.

3.7 The permanent staff ensures the quality of the program.

3.8 The number of permanent staff is adequate to the fulfilment of the program. However, the small number of both teaching staff and students limits the possible choice of courses. Therefore, it is important to achieve an optimum student to staff ratio.

3.11 The coordinator is performing at a very high level for the execution of the program.

3.12 The teaching staff consists of highly capable researchers and publish in high-quality journals.

4 Students (*ESG 1.4, 1.6, 1.7*)

Standards

- *Pre-defined and published regulations regarding student admission, progression, recognition and certification are in place.*
- *Access policies, admission processes and criteria are implemented consistently and in a transparent manner.*
- *Information on students, like key performance indicators, profile of the student population, student progression, success and drop-out rates, students' satisfaction with their programs, learning resources and student support available, career paths of graduates, is collected, monitored and analyzed.*
- *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.*
- *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.*
- *Student support is provided covering the needs of a diverse student population (such as mature, part-time, employed and international students as well as students with disabilities).*
- *A formal procedure for student appeals is in place.*
- *Students are involved in evaluating the teaching staff.*
- *Students' mobility is encouraged and supported.*

Findings
The processes that concern students fulfil all the above standards.

Strengths
All processes and mechanisms are in place to help with the successful delivery of the program.

Areas of improvement and recommendations
The activity related to exchange of students requires some time in order to be fairly assessed. The program encourages students exchange via the Erasmus student exchange scheme and it is expected that with the introduction of English language, the scheme will be

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enhanced and will give further opportunities to students to experience different research environments.

Note what is applicable for each quality indicator/criterion

1 or 2: Non-compliant

3 or 4: Non-compliant

5 or 6: Partially compliant

7 or 8: Substantially compliant

9 or 10: Fully compliant

	Quality indicators/criteria	1 - 10
4.1	The student admission requirements of the program of study, are based on specific regulations and suitable criteria.	8
4.2	The award of the higher education qualification is accompanied by the diploma supplement which is in line with the European and international standards.	8
4.3	The program' s evaluation mechanism, by the students, is effective.	7
4.4	Students participation in exchange programs is compared favorably to similar programs across Europe.	6
4.5	There is a student welfare service that supports students with regards to academic, personal problems and difficulties.	8
4.6	Statutory mechanisms, for the support of students and the communication with the teaching staff, are effective.	8
4.7	Control mechanisms for student performance are effective.	8
4.8	Flexible options / adaptable to the personal needs or to the needs of students with special needs, are provided.	8
Justify the answer you have provided for numerical scores 1 to 4 and 9 or 10, and note any additional comments you may have on each indicator/criterion.		

5 Resources (*ESG 1.6*)

Standards

- *Adequate and readily accessible resources (teaching and learning environments, teaching materials, teaching aids and equipment, financial, physical and human support resources*) are provided to students and support the achievement of objectives in the study program.*

> * Physical resources: premises, libraries, study facilities, IT infrastructure, etc.
>   Human support resources: tutors/mentors, counselors, other advisers, qualified administrative staff
> - *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.*
> - *Teaching staff is involved in the management of financial resources regarding the program of study.*

Findings

The above standards are fulfilled by the program of study.

Strengths

1. The new lab facilities support effectively the delivery of a high-quality education.
2. The state-of-the art library is a significant factor for the successful performance of the students in the program.

Areas of improvement and recommendations

Transport within and outside the campus is not adequate and improvements are recommended.

Note what is applicable for each quality indicator/criterion

1 or 2: Non-compliant

3 or 4: Non-compliant

5 or 6: Partially compliant

7 or 8: Substantially compliant

9 or 10: Fully compliant

Quality indicators/criteria			1 - 10
5.1	Adequate and modern learning resources, are available to the students, including the following:		8
	5.1.1	facilities	8
	5.1.2	library	10
	5.1.3	infrastructure	8
	5.1.4	student welfare	8
	5.1.5	academic mentoring	8
5.2	Statutory administrative mechanisms for monitoring and supporting students are sufficient.		8

5.3	Suitable books and reputable journals support the program of study.	8
5.4	An internal communication platform supports the program of study.	8
5.5	The equipment used in teaching and learning (laboratory and electronic equipment, consumables etc.) are quantitatively and qualitatively adequate.	8
5.6	Teaching materials (books, manuals, scientific journals, databases) are adequate and accessible to students.	8
5.7	Teaching materials (books, manuals, scientific journals, databases) are updated regularly with the most recent publications.	8

Justify the answer you have provided for numerical scores 1 to 4 and 9 or 10, and note any additional comments you may have on each indicator/criterion.

5.1.2 The library is new and state-of- the art. It contains a very large collection of resources and it is a great place for the students to work in.

5.1.3 The transport is not adequate within and outside the University campus.

6 Additional for distance learning programs *(ALL ESG)*

Standards

- ***The distance learning methodology is appropriate for the particular program of study***.
- *A pedagogical planning unit for distance learning, which is responsible for the support of the distance learning unit and addresses the requirements for study materials, interactive activities and formative assessment in accordance to international standards, is established.*
- *Feedback processes for students in relation to written assignments are set.*
- *Specific plan is developed to ensure student interaction with each other, with the teaching staff, and the study material.*
- *Teacher training programs focusing on interaction and the specificities of distance learning are offered.*
- *A complete assessment framework is designed, focusing on distance learning methodology, including clearly defined evaluation criteria for student assignments and the final examination.*
- *Expected teleconferences for presentations, discussion and question-answer sessions, guidance are set.*
- *A study guide for each course, fully aligned with distance learning methodology and the need for student interaction with the material is developed. The study guide should include, for each course week / module, the following:*
  - *Clearly defined objectives and expected learning outcomes of the program, of the modules and activities in an organised and coherent manner*
  - *Presentation of course material, on a weekly basis, in a variety of ways and means (e.g. printed material, electronic material, teleconferencing, multimedia)*

o *Weekly outline of set activities and exercises and clear instructions for creating posts, discussion, and feedback*
o *Self-assessment exercises and self-correction guide*
o *Bibliographic references and suggestions for further study*
o *Number of assignments/papers and their topics, along with instructions and additional study material*
o *Synopsis*

Findings

Strengths

Areas of improvement and recommendations

Note what is applicable for each quality indicator/criterion

1 or 2: Non-compliant

3 or 4: Non-compliant

5 or 6: Partially compliant

7 or 8: Substantially compliant

9 or 10: Fully compliant

	Quality indicators/criteria	1 - 10
6.1	The pedagogical planning unit for distance learning supports the distance learning unit and addresses the requirements for study materials, interactive activities and formative assessment.	N/A
6.2	The institution safeguards the interaction between students, students and teaching staff, students and study guides/material of study.	N/A
6.3	The process and the conditions for the recruitment of teaching staff, ensure that candidates have the necessary skills and experience for distance learning education.	N/A
6.4	Training, guidance and support are provided to the teaching staff, through appropriate procedures.	N/A
6.5	Student performance monitoring mechanisms are satisfactory.	N/A
6.6	Adequate mentoring by the teaching staff, is provided to students, through established procedures.	N/A
6.7	The unimpeded distance learning communication between the teaching staff and the students, is ensured.	N/A

6.8	Assessment consistency is ensured.	
6.9	Teaching materials (books, manuals, scientific journals, databases) comply with the requirements provided by the distance learning education methodology and are updated regularly.	N/A
6.10	The program of study has the appropriate and adequate infrastructure for the support of distance learning.	N/A
6.11	The supporting infrastructures are easily accessible.	N/A
6.12	Students are informed and trained with regards to the available educational infrastructure.	N/A
6.13	Procedures for systematic control and improvement of the supportive services are set.	N/A
6.14	Infrastructure for distance education is comparable to university infrastructure in the European Union and internationally.	N/A
6.15	Electronic library services are provided according to international practice in order to support the needs of the students and the teaching staff.	N/A
6.16	The students and the teaching staff have access to the necessary electronic sources of information, relevant to the program, the level, and the method of teaching.	N/A

Justify the answer you have provided for numerical scores 1 to 4 and 9 or 10, and note any additional comments you may have on each indicator/criterion.

The program is not long-distance.

7 Additional for doctoral programs *(ALL ESG)*

Standards

- *Specific criteria that the potential students need to meet for admission in the program as well as how the selection procedures are made, are defined.*
- *The following requirements of the doctoral degree program are analysed and published:*
  - *the stages of completion*
  - *the minimum and maximum time of completing the program*
  - *the examinations*
  - *the procedures for supporting and accepting the student's proposal*
  - *the criteria for obtaining the Ph.D. degree*
- *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*

- o *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 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 defences 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:*
  - o *regular meetings*
  - o *reports per semester and feedback from supervisors*
  - o *support for writing research papers*
  - o *participation in conferences*
- *The number of doctoral students that each chairperson supervises at the same time, are determined.*
- *The process of submitting the dissertation to the university library, is set.*

Findings

Strengths

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Areas of improvement and recommendations

Note what is applicable for each quality indicator/criterion

1 or 2: Non-compliant

3 or 4: Non-compliant

5 or 6: Partially compliant

7 or 8: Substantially compliant

9 or 10: Fully compliant

	Quality indicators/criteria	1 - 10
7.1	The provision of quality doctoral studies is ensured through doctoral studies regulations, which are publicly available.	N/A
7.2	The structure and the content of a doctoral program of study ensure the quality provision of doctoral studies.	N/A
7.3	The doctoral studies' supervisors have the necessary academic qualifications and experience for the supervision of the specific dissertations.	N/A

7.4	The number of doctoral students, under the supervision of a member of the teaching staff enables continuous and effective feedback provided to the students and it complies with the European and international standards.	N/A
7.5	The research interests of academic advisors and supervisors adequately cover the thematic areas of research conducted by the doctoral students of the program.	N/A
7.6	Research equipment, laboratories, workshops and existing bibliographic material support the program of study.	N/A
7.7	The quality of the doctoral theses of the program in this field is in line with international standards.	N/A
7.8	Doctoral candidates have publications in scientific journals and/ or participate in international conferences.	N/A
7.9	The institution has mechanisms and funds to support writing and attending conferences of doctoral candidates.	N/A
7.10	The candidates demonstrate skills in designing and in conducting productive self-directed research.	N/A
7.11	Candidates are aware of the ethical implications of their research and of their responsibilities as scientists.	N/A
7.12	Suitable procedures of monitoring and periodic assessment of students' research progress are set.	N/A
7.13	There is a clear policy on authorship and intellectual property.	N/A
Justify the answer you have provided for numerical scores 1 to 4 and 9 or 10, and note any additional comments you may have on each indicator/criterion. This is a Masters program and not a doctoral program.		

8 Additional for joint programs *(ALL ESG)*

Standards

- *The joint program is offered in accordance with legal frameworks of the relevant national higher education systems.*
- *The partner universities apply joint internal quality assurance processes.*
- *The joint program is offered jointly, involving all cooperating universities in the design, delivery and further development of the program.*
- *The terms and conditions of the joint program are laid down in a cooperation agreement. The agreement in particular covers the following issues:*
  - *Denomination of the degree(s) awarded in the program*
  - *Coordination and responsibilities of the partners involved regarding management and financial organisation, including funding, sharing of costs and income, resources for mobility of staff and students*

8.8	The partner universities have agreed on how to seek feedback from students regarding the organisation and process of their study.	N/A
8.9	The partner universities ensure the economic sustainability of the joint study program.	N/A

Justify the answer you have provided for numerical scores 1 to 4 and 9 or 10, and note any additional comments you may have on each indicator/criterion.

This is not a joint program.

D. Conclusions and final remarks

Findings

- The master's program is typical of a program of study in other high-quality European Universities.
- The policy for quality assurance, the teaching methods and the teaching staff of the program as well as the processes that concern students fulfil all the required standards provided in this form.
- The learning outcomes are in place, but they require improvement.
- All the information including assessment processes and methodologies are available to the students and teaching staff.
- The teaching staff is permanent, and it can support the program of study in the present form.

Strengths

- There is a strong support by the administrative staff and the technical staff to achieve the objectives of the program study.
- The academic staff is highly qualified and established in the international research community and is within the vision of the University of Cyprus according to research, innovation and creativity.
- The available infrastructure (e.g., equipment) is sufficient and supports the achievements of the program.
- The communication and interaction among the students, the academic and support staff are of a high quality.
- Research and teaching are strongly interrelated.
- The methodology followed is of a high quality.
- The academic staff (teaching and research staff including the coordinator of the program) are highly qualified and produce very high quality of research which is published in internationally recognized high impact factor journals.
- All processes and mechanisms are in place to help with the successful delivery of the program.
- The state-of-the art library is a significant factor for the successful performance of the students in the program.
- The new lab facilities support effectively the delivery of a high-quality education.

Areas of improvement and recommendations

- The structure of the program is too specialised for a master's program study and an improvement should be expected through the introduction of the English language as well as the new recruitment of the academic staff.
- The structure of the program does not follow a progressive development from the fundamentals to more advanced and complex concepts with the consequence to become very challenging for students especially those with a non-engineering background. The program should be accessible to all science, technology and engineering backgrounds, in order to attract a larger number of high-quality students from abroad.
- The choice of courses is limited and is apparent that this is related to the number of available teaching staff. Recruitment of new academic staff should improve the situation.
- The ratio of student to staff number should be optimized so that the quality of the delivery of the program is not compromised. A recommendation could be to achieve a ratio of 2:1 so that the design of the program (number of courses offered) is of a high quality.
- Despite the low number of students can be positive for constructive teaching, it is also a limitation in terms of course viability. A manageable number of students (ca 10) would benefit the viability as well as meet the international standards for this type of programs.
- The learning outcomes although known, they need to be clearly defined.
- The learning outcomes are not fully satisfied by the program design, specifically the learning outcomes 1 and 3 in section B of the program content, point 2. Consequently, improvement is necessary.
- The activity related to exchange of students requires some time in order to be fairly assessed. The program encourages students exchange via the Erasmus student exchange scheme and it is expected that with the introduction of English language, the scheme will be enhanced and will give further opportunities to students to experience different research environments.
- Although the labs are currently located in different areas within the University, it is expected that the relocation of the labs to the new building in the new University Campus will improve significantly the integration of the program in the context of the Department of Mechanical Engineering and its research activities.
- Interaction with stakeholders should be improved perhaps by increasing the interaction with the industry and other institutions abroad, considering the limited industrial activities in Cyprus.
- Transport within and outside the campus is not adequate and improvements are recommended.

Overall assessment

Overall the master's in Advanced Materials and Nanotechnology is a highly promising postgraduate program. There is scope for improvement, however in its present form fulfils European standards and it is already comparable to similar programs in other European established universities. The academic staff (teaching and research) is of a very high quality and they have put in place an ambitious program that will contribute to the development of the local

community and the society at large in Cyprus. The program will be also, a very good example and will serve as an ambassador of the research capabilities of Cyprus in Europe. This will have eventually as a result the growth of the program in the future and the establishment of significant research and teaching collaborations with important research institutions worldwide.

E. Signatures of the EEC

Name	Signature
George Palasantzas	
Artemis Stamboulis	
Chiara Bertarelli	
Eleana Harkou	

Date: …21/03/2019……………………….