



**ΕΛΛΗΝΙΚΗ ΔΗΜΟΚΡΑΤΙΑ**  
HELLENIC REPUBLIC



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Ανώτατης Εκπαίδευσης**  
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**Accreditation Report**  
**for the New Undergraduate Study Programme in**  
**operation of:**

**Mechanical Engineering**

**Institution: University of Peloponnese**

**Date: 13 May 2023**



Επιχειρησιακό Πρόγραμμα  
Ανάπτυξη Ανθρώπινου Δυναμικού,  
Εκπαίδευση και Διά Βίου Μάθηση  
Με τη συγχρηματοδότηση της Ελλάδας και της Ευρωπαϊκής Ένωσης



Report of the EEAP appointed by the HAHE to undertake the review of the New Undergraduate Study Programme in operation of **Mechanical Engineering** of the **University of Peloponnese** for the purposes of granting accreditation.

## ACRONYMS

<b>ECTS:</b>	European Credit Transfer and Accumulation System
<b>EEAP:</b>	External Evaluation & Accreditation Panel
<b>EHEA:</b>	European Higher Education Area
<b>ENQA:</b>	European Association for Quality Assurance in Higher Education
<b>ESG:</b>	Standards and Guidelines for Quality Assurance in the European Higher Education Area
<b>EUA:</b>	European University Association
<b>GDPR:</b>	General Data Protection Regulation
<b>HQA:</b>	Hellenic Quality Assurance & Accreditation Agency in Higher Education
<b>HAHE:</b>	Hellenic Authority for Higher Education
<b>HCIC:</b>	Hellenic Construction Industry Council
<b>HEIs:</b>	Higher Education Institutions
<b>IM:</b>	Integrated Master
<b>IQAS:</b>	Internal Quality Assurance System
<b>ISO:</b>	International Organization for Standardization
<b>KPIs:</b>	Key Performance Indicators
<b>MSE:</b>	Master of Science in Engineering
<b>MOOCs:</b>	Massive On-line Open Courses
<b>NISQA:</b>	National Information System for Quality Assurance in Higher Education (ΟΠΕΣΠ)
<b>PSP:</b>	Postgraduate Study Programme
<b>PIPP:</b>	Professional Interdepartmental Postgraduate Programme
<b>QAU:</b>	Quality Assurance Unit
<b>USP:</b>	Undergraduate Study Program

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## **PART A: BACKGROUND AND CONTEXT OF THE REVIEW**

### **I. The External Evaluation & Accreditation Panel**

The EEAP responsible for the Accreditation Review of the new undergraduate study programme in operation of **Mechanical Engineering** of the **University of Peloponnese** comprised the following five (5) members, drawn from the HAHE Register, in accordance with Laws 4009/2011 & 4653/2020:

- 1. Prof. George Aggidis (Chair)**  
Lancaster University, United Kingdom
  
- 2. Prof. Konstantinos Salonitis**  
Cranfield University, United Kingdom
  
- 3. Dr Fivos Andritsos**  
European Commission, Joint Research Centre, Italy
  
- 4. Mr. Panagiotis Kiskiras**  
Member of the Technical Chamber of Greece, Greece
  
- 5. Mr. Georgios Papamichail**  
Student, School of Mechanical Engineering National Technical University of Athens, Greece

## **II. Review Procedure and Documentation**

Hellenic Authority of Higher Education (HAHE) provided the accreditation folder developed by the Department of Mechanical Engineering of the University of Peloponnese (ME/UOP) in advance to the panel assembling for the first time. The folder included supporting documents on the HAHE mission, standards, and guidelines of Quality Accreditation (QA) of new undergraduate programmes in operation, and the national framework of Higher Education Institutes (HEIs). The documentation prepared by ME/UOP was of high quality.

The External Evaluation & Accreditation Panel (EEAP) reviewed the material in advance of the accreditation week. On the first day (08/05/ 2023), the EEAP met in private to discuss the Department's proposal for the accreditation of the Undergraduate Programme (UGP), allocated tasks and list issues for the virtual visit. The first meeting was with the Vice-Rector/President of the Quality Assurance Unit / MODIP, and the Head of the Department of Mechanical Engineering for a short overview of its history, vision, mission, and academic profile. In the virtual meeting with the MODIP and Internal Evaluation Group (OMEA) representatives, the EEAP investigated the degree of compliance of the UGP to the Quality Standards for Accreditation. In the evening, the EEAP met privately to reflect on the discussions and prepare for the second day of the visit.

On the second day (08/05/2023), the program consisted of further meetings involving teaching staff members, employers, social partners, students, the MODIP and the OMEA representatives, the Vice-Rector, and the Head of the Department, including an on-line tour and discussion about the facilities.

During the day, the EEAP met in private several times to reflect on the discussions and start the preparation of the accreditation report following the procedures provided by HAHE.

The EEAP really appreciated the department's effort in hosting the virtual visit, and hope that they would have given the chance to visit physically the department.

### III. New Undergraduate Study Programme in operation Profile

The Mechanical Engineering Department is part of the School of Engineering of the University of the Peloponnese at Patra, Achaia, where its educational and administrative activities are based. It was established as the succession of the respective department of the Technological Education Institution (ATEI) of Western Greece. ATEIs were reorganised into universities in 2019. The Mechanical Engineering department is a relatively new department established in September 2019, with its predecessors operating for almost fifty years. The key milestones in its history include:

- 1970: established as a machinal engineers department focused on the technical and hands-on training (KATEE)
- 1983: evolution into a TEI Department with a three-year study programme;
- 2002: integration into Higher Education with a new 4-year study curriculum (evolution to ATEI status);
- 2019: evolution to an engineering department after merging the ATEI with the University of Peloponnese, offering five-year study programs, and introducing a PhD program.

The Mechanical Engineering undergraduate study programme is a five-year study programme whose development was based in the four-year respective programme offered by ATEI of Western Greece. The students of the 5-year program are required to complete a total of 54 courses (44 compulsory core courses and 10 electives out of 30 available) along with the completion of the Diploma Thesis. The program has an equivalency of 300 ECTS (270 from the completion of the courses and 30 from the diploma thesis). Currently, practical training of two months is required. Students are required to follow a specific specialization during the last two years of study and can customize the program and their elective courses in one of the two available specialization areas. The two specialization areas are: “Mechanical Constructions & Installations”, and “Energy & Environment”.

A detailed Curriculum Guide is available to ensure that students understand the program. In addition, course syllabi for all courses taught are available on the web page of the Department. Students are allowed to evaluate the courses they attend, and their input is considered in adjusting course content and delivery aspects.

The first students entered the Department in September 2019, and the first graduates are expected to graduate in 2024. Currently, the department has 485 actively registered students in the new study programme.

There are currently (May 2023) 13 faculty members that support the educational and research activities of the program. Several posts are already offered or advertised. To accomplish the program's educational requirements, the Department employs adjunct, part-time teaching staff who cover specific courses and provide the required lectures. Three technicians support the labs, and the academic staff and students are supported by four administrative staff.

The department's faculty journal publications include their funded and other project related research activities.

Graduates of the program are not allowed to become members of the Hellenic Technical Chamber (TEE), and as such, they lack engineering professional rights.

## **PART B: COMPLIANCE WITH THE PRINCIPLES**

### **Principle 1: Strategic Planning, Feasibility and Sustainability of the Academic Unit**

**Institutions must have developed an appropriate strategy for the establishment and operation of new academic units and the provision of new undergraduate study programmes. This strategy should be documented by specific feasibility and sustainability studies.**

*By decision of the institutional Senate, the Institutions should address in their strategy issues related to their academic structure in academic units and study programmes, which support the profile, the vision, the mission, and the strategic goal setting of the Institution, within a specific time frame. The strategy of the Institution should articulate the potential benefits, weaknesses, opportunities or risks from the operation of new academic units and study programmes, and plan all the necessary actions towards the achievement of their goals.*

*The strategy of their academic structure should be documented by specific feasibility and sustainability studies, especially for new academic units and new study programmes.*

*More specifically, the feasibility study of the new undergraduate study programmes should be accompanied by a four-year business plan to meet specific needs in infrastructure, services, human resources, procedures, financial resources, and management systems.*

*During the evaluation of the Institutions and their individual academic units in terms of meeting the criteria for the organisation of undergraduate study programmes, particular attention must be placed upon:*

#### **a. The academic profile and the mission of the academic unit**

*The profile and mission of the department should be specified. The scientific field of the department should be included in the internationally established scientific fields of Higher Education, as they are designated by the international categorisation of scientific fields in education, by UNESCO (ISCED 2013).*

#### **b. The strategy of the Institution for its academic development**

*The academic development strategy for the operation of the department and the new study programme should be set out. This strategy should result from the investigation of the factors that influence the studies and the research in the scientific field, the investigation of the institutional, economic, developmental, and social parameters that apply in the external environment of the Institution, as well as the possibilities and capabilities that exist within the internal environment (as reflected in a SWOT Analysis: strengths, weaknesses, opportunities, and threats). This specific analysis should demonstrate the reason for selecting the scientific field of the new department.*

#### **c. The documentation of the feasibility of the operation of the department and the study programme**

*The feasibility of the operation of the new department should be justified based on:*

- *the needs of the national and regional economy (economic sectors, employment, supply-demand, expected academic and professional qualifications)*
- *comparison with other national and international study programmes of the same scientific field*
- *the state-of-the-art developments*
- *the existing academic map; the differentiation of the proposed department from the already existing ones needs to be analysed, in addition to the implications of the current image of the academic map in the specific scientific field.*

#### **d. The documentation of the sustainability of the new department**

*Mention must be made to the infrastructure, human resources, funding perspective, services, and all other available resources in terms of:*

- *educational and research facilities (buildings, rooms, laboratories, equipment, etc.)*



- *staff (existing and new, by category, specialty, rank and laboratory). A distinct five-year plan is required, documenting the commitment of the School and of the Institution for filling in the necessary faculty positions to cover at least the entire pre-defined core curriculum*
- *funding (funding possibility from public or non-public sources)*
- *services (central, departmental / student support, digital, administrative, etc.)*

**e. The structure of studies**

*The structure of the studies should be briefly presented, namely:*

- **The organisation of studies:** *The courses and the categories to which they belong; the distribution of the courses into semesters; the alignment of the courses with the European Credit Transfer System (ECTS).*
- **Learning process:** *Documentation must be provided as to how the student-centered approach is ensured (modes of teaching and evaluation of students beyond the traditional methods).*
- **Learning outcomes:** *Knowledge, skills and competences acquired by graduates, as well as the professional rights awarded must be mentioned.*

**f. The number of admitted students**

- *The proposed number of admitted students over a five-year period should be specified.*
- *Any similar departments in other HEIs with the possibility of student transfers from / to the proposed department should be mentioned.*

**g. Postgraduate studies and research**

- *It is necessary to indicate research priorities in the scientific field, the opportunities for interdisciplinary research, the challenges towards new knowledge, possible research collaborations, etc.*
- *In addition, the postgraduate and doctoral programmes offered by the academic unit, the research projects performed, and the research performance of the faculty members should be mentioned.*

**Relevant documentation**

- *Introductory Report by the Quality Assurance Unit (QAU) addressing the above points with the necessary documentation*
- *Updated Strategic Plan of the Institution that will include its proposed academic reconstruction, in view of the planned operation of new department(s) (incl. updated SWOT analysis at institutional level)*
- *Feasibility and sustainability studies for the establishment and operation of the new academic unit and the new study programme*
- *Four-year business plan*

## Study Programme Compliance

### I. Findings

All the documents provided by the Department are of very high quality, well-structured and documented. Both presentations (by the President and the OMAE) were quite comprehensive of high quality.

The Panel is of the opinion that both the academic and the support staff perform adequately in their functions and are highly motivated. In particular, they are very supportive to the Department's students, this fact being also reflected in the meetings with the students, who underlined the preparation, openness and availability of the Department's academic and support staff.

In fact, the Department seems to be student-centred, its mode of operation, methods and laboratories being geared to the students' educational needs rather than the needs of the

faculty, in terms of research, publications etc. The downside of this is the rather low output in research and scientific publications.

The Department, due to its transition history, initially from TEI to ATEI and, recently, to the AEI status, is particularly sensitive with regard to the compliance of its offered undergraduate program to the international standards and to the effective equivalence to the rest of the Mechanical Engineering study offerings in Greece (i.e., NTUA, Patras etc.) and the professional rights of its alumni.

The Department's new programme is in line with the internationally established scientific fields of Higher Education (such as UNESCO ISCED 2013) and is comparable to the longer standing mechanical engineering departments.

The Department's strategic plan addresses the proposed academic reconstruction in view of the new study programme while an appropriate SWOT analysis deals with the potential benefits, limitations, opportunities and risks.

A feasibility and sustainability study, based on projections of trends of the market and the technological developments addresses quite well the related goals and objectives.

A 4-year plan addresses in a comprehensive way, issues regarding the operation of the Department, including critical items like the projected number students and staff, funding and infrastructure.

## **II. Analysis**

EEAP was positively impressed by the relevant documents furnished by the Department. It cannot but praise the considerable effort put, especially considering that this is in addition to the normal staff duties.

All Principle 1 points (a to g) are adequately addressed in the documentation provided as per the HAHE requirements. EEAP confirms the full compliance of the Department in points: (c) on the documentation of the feasibility of the operation of the department and the study programme; (d) on the documentation of the sustainability of the new department; and (f) on the number of admitted students. The Department is substantially compliant in points: (a) on the academic profile and the mission of the academic unit; (b) on the strategy of the institution for its academic development; (e) on the structure of studies; and (g) on postgraduate studies and research.

Indeed, the Department's strive to ensure equivalence and equal professional rights for its alumni with the other well-established Mechanical Engineering academic units has hindered the establishment and the subsequent public projection of a Departmental 'identity'. In fact, such an identity is missing from the otherwise adequate Department's strategic and planning documents. This is evident in point (a) and, in particular, point (b), where the Department is limited to generic goals and fails to build on potential opportunities offered by its history and its technological character. Although the sustainability analysis and the projections regarding the demand for mechanical engineering services is rather comprehensive, the Panel perceived, throughout the Department's goals, strategy and planning, a tendency to mimic other well-established mechanical engineering academic units rather than trying to complement them and fill any potential gaps in the existing mechanical engineering higher education offerings.

It must be noted that, according to the EEAP's past experience, the lack of 'identity' quoted above is a rather common characteristic across most Greek academic units. This is partly due

to the rather rigid and very specific templates imposed by HAHE for the evaluation / accreditation procedures. HAHE should consider the inclusion of some guidelines that would encourage the academic units to document and project their identities, unique characteristics and specificities.

The Department, due to its history and technological roots, is student-centred. The faculty and support staff are open and accessible to students and the laboratories are geared towards the students' education rather than research. Inevitably, also because of the very limited number of laboratory technicians and other support staff, the Department's research and publication output is low, compared to similar academic units in Greece and abroad.

### **III. Conclusions**

As per the above findings and analysis, the lack of 'identity' and the understandable low performance in research quoted above, the Panel is of the opinion that the Department is substantially compliant with Principal 1, with a strong recommendation towards (a) the establishment and the projection of a departmental 'identity' and (b) a strong boost of the research and postgraduate activities, which, however, must not compromise the Department's excellent educational performance and student-centred overall attitude.

## Panel Judgement

<b>Principle 1: Strategic planning, feasibility and sustainability of the academic unit</b>	
<b>a. The academic profile and the mission of the academic unit</b>	
Fully compliant	
Substantially compliant	<b>X</b>
Partially compliant	
Non-compliant	
<b>b. The strategy of the Institution for its academic development</b>	
Fully compliant	
Substantially compliant	<b>X</b>
Partially compliant	
Non-compliant	
<b>c. The documentation of the feasibility of the operation of the department and the study programme</b>	
Fully compliant	<b>X</b>
Substantially compliant	
Partially compliant	
Non-compliant	
<b>d. The documentation of the sustainability of the new department</b>	
Fully compliant	<b>X</b>
Substantially compliant	
Partially compliant	
Non-compliant	
<b>e. The structure of studies</b>	
Fully compliant	
Substantially compliant	<b>X</b>
Partially compliant	
Non-compliant	
<b>f. The number of admitted students</b>	
Fully compliant	<b>X</b>
Substantially compliant	
Partially compliant	
Non-compliant	
<b>g. Postgraduate studies</b>	
Fully compliant	
Substantially compliant	<b>X</b>
Partially compliant	
Non-compliant	

<b>Principle 1: Strategic planning, feasibility and sustainability of the academic unit (overall)</b>	
Fully compliant	
Substantially compliant	<b>X</b>
Partially compliant	
Non-compliant	

### **Panel Recommendations**

- R1.1** The Department should leverage its ‘technological’ legacy, its academic transition experience and its links to the local community and economy in order to establish its own identity, within the University of Peloponnese.
- R1.2** Such an identity should constitute, along with the generic academic and educational goals, the cornerstone for its planning and its strategic development. Aims and objectives should be adapted accordingly, building on its specific strengths and exploiting any opportunities offered.
- R1.3** The department should take measures towards enhancing its rather low research and academic publication output without losing its student-centred educational approach.
- R1.4** In striving towards establishing their AEI status and their equivalence to long standing similar departments, the Department should take great care in preserving its present strengths that derive from its technological tradition and history.
- R1.5** The department should reconsider the re-organisation of its curricula with an eye to further reduce the overall number of courses necessary for a student to graduate.

## Principle 2: Quality Assurance Policy of the Institution and the Academic Unit

The Institution should have in place an accredited Internal Quality Assurance System, and should formulate and apply a Quality Assurance Policy, which is part of its strategy, specialises in the operation of the new academic units and the new study programmes, and is accompanied by annual quality assurance goals for the continuous development and improvement of the academic units and the study programmes.

*The quality assurance policy of the Institution must be formulated in the form of a published statement, which is implemented by all stakeholders. It focuses on the achievement of special annual quality goals related to the quality assurance of the new study programme offered by the academic unit. In order to implement this policy, the Institution, among others, commits itself to put into practice quality procedures that will demonstrate: the adequacy and quality of the academic unit's resources; the suitability of the structure and organisation of the curriculum; the appropriateness of the qualifications of the teaching staff; the quality of support services of the academic unit and its staffing with appropriate administrative personnel. The Institution also commits itself to conduct an annual internal evaluation of the new undergraduate programme (UGP), realised by the Internal Evaluation Group (IEG) in collaboration with the Quality Assurance Unit (QAU) of the Institution.*

*The quality assurance policy of the academic unit includes its commitment to implement quality procedures that will demonstrate: a) the adequacy of the structure and organisation of the curriculum, b) the pursuit of learning outcomes and qualifications in accordance with the European and National Qualifications Framework for Higher Education, c) the promotion of the quality and effectiveness of the teaching work, d) the adequacy of the qualifications of the teaching staff, e) the promotion of the quality and quantity of the research work of the members of the academic unit, f) the ways of linking teaching with research, g) the level of demand for graduates' qualifications in the labour market, h) the quality of support services, such as administration, libraries and student care, i) the implementation of an annual review and audit of the quality assurance system of the UGP through the cooperation of the Internal Evaluation Group (IEG) with the Quality Assurance Unit (QAU) of the Institution.*

### **Relevant documentation**

- Revised Quality Assurance Policy of the Institution
- Quality Assurance Policy of the academic unit
- Quality target setting of the Institution and the academic unit (utilising the S.M.A.R.T. methodology)

## Study Programme Compliance

### I. Findings

This is the very first accreditation / evaluation exercise of the Department under its present form (AEI). Past accreditation / evaluations concerned the TEI / ATEI study programs with different goal sets and requirements. Therefore, the Panel cannot evaluate the Department's compliance to past recommendations, in particular those concerning its study programme. The Department has in place an adequate QA policy implemented through a comprehensive set of procedures. The documents on QA policy and QA goals are complete and of high quality. The QA goals are relevant and realistic. The Panel notes with satisfaction:

- a. The goal for reducing the overall number of courses necessary for graduation and the consequent increase of the average credit points per course, as per the recommendations to the majority of the Greek higher education curricula that have an excessive number of courses.

- b. The goal for increasing the number of lab-assisted courses as well as those requiring student group work.
- c. The goal for increasing the duration of practical training from 2 to 3 months: The Panel would have liked an even longer duration (i.e., 6 months as in the case of TEI) but it understands the difficulties in implementing such a duration under the new AEI regime.

The goals for the curriculum evaluation and revision seem adequate. However, the fact that the Department is, in its current form, very new with no graduates as AEI, does not allow the Panel to evaluate the actual effectiveness of such procedures.

The Department promotes the evaluation of each course as well as that of the academic staff giving the course. Provided samples of evaluation questionnaires are adequate. There is a special procedure / service for dealing with eventual complaints.

The student body seems quite satisfied with the availability and openness of the academic staff, as highlighted during the interviews with the students. Their prime concern has to do with their professional rights after their graduation.

## **II. Analysis**

The Department fulfils all HAHE QA requirements regarding the evaluation of the courses, labs and faculty. All due procedures and mechanisms seem to be in place and function quite well, are well documented and are communicated to all interested parties. Goal sets regarding the Department's new undergraduate programme are relevant, measurable and cover well the teaching methods and the student satisfaction.

As is the case also with other similar academic units, the lack of dedicated staff combined with the rather low number of faculty members, results in a considerable burden, on top of their academic and research duties. The Panel cannot but praise the staff of the Department for their effort. Even more so if the transition from TEI to ATEI and now, towards the AEI status is considered.

The actual effectiveness of all these procedures and measures, especially those regarding the program revision, cannot be verified due to the very short period of the Department's operation under its new AEI status. The same is true for the learning outcomes. There are no AEI graduates to track and evaluate. All the examples of professional excellency presented referred to graduates from the old TEI or ATEI regime.

Unfortunately, as is the case in almost all Greek academic units, there exists no organised tracking system of the TEI/ATEI alumni. There are few ad-hoc connections and feedback, but these cannot substitute a methodical alumni career tracking. It is advised that the Department, assisted or along with the UOP, establishes a systematic tracking of its future AEI alumni so as to have the necessary feedback on the actual effectiveness of its educational offering.

## **III. Conclusions**

As per the above findings and analysis, the Panel is of the opinion that the Department, is fully compliant with Principle 2. All the HAHE required measures, metrics and procedures are in place.

It is recommended that the Department, along with the Peloponnese University and the rest of the higher education institutions, act towards the tracking and monitoring of their alumni. This operation must be assisted by HAHE, given that alumni professional performance is by far the most important quality indicator on the overall performance of any academic unit. The prime reason of existence of all academic units is the academic formation of the incoming students towards educated, responsible and motivated professionals.

It is also recommended that the Department takes all necessary measures to extend the practical training duration initially to the 3 months (as per the current Department's goals) and, successively, to 6 months as per the old TEI programme.

### Panel Judgement

<b>Principle 2: Quality assurance policy of the Institution and the academic unit</b>	
Fully compliant	<b>X</b>
Substantially compliant	
Partially compliant	
Non-compliant	

### Panel Recommendations

- R3.1** It is recommended that the Department, assisted by the University, establishes a mechanism of systematic tracking of the professional performance of its alumni.
- R3.2** It is recommended that the Department extends the 2-month practical training, initially to the 3 months foreseen in the current Department's goals and, successively, to 6 months as per the old TEI programme.



## Principle 3: Design, Approval and Monitoring of the Quality of the New Undergraduate Programmes

Institutions should design the new undergraduate programmes following a defined written process, which will involve the participants, information sources and the approval committees for the programme. The objectives, the expected learning outcomes, the intended professional qualifications and the ways to achieve them are set out in the programme design. The above details, as well as information on the programme's structure, are published in the Student Guide.

*The Institutions develop their new undergraduate study programmes, following a well-defined procedure. The academic profile, the identity and orientation of the programme, the objectives, the subject areas, the structure and organisation, the expected learning outcomes and the intended professional qualifications according to the European and National Qualifications Framework for Higher Education are described at this stage. An important new element in the structure of the programmes is the introduction of courses for the acquisition of digital skills. The above components should be taken into consideration and constitute the subject of the programme design, which, among other things, should include: elements of the Institution's strategy, labour market data and employment prospects of graduates, smooth progression of students throughout the stages of the programme, the anticipated student workload according to the European Credit Transfer and Accumulation System (ECTS), the option of providing work experience to the students, the linking of teaching and research, the international experience in study programmes of similar disciplines, the relevant regulatory framework, and the official procedure for the approval of the programme by the Institution.*

*The procedure of approval or revision of the programmes provides for the verification of compliance with the basic requirements of the Standards by the Quality Assurance Unit (QAU).*

### Relevant documentation

- Senate decision for the establishment of the UGP
- Curriculum structure: courses, course categories (including courses for the acquisition of digital skills), ECTS awarded, expected learning outcomes according to the EQF, internship, mobility opportunities.
- Labour market data regarding the employment of graduates, international experience in a related scientific field.
- Student Guide
- Course outlines
- Teaching staff (list of areas of specialisation, its relation to the courses taught, employment relationship)
- QAU minutes for the internal evaluation of the new study programme and its compliance with the Standards

## Study Programme Compliance

### I. Findings

The new 5-year undergraduate programme, has been designed according to the appropriate standards regarding the education of mechanical engineers in Greece and abroad. The syllabus includes all the topics considered necessary for the training of mechanical engineers.

During the programme's design, the academic team considered current local and universal societal needs and technological advances concerning the mechanical engineering profession. The team also considered the legacy of the department, the skills and expertise of the existing

members of staff as well as the feedback from graduates from the previous undergraduate programme. All these considerations are well documented and are supported by a feasibility study based primarily on the current staff and equipment potential.

The programme structure follows the same pattern as the rest of the Mechanical Engineering undergraduate programmes offered by universities in Greece. It is well articulated around a core of mechanical engineering competencies, complemented by several topics, organised along two specialisation directions:

- 1) Mechanical Constructions & Installations and
- 2) Energy and Environment.

The department will look into establishing a third direction once the existing two directions are well staffed.

An adequate QA policy and procedures are in place that allow for the approval, evaluation and, eventually, revision of the program.

The student guide is concise, complete, and very well written.

## **II. Analysis**

The Department fulfils all HAHE requirements regarding the design, approval, and monitoring of the quality of the new undergraduate program. All due procedures and mechanisms are in place and are well documented. Obviously, this is a new university department, and the efficiency and effectiveness of such processes are to be validated and reviewed in due time. The documentation supporting the accreditation application have highlighted clear processes for reviewing the undergraduate programme.

The discussions with academics within the department and students highlighted the value that the department puts on technical and hands-on learning.

Faculty have the required qualifications for fulfilling their role. The students interviewed commented positively on their engagement with the faculty. They were also aware of the importance of their feedback and happy with how the management department addresses and take action.

## **III. Conclusions**

As per the above findings and analysis, the EEAP is confident that the Department, is fully compliant with Principle 3. All HAHE requirements are met.

### Panel Judgement

Principle 3: Design, approval and monitoring of the quality of the new undergraduate programmes	
Fully compliant	<b>X</b>
Substantially compliant	
Partially compliant	
Non-compliant	

### Panel Recommendations

**R3.1** Sustain and even reinforce the technical aspects of the curriculum, further promoting the practical exercises.

## Principle 4: Student-centred Approach in Learning, Teaching and Assessment of Students

The academic unit should ensure that the new undergraduate programmes are delivered in a way that encourages students to take an active role in creating the learning process. The assessment methods should reflect this approach.

*In the implementation of student-centered learning and teaching, the academic unit:*

- ✓ *respects and attends to the diversity of students and their needs, enabling flexible learning paths*
- ✓ *considers and uses different modes of delivery where appropriate*
- ✓ *flexibly uses a variety of pedagogical methods*
- ✓ *regularly evaluates and adjusts the modes of delivery and application of pedagogical methods aiming at improvement*
- ✓ *regularly evaluates the quality and effectiveness of teaching, as documented especially through student surveys*
- ✓ *reinforces the student's sense of autonomy, while ensuring adequate guidance and support from the teaching staff*
- ✓ *promotes mutual respect in the student-teacher relationship*
- ✓ *applies appropriate procedures for dealing with students' complaints*

### **Relevant documentation**

- *Questionnaires for assessment by the students*
- *Regulation for dealing with students' complaints and appeals*
- *Regulation for the function of the academic advisor*
- *Reference to the planned teaching modes and assessment methods*

## Study Programme Compliance

### **I. Findings**

ME/UOP upholds a commendable standard of respect towards its students through a multi-faceted approach. Firstly, students are given the opportunity to provide valuable feedback on the quality of the undergraduate study program and their personal progress through comprehensive questionnaires. Secondly, meticulous attention has been devoted to promptly and effectively addressing student complaints, facilitated by the dedicated efforts of the Student Complaints Management Coordinator. Furthermore, although the position of the Student Advocate remains vacant, provisions have been made to ensure its eventual establishment. Last but not least, students benefit from the guidance and support of an Academic Advisor, whose primary responsibility is to assist and advocate for their academic journey throughout their tenure at ME/UOP.

Testimonials from students reflect a mutually respectful and satisfactory interaction with professors, underscoring the cultivation of an environment conducive to positive relationships.

ME/UOP tries to offer students a lot of resources aimed at facilitating a comprehensive understanding of the material covered in their classes. However, it is worth noting that the academic community within the department holds the prevailing opinion that the currently available books only marginally fulfil the qualitative and quantitative requirements of the department. Therefore, there is a recognized need for further enrichment of the available

resources. Gaining access to Heal-link though, is further enriching the breadth of available academic resources, does compensate, to some extent, the previous problem.

The university houses numerous laboratories, with specific facilities demonstrating commendable equipment standards. Notably, student teams such as Hyperion and Pelops Racing Team are strategically situated alongside some of these laboratories, benefiting from their proximity and the invaluable assistance they provide.

While the electronic services provided by the university are generally satisfactory, improvements are warranted in terms of academic software distribution.

The university provides its students with a mandatory two-month internship opportunity, forging partnerships with diverse industries to enable the invaluable acquisition of professional experience. Importantly, a considerable proportion of students secure permanent employment within these industries upon the successful completion of their internship.

As per student feedback, the faculty members demonstrate a commitment to fostering a comprehensive understanding of the subject matter among students. Employing a diverse range of teaching methodologies, the academic staff employ numerous illustrative examples while assigning individual and group projects that not only assess the students' technical aptitude and soft skills but also facilitate their progress and development.

There is a notable lack of mobility observed among both students and academic staff in terms of transferring to other universities, whether within the country or internationally.

In conclusion, according to some students and academic staff, the undergraduate study program encompasses meticulously designed and sequentially arranged courses, facilitating a seamless progression from one course to another. However, it has come to attention that certain courses exhibit an extensive overlap in their curriculum, which appears to be unnecessary (i.e., the Physics course encompasses a broad range of topics that students will encounter again in subsequent courses).

## **II. Analysis**

Drawing from the information provided to the EEAP as well as the virtual tour of the university, it becomes apparent that there are no evident concerns regarding the interaction between students and staff. Students are consistently granted equitable and respectful treatment, fostering an environment that embraces diversity and inclusivity within the academic realm. The laboratories are readily accessible to students, who are actively encouraged to utilize them for study purposes and seek guidance from their professors whenever necessary. The presence of student groups holds significant importance, as they enable students to actively engage in topics of personal interest and apply their knowledge, thereby fostering a deeper understanding of the concepts covered during lectures.

Undoubtedly, a mere two-month internship period is inadequate, as it takes time for students to familiarize themselves with the intricacies of the industry and acquire comprehensive knowledge. Learning is a gradual process that necessitates an appropriate duration. As affirmed by industry representatives, extending the internship period to six months would be mutually beneficial for all parties involved.

The projects assigned to students serve the purpose of honing their technical acumen as well as their soft skills. However, industry representatives have expressed concerns regarding the insufficient development of students' soft skills during their internships. Of particular

importance, students encounter challenges when it comes to composing technical reports. The essential soft skills that require further emphasis include problem-solving, decision-making, technical report writing and time management.

The limited mobility restricts the exchange of knowledge and prevents students from engaging in meaningful discussions with peers from different educational institutions. Furthermore, the absence of opportunities for academic staff to share their teaching practices and potentially adapt them hampers the potential for pedagogical innovation.

Conclusively, the undergraduate study program can be regarded as satisfactory; however, there is room for further enhancement to ensure comprehensive coverage of the curriculum necessary for students' academic and professional pursuits.

### III. Conclusions

The undergraduate study program is deemed satisfactory, and there are ongoing endeavours by both professors and students to enhance its quality. However, it is crucial to address the highlighted issues in order to ensure a higher calibre of education and to align the graduates' skills with the challenges they will encounter in their future endeavours. Resolving these concerns is imperative for the program's continuous improvement and its ability to meet the evolving demands of the professional field. Therefore, EEAP considers that Principle 4 is substantially compliant.

#### Panel Judgement

<b>Principle 4: Student-centred approach in learning, teaching and assessment of students</b>	
Fully compliant	
Substantially compliant	<b>X</b>
Partially compliant	
Non-compliant	

### **Panel Recommendations**

- R4.1** Extend internships up to 6 months in order to optimize the learning experience and provide students with a comprehensive understanding of the industry.
- R4.2** Provide faculty members with suitable software tools to facilitate efficient teaching and research.
- R4.3** Further promote Student Mobility establishing partnerships and engaging with esteemed student organizations such as BEST (Board of European Students of Technology).
- R4.4** Give emphasis on Soft Skills development, aligning educational offerings with the demands of Industry so that students will gain proficiency in areas such as communication, teamwork, leadership, and adaptability.
- R4.5** Aggregate courses and modules into clusters, thus further optimizing the curriculum structure towards a more coherent learning experience, promote a holistic approach to learning.

## **Principle 5: Student Admission, Progression, Recognition of Academic Qualifications and Award of Degrees and Certificates of Competence of the New Study Programmes**

**Academic units should develop and apply published regulations addressing all aspects and phases of studies of the programme (admission, progression, recognition and degree award).**

*All the issues from the beginning to the end of studies should be governed by the internal regulations of the academic units. Indicatively:*

- ✓ *the registration procedure of the admitted students and the necessary documents - according to the law - and the support of the newly admitted students*
- ✓ *student rights and obligations, and monitoring of student progression*
- ✓ *internship issues, granting of scholarships*
- ✓ *the procedures and terms for writing the thesis (diploma or degree)*
- ✓ *the procedure of award and recognition of degrees, the duration of studies, the conditions for progression and assurance of the progress of students in their studies*

*as well as*

- ✓ *the terms and conditions for enhancing student mobility*

*Appropriate recognition procedures rely on relevant academic practice for recognition of credits among various European academic departments and Institutions in line with the principles of the Lisbon Convention on the Recognition of Qualifications concerning Higher Education in the European Region. Graduation represents the culmination of the students' study period. Students need to receive documentation explaining the qualification gained, including achieved learning outcomes, and the context, level, content and status of the studies that were pursued and successfully completed (Diploma Supplement).*

*All the above must be made public within the context of the Student Guide.*

### **Relevant documentation**

- *Internal regulation for the operation of the new study programme*
- *Regulation of studies, internship, mobility and student assignments*
- *Printed Diploma Supplement*

*Certificate from the President of the academic unit that the diploma supplement is awarded to all graduates without exception together with the degree or the certificate of completion of studies*

## **Study Programme Compliance**

### **I. Findings**

During the welcome event for first-year students, incoming students are provided with comprehensive information pertaining to the knowledge domain of mechanical engineering, the university's infrastructure, the study program, the electronic resources available, as well as the various student welfare services. Additionally, a guided tour of the institution's facilities is organized to familiarize the students with the campus and its available features.

In a notable observation, it is evident that the institution lacks a support service dedicated to employed students, leaving them without the necessary assistance. Additionally, there is no



evidence of a well-structured and organised support system in place to aid students who face academic challenges or are unable to complete their studies within the prescribed timeframe. Additionally, it is important to acknowledge that the department falls short in providing comprehensive accessibility for individuals with disabilities. Specifically, certain facilities such as the CAD laboratory do not adequately accommodate the needs of students with disabilities, particularly in their participation in laboratories equipped with heavy machinery. Furthermore, it is important to highlight that the department does not offer scholarships to recognize outstanding students or cater to specific categories of students.

The department provides fundamental support to international students who choose to transfer to its programs. In order to foster a vibrant student community, students are strongly encouraged to actively engage in existing student groups, participate in athletic and cultural activities, as well as attend various events organized by the institution.

To address the academic needs of students, the institution has implemented the position of Student Advisor. This role serves as a valuable resource for students, providing guidance and support throughout their academic journey.

Student progress is systematically assessed through a combination of written and oral evaluations, including midterm and final examinations. Each student is granted the opportunity to participate in examinations solely for the courses designated for the specific semester they have personally determined through their submission of semester course registrations at the commencement of the semester. However, during the supplementary examination period in September, students are granted the right to be evaluated in courses and educational activities, regardless of the academic semester in which they are scheduled, as outlined in the approved curriculum, if they have not attained a successful evaluation in those courses previously. Additionally, the monitoring of student progress includes the administration of questionnaires, allowing students to provide feedback on their academic advancement thus far.

The promotion of student mobility appears to be primarily limited to the Erasmus+ program, with a noteworthy observation that the participation of students in this program has been notably minimal.

The European Credit Transfer and Accumulation System (ECTS) is indeed implemented throughout the curriculum of the faculty. Specifically, the undergraduate study program is allocated a total of 300 ECTS points.

Upon graduation, students are provided with a Diploma Supplement, as stated in the "B30 Diploma Supplement," which is issued in both English and Greek languages.

The EEAP has received the "B20.5 Undergraduate Study Regulation" document, which provides information regarding the undergraduate studies in Mechanical Engineering at the UoP. EEAP has also received the "B20.3" document, which is the thesis regulation. Thus, a Thesis Handbook does exist, and the academic unit has established a defined set of quality requirements for the implementation of the thesis.

## **II. Analysis**

The initiation of a welcome event for first-year students serves as a commendable initial step in facilitating their integration into the academic community. This event effectively aids newcomers in familiarizing themselves with the faculty's environment. Additionally, it is

encouraging to witness the provision of support specifically tailored to foreign students, promoting inclusivity and fostering a sense of belonging within the academic community.

The establishment and implementation of the Student Advisor role holds significant significance, recognizing the indispensable need for students to receive guidance in making informed decisions pertaining to their academic and professional trajectory. This support system plays a crucial role in empowering students to navigate their educational journey successfully.

However, it is crucial to address the existing gaps in support for employed students and academically challenged individuals who face difficulties in their studies. Urgent attention should be given to develop and implement appropriate assistance programs to aid these student populations. Similarly, the accessibility concerns for students with disabilities demand immediate remediation. While certain facilities are accessible to disabled students, it is unfortunate that vital resources such as laboratories remain inaccessible, effectively excluding students with disabilities from a portion of the educational process. Rectifying these accessibility barriers is essential to foster equal opportunities for all students to engage fully in their academic pursuits.

The assessment of students' academic progress is deemed satisfactory. However, it is noteworthy that students are restricted from selecting and participating in examinations for courses offered in future semesters. This limitation hinders their exposure to diverse knowledge, stifles their creativity, and contributes to a sense of uniformity among them.

### III. Conclusions

EEAP considers that Principle 5 is substantially compliant.

#### Panel Judgement

<b>Principle 5: Student admission, progression, recognition of academic qualifications, and award of degrees and certificates of competence of the new study programmes</b>	
Fully compliant	
Substantially compliant	<b>X</b>
Partially compliant	
Non-compliant	

### **Panel Recommendations**

- R5.1** The faculty should proactively address the current gaps in student support services in order to ensure that all students can fully engage in their academic pursuits.
- R5.2** Consideration should be given to allowing students the opportunity to choose and participate in examinations for courses offered in future semesters, enabling them to expand their knowledge and enhance their creativity.
- R5.3** Attention is recommended to address the accessibility issues mentioned earlier, particularly focusing on providing equal access to students with disabilities to the essential facilities.

## **Principle 6: Ensuring the Competence and High Quality of the Teaching Staff of the New Undergraduate Study Programmes**

**Institutions should assure themselves of the competence, the level of knowledge and skills of the teaching staff of the academic units, and apply fair and transparent processes for their recruitment, training and further development.**

*The Institution should attend to the adequacy of the teaching staff of the academic unit, the appropriate staff-student ratio, the suitable categories of staff, the appropriate subject areas and specialisations, the fair and objective recruitment process, the high research performance, the training – development, the staff development policy (including participation in mobility schemes, conferences and educational leaves- as mandated by law).*

*More specifically, the academic unit should set up and follow clear, transparent and fair processes for the recruitment of properly qualified staff and offer them conditions of employment that recognise the importance of teaching and research; offer opportunities and promote the professional development of the teaching staff; encourage scholarly activity to strengthen the link between education and research; encourage innovation in teaching methods and the use of new technologies; promote the increase of the volume and quality of the research output within the academic unit; follow quality assurance processes for all staff members (with respect to attendance requirements, performance, self-assessment, training, etc.); develop policies to attract highly qualified academic staff.*

### **Relevant documentation**

- *Procedures and criteria for teaching staff recruitment*
- *Regulations or employment contracts, and obligations of the teaching staff*
- *Policy for staff recruitment, support and development*
- *Performance of the teaching staff in scientific-research and teaching work, also based on internationally recognised systems of scientific evaluation (e.g., Google Scholar, Scopus, etc.)*

## **Study Programme Compliance**

### **I. Findings**

The department of Mechanical Engineering currently employs 13 academics: four (4) full professors, three (3) associate professors, four (4) assistant professors and one (1) lecturer. Additionally, these academics and the programme is supported by three (3) technicians (ΕΤΕΠ) and four (4) administrators. Ten (10) temporary teaching members further support the teaching work. Additionally, four (4) academic posts have already been offered, and the new staff members are expected to join at the beginning of the following academic year (2023-24). According to the staffing plan, another academic post is in the final stages of selecting a successful candidate, and one more is to be advertised. The department is also expecting two more academic posts to be allocated to them for replacing already retired academics. In total, the department expects to have 21 academic staff by the end of 2026.

As highlighted in the accreditation proposal report, the teaching workload for the faculty ranges from 6 to 11.5 hours per week (an average of 7.73 hrs/week). This has been improved significantly over the last few years, allowing thus academic staff to start focusing more on their research.

The average student-to-teacher ratio for the academic year 2022-23 is 32.4 and is expected to be reduced to 31.8 in the following academic year; this is better compared to the national average (47). However, the panel believes that this should be further reduced as to improve the student experience. The visit and the interview with the faculty and the students indicated that all teaching staff are committed and passionate about their roles.

The relevant Greek government regulations and legislation clearly define the procedures and criteria for teaching staff recruitment. The Department prequalifies the positions, the announcement is uploaded to the APELLA system, an electoral body formed from the registers of internal and external evaluators and the selection is made based on the relevance of the candidates' academic subject and that of the position. For the further development and promotion of the permanent staff, the evaluations of the students are considered.

The quality of the research is high. One faculty member is listed in the Stanford University global list that represents the top 2% of Scientists in various disciplines. Two of the new academic staff (who will join by September 2023) are also ranked in the aforementioned list. The department only recently (2019) was allowed to recruit PhD students (associated with the evolution of the ATEI to a university).

A newly established teaching support unit within the university will enable the further development of faculty member practices on pedagogy and andragogy methods for higher education through seminars and workshops.

## **II. Analysis**

During the interviews with the students, it was evident, that faculty members are highly praised for their engagement and practices.

The number of academics in the faculty is considered sustainable. The student-to-teacher ratio is below the national average and is expected to further drop in the following years.

The Panel questioned the availability of training courses on pedagogy/andragogy and new learning methods for both well-experienced and even more importantly for new academics. A newly established teaching support unit within the university will enable the further development of faculty members.

Gender equality in the teaching staff is also a concern, with only one faculty member being female.

## **III. Conclusions**

The Panel has found that the program is fully compliant with this Principle 6.

### Panel Judgement

<b>Principle 6: Ensuring the competence and high quality of the teaching staff of the new undergraduate study programmes</b>	
Fully compliant	<b>X</b>
Substantially compliant	
Partially compliant	
Non-compliant	

### Panel Recommendations

**R6.1** The department should aim to further reduce the student-to-teacher ratio.

**R6.2** The department should set an unambiguous strategy to promote gender equality and attract more female teaching staff members. This will allow the development of a safer and healthier work environment and society.

## **Principle 7: Learning Resources and Student Support of the New Undergraduate Programmes**

**Institutions should have adequate funding to meet the needs for the operation of the academic unit and the new study programme as well as the means to cover all their teaching and learning needs. They should -on the one hand- provide satisfactory infrastructure and services for learning and student support and -on the other hand- facilitate direct access to them by establishing internal rules to this end (e.g., lecture rooms, laboratories, libraries, networks, boarding, career and social policy services, etc.).**

*Institutions and their academic units must have sufficient resources, on a planned and long-term basis, to support learning and academic activity in general, in order to offer students the best possible level of studies. The above means include facilities such as, the necessary general and specific libraries and possibilities for access to electronic databases, study rooms, educational and scientific equipment, information and communication services, support and counselling services. When allocating the available resources, the needs of all students must be taken into consideration (e.g. whether they are full-time or part-time students, employed students, students with disabilities), in addition to the shift towards student-centred learning and the adoption of flexible modes of learning and teaching. Support activities and facilities may be organised in various ways, depending on the institutional context. Students should be informed about all available services. In delivering support services, the role of support and administration staff is crucial and therefore this segment of staff needs to be qualified and have opportunities to develop its competences.*

### **Relevant documentation**

- *Detailed description of the infrastructure and services made available by the Institution to the academic unit to support learning and academic activity (human resources, infrastructure, services, etc.) and the corresponding specific commitment of the Institution to financially cover these infrastructure-services from state or other resources*
- *Administrative support staff of the new undergraduate programme (job descriptions, qualifications and responsibilities)*
- *Informative / promotional material given to students with reference to the available services*

## **Study Programme Compliance**

### **I. Findings**

ME/UOP receives its funding and means for undergraduate teaching from the Greek State to support learning and academic activity in general, so that they can offer to students the best possible level of studies. The above means also include general administrative support, support for industrial training, Erasmus support, photocopying and teaching support; on line support, e-students, e-class, platform for submission to the department of complaints and new ideas, MS Teams, Evdoxos platform, Office 365 suite, online library and departmental email; academic studies advisor, food, accommodation, accommodation funding and scholarships, health care, sports support, “We care” advisory and psychological support and sports facilities. Thus, facilities like the library, study rooms, educational and scientific equipment, information and communications services, student support and counselling services. In addition to the Greek state funding the departmental income includes also research funding.

The staff reported that the older building facilities require higher maintenance costs and there is a requirement of improved staff / student ratio and improvement on the current number of the technical support staff.

The allocation of the available resources considers the needs of all the undergraduate students and the shift towards student-centred learning and the adoption of flexible models of learning and teaching. IQAS ensures that all resources are appropriate, adequate, and accessible, and that students are informed about the services available to them.

The role of support and administrative staff is crucial in delivering the support services and therefore they need to be qualified and have opportunities to develop their competences. ME/UOP has the necessary facilities (classrooms, laboratories, IT infrastructure) to ensure an appropriate teaching and learning environment.

## **II. Analysis**

Classrooms and furnishings are adequate for the current requirements. Laboratory equipment for the class sizes is sufficient, up to date and appropriate. Of course, there is always a timely requirement to modernize existing laboratory equipment with state-of-the-art equipment. There is a rational distribution of the existing facilities. There is a requirement for a timely update of the older building facilities that require higher maintenance costs.

There is an adequate range of support services available to the students. The students are informed about the available services and these services are functional and accessed by the students, although there is always room for further and continuous improvement on this matter.

EEAP noted also that the input from external stakeholders is excellent and increases the effectiveness of the practical training and assists the students with their career development and aspirations.

It appears that there is currently sufficient and competent administrative staff to ensure the smooth operation of the student support services. There is a requirement of improved staff / student ratio and improvement on the current number of the technical support staff.

## **III. Conclusions**

The EEAP finds that the Institution is fully compliant with the requirements of Principle 7.

There is a requirement for a timely update of the older building facilities that require higher maintenance costs.

There is a requirement of improved staff / student ratio and improvement on the current number of the technical support staff.

The advisory board should include all the relevant stakeholders such as external academics, representatives of public and private sectors, research institutes and alumni, to review and advise ME/UOP on its current operation and its next steps.



## Panel Judgement

Principle 7: Learning resources and student support of the new undergraduate programmes	
Fully compliant	X
Substantially compliant	
Partially compliant	
Non-compliant	

## Panel Recommendations

- R7.1** Continue maintaining all laboratory equipment and update in a timely manner as appropriate with new state of the art equipment.
- R7.2** Update in a timely manner, the older building facilities that require higher maintenance costs.
- R7.3** Improved staff / student ratio and number of the technical support staff.
- R7.4** It is recommended to enhance further the advisory board, to include all stakeholders such as external academics, representatives of public and private sectors, research institutes and alumni, with meetings scheduled each semester initially, followed by the most appropriate frequency approved by the advisory board thereafter, to review and advise ME/UOP on its current operation and its next steps.

## **Principle 8: Collection, Analysis and Use of Information for the Organisation and Operation of New Undergraduate Programmes**

**The Institutions and their academic units bear full responsibility for collecting, analysing and using information, aimed at the efficient management of undergraduate programmes of study and related activities, in an integrated, effective and easily accessible way.**

*Effective procedures for collecting and analysing information on the operation of Institutions, academic units and study programmes feed data into the internal quality assurance system. The following data is of interest: key performance indicators for the student body profile, student progression, success and drop-out rates, student satisfaction with the programme, availability of learning resources and student support. The completion of the fields of National Information System for Quality Assurance in Higher Education (NISQA) should be correct and complete with the exception of the fields that concern graduates in which a null value is registered.*

### **Relevant documentation**

- *Report from the National Information System for Quality Assurance in Higher Education (NISQA) at the level of the Institution, the department and the new UGP*
- *Operation of an information management system for the collection of administrative data for the implementation of the programme (Students' Record)*
- *Other tools and procedures designed to collect data on the academic and administrative functions of the academic unit and the study programme*

## **Study Programme Compliance**

### **I. Findings**

ME/UOP established and operates an information system for the management and monitoring of data concerning students, academic staff, module structure and organisation, teaching and provision of services to students as well as to the academic community.

There is reliability of data that is essential for accurate information and decision making, as well as for identifying areas of smooth operation and areas for improvement as it is evident by the information provided.

### **II. Analysis**

It appears that there are procedures for collecting and analysing information on study programmes and other activities, feeding data into the internal system of QA, as evidenced by information that was also provided including aspects like KPIs, student population profile, student progression, success and drop-out rates, student satisfaction with their programme(s), availability of learning resources and student support and career paths of graduates. All these require continuous maintenance and improvements to ensure the good and efficient performance of the department over time.

A number of methods are used for collecting information and further effort is required to ensure that both students and staff are involved in providing and analysing information and planning the follow-up activities.

On-line information systems and other feedback forms are used for the collection of data. The student and staff satisfaction surveys are conducted annually.

The information obtained from the satisfaction surveys is systematically analysed, as evidenced by the information provided and appropriately communicated to be used towards further improvement.

### III. Conclusions

The EEAP finds that the Institution is fully compliant with the requirements of Principle 8, although a process of continuous improvement is desirable.

#### Panel Judgement

<b>Principle 8: Collection, analysis and use of information for the organisation and operation of new undergraduate programmes</b>	
Fully compliant	<b>X</b>
Substantially compliant	
Partially compliant	
Non-compliant	

#### Panel Recommendations

**R8.1** Maintain the process of continuous improvement.

## **Principle 9: Public Information Concerning the New Undergraduate Programmes**

**Institutions and academic units should publish information about their teaching and academic activities in a direct and readily accessible way. The relevant information should be up-to-date, clear and objective.**

*Information on the Institutions' activities is useful for prospective and current students, graduates, other stakeholders and the public. Therefore, Institutions and their academic units must provide information about their activities, including the new undergraduate programmes they offer, the intended learning outcomes, the degrees awarded, the teaching, learning and assessment procedures used, the pass rates and the learning opportunities available to their students. Information is also provided, to the extent possible, on graduate employment perspectives.*

### **Relevant documentation**

- *Dedicated segment on the website of the department for the promotion of the new study programme*
- *Bilingual version of the website of the academic unit with complete, clear and objective information*
- *Provision for website maintenance and updating*

## **Study Programme Compliance**

### **I. Findings**

UOP and the ME/UOP developed a rather comprehensive, clear, easy-to-follow and well-structured website.

The websites of UOP and the ME/UOP both include information on ME/UOP. The ME/UOP website includes: (i) Department, (ii) Studies, (iii) Staff, (iv) Research, (v) Students, (vi) Alumni (vii) Extroversion, (viii) Announces, (perhaps better Announcements) and (ix) Contact. All modules and laboratories are well presented in distinct sections of the website.

### **II. Analysis**

The website could develop further to also include up-to-date and easily accessible news and announcements on scholarly, cultural, and physical activities like social clubs and activities, awards, distinctions, publications, and noteworthy accomplishments of the Department.

It should be highlighted that, ME/UOP website provides a brief description and indicative information regarding the internal studies policy organization and the policy of QA.

### **III. Conclusions**

The EEAP finds that the Institution is fully compliant with the requirements of Principle 9. The ME/UOP website could expand further to include social clubs and activities, scholarly, cultural, and physical activities as well as up-to-date news and announcements.

## Panel Judgement

Principle 9: Public information concerning the new undergraduate programmes	
Fully compliant	X
Substantially compliant	
Partially compliant	
Non-compliant	

## Panel Recommendations

- R9.1** Develop further the ME/UOP website to include social clubs and activities, scholarly, cultural, and physical activities as well as up-to-date news and announcements.
- R9.2** Develop further the ME/UOP alumni section of the website and utilise it as another tool for a link and tracking alumni to benefit ME/UOP and its students.

## Principle 10: Periodic Internal Review of the New Study Programmes

Institutions and academic units should have in place an internal quality assurance system, for the audit and annual internal review of their new programmes, so as to achieve the objectives set for them, through monitoring and amendments, with a view to continuous improvement. Any actions taken in the above context, should be communicated to all parties concerned.

*Regular monitoring, review and revision of the new study programmes aim at maintaining the level of educational provision and creating a supportive and effective learning environment for students. The above comprise the evaluation of: the content of the programme in the light of the latest research in the given discipline, thus ensuring that the programme is up to date; the changing needs of society; the students' workload, progression and completion; the effectiveness of the procedures for the assessment of students; the students' expectations, needs and satisfaction in relation to the programme; the learning environment, support services, and their fitness for purpose for the programme. Programmes are reviewed and revised regularly involving students and other stakeholders. The information collected is analysed and the programme is adapted to ensure that it is up-to-date.*

### **Relevant documentation**

- Procedure for the re-evaluation, redefinition and updating of the curriculum
- Procedure for mitigating weaknesses and upgrading the structure of the UGP and the learning process
- Feedback processes on strategy implementation and quality targeting of the new UGP and relevant decision-making processes (students, external stakeholders)
- Results of the annual internal evaluation of the study programme by the QAU and the relevant minutes

## Study Programme Compliance

### I. Findings

There is an extensive data collection infrastructure in place for the objective analysis of quantitative metrics along with qualitative assessment based on student surveys. Data collected for quality indicators include enrolment, grades, course enrolment, exam attempts, teaching load, faculty performance metrics, and others. This data is reported annually in a comprehensive report for review and analysis by the administration.

ME/UOP collects feedback on the program content through a range of sources. Some teachers are actively in contact with external industrial groups. Employers are generally satisfied with the preparation of the students and feel that the program provides a strong foundational preparation for industrial practice. The committee's interviews with employers confirmed this high level of interaction and alignment of the program with their needs.

Changes to courses and the program are proposed and evaluated through a formal process and is approved through the Committee for Undergraduate Studies. Faculty can propose new courses, curricular changes, and the elimination or combination of courses through this mechanism.

Student workload is monitored primarily through course surveys. Student assessment in courses is well structured.

## II. Analysis

Logged student responses to course surveys stand to be improved; this is a challenge for evaluating faculty and providing feedback on courses. Formal surveys are offered only at the end of the course, which is too late to improve a course.

It is recommended that the reports of the annual internal evaluations are publicly available on the Departmental websites. This promotes transparency and reflects the Department's commitment to continuous improvement.

Student expectations, needs, and workload are collected through surveys for each course. One fact is the high response rate for course surveys. Students are aware of these end-of-course surveys and fill them out towards the end of the semester.

## III. Conclusions

Based on the above, the EEAP finds that the UGP is fully compliant for Principle 10.

### Panel Judgement

Principle 10: Periodic internal review of the new study programmes	
Fully compliant	X
Substantially compliant	
Partially compliant	
Non-compliant	

### Panel Recommendations

- R10.1** Offering a mid-term logged assessment could help improve this response and memorialize this feedback.
- R10.2** The EEAP recommends that the reports of the annual internal evaluations are publicly available on the Departmental websites to promote transparency and reflect the Department's commitment to continuous improvement.
- R10.3** ME/UOP could also consider expanding the industrial advisory board to offer more regular/structured feedback on the program. Several of the industrial partners interviewed as part of this exercise expressed interest in further engagement of this type.
- R10.4** The EEAP recommends focusing on the development of some soft skills (e.g., Technical and Report Writing, Problem Solving, Decision Making and Time management) for the students throughout the courses, as it is a disadvantage observed by the industrial partners.

## **Principle 11: Regular External Evaluation and Accreditation of the New Undergraduate Programmes**

**The new undergraduate study programmes should regularly undergo evaluation by EEAPs of external experts set by HAHE, aiming at accreditation. The results of the external evaluation and accreditation are used for the continuous improvement of the Institutions, academic units and study programmes. The term of validity of the accreditation is determined by HAHE.**

*HAHE is responsible for administrating the programme accreditation process which is realised as an external evaluation procedure and implemented by a EEAP of independent experts. HAHE grants accreditation of programmes, based on the Reports submitted by the EEAPs, with a specific term of validity, following to which revision is required. The accreditation of the quality of the programmes acts as a means of verification of the compliance of the programme with the Standards, and as a catalyst for improvement, while opening new perspectives towards the international standing of the awarded degrees. Both academic units and institutions must consistently consider the conclusions and the recommendations submitted by the EEAPs of experts for the continuous improvement of the programme.*

### **Relevant documentation**

- *Progress report on the results from the utilisation of the recommendations of the external evaluation of the Institution and of the IQAS Accreditation Report.*

## **Study Programme Compliance**

### **I. Findings**

Last time that the previous TEI departments went through external evaluation was in 2012/13. The findings of the evaluation committee at that time led to the programme restructure of the previous TEI departments and then in the newly established ME/UOP which took place the academic year 2019/2020. ME/UOP has provided evidence of what has happened since then, which, overall demonstrates a progress.

### **II. Analysis**

Faculty, support staff and administrative personnel are aware of the importance of the external evaluation and have done their best to comply with the whole process. All involved parties seemed willing to contribute to the evaluation.

There is some evidence that external stakeholders and employers are consulted for program modifications with their presence in the industrial advisory board and their contact with the department.

### **III. Conclusions**

The EEAP concludes that the UGP is fully compliant for Principle 11.



### Panel Judgement

<b>Principle 11: Regular external evaluation and accreditation of the new undergraduate programmes</b>	
Fully compliant	<b>X</b>
Substantially compliant	
Partially compliant	
Non-compliant	

### Panel Recommendations

**R12.1** The EEAP recommends that the external evaluation process must be a regularly recurring event with a strict requirement to address and start implementing recommendations within two years.

## Principle 12: Monitoring the Transition from Previous Undergraduate Study Programmes to the New Ones

**Institutions and academic units apply procedures for the transition from previously existing undergraduate study programmes to new ones, in order to ensure compliance with the requirements of the Standards.**

*Applies in cases where the department implements, in addition to the new UGPs, any pre-existing UGPs from departments of former Technological Educational Institutions (TEI) or from departments that were merged / renamed / abolished.*

*Institutions should implement procedures for the transition from former UGPs to new ones, in order to ensure their compliance with the requirements of the Standards. More specifically, the institution and the academic unit must have a) the necessary learning resources, b) appropriate teaching staff, c) structured curriculum (courses, ECTS, learning outcomes), d) study regulations, award of diploma and diploma supplement, and e) system of data collection and use, with particular reference to the data of the graduates of the pre-existing UGP. In this context, the Institutions and the academic units prepare a plan for the foreseen transition period of the existing UGP until its completion, the costs caused to the Institution by its operation as well as possible measures and proposals for its smooth delivery and termination. This planning includes data on the transition and subsequent progression of students in the respective new UGP of the academic unit, as well as the specific graduation forecast for students enrolled under the previous status.*

### **Relevant documentation**

- *The planning of the Institution for the foreseen transition period, the operating costs and the specific measures or proposals for the smooth implementation and completion of the programme*
- *The study regulations, template for the degree and the diploma supplement*
- *Name list of teaching staff, status, subject and the course they teach / examine*
- *Report of Quality Assurance Unit (QAU) on the progress of the transition and the degree of completion of the programme. In the case of UGP of a former Technological Educational Institution (TEI), the report must include a specific reference to how the internship was implemented*

## **Study Programme Compliance**

### **I. Findings**

The Department has established a committee to match course from the old UGPs to the new one. The remaining TEI UGPs that continue their studies are still supported as long as there are active students attending until the 2026-2027 academic year. Although there are many students enrolled in a TEI UGP, only about 10% of them are active and expected by the Department to successfully complete their studies in the above-mentioned time frame.

The mandatory six-month internship of the TEI UGP has been transformed to the new UGP, which is now still mandatory, but its duration is reduced to two months. Students complete the corresponding internship, depending on their UGP.

### **II. Analysis**

The industrial partners pointed out the significance of the mandatory six-month internship, as with the new format they don't have enough time to train the students adequately.

### III. Conclusions

The EEAP concludes that the UGP is fully compliant for Principle 12.

#### Panel Judgement

<b>Principle 12: Monitoring the transition from previous undergraduate study programmes to the new ones</b>	
Fully compliant	<b>X</b>
Substantially compliant	
Partially compliant	
Non-compliant	

#### Panel Recommendations

**R12.1** The department should ensure that some of the key positive characteristics of its legacy, such as hands on training, etc, are maintained or even enhanced.

## **PART C: CONCLUSIONS**

### **I. Features of Good Practice**

- GP.1** Established industrial advisory board with local stakeholders.
- GP.2** Well-planned staffing schedule with funds secured for the next 4 years.
- GP.3** Clear set of regulations, processes and procedures, well documented.
- GP.4** Student oriented laboratories and teaching activities.
- GP.5** Academic advisors appointed for each first-year student.
- GP.6** Good hands-on labs to theory and practical training (internships).
- GP.7** Student-to-teacher ratio better than the national average.

### **II. Areas of Weakness**

- W.1** Current curriculum partially based on the old ATEI programme.
- W.2** Very few laboratory technicians.
- W.3** Gender equality: too few female faculty.
- W.4** Too generic strategy and planning, lack of identity.
- W.5** Large number of offered courses.
- W.6** Staff and student mobility.
- W.7** Low scientific/research output.
- W.8** Low-level entry-student body.

### **III. Recommendations for Follow-up Actions**

- R.1** Leverage its technological legacy and establish an individual identity, ensuring that key positive characteristics (hands on training etc) are maintained and further enhanced.
- R.2** Improve its research and academic publication output without losing its student-centred educational approach.
- R.3** Reconsider the re-organisation of its curricula, further reducing the overall number of courses, possibly by aggregating them into clusters.
- R.4** Establish a mechanism for the systematic tracking of alumni.
- R.5** Sustain and reinforce the technical aspects of the curriculum, further promoting and extending the practical exercises.
- R.6** Provision of academic software to all faculty members.
- R.7** Further promote student mobility and emphasize soft skills development.
- R.8** Further reduce the student-to-teacher and the technical staff ratio.
- R.9** Promote the gender equality in staff members.
- R.10** Further enhance the advisory board operation.

**R.11** Internal and external evaluations reports must be publicly available on the departmental websites.

#### IV. Summary & Overall Assessment

The Principles where full compliance has been achieved are: **2, 3, 6, 7, 8, 9, 10, 11, and 12.**

The Principles where substantial compliance has been achieved are: **1, 4, and 5.**

The Principles where partial compliance has been achieved are: **None.**

The Principles where failure of compliance was identified are: **None.**

Overall Judgement	
Fully compliant	
Substantially compliant	<b>X</b>
Partially compliant	
Non-compliant	

## The members of the External Evaluation & Accreditation EEAP

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