Date: 19/06/2023

External Evaluation Report

(Programmatic within the framework of

Departmental Evaluation)

- Higher Education Institution: University of Nicosia
- Town: Nicosia
- School/Faculty: School of Sciences and Engineering
- Department: Department of Engineering
- Programme(s) of study Name (Duration, ECTS, Cycle)
 <u>Programme 1 BSc Oil and Gas Engineering</u>
 In Greek:

Programme Name

In English:

Oil and Gas Engineering (4 years/240 ECTS, Bachelor of Science)

Language(s) of instruction: English

Programme 2 – MSc Oil, Gas and Energy Engineering In Greek:

Programme Name

In English: Oil, Gas and Energy Engineering (1.5 years, 90 ECTS, Master of Science) Language(s) of instruction: E

Programme 3 – PhD Oil, Gas and Energy Engineering In Greek:

Programme Name

In English: Oil, Gas and Energy Engineering (3 years, 180 ECTS, Doctor of Philosophy (PhD)) Language(s) of instruction: English





5Lemesou Avenue, 2112, Nicosia T: + 357 22 504 340 F: + 357 22 504 392 e -mail: info@dipae.ac.cy 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. Introduction

This part includes basic information regarding the onsite visit.

On June 15th and 16th 2023 the external evaluation committee (EEC) visited University of Nicosia Department of Engineering. All meetings were attended by one or two administrative officers from the University.

On June 15th, Vice Rector of Academic Affairs, Professor Panayiotis Angelides gave a presentation of the institution and together with a member of the Quality assurance committee, the Dean of School of Sciences and Engineering, the Head of Department of Engineering, the PhD OGEE Program coordinator, the BSc, OGE and MSc, OGEE, Program coordinator answered to questions from the EEC. Then the Dean of School of Sciences and Engineering, followed by QA session.

From 10:50 to 11:50, the Program coordinator for the Oil and Gas Engineering, (4 years/240 ECTS, Bachelor of Science), Dr Ernestos Sarris presented the program and a discussion followed with participation from EEC, the Dean, the Head of Department, the PhD OGEE Programme coordinator.

From 11:50 to 12:50, the Programme coordinator for the Oil, Gas and Energy Engineering (1.5 years, 90 ECTS, Master of Science), Dr Ernestos Sarris presented the program and a discussion followed with participation from EEC, the Dean, the Head of Department, the PhD OGEE Programme coordinator.

No demonstration of a live class was possible due to the time of the year. The committee was referred to an electronic presentation.

From 14:15 to 15:15, the Programme coordinator for the Oil, Gas and Energy Engineering (3 years, 180 ECTS, Doctor of Philosophy), Dr. Constantinos Hadjistassou presented the program and a discussion followed with participation from EEC, the Dean, the Head of Department, and the BSc OGE and MSc OGEE Programme coordinator.

From 15:15 to 15:45, the EEC met with five members of the administrative staff and from 15:45 to 17:00, the EEC was taken to laboratory facilities, located in a different building, and given a guided tour by relevant faculty, followed by an exit discussion on laboratories with participation from the Dean, the Head of Department, and the coordinators of study programs.

On June 16th, the programs related to Oil and Gas Engineering were discussed in sessions in between those relevant to the Hydrocarbon and Energy Management program.

From 11:45 to 12:45, EEC met with 12 members of the teaching staff relevant for the Oil and Gas Engineering education for a discussion on content of courses.

From 14:15 to 15:15, EEC met with students attending the Oil and Gas Engineering education: 2 PhD students, 2 MSc students, 3 BSc students plus a BSc student attending Electrical Engineering.

From ca 15:30 to 16:00, the EEC visited the library of University of Nicosia, presented by Ms. Mina Charalambous.

From ca 17:00 to 17:30, the EEC met with the Dean, the Head of Department and program coordinators for an exit discussion.

University representatives gave extensive and detailed presentations and were very willing to answer questions asked by the committee.

B. External Evaluation Committee (EEC)

Name

Position

Ida Lykke Fabricius	Professor	Technical University of Denmark
Roozbeh Rafati	Associate Professor	University of Aberdeen
Christos Kolympiris	Associate Professor	University of Warwick
Panagiotis Chrysanthou	BSc graduate	University of Cyprus
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:

<u>Findings</u>

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.

<u>Strengths</u>

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 each 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)*

<u>Sub-areas</u>

- **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

<u>Standards</u>

- 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
 - o 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

<u>Standards</u>

- 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
 - o 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)
 - \circ 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
 - o defines the expected student workload in ECTS
 - o includes well-structured placement opportunities where appropriate
 - o 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
- o is reviewed and revised regularly involving students and other stakeholders

1.3 Public information

<u>Standards</u>

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

1.4 Information management

<u>Standards</u>

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

<u>Findings</u>

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.

Findings for BSc Oil and Gas Engineering

Standards with respect to Policy for quality assurance, Design, approval, on-going monitoring and review of the Programme of Study, Public information and information management are generally met. The EEC found the BSc. program to be well composed and well balanced with respect to course subjects. Based on the course descriptions in the application, the EEC was somewhat concerned about possible overlap of curriculum for some courses, but the discussion with faculty clarified, that in practice faculty had overcome this problem, so that each course has a well-defined and relevant content.

Findings for MSc Oil, Gas and Energy Engineering

Standards with respect to Policy for quality assurance, Design, approval, on-going monitoring and review of the Programme of Study, Public information and information management are generally met.

The EEC found the MSc program to be generally well composed with respect to course subjects. The EEC found though, that a broader scope should be considered by giving more room for related environmental fields, including CO₂ storage. Based on the course descriptions in the Application, the EEC was concerned about possible overlap of curriculum for some courses, but the discussion with faculty clarified, that in practice faculty had overcome this problem, so that each course has a well-defined and relevant content. Also, the ECC concerned about the advanced topic in the MSc program and how lecturers differentiate between undergraduate and postgraduate courses. Also, how they keep the balance between fundamental and advanced topics when the students are coming from diverse educational backgrounds.

Findings for PhD Oil, Gas and Energy Engineering

For the PhD program, the only doctoral course to be found in the Application addresses scientific technique: planning and conducting academic research, writing literature summary and designing an academic paper. For more topical education, the students are referred to Master level courses.

Strengths

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

<u>Strengths for BSc Oil and Gas Engineering</u> The Bachelor level curriculum is well composed

<u>Strengths for MSc Oil, Gas and Energy Engineering</u> The Master level curriculum is overall well composed

<u>Strengths for PhD Oil, Gas and Energy Engineering</u> The PhD level curriculum has a high flexibility

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.

Areas of improvement and recommendations for BSc Oil and Gas Engineering

For the Bachelor level courses, care should be taken, that the course description reflects the actual course content. Care should also be taken that introductory courses are compulsory, when more advanced courses are compulsory (focus: geology).

The absence of mandatory fundamental courses such as thermodynamics and heat and mass transfer in the curriculum raises concerns regarding the comprehensiveness of engineering education. These fundamental subjects provide crucial knowledge and skills necessary for understanding energy transfer, system behavior, and designing efficient systems. Omitting these courses could result in graduates lacking proficiency in these key areas and hinder their ability to tackle real-world engineering challenges.

<u>Areas of improvement and recommendations for MSc Oil, Gas and Energy Engineering</u> For the Master level courses, care should be taken, that the course description reflects the actual course content. The curriculum could also be broader with respect to related environmental techniques, e.g. CO₂ storage.

To differentiate master's level courses from undergraduate courses effectively, it is crucial to include a well-defined advanced component in the curriculum. This advanced component goes beyond the complexity and depth of undergraduate courses, allowing students to delve deeper into their subjects, explore complex theories, and gain a comprehensive understanding of their field. It also promotes critical thinking, analytical skills, and independent research, preparing students for professional advancement. Defining this advanced component helps employers and academic institutions distinguish between candidates with undergraduate and graduate education, maintaining the value and integrity of graduate program.

Areas of improvement and recommendations for PhD Oil, Gas and Energy Engineering

The PhD program is only attended by a total of 9 students, with a yearly intake of 1 or 2 students. The current students pursue research in scientifically not very well related subjects. So far, two students have graduated. This can explain the flexible program, but it also raises the question as to whether this program a priority for the University.

The PhD topics should demonstrate relevance to the specific field of study, particularly in the case of oil and gas engineering research. Some topics related to subsea bolts are purely mechanical engineering in nature. It is important for a PhD topic in this field to align closely with the key areas of interest and advancements in oil and gas engineering.

	No	Non-compliant/	
Sub-area	Partially C	Compliant/	Compliant
	BSc Oil and	MSc Oil,	PhD Oil,
	Gas	Gas and	Gas and
	Engineerin	Energy	Energy
	g	Engineerin	Engineerin
		g	g

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

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

<u>Sub-areas</u>

- 2.1 Process of teaching and learning and student-centred teaching methodology
- 2.2 Practical training
- 2.3 Student assessment

2.1 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.

2.2 Practical training

<u>Standards</u>

- 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.

2.3 Student assessment

<u>Standards</u>

- 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 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.
- 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)?

<u>Findings</u>

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.

Findings for BSc Oil and Gas Engineering

Standards with respect to the Process of teaching and learning and student-centred teaching methodology, Practical training and Student assessment are generally met.

The interviewed students reported a high degree of satisfaction, a reasonable workload (two hours of study every evening) and a friendly and constructive support from teaching staff. Students typically are enrolled directly after completion of secondary school. Quality of teaching is monitored internally. Several courses have a focus on practice-based instruction, for example by experimental work in the laboratory. Participation in classes is compulsory. Class size is limited to 30 students but given small cohorts this maximum is rarely met. Textbooks are all available in the library and as E-books. Internships are typically not part of the program. Most (ca 80%) enrolled students complete the program. Around 25% of students, after completing the BSc program continue on the Master level education.

Findings for MSc Oil, Gas and Energy Engineering

Standards with respect to the Process of teaching and learning and student-centred teaching methodology, Practical training and Student assessment are generally met.

The interviewed students reported a high degree of satisfaction and a reasonable workload and a friendly and constructive support from teaching staff. Quality of teaching is monitored internally. Several courses have a focus on practice-based instruction, for example by experimental work in the laboratory. The MSc program puts emphasis on student defined learning, including essay writing and student presentations. The best qualified students can choose a study line where master thesis work is anticipated by thesis courses already from the first semester. Textbooks are all available in the library and as E-books. Participation in classes is compulsory.

Findings for PhD Oil, Gas and Energy Engineering

The requirement for completing a PhD is in accordance with international standards: An overview report in English accompanied by two higher-level first authored peer reviewed publications and additionally at least one conference contribution. The students are not required to assist in teaching. It is encouraged but not compulsory for the students to go for an extended visit to another university.

<u>Strengths</u>

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

Strengths for BSc Oil and Gas Engineering

As compared to the situation worldwide, the program has a high number of enrolled ethnically diverse students. Student satisfaction is high. Teaching methods effectively support learning, including emphasis on laboratory work.

<u>Strengths for MSc Oil, Gas and Energy Engineering</u>

As compared to the situation worldwide, the program has a high number of enrolled ethnically diverse students. Student satisfaction is high. Teaching methods effectively support learning, including emphasis on student-defined learning. The possibility for starting thesis related work from first semester.

<u>Strengths for</u> PhD Oil, Gas and Energy Engineering

The small cohort of doctoral students allows for students to receive lots of attention from supervisors.

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.

Areas of improvement and recommendations for BSc Oil and Gas Engineering

External examiners for grading of students in order to ensure good and international level of graduates and of teaching.

Areas of improvement and recommendations for MSc Oil, Gas and Energy Engineering

External examiners for grading of students in order to ensure good and international level of graduates and of teaching. Would it be possible for class attendance at Master level not to be compulsory? The purpose would be to train self-discipline in students.

Areas of improvement and recommendations for PhD Oil, Gas and Energy Engineering

Considering the potential isolation experienced by some PhD students, it would be beneficial to implement a mandatory external stay to foster scientific connections and enhance the overall scientific quality. Additionally, doctoral students pursuing laboratory-based studies should be granted increased access to laboratories to prevent them from being displaced by younger students. They should also be obliged to fill risk assessment forms with respect to materials and procedure and to do lab induction with a trained laboratory technician/qualified academic.

Sub-area		Non-compliant/ Partially Compliant/Compliant		
		Gas	Gas and	Gas and
			Energy	Energy
		Engineerin	Engineerin	Engineerin
		g	g	g
-		Complia	Complia	Partially
2.1	Process of teaching and learning and student- centred teaching methodology	nt	•	complian
			nt	t

		Partially	Partially	Not
2.2 Practical tra	Practical training	complian	complian	applicabl
		t	t	е
		Partially	Partially	Not
2.3	Student assessment	complian	complian	applicabl
		t	t	е

3. Teaching staff (ESG 1.5)

<u>Sub-areas</u>

- 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

<u>Standards</u>

- 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

<u>Standards</u>

- 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

<u>Standards</u>

- 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)?

<u>Findings</u>

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.

Findings for BSc Oil and Gas Engineering

Standards with respect to Teaching staff recruitment and development, Teaching staff number and status, Synergies of teaching and research are generally met. The teaching staff are well qualified academically. Most have PhD degree in a relevant field, and the university supports scientific upgrade for teaching staff without a PhD. (The University was previously a college, so single staff members were hired before transition). The EEC also found that the range of expertise among faculty is well planned. The staff gave the impression of being enthusiastic and mutually on good terms, giving a collaborative environment. They explained how they plan and conduct teaching from a student-based perspective, but apparently there is no program for teaching-education. The EEC noted the relatively high number of weekly face to face lecturing hours (6+ up to 17!), but staff members gave the impression of this being of little concern, due to few administrative duties. There is no tradition for sabbaticals. The staff appeared homogeneous with respect to ethnicity and gender.

Findings for MSc Oil, Gas and Energy Engineering

Standards with respect to Teaching staff recruitment and development, Teaching staff number and status, Synergies of teaching and research are generally met. The teaching staff is well qualified academically. All have PhD degree in a relevant field, thus facilitating research-based instruction. The EEC also found that the range of expertise is well planned. The staff gave the impression of being enthusiastic and mutually on good terms, giving a collaborative environment. They explained how they differentiate between bachelor level and master level instruction. The EEC noted the relatively high number of weekly face to face lecturing hours (6+ up to 17!), but staff members gave the impression of this being of little concern, due to few administrative duties. There is no tradition for sabbaticals. The staff appeared homogeneous with respect to ethnicity and gender.

<u>Findings for</u> PhD Oil, Gas and Energy Engineering N/A

Strengths for BSc Oil and Gas Engineering

Few administrative duties, high level of scientific qualification, impression of mutual respect

<u>Strengths for MSc Oil</u>, Gas and Energy Engineering

Few administrative duties, high level of scientific qualification, impression of mutual respect

<u>Strengths for</u> PhD Oil, Gas and Energy Engineering

Young PhD supervisors were effective in mentoring doctoral students. They were accessible, approachable, and communicate effectively, fostering open lines of communication with their 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.

Areas of improvement and recommendations for BSc Oil and Gas Engineering

The link to an electronic class, showed a not so optimally executed lecture. More pedagogical education of teaching staff is recommended. A teaching staff more diverse with respect to ethnicity and gender would make it easier for all students to identify with role models.

Areas of improvement and recommendations for MSc Oil, Gas and Energy Engineering

In order to maintain the academic level of the teaching staff, too many face to face teaching hours a week should be avoided. Also, a program for sabbaticals can be helpful.

Areas of improvement and recommendations for PhD Oil, Gas and Energy Engineering

Choosing a co-supervisor with more academic experience and industrial contributions can bring numerous benefits to the PhD projects.

Sub-area		Non-compliant/ Partially Compliant/Compliant		
		BSc Oil and Gas Engineerin g	MSc Oil, Gas and Energy Engineerin g	PhD Oil, Gas and Energy Engineerin g
3.1	Teaching staff recruitment and development	Partially complian t	Partially complian t	Not applicabl e
3.2	Teaching staff number and status	Complia nt	Complia nt	Not applicabl e

3.3	Synergies of teaching and research	Complia nt	Complia nt	Not applicabl e
-----	------------------------------------	---------------	---------------	-----------------------

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

<u>Sub-areas</u>

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

<u>Standards</u>

- 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

<u>Standards</u>

- 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

<u>Standards</u>

- 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

<u>Standards</u>

• 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.

Findings for BSc Oil and Gas Engineering

Standards with respect to student admission, processes and criteria, as well as Student progression, Student recognition and Student certification are met. An administrative officer focuses on screening applicants for the program.

Students originate from several countries, most are male. A majority of enrolled students complete the program.

Findings for MSc Oil, Gas and Energy Engineering

Standards with respect to student admission, processes and criteria, as well as Student progression, Student recognition and Student certification are met. An administrative officer focuses on screening applicants for the program.

Students originate from several countries, most are male. Half of students are recruited among graduates from the bachelor program A majority of enrolled students complete the program.

Findings for PhD Oil, Gas and Energy Engineering

A clear, fully developed, strategy for attracting qualified PhD students was not presented. The two interviewed PhD students appeared to have no clear goal for their education, but seemed satisfied with the situation.

<u>Strengths</u>

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

<u>Strengths for</u> BSc Oil and Gas Engineering

Screening of applicants seems to be effective.

<u>Strengths for</u> MSc Oil, Gas and Energy Engineering Screening of applicants seems to be effective.

<u>Strengths for</u> PhD Oil, Gas and Energy Engineering N/A

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.

<u>Areas of improvement and recommendations for BSc Oil and Gas Engineering</u> A strategy for attracting female students could be considered.

<u>Areas of improvement and recommendations for MSc Oil, Gas and Energy Engineering</u> A strategy for attracting female students could be considered.

<u>Areas of improvement and recommendations for PhD Oil, Gas and Energy Engineering</u> This program should probably be reconsidered.

	Sub-area		Non-compliant/		
Sub-a			Partially Compliant/Compliant		
		BSc Oil and Gas Engineerin g	MSc Oil, Gas and Energy Engineerin g	PhD Oil, Gas and Energy Engineerin g	
4.1	Student admission, processes and criteria	Complia nt	Complia nt	Partially complian t	
4.2	Student progression	Complia nt	Complia nt	Complia nt	
4.3	Student recognition	Complia nt	Complia nt	Complia nt	
4.4	Student certification	Complia nt	Complia nt	Complia nt	

5. Learning resources and student support (ESG 1.6)

<u>Sub-areas</u>

5.1.Teaching and Learning resources5.2.Physical resources5.3.Human support resources5.4.Student support

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?

<u>Findings</u>

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.

Findings for BSc Oil and Gas Engineering

Standards with respect to Teaching and Learning resources, Physical resources, Human support resources and Student support are generally met. The library appears well stocked with textbooks and E-books for bachelor level education. It is open to the public. The laboratory provides relevant and very good level experimental facilities for bachelor level education. Instructions in laboratory safety is given to all students, but international laboratory safety norms are not strictly adhered to.

Findings for MSc Oil, Gas and Energy Engineering

Standards with respect to Teaching and Learning resources, Physical resources, Human support resources and Student support are generally met. The library appears well stocked with textbooks and E-books for master level education. Access to scientific periodicals is via electronic subscription. The laboratory provides relevant and very good level experimental facilities for master level education. Instructions in laboratory safety is given to all students, but international laboratory safety norms are not strictly adhered to.

Findings for PhD Oil, Gas and Energy Engineering

Standards with respect to Teaching and Learning resources, Physical resources, Human support resources and Student support are met with a noteworthy exception: PhD students with an experimentally based curriculum must have access to relevant laboratory facilities, not unduly limited by the needs of students from the bachelor and master programs.

Strengths

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

<u>Strengths for BSc Oil and Gas Engineering</u> Access to relevant laboratory facilities allows experimentally based instruction.

<u>Strengths for MSc Oil, Gas and Energy Engineering</u> Access to relevant laboratory facilities allows experimentally based instruction.

<u>Strengths for</u> PhD Oil, Gas and Energy Engineering N/A

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.

<u>Areas of improvement and recommendations for BSc Oil and Gas Engineering</u> International norms with respect to laboratory safety should be adhered to.

<u>Areas of improvement and recommendations for MSc Oil, Gas and Energy Engineering</u> International norms with respect to laboratory safety should be adhered to.

<u>Areas of improvement and recommendations for PhD Oil, Gas and Energy Engineering</u> International norms with respect to laboratory safety should be adhered to.

	Sub-area		Non-compliant/		
Sub-a			Partially Compliant/Compliant		
		BSc Oil and Gas Engineerin g	MSc Oil, Gas and Energy Engineerin g	PhD Oil, Gas and Energy Engineerin g	
5.1	Teaching and Learning resources	Complia nt	Complia nt	Complia nt	
5.2	Physical resources	Partially complian t	Partially complian t	Partially complian t	
5.3	Human support resources	Complia nt	Complia nt	Complia nt	
5.4	Student support	Complia nt	Complia nt	Complia nt	

6. Additional for doctoral programmes (ALL ESG)

<u>Sub-areas</u>

6.1. Selection criteria and requirements

6.2. Proposal and dissertation

6.3. Supervision and committees

6.1 Selection criteria and requirements

<u>Standards</u>

- 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
 - o the examinations
 - the procedures for supporting and accepting the student's proposal
 - o the criteria for obtaining the Ph.D. degree

6.2 Proposal and dissertation

<u>Standards</u>

- Specific and clear guidelines for the writing of the proposal and the dissertation are set regarding:
 - the chapters that are contained
 - o 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

<u>Standards</u>

• 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:
 - o regular meetings
 - o reports per semester and feedback from supervisors
 - support for writing research papers
 - o 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?

<u>Findings</u>

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.

Standards with respect to Selection criteria and requirements, Proposal and dissertation, Supervision and committees seem all to be met.

<u>Strengths</u>

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

Doctoral students receive lots of attention and support from their supervisors as the cohorts are small.

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.

Is the PhD school too small? Are links to scientific collaborators in other universities sufficiently strong so that external stays can be facilitated?

Sub-	areas	Non-compliant/ Partially Compliant/Compliant
6.1	Selection criteria and requirements	Compliant
6.2	Proposal and dissertation	Compliant
6.3	Supervision and committees	Compliant

D. Conclusions and final remarks

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

The EEC found that the University of Nicosia offers a 4-year bachelor education in oil and gas engineering and an $1\frac{1}{2}$ year master degree in oil, gas and energy engineering of very good international standard.

Teaching staff appears well educated and well selected, although with low diversity with respect to gender and ethnicity. It is a concern that teaching load is high and could counteract up to date research-based instruction. A program of sabbaticals could provide more focused research time and facilitate international collaboration.

Students seem well selected, student satisfaction is high and work load appropriate.

The laboratory facilities are good for instruction on bachelor and master level, but space for PhD students should be taken into account. Safety instructions are given in the laboratories, but a stricter adherence to international space and safety norms is recommended.

E. Signatures of the EEC

Name	Signature
Ida Lykke Fabricius	
Roozbeh Rafati	
Christos Kolympiris	
Panagiotis Chrysanthou	
Click to enter Name	

Date: 19/06/2023