



**ΕΛΛΗΝΙΚΗ ΔΗΜΟΚΡΑΤΙΑ**  
HELLENIC REPUBLIC



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# Accreditation Report for the New Undergraduate Study Programme in operation of:

**Industrial Design and Production Engineering**

**Institution: University of West Attica**

**Date: 2 June 2023**



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



Report of the Panel appointed by the HAHE to undertake the review of the New Undergraduate Study Programme in operation of **Industrial Design and Production Engineering** of the **University of West Attica** for the purposes of granting accreditation.

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

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

The Panel responsible for the Accreditation Review of the new undergraduate study programme in operation of **Industrial Design and Production Engineering** of the **University of West Attica** comprised the following five (5) members, drawn from the HAHE Register, in accordance with Laws 4009/2011 & 4653/2020:

- 1. Professor Emeritus Nicholas Kyriakopoulos (Chair)**  
The George Washington University, Washington, DC, USA
  
- 2. Professor Anthimos Georgiadis**  
Leuphana University Lüneburg, Lüneburg, Germany
  
- 3. Professor Andreas Efstathiades**  
European University Cyprus, Nicosia, Cyprus
  
- 4. Mr. Panagiotis Kiskiras**  
Member of the Technical Chamber of Greece, Athens, Greece
  
- 5. Mr. Sarantis Antoniou**  
Student, Department of Production and Management Engineering, Democritus University of Thrace, Xanthi, Greece

## II. Review Procedure and Documentation

On 23 May, the Panel was transported to the campus of the University of West Attica where it was met by Professor Efstathia Papageorgiou, Vice-Rector and Head of MODIP, Professor George Ioannidis, Dean of the School of Engineering, Professor George Ganetsos, Head of the Department of Industrial Design and Production Engineering, Associate Professor Eleni-Aikaterini Leligkou, Vice-Head of the Department and Dr. Marissa Sigala, Administrative Head of MODIP.

Professor Papageorgiou gave an overview of the program including its evolution from the constituent programs of the predecessor technological institutions to its current form. The starting point was the legislation that transformed the Technological Institutions into Universities. This gave the opportunity of the faculty of those institutions to develop new educational programs and expand their research horizons. At the same time the increased load on the faculty was presented as an area of concern that needed to be addressed.

Representatives of OMEA and MODIP discussed the degree of compliance of the program to the Standards for Quality Accreditation and reviewed the procedures used to assess the quality of the work of the students vis a vis the set standards.

In the afternoon the Committee met with the members of the teaching staff who expressed their views regarding workload, adequacy of the staff to meet the challenges of the new program and ensure the achievement of the learning outcomes, opportunities for professional development and mobility. There was extensive discussion of the opportunities for research activities directly related to the scope of the program as well as the existing challenges in achieving those objectives.

On 24 May the Panel met with students who were matriculating in the second, fourth, sixth and 10<sup>th</sup> semester. The students, not surprisingly, expressed general satisfaction with the program. Also, they were strongly in favour of the practical training segment and offered that comment that the practical training be extended from three to six months.

Following the meeting with the students, the Panel was given a tour of the facilities. The campus of the university is in an olive grove that allegedly dates to the days of Plato. Indeed, the size of the trunks of the trees indicates that they are very old. The campus, in contrast to the campuses of other Greek universities is surprisingly meticulous.

The Panel visited a number of classrooms where lectures were being held. The rooms were well kept and clean with more than sufficient space for the number of students in the class. In addition, the Panel visited a number of laboratories that are used for teaching and research. They were spacious, equipped with modern instruments and clean. They appeared to be adequate for the needs of the program. Evidence was presented to the Panel that the library is more than adequate for the needs of the program.

Subsequently, the Panel met with a group of external stakeholders from the private sector including information processing, process automation and management.

At the end of the day, the Panel held a short review session with the Head of MODIP, Administrative Head of MODIP, Head of the Department and the OMEA members. It informed the representatives of the Institution of the preliminary results based on the site visit and departed the campus.

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

The University of West Attica was formed in 2018 as a result of the merger of the Piraeus Technical Education Institute and the Athens Technical Education Institute. The merged units became the University of West Attica that comprises six schools, School of Public Health, School of Management, Economics and Social Science, School of Food Science, School of Health Science and Welfare, School of Applied Arts and Civilization and School of Engineering.

The School of Engineering comprises six departments: Electrical and Electronic Engineering, Biomedical Engineering, Industrial Design and Production, Computer and Information Engineering, Topography and Geoinformatics, Mechanical Engineering, Shipbuilding Engineering.

According to the Department website the aim of the program is “to produce graduates able to creatively use new technologies, science and art so as to design solutions in the form of easy-to-use and functional products, processes and systems in all productive sectors”. The program has duration of five years and upon completion awards a degree equivalent to Masters.

On the basis of discussions with the faculty and stakeholders there is very high demand for qualified graduates primarily in the private sector. Evidence that there is robust demand for the program is the raising of the threshold for admission to the university relative to that of the preceding years.

## 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**

The information about the Department is presented in the Department website which is available both in Greek and English. All the relevant information is easily accessible regarding the structure of the program and operation of the Department. The Student Guide with all relevant information is available in the University website in Greek and English.

The Department is one of eight departments in the School of Engineering of the University of West Attica has come into existence in 2018 as a result of the merger of the Department Control Engineering and the Department of Textile Engineering of the predecessor institution Piraeus Technological Institute and the reclassification of the resulting institution as a university-level entity. As a result of the transition to a university level institution the new department has reorganized the offerings of the former units as university level degree programs in the field of Industrial Engineering Design and Production at three levels: undergraduate, Masters, Doctoral. These programs are in the mainstream of the internationally recognized scientific fields.

The curriculum came into being in 2019 when the four-year curriculum was expanded into five to be commensurate with the university-level engineering programs. The impetus for the development of the program was the realization by the faculty that there was a significant need in the private sector for engineering talent in the area of industrial design and production. The current form of the curriculum was approved by the faculty in 2021 when a number of revisions were approved by the faculty. The aim of the program is to provide high level education in the field of Industrial Engineering that includes fundamental concepts, specialized theoretical knowledge and skills as well as practical experience in the undergraduate level through internships and the graduate level through involvement in research projects. An additional aim is to expose the students to the practical applications of their studies by promoting engagement with entities engaged in the production of good and services. To this end, the program provides for the students to engage in practical training for three months with stakeholders in the private sector.

## **II. Analysis**

Upon examination of the material provided by HAHE, the documentation submitted to HAHE by the Department in support of its application for the accreditation of the program, the written and aural information provided to the Panel during the site visit, following are the findings relative to the planning, feasibility and sustainability of the academic unit:

In the Strategic Plan the Department has set eight specific goals along with Key Performance Indicators (KPI), measurement methods, data sources and the agent responsible for the measurements. These are:

- 1) Excellence in education
- 2) Advancement in research
- 3) Digital transformation
- 4) Improvement of the academic environment
- 5) Improvement of accountability and transparency
- 6) Openness-Internationalization
- 7) Sustainability and sustainable resource management
- 8) Quality assurance

For each goal, the plan lists specific quantifiable KPIs which are relatively easy to identify and measure. For each measurement it specifies quantitative measures of performance, measurement procedures, source of the information and the agent responsible for the measurement and analysis of the data.

The Strategic Plan includes a detailed operational plan that analyses the factors that impact the viability of the program such as political considerations, economic considerations, social factors, technological considerations, legal considerations and environmental factors. On the basis of the analysis, it has identified strengths and weaknesses in the areas of education and research taking into account the history, character and location of the university including the links to the elements of the private sector that the program aims to serve.

The plan also identifies weaknesses in a number of areas. Given the number of students, matriculating and incoming, the Department does not have sufficient staff, faculty and administrative, to fulfil its mission. The number of incoming students is not controlled by the Department, but it is determined by the Ministry of Education. The student registry is not functioning properly to update the student records. There are also difficulties in the automation of the processing of the student records. Another weakness is the insufficiency of research funding to support doctoral students and have access to international publications.

For each goal and weakness, the plan lists specific actions to be taken toward achievement of the goal and specifies quality indicators and metrics for monitoring the progress toward the goal.

### III. Conclusions

1) The Strategic Plan includes a detailed discussion of the strong and weak points of the program. Some representative points in each category are:

**Strong points:** Program of studies consistent with current international practice; experienced faculty; strong links with the local economy; high potential for expansion of research activities; location and physical infrastructure; expanded outreach activities.

Another strong point of the program is the dearth of similar programs in Greece. It identifies only two other programs offered in Greece with partial, but not complete overlapping with the program offered by the Department. This is a rather strong point in favour of the program taking into account the gradual transformation of the Greek economy.

**Weak points:** High student to faculty ratio; performance of the information system; frequent changes in the legal framework as it affects the educational programs; extensive bureaucratic processes; insufficient support from the administration; lack of official recognition of professional rights.

2) The question of professional license for the graduates of the program seems to be of major concern to the students and some of the stakeholders. It is an issue beyond the authority of the institution to resolve and as such has no impact on the quality and sustainability of the program.

3) The proposed program is strategically placed to provide the type of human resources essential for the advancement of the local and by extension the Greek economy.

4) The faculty possesses the necessary and appropriate qualifications to support the program.

## 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	<b>X</b>
Substantially compliant	
Partially compliant	
Non-compliant	
<b>b. The strategy of the Institution for its academic development</b>	
Fully compliant	<b>X</b>
Substantially compliant	
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	<b>X</b>
Substantially compliant	
Partially compliant	
Non-compliant	
<b>f. The number of admitted students</b>	
Fully compliant	
Substantially compliant	<b>X</b>
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	<b>X</b>
Substantially compliant	
Partially compliant	
Non-compliant	

### **Recommendations**

**R1.1** In view of the scope of the program to educate engineers in the field of industrial design and production, it is recommended that the faculty seek to develop collaborative research projects with industrial partners. Such a collaboration would expose the faculty to research topics with practical applications and provide the industrial partners with a mechanism to introduce innovation into existing production processes. In the process it would help improve the economic landscape in Greece.

## 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

The Strategic Plan of the University of Western Attica describes and analyses the Mission, Vision, and Strategic Priorities / Directions of the Institution. It defines and specifies, within the framework of the defined strategic directions, the organization objectives that implements them, and generates Key Performance Indicators (KPIs), the measurement and monitoring of which can lead to the achievement of these strategic objectives.

The Quality Assurance Policy (QAP) of the department maps very well on the policy of the University. It focuses on 8 main pillars: (1) Excellence in Education (2) Promotion of Research (3) Digital

Transformation (4) Improvement of the Academic Environment (5) Strengthening Accountability and Transparency (6) Outsourcing - Internationalization (7) Sustainability and Sustainable Resource Management (8) Quality Assurance.

These pillars are associated with processes that are designed to ensure a commitment to satisfy the requirements of the University's QAP as well as to ensure the continuous improvement of the department and the programme.

The Quality Assurance Policy (QAP) of the Department is made public, and disseminated to the faculty, administration staff, as well as to the students. The QAP is communicated to the students at the beginning of their studies, in the context of the special welcoming event for newly entering students.

The Processes for engaging students and external stakeholders are not fully formalised. In this direction, the Department has set up an Advisory Board, but this is not embedded in the process. It is at the very early stages of its operation and no decision is taken. Currently goals are set at the University, departmental and programme levels. The goals are SMART with a clear definition of actions, responsibilities, and timelines. These goals are measured with suitable KPIs. The faculty members are aware of the departmental KPIs and are committed towards their achievement. While the process for monitoring the goals exists, due to the short time frame between the establishment of the Department and the programme and the EEAP's visit, records for only 1 year of operation are in place.

## II. Analysis

The department aspires to create a holistic total quality management process for the programme, and it is currently working towards developing additional processes and tools for data collection, management and analysis. The EEAP is convinced that, given the enthusiasm of the faculty members, it operates a robust quality system ensuring the continuous development of the department and fulfilment of its strategic goals.

## III. Conclusions

The department is young and dynamic with great potential in providing quality services and satisfying market needs.

### 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**

**R2.1** The Department should find ways to increase student involvement in the quality assurance process.

**R2.2** The Department has already developed an Advisory Board. There is a need to integrate the Advisory Board on the quality assurance processes.



### **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 Department of Industrial Design and Production Engineering offers a 5-year Undergraduate Study Program, which provides its graduates with the opportunity to acquire specialized scientific knowledge,

skills and abilities, and at the same time, develop modern Engineering approach that is required by the labour market.

The original design of the program was carried out in 2019. For its drafting, there were discussions and consultations with relevant Industrial Design & Production Engineering Departments in Greece, discussions with the Faculty members of the Department, discussions with the students and all the stakeholders. The original program is designed with a load of 240 ECTS. Subsequently, the program received 2 more revisions with the last one in 2021 which brought it to its current form with a workload of 300 ECTS (5-year study program). The Department's Undergraduate Studies Program has been prepared based on the guidelines of the Quality Assurance and Certification Authority in Higher Education (ETHEA) and the European Credit Transfer and Accumulation System (ECTS).

In order to graduate, students must accumulate a total of at least three hundred (300) ECTS. Students must attend successfully at least, fifty-four (54) courses (43 are Compulsory and 11 courses are electives). The eleven (11) Elective courses are chosen from a total of twenty-six (26) courses offered in this category. In total, the courses correspond to at least two hundred and seventy (270) ECTS.

Additionally, the students should undertake, prepare and successfully support the Diploma Thesis which corresponds to thirty (30) ECTS.

The programme has well defined objectives, is comprehensive and focused, with a sensible balance of fundamental and applied learning outcomes. The overall structure and content of the programme is similar to other established programs in Greece. There is a reasonable balance of core and elective courses, with appropriate depth and coverage of current and emerging themes.

The Student Guide provides complete and concise information on the programme structure, curriculum and course content. The curriculum is well designed and compatible with universally accepted standards in the area. The design of the curriculum has been developed considering the University strategy and is adapted to meet the needs of the Greek Industry/ Economy. All course syllabi and the undergraduate course catalogue are rigorous and provide clear information on course structure and learning outcomes. The teaching staff set clear expectations on the courses and clarify the course assessment methods at the beginning of each academic term. The programme gives students the opportunity to come in closed contact with the industry by undertaking the practical training module. The practical training is an elective course totalling to 10 ECTS. Further on students are expected to undertake a mandatory research project totalling to 30 ECTS.

For its continuous improvement the programme benefits from informal feedback received from external stakeholders as well as from linking and integrating academic staff research activities in the curriculum. One important source of feedback for monitoring and improving quality is student's questionnaires.

## **II. Analysis**

The programme is compliant with the ECTS system. The students have opportunities to take courses abroad, thanks to the ERASMUS+ programme. Participation in Erasmus by students or teaching staff remains small, which is understandable for a newly created department and in the current circumstances of Covid-19. There are, also, opportunities for incoming Erasmus students.

During its discussions with students, the EEAP realized that the students were satisfied by the overall atmosphere in the department and the help and guidance they receive from the Faculty members.

The main areas of focus for future improvement should be the involvement of students in the Quality Assurance process and the formalization of feedback process with external stakeholders. At the moment, the employers and local stakeholders feedback process is rather ad-hoc, based on personal contacts. The Department has already established an Advisory Board but is not yet incorporated in the Quality Assurance procedures of the department.

### III. Conclusions

The review, development and implementation of programme changes follows a clear process. The programme has clear and well-articulated goals that reflect modern discipline needs. This is complemented by some formal and informal feedback by students and external stakeholders. Future efforts should focus on improving the students' involvement in the Quality Assurance process and formalizing the feedback process with external stakeholders.

#### Panel Judgement

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

#### Panel Recommendations

**R3.1** The department should consider moving the practical training course (Internship) from the elective courses to core mandatory courses.

**R3.2** The Department should find ways to increase student involvement in the Quality Assurance process.

**R3.3** The Department has already developed an Advisory Board. There is a need to integrate the Advisory Board on the Quality Assurance processes

## 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**

The IDPE's undergraduate programme offers standardized teaching methods ensuring student-centred learning. Specifically, in addition to traditional teaching methods, they include:

1. Laboratory courses, where students seem (through the layout of the laboratories) to be divided into small groups. The department does not have many laboratories. Most of the laboratories are mainly student-learning oriented, and less research-oriented. The committee visited laboratories for electrical processes (PLCs and electrical measurements), rapid prototyping methods (Microcontrollers, 3D Printers), Autonomous Small-Scale Vehicles (such as Drones and Educational Robotic Platforms).
2. In many of the course outlines, more than half of them, the teaching is also done by assigning assignments, according to the students, these assignments are usually part of their overall score, but they do not have the character of an exempt assignment from the written assignments exams, which are usually conducted in most of the taught courses.
3. There is a certain development of digital skills of the future IDP engineers through contact with high-level programming languages (such as Python, MATLAB, and C++)

and classes such as cloud-computing, IoT, and Artificial Intelligence. The IDPE has a new cluster of servers, but it is unclear if the resources are used to support the undergraduate programme, or other research activities.

4. The department maintains that lectures, seminars, educational visits, and excursions take place, however after the discussion with the students it seems to be a relative suspension of the above mainly due to the outbreak of the COVID-19 pandemic.
5. The department, in the context of strengthening student-centred learning, has optionally incorporated the implementation of an optional internship, which before the upgrading of the undergraduate study program, was mandatory with a duration of six months. In the meeting held by EEAP and the Stakeholders, they highlighted the importance of student participation in internships, since it helps them to quickly integrate into a real professional environment. There is not any clear guide for the internship or for its evaluation. Its duration is set at two months in total.
6. The department has bilateral relations with universities abroad to be able to cooperate within the framework of ERASMUS+, a European program that concerns the mobility of students both for studies of a certain duration or for internships in an institution of abroad. However, the inflow and outflow of students throughout the duration of the department's support do not seem to be particularly significant. The department maintains that if deemed necessary and the number of incoming foreign students is satisfactory, parallel teaching in the English language can be done.

To support the educational delivery the following tools are used:

1. The University's Open eClass platform. Where there is all the supplementary material that students need to be able to study their courses.
2. There is not clear evidence of using a platform such as Microsoft Teams for setting meetings with students.

To assess student performance:

1. Written exams are used and, in only a few cases, oral exams.
2. Students participate in laboratory exercises and in group or individual assignments.

The department operates the institution of an academic advisor, where a faculty member is matched with students to provide guidance throughout the student's studies, in a more personalised study experience according to the needs and interests of each student.

EEAP also noticed the establishment of a formal student grievance management process, with a three-level process, starting with direct communication with the professor directly involved, up to the opinion and final decision-making by the department assembly.

An important point is the evaluation of the course and the teacher by the students, where the department seems to give a special importance. The questionnaire presented to the committee is complete and covers several statistically significant elements under investigation. However, the number of questionnaires is probably not particularly large, given that the department consists of more than one thousand students (~1000), but the completed questionnaires for the spring semester of 2022 were about three hundred (~300), where a student can fill in more than one questionnaire per semester.

EEAP notices that there are several questions which students do not want to answer, such as if the classes' evaluation procedures are transparent. On this one, around (~50%) do not prefer to answer. However, the indicators presented to the committee from the extracted results were quite satisfactory, of course it is important to know the number of students who participated in the process and the number of those who did not. OMEA appears to use and pass this data on to MODIP so that departmental objectives are regularly reviewed.

Finally, respect is given to the diversity of the students, this results from all the measures taken by the department and the institution. In this specific programme, based on the data provided to EEAP, there are no students with special needs registered. Although, the institution offers a fully accessible library, with workbenches with special equipment (computer use through their vision, braille printers, large keyboards with colours, but also levers in place of conventional mice). The department has all the means that enhance accessibility (ramps, elevators, etc.).

## **II. Analysis**

The committee believes that the laboratories, although not fully renovated and equipped, place adequate emphasis on student-centred education and help students easily gain experience in their taught courses. Students have access to laboratory computers, however based on the number of the registered students, and the number of the computers, it seems that they are very limited, and students should group together in one computer, or participate in a different group.

After the discussion with the students, it did not emerge that there is an active activity with the institution of the academic advisor, at least, not in its official state. However, students agreed that all the faculty are willing to help the students with questions on office hours.

The committee points out that more importance needs to be given to the movement of both faculty members and students through the ERASMUS+ program. EEAP fully understands the reasons that may lead to low numbers of incoming and outgoing students, such as the recent pandemic.

The participation of students in the evaluation of courses and faculty members should be particularly encouraged to ensure a statistically significant sample of students.

The students that as committee we met officially, were not acknowledged of competitions based on their studies, and were not acknowledged of any specific student team. They also expressed us that their representation in the official department bodies, is happening via University Political Factions, when a problem is arising each Political Faction acknowledges the problem directly to the head of the department.

In general, the students presented in the meeting did not arise any specific recommendation or problem in their department, which exceptionally piqued the curiosity of us, however, a student met the EEAP unofficially while visiting the facilities, and informed us that there is a major problem with the students who are studying in the old format of the TEI programme, for the possibility of getting deleted from the students list for exceeding the study timeline.

Finally, the OMEA's constitution, as presented, does not include student representation in accordance with Law 3374/2005, article 5, par.2, and it does not appear that the procedures for electing student representatives at the department's assembly were followed in accordance with the law 4957/2022, while after a search on the website of the department, the announcement of the election of student representatives was not announced, as defined until September 30 (4957/2022, article 42, par. 5), however, according to the announcement of the institution on December 7, 2022 (Prot. No.: 119939, ΑΔΑ: ΡΠ0Δ46Μ9ΞΥ-67Ω), the institution-wide procedure was followed for all departments declaring an election date of January 19 and two total elective positions for the IDPE, the committee is not in position to verify in writing whether elections were held, which persons constituted the Election Conducting Body (which is determined by lot by the Dean).

### III. Conclusions

Overall, the undergraduate program follows up to a point a student-centred approach, OMEA in their provided internal evaluation recommends that student-centred learning should be drastically improved as well as there should be an improvement on the students participating in the evaluation questionnaires. The institution of the Academic Advisor should be more active, however EEAP fully understands the high workload of the faculty. There should be an improvement in the strengthening of student and faculty mobility and the active representation of students in the committees of the department, through the prescribed legal and transparent elections, with the prescribed action of the department. Mechanisms should be in place to ensure fairness and objectivity in the assessment process.

#### 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.** Encourage and support students to participate in ERASMUS-type exchange programs and cooperation with the institution's ESN (Erasmus Student Network) for attending or co-organizing student information days.

**R4.2.** Establish progress or performance awards (monetary and non-monetary) so that excellence and continuous self-improvement are more incentivized.

**R4.3.** Improve the operation of the academic advisor function in terms of its evaluation and monitoring.

**R4.4.** Encourage the students to participate in the courses' evaluation process.

**R4.5.** Develop procedures for the equitable (according to the law) representation of students in the department committees.

**R4.6.** Encourage and support students to participate in international events and competitions related to the science of industrial design & production engineering, setting up a student team to participate in competitions, strengthening student participation and the department's identity at the international level.



## **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**

The department has developed various methods for students to have a smooth transition during their transition to academic life. Different support structures for new incoming students have been developed, among others:

1. There is a reception and information ceremony for first-year students on the first days of each academic semester.
2. There is the institution of the Academic Advisor, who helps to support the students regarding the organisation of their studies and solve the problems that may arise.

In the UGP, the IDPE has organised the monitoring of students' progression according to the following:

- a. There are three examination periods, two at the end of the semesters of each academic year, and one repeat examination period.
- b. At regular intervals during the semester, students are asked to hand in or present their work in their courses, sometimes it is about half-term work or laboratory reports.
- c. The way students are evaluated is mainly evaluated by a final written exam, or else by combining the student's performance in the final written exam and some progress, work, or a series of laboratory exercises carried out during the semester.
- d. Usually in the last academic years, complex evaluation methods are applied.
- e. The thesis, which is being prepared for one semester, is usually assigned to one student, and one or more faculty members are usually assigned to it.
- f. Finally, the progress is recorded in their file and in the electronic student log which they have access to through their institutional account.

Scholarships are coordinated centrally at the University level, but also by bodies such as the State Scholarship Foundation (IKY), and by endowments. Finally, for students who participate in the ERASMUS+ program, a grant is given that covers the difference in the cost of living abroad through the European Union.

The mobility of students through the ERASMUS+ program is coordinated by the department, however, there has not been satisfactory participation by the students of the department nor a satisfactory influx of foreign students into the department.

The offered courses in the study program have been assigned credits (ECTS) according to the European Credit Transfer System.

The Diploma Supplement is awarded to all graduates together with the diploma or certificate of completion of studies, it is issued electronically in Greek and English.

Diploma theses are prepared according to specific quality standards announced by the department to the students.

The faculty, OMEA, and the students themselves indicated that there are a lot of new admitted students each year resulting in a constant overload. OMEA is expressing their concerns in their

provided documentation about the limitations of the working spaces and classes. The department itself wants to admit around one hundred and fifty (150) students each year.

Finally, the institution of optional Internships was presented to EEAP but there is not enough evidence of how this institution works based on the department's accreditation proposal. References in the proposal for the internship institution were missing in the folder sent by HAHE (specifically there is a reference of a document B26\_4 about internships but could not be found in the accreditation folder). However, based on the presentation, students find and choose by themselves the organisation they wish to carry out their Internship. The internship is estimated to be done in two (2) or three (3) months, but this was not completely clarified.

## **II. Analysis**

The committee considers that with the existing methods of student reception, the issue of new students is largely covered, the student experience could be enhanced by preparing a "Survival Guide", where students can immediately obtain information about their arrival at the University, various useful information about life at the University (Reading Rooms, Libraries, Canteens, etc.), as well as how to get to the Campus.

Progress monitoring is largely satisfactory, and nothing needs to change, other than to further strengthen the institution of the Academic Advisor as the academic, research, and administrative responsibilities of faculty members allow.

Concerning ECTS and ERASMUS+, the committee considers that the matching of ECTS with the courses offered is properly planned; it may be helpful to design a system of matching the courses offered by the department with those of other departments. Finally, the regulations governing the preparation of a thesis are sufficient, it might have been helpful if it could be extended more than one academic year, given its research nature, and more than one student could undertake a thesis topic due to the high ratio of faculty members to students, with the goal of less burden on faculty members from the factor of diploma work. The mobility of both faculty members and students should be promoted and enhanced. Through the ERASMUS+ program, the committee realises and understands that the participating students may have been impacted due to the Pandemic.

The EEAP fully understands the concerns of all the stakeholders (students, faculty, OMEA, MODIP) about the very high number of admissions as set by the relevant ministry, and it should be noted that the number of admissions must be taken seriously into account. The department currently supports over 4000 students due to the merger of the former departments, and by raising this number each year by over three hundred students will soon lead to a vital problem.

There should be a clear way of providing information about the procedure of the optional internship, and we recommend that the internship should be taken not only in the last semester, but also in the 8th and 9th semester too, providing ways to extend the total duration of the internship. However an analytical guide should be provided, highlighting the procedure of evaluating an internship in the end (formal report, presentation of the internship to an evaluation panel etc.).

There is not enough evidence on how the optional (paid) Internship works. The committee considers that the Internship is a necessary element of the department but also the department's interconnection with the labour market. However, relations with the labour market should be strengthened, establishing relations for the better absorption of students in internship institutions. EEAP noticed in the meeting with the external stakeholders, that the vast majority of them, indicated that the internship should be mandatory, highlighting that this enabled students of the former departments (TEI), to outstand technically in the field of their work.

### III. Conclusions

In general, all of the above make up a very good plan regarding the way students are integrated into academic life. Ultimately through institution maximisation the allocation of ECTS is properly distributed. The mobility of students and faculty members should be promoted, and a strong network of Internship host organisations should be established, as it emerged from discussions with students and experts in the field that Internship is a very important process. There should be an immediate response to limit the student admissions per year. Also an important point is the rewarding of students with the establishment of progress and development awards.

#### 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	<b>X</b>
Substantially compliant	
Partially compliant	
Non-compliant	

#### Panel Recommendations

**R.5.1:** Expand the student guide into a more general "Survival Guide", to include academic and non-academic information.

**R.5.2:** Develop a detailed guide for the internship programme.

## **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**

1. The general assembly of the IDPE decides about subject and level of the teaching staff to be recruited or promoted according to its needs and the strategic plan. Thereafter, the recruitment procedure follows the national laws and regulations for the recruitment of new faculty members (academic staff), as well as for the promotion of existing ones. The IDPE is hiring additional teaching members (adjunct faculty) using direct contracting. The IDPE implements clear regulations and emphasises excellence in teaching in those cases too.
2. The teaching staff of IDPE has all professional development opportunities given by the national regulations. The department supports its members to their professional development.
3. Teaching staff has opportunities for participation to conferences and further mobility activities, especially in the frame of the ERASMUS + program of the department.
4. Is the teaching workload of the teaching staff deemed appropriate, allowing for engagement in research activities? The average teaching load of the faculty staff is 7,6 hours, which allows further engagements e.g., research or administration. There is evidence of active participation to both research and administration of the majority of the faculty staff.

5. There is strong evidence of linking teaching with research especially via the obligatory Thesis or in the frame of student projects too.
6. Students evaluate the performance of the teaching staff within each course evaluation every semester and the quality assurance committee collects the data and analyses them.
7. The research activities of the IDPE are focused around six “research laboratories”, which represent the research groups and the specific scientific areas of the department.

## **II. Analysis**

The IDPE overall attends to the adequacy of the teaching staff in all categories. The department currently has 25 faculty members, including 9 full professors, 2 associate professors, 7 assistant professors, 7 lecturers, 7 teaching assistants and 1 technical assistant. One further position is announced. There is no sufficient gender balance. The department provides an appropriate academic working environment, offers adequate opportunities and promotes the professional development of the teaching staff. However, the workload of the faculty members is very high, although the average teaching load is acceptable with 7, 6 weekly hours. Further load comes from the administrative duties, supervisions of a high number of diploma thesis, PhD works and conduct research. A very high number of adjunct staff is needed (above 63, 16 % of faculty in 2020-21). In the same academic year 2020-21, the ratio of active students to faculty was 71, 37, considered very large. However, if you add the adjunct faculty this ratio becomes lower and currently it is 25 students to each teaching member, as reported during the visit in situ. This situation makes mobility and research of faculty members very difficult, they do not take advantage of the given opportunities for mobility and research because of this situation. Therefore, new faculty positions for stabilisation and improvement of teaching and research requirements of the IDPE are urgently needed.

The majority of the faculty members are active researchers and publish their findings in archival journals (587 peer reviewed papers in 2020) and refereed conferences, direct research projects either by themselves or via international cooperation. Their areas of publishing cover a wide spectrum of interest. The department tried to support these activities and encourage new research activities. Furthermore, the performance in acquisition and execution of research grants is adequate despite the high teaching load of the staff. The faculty supports the quality assurance system participating actively in evaluation and accreditation activities and implementing corrective actions.

They support the link between teaching and research, offering student projects in their labs and creating a holistic learning environment.

## **III. Conclusions**

The panel agrees that the criteria of this principle are fulfilled.

## 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

**R.6.1:** The department should intensify its efforts to create new faculty positions and apply additional measures and means to reduce teaching and administrative workload of the faculty.

**R.6.2:** The department should encourage faculty members to use the mobility opportunities offered.

## 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

1. The IDPE is established mainly in three adequate buildings (B, Γ, Z) of the main campus of the UWA (Αρχαίος ελαιώνας). All necessary classrooms, IT infrastructure, teaching, and research laboratories as well as offices offer an appropriate teaching, research and working environment. The classrooms have interactive whiteboards, and most areas are accessible by students with disabilities. It appears that overall, the facilities are distributed rationally. Students have easy access to the central library, restaurant, cafeteria and learning areas. Wi-Fi is accessible everywhere.
2. The distribution of the facilities is rational and easily accessible although there is not obvious orientation or navigation help in site.



3. The department is offering career counselling mainly based on the academic advisor. The students have access to the sport and cultural facilities of the campus and the student welfare facilities. There is evidence that students are satisfied with the facilities of the campus (evaluation results, and in site visit). There are no dormitories in campus.
4. The students get the first information about available services offered in the first days of enrolment. This information is also available in the student guide and in the internet pages of the university. There is no evidence of complaints about functionality or accessibility of the service by the students.
5. There sufficient and competent administrative staff in place. There is evidence for satisfaction of the students with the services provided.

## II. Analysis

The IDPE provides adequate facilities at the campus fulfilling almost all requirements of the study program. Although the department has a very high number of students per year (more than 300 incomings), the department succeeded to organize his facilities from the previous programs according to his new study program so, that it can carry out his mission for a high-level education. There are adequate laboratories for almost all subjects (courses), which need practical exercise, with a combination of previous with new equipment. In the case of production technologies, improvement is needed in order to cover further and more general areas of production. There is evidence for the need of additional administrative and technical support staff for the laboratories to maintain and update the equipment.

## III. Conclusions

The IDPE is provided with adequate learning resources and sufficiently equipped facilities, to ensure a high-level teaching and learning environment for the new undergraduate program.

### Panel Judgement

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

### Panel Recommendations

**R 7.1.** The department should consider introducing further practical exercises for production technologies e.g., production with machine tools or other production machines.

## **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**

IDPE/UNIWA 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.

The outputs of the information system indicate that the data that are essential for accurate information and decision making, as well as for identifying areas of smooth operation and areas for improvement are reliable.

#### **II. Analysis**

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. Some are working well, and some require improvements like for example tracking the career paths of graduates that requires development at departmental level.

Several 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.

The data provided were properly presented in graphs, demonstrating trends and allowing direct interpretation and comparisons.

### III. Conclusions

The EEAP finds that the Department 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

**R 8.1** Clarify further the internal evaluation process.

## **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**

The website of the IDPE (<https://www.idpe.uniwa.gr>) is comprehensive and well indexed. Details regarding the staff members, curriculum, research programs, the policy for quality assurance and the department facilities are provided both in English and Greek.

In some specific cases, the information is only available in Greek, and for a complete bilingual website the information should be well organized and in the English version too.

The UNIWA also offers public information via their main website (<http://www.uniwa.gr>) and provides a detailed introduction and overview of the campus, its buildings and facilities in English and Greek. However, there is a certain problem, while trying to navigate the website in English, sometimes the corresponding information is visualized in Greek.

#### **II. Analysis**

The website is up to date for the new 5-year undergraduate program and is accessible for all relevant information needed. A detailed curriculum plan, the course outlines, staff information and their social communication contacts, research and a well-structured student guide are available. Due to lack of accommodation in the campus some more transportation and accommodation details for the total area (Attiki) are necessary. In some categories on the website's menu there are functional hyperlinks that lead to UniWA's or MODIP's websites that provide additional information. All the important information is also provided in English.

### III. Conclusions

Overall, the IDPE website is easy to navigate and provides clearly all the information needed. The Panel found the IDPE fully compliant with Principle 9.

#### Panel Judgement

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

#### Panel Recommendations

**R.9.1:** The website must be upgraded with photos and videos.

**R.9.2:** A more friendly presentation for the curriculum plan must replace the existing one.

**R.9.3:** The adjunct teaching staff must have a place on the website.

**R.9.4:** It is critical to ensure that there is compliance with policies governing cookies, data privacy methods and GDPR.

**R.9.5:** Increase the availability of information about pass rates, and information on graduate employment perspectives.

**R.9.6:** Solve the problem of unexpected change in language while navigating in the English version of the University website.

## 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**

The UG programme is a new programme in the 5<sup>th</sup> year of its operation and, as a result, there is little evidence of its ongoing evaluation. It is noted that the MODIP processes for the regular evaluation are in place, so it is expected that as the programme matures, regular evaluations will be undertaken.

Consultations for the development of the programme were conducted informally. In this direction, information was collected informally from industrialists and external stakeholders who participate in the Practical training activities of the University, and consultations with Industrial Design & Production Engineering Departments of other universities in Greece, discussions with the Faculty members of the Department, and discussions with the students. The content of the programme was developed by connecting and integrating the research interests and activities of academic staff as well.

One important source of feedback for monitoring and reviewing the programme content is the student questionnaires. The department is taking regular information from the students via the questionnaires that are distributed at the end of each course. The questionnaire addresses issues related to students' workload, progression and completion; effectiveness of the assessment procedures, their expectations, needs and satisfaction with the programme and the learning environment. The students we met did

not raise any concerns in relation to the fairness of programme procedures of examinations, structure and content. Another important source of feedback for programme revision comes from external stakeholders. However, this feedback process is rather ad-hoc, based on personal contacts among Faculty members and external stakeholders. The external stakeholders we met expressed their satisfaction with their cooperation with the University and their willingness to help the department improve the course offering to satisfy the changing needs.

The Department has developed formal procedures for the regular monitoring, review and revision of the study programme but the whole process is not yet fully embedded and, as a result, it is early to judge its effectiveness. The Department has already established an Advisory Board for monitoring external stakeholders' needs that should be considered in the programme revision process. The Advisory Board is at its early stages and there is no evidence of its operation and contribution to the programme development and revision process yet.

## II. Analysis

The programme is in its 5<sup>th</sup> year of its operation and there are no graduates until today. The original program is designed with a load of 240 ECTS. Subsequently, the program received 2 more revisions with the last one in 2021 which brought it to its current form with a workload of 300 ECTS (5-year study program). The process of redesigning the programme curriculum would need the collection of factual information from external stakeholders and the industrial partners after programme graduates have been employed. This means that at the time of this accreditation this full cycle has not yet been completed.

## III. Conclusions

The Department has been implementing the relevant review processes as guided by MODIP, and there is evidence that it has been adopting it in the process of self-evaluation. However, the programme is at its early stages and EEAP expects that as the programme matures, the full programme evaluation process shall be implemented. The department should develop formal mechanisms for the collection of relevant information from the stakeholders.

### Panel Judgement

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

### **Panel Recommendations**

**R10.1** For the annual internal reviews the department should follow the process and produce the accompanied documentation as described in the University Quality Manual.

**R10.2** Consider putting in operation the newly established Advisory Board.



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

The new undergraduate study programmes should regularly undergo evaluation by panels 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 panel of independent experts. HAHE grants accreditation of programmes, based on the Reports submitted by the panels, 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 panels 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 2013 and 2014. 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 IDPE/UNIWA which took place the academic year 2019/2020. IDPE/UNIWA has provided evidence of what has happened since then, which, overall demonstrates 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 there is an established advisory board but there is no formal interaction to make this correspondence more efficient.

#### **III. Conclusions**

The EEAP finds that the Department is fully compliant with the requirements of Principle 11, although a process of continuous improvement is desirable.

## 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

**R.11.1:** 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 courses from the old UGP to the new one. The remaining TEI UGP courses are still supported as long as active students attend them and until the 2024-2025 academic year. Although many students are enrolled in a TEI UGP, some of them are active and expected by the Department to successfully complete their studies in the time mentioned above.

The mandatory six-month internship of the TEI UGPs has been transformed into an optional one in the new UGP, and its duration is reduced to three months.

## 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.

The most serious issue with the transformation from TEI UGPs to an engineering UGP is that there is no sufficient indication of various changes introduced in the curriculum to one that provides more engineering knowledge. There is also a question about the need of having in the same university both Mechanical Engineering and Industrial Engineering separate departments rather than merging into one. Moreover, there is a lack of structure in the last years of study that makes it difficult to compare the UGP to the ones of other polytechnic schools.

## III. Conclusions

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

### Panel Judgement

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

### Panel Recommendations

**R12.1** The Department be further oriented to one that corresponds to a University Engineering UGP in a leading and rapidly evolving academic and scientific field and should be harmonised with similar UGPs.

**R12.2** The educational offer of the Department in this Integrated Master's programme should be enhanced with the introduction of specialisations, combining its current expertise in other postgraduate programmes.

**R12.3** There is a strong belief that the two departments, MENG/UNIWA and IDPE/UNIWA should make the necessary consultations and merge to a new UGP which would provide wider engineering knowledge and more options for the graduates.

## **PART C: CONCLUSIONS**

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

- The campus is well-preserved and gives a university atmosphere.
- The Strategic Plan is clearly written and well-articulated strategic goals with quantifiable metrics.
- The division of courses into sections to ensure small class sizes is a highly desirable practice.
- The Department has designed an efficient and effective quality assurance system.
- The Undergraduate Program has a well-designed structure and logical approach.
- The faculty actively promotes the integration of teaching and research by involving students in various ongoing research projects.

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

- The number of incoming student relative to the number of faculty is large.
- The Advisory Board comprising representatives from different stakeholders is not sufficiently utilized.
- The operation of the website is deficient. The Greek and English versions of the website should be identical. Yet, in a number of instances the English version reverts to Greek. It needs to be corrected.
- Limited staff and student mobility.
- Absence of formal mentoring for new faculty members.
- Low student participation in international mobility programs.
- Lack of interest among students to participate in internships.
- Low graduation rate of the students.

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

- Expand the Advisory Board by increasing the number of external stakeholders and increase its utilization.
- Develop an information processing system for two-way interaction between the Department and the future alumni.
- Improve the operation of the information processing system to be responsive to the needs of the students and the faculty.
- The Department should consider offering some sections of the undergraduate courses in English to provide incentive for the students increase their participation in the Erasmus program.
- For the courses that have a laboratory component, improve the scheduling to facilitate the attendance and progression of students, particularly those who hold jobs while attending school.
- Develop and publish formal policies for increasing the academic mobility, including sabbaticals.

- Increase the opportunities for students to pursue internships by appropriate adjustments in the course schedules.
- Encourage the students to increase their participation in the course evaluations.
- Provide further support for the students enrolled in the pre-existing TEI programs to help them graduate.

#### IV. Summary & Overall Assessment

The Principles where full compliance has been achieved are: **1, 2, 5, 6, 7, 8, 9, 10, and 11.**

The Principles where substantial compliance has been achieved are: **3, 4, and 12.**

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

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

Overall Judgement	
Fully compliant	X
Substantially compliant	
Partially compliant	
Non-compliant	

## The members of the External Evaluation & Accreditation Panel

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