



ΕΛΛΗΝΙΚΗ ΔΗΜΟΚΡΑΤΙΑ
HELLENIC REPUBLIC



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Accreditation Report
for the New Undergraduate Study Programme in operation
(Integrated Master) of:

Surveying and Geoinformatics Engineering

Institution: University of West Attica

Date: 21 November 2022



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 (Integrated Master) of **Surveying and Geoinformatics 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 (Integrated Master) of **Surveying and Geoinformatics Engineering** of the **University of West Attica** comprised the following four (4) members, drawn from the HAHE Register, in accordance with Laws 4009/2011 & 4653/2020:

1. Prof. Emeritus Michael Sideris (Chair)

University of Calgary, Calgary, Alberta, Canada

2. Assoc. Prof. Dimitrios Skarlatos

Cyprus University of Technology, Limassol, Cyprus

3. Mr. Michail Kalogiannakis

Technical Chamber of Greece, Athens, Greece

4. Mr. Stylianos Mataras, student

University of Patras, Patras, Greece

II. Review Procedure and Documentation

Prior to the site visit, the External Evaluation & Accreditation Panel (EEAP) received electronically thirty-two support documents about the University of West Attica (UWA) and the Department of Surveying and Geoinformatics Engineering, including the proposal for the accreditation of the academic programme of the Department, full information on the programme of study and its academic requirements, courses, examinations, instructors and their evaluation by students, regulations on the operation and internal assessment of the programme and its academic staff, as well as on the transition from the status of Technological Institute (TEI) to University status. A lot of this information is also available on the website of the University, which is very well organised and informative. The EEAP conducted the site visit on November 15 and 16, 2022. The representative from Technical Chamber of Greece (TCG) and the student member participated remotely through an online connection provided by the UWA. The EEAP met with the University administration, several members of the Department, students, and external stakeholders, including:

- the Vice Rector of the University,
- the Dean of the School of Engineering,
- the Head of the Department,
- teaching staff of the Department,
- students of the Department,
- administrative staff of the Department,
- laboratory and research staff of the Department,
- members of EEAP, IEG and QAU, and
- employers, social partners, and other external stakeholders.

The Vice Rector, Department Head and the faculty members of the Department gave several presentations during the on-site visit about the organisation, operation and facilities of the University and the Department, the programme requirements, the curriculum, student services, as well as their teaching and research activities. All presentations were provided as electronic copies to the EEAP. The EEAP visited academic facilities, including classrooms and amphitheatres, and research and computer laboratories where it briefly met graduate and doctoral students, faculty offices, the library, and common areas for studying and socialising.

The availability of the aforementioned presentations and documents and the Mapping Grid provided by HAHE made the work of the evaluation panel much easier. In particular, the Proposal for Accreditation of the Undergraduate Studies Programme of the Department of Surveying and Geoinformatics Engineering addressed all 12 principles that must be satisfied by the new programme in a well-structured and comprehensive manner. The EEAP would like to thank all involved and in particular the Vice Rector and Department Head for an expertly prepared and efficiently organised site visit, their collaboration, and their hospitality during our time on campus.

III. New Undergraduate Study Programme in operation Profile

The establishment of the undergraduate programme in Surveying and Geoinformatics Engineering was approved by the Senate of the University of West Attica on June 20, 2018. This five-year programme was offered for the first time, and accepted new students, in the 2019-2020 academic year. In addition, students that were already in the existing programme of the prior Technological Institute (TEI) of Athens were given the opportunity to either complete their studies there, or to continue their studies under the new, university-level programme.

The Department belongs to the School of Engineering, one of the six Schools that comprise the University of West Attica, which has 27 Departments and over 58000 students (the third largest university in Greece in terms of student population). On average thus far, it accepts 105 students per year (128 in 2020-2021, even though the Department's preferred number of new students is 80) and graduates 40% of them annually. The overall student population of the Department in the 2020-2021 academic year was 1013.

The awarded degree is a level-7, integrated Master Diploma, which is accompanied by a Diploma Supplement document in Greek and in English that provides explanatory information on the programme and the courses taken. The degree requires the completion of 58 courses in 9 semesters and a diploma thesis in the 10th semester, with the minimum number of ECTS being 300. The delivery of the programme is currently supported by 18 (+1 to be elected) permanent faculty members, 1 professor emeritus, 1 teaching and 2 technical permanent staff members, a large number of sessional/term-limited instructors and 23 doctoral students, and 3 secretarial/administrative assistants. Including electives, the academic programme comprises 101 courses, structured in three sections: Geodesy, Photogrammetry and Cartography; Geoinformatics and Land Management; and Infrastructure Development and Spatial Planning. Advanced level-8 studies are also offered and lead to a Doctorate degree (PhD).

Graduates of the programme possess broad knowledge in all areas, technologies, methodologies, and applications of surveying, geoinformatics, and infrastructure development (e.g., geodesy, cartography, remote sensing, photogrammetry, GIS, positioning, mapping, navigation, digital imaging, road design, hydraulics, urban planning, geospatial data management, Earth observation, environmental and hazards monitoring, etc.). They are typically employed in relevant industry, public agencies, research institutions, and academia. At the moment, however, a serious obstacle in the professional success of the Department's graduates, as well as in the attractiveness of the programme to new students, is the lack of accreditation and official recognition of the professional qualifications of its graduates.

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 mission of the Department is to provide undergraduate and graduate university education of very high level in Surveying and Geoinformatics Engineering. **Its academic profile** spans a wide range of scientific fields related to the measurement, collection, processing, analysis, representation, management, and dissemination of quantitative and qualitative geometrical information of the natural and manmade environment. The majority of these scientific fields are included in four internationally established scientific fields of Higher Education designated by UNESCO (ISCED 2013), and include geodesy, oceanography, physical geography, and geospatial technology (under Earth Sciences), surveying, cartography and urban planning (under Architecture and Town Planning), building engineering, construction, road building and water engineering, water supply (under Building and Civil Engineering), and Environmental Science. Six more cutting-edge scientific fields, which are not categorised by UNESCO, complete the academic profile of the Department, namely, remote sensing, photogrammetry, computer vision, machine learning, hydrography, and satellite navigation. The Department's academic programme is organised around three learning sections: Geodesy, Photogrammetry and Cartography; Geoinformatics and Land Management; and Infrastructure Development and Spatial Planning. Doctoral level studies are also offered in one or more of the above scientific areas, under three specialisations: Geospatial Technologies, Land Management and Real Estate, Artificial Intelligence and Computer Vision.

The University's strategic plan outlines its academic development through the establishment of distinct goals, which are informed by measurable performance indicators and SWOT analysis, as well as external socioeconomic factors. The Department's creation was also informed by these factors. Its strategic plan is aligned with the University's and serves the same strategic priorities of excellence in education and research, outreach and internationalisation, improvement of academic facilities and environment, development of digital technologies, and quality assurance. The SWOT analysis showed that the Department strengths and opportunities outnumber any weaknesses and possible threats. As the Department has a long history of operation as part of the prior Technological Institute (TEI) of Athens, modernised curriculum in geospatial technologies, experienced staff, emphasis on quality of education, and the full support of the University administration, there is no doubt that it will succeed in its mission now and in the future, producing engineers in service of societal needs.

The feasibility of the operation of the Department and the programme can be fully justified by a number of factors. The first one is the needs of the country for engineers specialising in new geospatial technologies and applications. The qualifications and employment opportunities of surveying engineers were traditionally in the areas of surveying, mapping, cartography, cadastre, road design, transportation and hydraulic works, and land

management. These are still pertinent, and with the establishment of the national cadastre, a large number of graduates are employed in these areas. The curriculum covers these areas comprehensively, as they are part of the requirements for the professional qualifications of the graduating engineers. With the advent of geospatial technologies in the last two decades, there is a need for engineers with knowledge in collecting, analysing, presenting, interpreting, and managing diverse information in digital geospatial data bases. This is covered by the second main part of the programme, Geoinformatics Engineering, which is employing modern technologies such as GIS, satellite remote sensing, digital imaging, artificial intelligence, computer vision, smart structures, sensor web, digital networks, and so on. The Department has fully qualified teaching staff, the required modern laboratories and specialised measuring and computing equipment and has structured its curriculum so as to educate its students in these state-of-the-art areas. The applications are many and diverse and span diverse areas ranging from deformation and infrastructure monitoring, Earth observation, environmental monitoring, hazards and natural disasters, 3D reconstruction, UAV mapping, geophysics and seismology, all the way to robotics and computer vision, medical imaging and biomedical engineering. It is therefore no surprise that the unemployment rate of graduates is very low. The Department compares well to the other two university programmes in Greece that offer five-year surveying engineering programmes, as well as to the other programmes in Europe and North America that offer equivalent programmes (in Geomatics Engineering). This is no accident, as the Department designed its curriculum after studying the relevant curricula offered in other universities.

The Department has the necessary infrastructure, human and equipment resources, funding and services to guarantee its long-term **sustainability**. Its staff complement consists of 18 faculty members (5 professors, 7 associate professors, 5 assistant professors and 1 lecturer), 1 teaching and 2 technical permanent staff members, and 3 permanent administrative assistants. For the delivery of the full teaching programme, the permanent teaching staff is supplemented by 33 sessional/term-limited instructors, most of whom are holders of a Doctorate degree. The five-year plan indicates that with this arrangement the curriculum's teaching requirements can be covered almost completely, but due to the large number of entering students and the lack of large teaching spaces, the learning process is taking place in smaller groups of students rather than in a single large class. To fully be able to cover its educational needs, additional teaching positions, replacement of retiring positions, and reduction in the number of new students admitted each year are necessary. The basic funding of the Department is provided by the university budget and the special account of research funds (EAKKE). It is supplemented through funding from research projects, life-long learning, and graduate studies programmes. Many support systems and services are provided by the University and the Department, including but not limited to, library, study areas, laboratories, desktop computers, software packages for education and research, networking and web

access, lecture notes, e-learning platforms, computerised secretarial support, student advisors, student advocate, health services, and athletic facilities.

The **organisation of studies** provided by the Department is a 5-year study programme (10 semesters) which corresponds to 300 units of the European ECTS system. Of these, the total of 30 ECTS Credit Units of the 10th semester correspond exclusively to the Diploma Thesis. The undergraduate programme covers levels 6 and 7 of the European Qualification Framework (EQF) as well as the National Qualification Framework (NQF). The successful completion of the first study cycle of the Department of Surveying and Geoinformation Engineering leads to the granting of an integrated master, level-7 diploma under NQF and EQF. It is based upon the fundamental sciences of Surveying and Geoinformatics, bringing together information technology and monitoring of the natural and anthropogenic environment.

The **learning process** is achieved through:

- lectures utilising the Department's infrastructure in classrooms, computer rooms and laboratories fully equipped with hardware and software; and
- asynchronous education methods, utilising the [e-class](#) platform. This particular platform serves for the dissemination of multimedia material and additional educational material (lectures, laboratory exercise data, project topics, bibliographic sources, etc.) from the lecturer to the students, as well as facilitates the submission of the students' work.

The Department adopts a "student-centric" approach to the educational process and its evaluation by the students:

- respects the diversity of students and takes care of their various needs adopting flexible learning directions;
- examines and uses different teaching methods, depending on the case;
- uses a variety of pedagogical methods in a flexible way;
- regularly evaluates the ways of delivery and application of pedagogical methods and introduces regulations for their improvement;
- regularly evaluates the quality and effectiveness of teaching, as documented by the feedback provided in course/instructor evaluations by the students;
- strengthens the student's sense of autonomy, while providing, at the same time, guidance and support by the professor;
- promotes mutual respect in the student-teacher relationship; and
- implements procedures for the management of student complaints.

The **learning outcomes** are explicitly defined in the undergraduate programme. Upon graduation, all students should be able to:

- develop specialised solutions to problems based on specific needs, priorities and operating environment;
- work independently, but also as part of a large interdisciplinary team, manage complex technical or professional activities or work plans, and take responsibility for decision-making in unpredictable environments;
- manage complex or unpredictable work or design scenarios, as well as develop new strategies to approach them;
- identify and manage personal and professional learning needs, while also undertaking the responsibility for managing the professional development of individuals and groups under their supervision, thus demonstrating in practice their commitment to the goal of life-long learning; and
- have scientific integrity, moral responsibility and professional maturity for critical utilisation of their skills within the socio-economic and environmental context of each project.

Since the beginning of its operation in 2018, the **number of admitted students** is on average 105 students/year. Department's requirement for admissions is 80 students/year. This increase is mainly due to the favourable provisions of the law on transfers (10%), registrations of people with disadvantages (serious illnesses, affected by natural disasters, disabled, many siblings, etc.) From 2019 onwards, there have been no transfers, as the only other programme from which this was possible (Department of Engineering Topography and Geoinformatics of the International Hellenic University), is not yet accredited for the integrated Master diploma.

Postgraduate studies and research are key strategic priorities of the Department. The postgraduate programme offers three directions of study, each 3 to 4 semesters long leading to a postgraduate diploma of the same title, namely, Geospatial Technologies, Land Management and Real Estate, and Artificial Intelligence and Computer Vision. The first offers specialised studies in sciences related to the collection, processing, interpretation, visualisation and management of spatially referenced information, using systems of mobile mapping, UAV, satellite and airborne sensors, radar, LiDAR, laser scanning. The second one offers specialised studies in collection, analysis, representation and management of information for the built and natural environment (using GIS and modern mapping technologies), zoning, urban planning, as well as real estate information on all economical and legal aspects relating to registering (cadastre), valuing and purchasing land and buildings. The third one, offered in collaboration with the University of Limoges in France, provides specialised studies in image processing and analysis, machine learning, data science and big data, pattern recognition, computer vision, multimedia, and intelligent geospatial systems. In addition, the Department is offering a Doctoral studies program, and has already attracted 23 doctoral students. Both the postgraduate studies and the doctoral studies culminate in a thesis

that documents the novel research work of each postgraduate or doctoral student. Collaborations in interdisciplinary research and for the delivery of the postgraduate programme have been established with ten other Schools and Departments in other universities in Greece, including Departments/Schools of Surveying, Geography, Medicine and Public Administration, and the Hellenic Military Geographical Service. The faculty members of the Department are involved in individual and collaborative research projects, and publish their research results in scientific journals catalogued in citation databases (e.g., Scopus, Web of Science, Google Scholar, PubMed) whose impact factors are monitored by international journal ranking services (e.g., Academic Journal Guide-AJG, SCImago Journal Rank-SJR, ABDC). In 2020, the average annual number of publications in scientific journals and fully refereed conference proceedings per faculty member was 1.7, which is about 3 times the Greek average.

II. Analysis

- a) The academic profile of the Department is in full agreement with its academic mission. Its scientific field is in agreement with the relevant scientific areas established by UNESCO and is further expanded to include new, state-of-the-art areas in geospatial sciences and engineering.
- b) The Strategic Plans of the Institution and the Department inform the establishment and operation of the Department and its programmes of study, which, a SWOT analysis has shown, is characterised by a lot more potential benefits and opportunities than limitations and risks.
- c) The feasibility of the undergraduate programme is justified taking into account all the educational, scientific, and economic reasons, as well as the needs of the job market, and the Department compares well to the other two university programmes in Athens and Thessaloniki.
- d) The available human resources, teaching and research facilities, internal and external funding, infrastructure, services, and the employment opportunities of the graduates guarantee to a large extent the sustainability of the new undergraduate programme. This is hampered slightly by deficiencies in teaching facilities (lack of large capacity classrooms and amphitheatres) and full-time faculty members (large number of instructors on contract), and the very small number of technical staff.
- e) The Department provides full information on the structure of its study programme (number of courses, their categories and distribution into semesters, etc.) and their alignment with the European Credit Transfer System (ECTS units). The student-centric learning process is based on traditional lectures in classrooms and laboratories and on online methods using the [e-class](#) platform, which are regularly evaluated and improved through student feedback. The detailed set of learning outcomes and competences is communicated to the students and, although the professional rights of the graduates have not yet been approved, the expectation of the Department is that these will be approved

very soon and be equivalent to the rights of the graduates of the other two university programmes in Greece.

- f) The proposed number of admissions for the optimal delivery of the programme is 80 students/year. The actual number is on average 30% higher and occasionally 50% higher, due to student transfers and admissions of persons with special needs. This strains the Department's human resources and facilities, and could negatively affect the quality of education and the employment opportunities of the graduates.
- g) The Department offers three broad postgraduate specialisations and a doctoral programme which has attracted over twenty doctoral candidates. The faculty members have substantial research presence and collaborations, but their success in attracting external funding and publishing in high-impact journals, while good on average, is unevenly distributed amongst the faculty members and lower overall compared to similar programmes in Greece and abroad.

III. Conclusions

Based on the above findings and analysis, the EEAP rated the 7 components of Principle 1, as follows:

- a) fully compliant
- b) fully compliant
- c) fully compliant
- d) substantially compliant
- e) fully compliant
- f) fully compliant
- g) substantially compliant

and the overall Principle 1 as fully compliant.

Panel Judgement

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

Principle 1: Strategic planning, feasibility and sustainability of the academic unit (overall)	
Fully compliant	✓
Substantially compliant	
Partially compliant	
Non-compliant	

Panel Recommendations

The recommendations of the EEAP are based on the deficiencies identified above, recognizing that some of them (e.g., accreditation/professional rights, number of faculty positions, number of admitted students) are beyond the control of the Department and the University:

- Decrease the number of students admitted annually to the number recommended by the Department, possibly also raising the minimum required points of admission.
- Increase the number of permanent faculty members (to 21 initially, if possible) and at least double the technical staff.
- Decrease the number of temporary teaching staff on contract, increase their length of employment, and require PhD qualifications for all.
- Expand the teaching spaces of the Department.
- Provide incentives to students and staff to excel in education and research.
- Increase the research involvement and performance of all faculty members.
- Obtain programme accreditation.

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 Department has a Quality Assurance Policy (QAP) which is aligned with the QAP of the institution along the lines of the European and the National Qualifications Frameworks for Higher Education. Both are clearly outlined in separate documents that are available online to all stakeholders, and constitute an important component of the strategic planning of the unit. The Department's QAP sets out the goals that should be achieved in order to guarantee the quality of its undergraduate and graduate programmes of study and its recognition, nationally and internationally, as a centre of innovation and excellence. These goals are:

- The continuous improvement of the student-centred programme of study and the delivery of a high-quality curriculum by employing modern methods of teaching.
- The strengthening of research activities for the benefit of society.
- The promotion of outreach, within Greece and abroad.
- The improvement of resources, facilities, work environment and administrative procedures in support of the educational activities.
- The qualifications and professional development of teaching, technical and administrative staff.

An Internal Evaluation Group has been established to perform an annual internal evaluation of the quality of the programme in collaboration with the Quality Assurance Unit (QAU) of the University. The goals mentioned above are monitored using appropriate key performance indicators, and the findings are documented in the annual internal evaluation report of the Department.

II. Analysis

The Department is committed to delivering quality educational experience to its students and professional experience to its staff, while maintaining a positive environment of collegiality, transparency, collaboration, and respect. It is also committed to improvements through the collection and analysis of student feedback and a large number of performance indicators. It has a well-laid-out QAP document that is made available to all stakeholders (internally to students and teaching, technical and administrative staff) for their information and contribution to the unit's overall efforts for quality improvements, and to prepare them, where appropriate, for their own evaluation. Its annual internal evaluations are made available to the University's QAU and are posted online in the web sites of the Department and the University.

III. Conclusions

The QAP meets modern standards of a university programme and is based on an extensive set of measurable KPIs and on student feedback. It is promoted and communicated to all parties involved and includes a commitment to continuous improvement. The QAP has explicitly stated goals for improving the teaching methods, student satisfaction and learning outcomes of the undergraduate programme, as well as the research input (collaborations, funding, etc.) and output, the national and international service contributions of the faculty members, and the outreach communications of the Department.

Panel Judgement

Principle 2: Quality assurance policy of the Institution and the academic unit	
Fully compliant	✓
Substantially compliant	
Partially compliant	
Non-compliant	

Panel Recommendations

The EEAP has two recommendations regarding the use of the quality indicators.

- In order to provide incentives to students and staff to perform at the highest level possible, the Department could establish (or expand, if already available) a system of rewards for top performers. For example, student excellence awards, faculty excellence in teaching and research awards, and administrative staff excellence in service awards. For faculty members, excellence in service awards could also be established for colleagues who hold leadership positions in national or international organisations, societies, boards, committees, etc. Involvement in this type of service would certainly increase the visibility, reputation, and recognition of the Department internationally.
- For the underperforming staff, and in particular in teaching, the Department/University should offer personalised consultation and various aids to help such individuals perform at a higher level.

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 offers a 5-year programme of study (10 semesters) which corresponds to 300 units of the European ECTS system. The undergraduate programme covers levels 6 and 7 of the European Qualification Framework (EQF) and the National Qualification Framework (NQF). The successful completion of the first study cycle of the Department of Surveying and Geoinformation Engineering leads to the awarding of an integrated Master, level-7 diploma. It is harmonised with the two corresponding study programs in Greece, which are the undergraduate programme of the School of Rural and Surveying Engineers of NTUA and the Department of Rural and Surveying Engineering of AUTH. In addition, several corresponding programs have been taken into account, such as those from Institute of Technology - ETH (Switzerland), Newcastle University (UK), Delft University of Technology (Netherlands), Technical University of Munich (Germany), Technical University of Denmark (DTU - Denmark), University of Laval (Canada), University of Calgary (Canada), Massachusetts Institute of Technology (MIT - USA), and University of Melbourne (Australia).

The main international professional organisation of surveying science, FIG (Internationale Fédération des Géomètres), maintains a permanent education committee, which was a key source of knowledge regarding the revision of the undergraduate programme. Several other sources were considered such as,

- an External Advisory Board with academics,
- advancements in the academic subjects,
- professional and scientific associations and forums in which the faculty is participating,
- trends in the science of land surveying and related disciplines, both at the undergraduate and the postgraduate level,
- trends of the market, through the study of job advertisements, both in Greece and abroad, and
- input from local stakeholders and potential employers.

II. Analysis

The programme of study follows the expected learning outcomes and the intended professional qualifications according to the EQF and NQF for Higher Education, as well as international professional standards as set by FIG. International scientific trends are not fully covered within the current Program, but it is expected given the commitments it needs to address for the national professional standards as set by the TCG, which limits the flexibility for curriculum additions. Care has been taken so that the graduates will be competitive in the local market. This is also emphasised by the Practise course ('Praktiki') and diploma thesis,

which are treated as soft skills in addition to professional ones. Although Internship (“Praktiki askisi”, elective course with 5 ECTS) is endorsed by students and stakeholders, only 7% participate in it. This percentage (i) refers only to students of the new programme of study (since most students from the old one have already completed it) and (ii) was reduced due to the pandemic. Nevertheless, it is still far from an acceptable participation and it should be supported and emphasised.

The undergraduate programme comprises 4 and 5 ECTS courses, apart from the diploma thesis which has 30 ECTS. During interviews, faculty mentioned that this was a conscious decision, to emphasise the equal importance of all courses. Students know that each ECTS equals 25-30 hours per semester. At the same time, they mentioned that there is a clear difference in the workload among courses. Although within each course outline the total workload is clearly divided in hours for lectures and laboratory exercises, it seems that the workload does not always reflect the ECTS assigned to the course.

III. Conclusions

The Department developed its new undergraduate study programmes with a well-defined procedure. The academic profile, the identity and orientation of the programme, the objectives, the subject areas and learning outcomes are well described and in accordance with international and national standards. At the same time, the department believes that it fulfils the required national professional qualifications. An important and welcome aspect of the structure of the undergraduate programme is the inclusion of many courses with emphasis in digital and IT skills.

The programme ensures the smooth progression of students throughout the stages of the programme, in accordance with the ECTS, has options for providing work experience to the students, faculty members incorporate research results in teaching and accommodate students wishing to get involved in research.

Panel Judgement

Principle 3: Design, approval and monitoring of the quality of the new undergraduate programmes	
Fully compliant	✓
Substantially compliant	
Partially compliant	
Non-compliant	

The External Evaluation & Accreditation Panel agrees that this Programme leads to a Level 7 Qualification according to the National & European Qualifications Network (Integrated Master)	YES	NO*
	✓	

Panel Recommendations

- The ECTS units assigned to each course and diploma thesis, should be revised to reflect the actual workload.
- 'Praktiki askisi' course should be supported and the students encouraged to participate, while ensuring that employers are both offering and benefitted from this process.
- Soft skills (communication, teamwork, problem-solving, time management, critical thinking, decision-making, organisational, stress management, adaptability, conflict management, leadership, creativity, resourcefulness, persuasion, openness to criticism, etc) should be included either as part of the practise or as a separate course.

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 Department, despite being legally obliged to offer all classes on campus, has developed flexible learning methods and substantial supportive material in digital form (notes, books etc), in order to accommodate the needs of students, especially during the first weeks of the term. Most, if not all, courses are taught with multiple delivery modes that go beyond the standard lecture-based format to also include lab exercises and individual/group projects. In addition, many courses that are theoretical in nature include graded homework exercises that are designed to keep the students engaged throughout the term. During the interviews, faculty and students described situations where digital means were used to solve various problems that arose during the teaching process (e.g., Zoom lectures in cases of scheduling conflicts or student illness). The students feel included in the teaching process and appreciate that faculty members understand their needs and possible knowledge gaps. Furthermore, the students described situations where their suggestions were taken into consideration regarding the subject of individual/group projects that must be completed in a class.

Course evaluations, in the form of questionnaires, are conducted each semester from the 8th until the 12th week of classes in each course. The questionnaires include mostly general

satisfaction questions, as well as open-ended questions for the students to make suggestions on. Statistics from these evaluations are considered by the Internal Evaluation Unit each year as they re-evaluate the course. Also, the statistics and the comments are available to each teacher so as to better understand the improvements that are needed in the teaching process. Student participation is high, given the fact that the student questionnaires are being completed in the last three weeks of the semester where attendance reaches its lowest point. A reasonable assumption that can be made is that those questionnaires are being filled by students with a better understanding of each course, and thus the results are quite reliable. Course assessment criteria are made available to all students at the start of each semester and are available in each course's webpage. Any changes to course material are discussed with the students in advance.

A procedure is in place to handle student complaints about academic matters, student services or harassment. The formal complaints of students are handled directly with the help of the Academic Advisor in the first stage and, if required, with assistance of the Department Head. Furthermore, the institution of the Academic Advisor is implemented. Students get assigned a member of the teaching staff that serves as their academic advisor throughout their studies. While in principle there is a procedure for semi-annual meetings and monitoring of a student's progress via regular reports, the process is not fully taken advantage of by the students and the advisors. It should be mentioned, however, that many students expressed the sentiment of being more comfortable addressing matters that typically fall in the academic advisor's area of responsibility with other members of the faculty that they have regular contact with (because of academic inclination or general familiarity).

II. Analysis

In terms of the programme of study, the students have the flexibility to choose from a variety of courses after their third year of study (semester 6). The combination of compulsory and elective courses forms the basis for the development of the three specialisation areas (ποές); each student is given the option to select one of those. It should be noted that while that means that they must complete the compulsory courses of the chosen area, their elective courses are not restricted to those that fall within that area, providing additional flexibility.

An additional way that the department can improve in its approach of student-centred learning is to establish procedures for formal student input in each course's material, with the possible use of the already established student questionnaire. This procedure, with proper guidance from the course instructor, could enable students to select course components such as, e.g., project topics, according to their interest. Although students mentioned that such an option has been partially implemented in elective courses offered the senior years of the undergraduate program, it should be further encouraged and implemented to strengthen the student-centred curriculum.

Course evaluations by the students are an essential part of the program. It is deemed important by the EEAP that there be a high participation rate and a procedure in place for the teaching instructor to modify and improve the course based on the students' feedback. The

department in general has gone to great lengths in order to ensure the participation and impartiality of the student body (e.g., questionnaires are being answered during the class).

The Department's initiative to put in place a formal procedure by which students can communicate their complaints is good and shows that the Department wants to hear from its students. It is important to note as well that these complaints and the comments made by students during the reviewing process are used in the educational seminars the University's Office of Teaching and Learning organises, illustrating the serious commitment towards the constant improvement of the teaching process.

Having access to the Academic Advisor is a good way for helping students understand their degree programs and navigate through the various science/research topics and career opportunities. In addition, the advisors can monitor the students' progression throughout the programme and provide informed guidance. This role can help both incoming students as well as senior students that try to decide between the various elective courses, topics for their thesis, and postgraduate studies. A concern with the institution of the Academic Advisor is the degree of acceptance by the student body. While it is stated by the department that semi-annual meetings are taking place, students' comments suggest a fragmented system that is not being used to its full capability.

III. Conclusions

The Department has gone to great lengths in addressing students' needs. Teaching practices are adapted to student needs, while course assessment is based on several components, including group projects, homework exercises, and exams. The students feel included in the learning process and teachers have shown some flexibility in meeting the students' workload concerns. Offering a choice to students to select their own topics for course and thesis projects puts the students in the very centre of the learning process. The Department is already offering such choices in a number of courses, which are appreciated by the student body.

Panel Judgement

Principle 4: Student-centred approach in learning, teaching and assessment of students	
Fully compliant	✓
Substantially compliant	
Partially compliant	
Non-compliant	

Panel Recommendations

- In order to support student-centred learning, it is recommended that all project based courses allow students to suggest their own topics in consultation with the instructor.
- The Academic Advisor should have access to information in order to form a full picture of the progress and/or difficulties of the students, in order to be able to detect any developing problems and advise them accordingly so that they can successfully complete their studies.

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

Admission to the Department is granted through national entrance exams. The department has made essential steps towards developing and applying published regulations addressing all aspects and phases of studying in the programme. The undergraduate programme is based on the European system of transfer and accumulation of academic credits (ECTS), as well as on

the corresponding Greek legislation. The distribution of ECTS in each course can be found in the guide of studies. Students must complete a diploma thesis project for 30 ECTS points during the final semester of their studies. The Department has defined a set of quality requirements for the implementation of the thesis as well as procedures and template for writing the thesis, both provided to students promptly. The Academic Advisor assists students in the selection of the subject of their diploma thesis.

Regarding the registration procedure of the admitted students and the necessary legal documents, the department has devoted a section in its study guide, to inform the students about the procedure they must follow to enrol in the program. Furthermore, the department has established a welcoming committee for the reception of the incoming students. The committee's aim is to introduce students to the academic environment through a series of events and meetings that familiarise the students with the facilities, the academic environment, and their rights and obligations. The events are headlined by a freshmen orientation meeting, where the most essential information about the available student support and learning services is covered.

To monitor student progression, the Department utilises the institutional system for collecting statistics per student and per course (i.e., average grades of students per course on a semester and annual basis). These data are collected by the university, specifically by the QAU, and then QAU forwards to the instructors of each course their own data. In addition, QAU provides these data to each Department's IEG for further analysis, conclusions and necessary actions about the progress of the students in the undergraduate programme. In addition, the Department has established the institution of the Academic Advisor. Each year, some faculty members are assigned a portion of the incoming students to personally monitor their progress and advise them throughout their studies. The full list of the Academic Advisor's duties can be found in the document B18_1; it ranges from guidance in personal matters that may prevent them from focusing on their studies, to providing guidance in the selection of elective courses, and decisions about their academic future. In addition, there is a specific separate regulation (B18_2) for the Academic Advisor pertaining to students with health or financial, or other difficulties.

The Department informs the students regularly about the availability of, and application process for, scholarships.

The Department encourages student mobility and aims to solve any issues that prevent students from participating in it, especially through the European Union programme ERASMUS+. The participation of students in this programme can be for university studies in another European Union country with which the Department has a bilateral agreement, or for an internship in a university or company. The Department's website contains a link to the ERASMUS+ programme that contains all the necessary information. Academics and administrative staff expressed particular interest in participating in the skill enhancement mobility programs and collaborating with foreign universities.

Students have the option to do an internship (practical training) with a company. To further encourage students to pursue internships, the programme of study was changed to treat the internship as an elective course. To increase the number of internship opportunities for its students, the Department has developed a network with different local and national companies. The good relationship of the Department and its academic staff with companies, social partners and stakeholders was confirmed in EEAP's meeting with their representatives. All practical training is completed through a government funding programs ΕΣΠΑ for the students to be compensated throughout their practical training.

At graduation, the students receive a level-7 diploma. Based on information provided by the Department, a Diploma Supplement is issued automatically to all graduates in Greek and in English. This supplement contains detailed information on the qualifications, marks received, credits for the corresponding courses, and the ECTS-based rating system. In addition, any courses completed in foreign universities and not credited upon the student's return are included in the diploma supplement, labelled as completed.

II. Analysis

The orientation ceremony as well as the introduction of the Academic Advisor has helped students adapt to university life. Although the Department has made efforts to inform high school students about its programme (e.g., by making presentations to local high school students), they have little to no knowledge of the discipline prior to their acceptance. This is a common issue due to the public's perception of Land Surveyors. After meeting with the undergraduate students, the EEAP felt reassured that the necessary information about the Department and its facilities was made known to the incoming students in the welcoming ceremony and through the efforts of instructors of the various courses.

Monitoring the student progress is an area where the department is doing an excellent job. Currently, all interaction between the academic Advisor and his assigned students is student driven. If Academic Advisors could get reports about their assigned students' performance each year, they could intervene in a more efficient manner to resolve performance or other problems the students may face.

Student mobility is encouraged by participation in the ERASMUS+ initiative. Information is provided to the students regarding the options they have for mobility and the requirements to qualify. On the website of the Department, all relevant information is given through a special link for the ERASMUS+ program.

The undergraduate studies programme of the Department is based on ECTS credits and on the corresponding Greek legislation. Each course carries roughly the same number of ECTS (4 or 5). After meeting with the students, the EEAP concluded that the distribution of ECTS units should be re-examined. More specifically, there are indications that some courses (especially compulsory core courses) or even some semester-specific ones have assigned ECTS units that do not reflect the hours needed by the students to complete them successfully. The ECTS distribution should be modified to reflect the actual workload for each course based on teaching, laboratory, homework and study demands.

Practical training is a valuable part of the programme for developing job-specific and soft skills. Although through the years of the pandemic the whole procedure was stalled, the situation is improving rapidly and several students are already preparing to begin their practical training.

III. Conclusions

The Department has implemented the standard registration procedure specified by law on national level, and provides information and guidance on completing all necessary documents, as well as on the rights and the obligations of the newly admitted students. The Department does a particularly excellent job monitoring the progress of its students, but it could still improve it by enabling the Academic Advisor to track the student progress throughout their studies. In addition, awards with or without a monetary reward, could be given to excelling students to motivate all students towards excellence. It would show the students that their vigorous efforts are not only noted, but they are also greatly appreciated and rewarded. The department has a continually active and well-established procedure for student internships.

Panel Judgement

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

Panel Recommendations

Although the department has demonstrated its commitment to the progression and betterment of their students in order to provide them a good standard of education, there is always room for improvement. The EEAP recommends that the department considers:

- Enhancing the information available to the student Advisor to be able to monitor more personally his assigned students throughout their studies.
- The faculty member assigned with ERASMUS+ actions, should arrange for the creation of a course matching table with the equivalent UGP of the host universities. This will encourage students to choose a suitable university for the exchange.
- The department could approach its stakeholder for sponsoring students awards or scholarships.
- The ECTS distribution should be revisited to accurately depict the workload of students in each semester per course.

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

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

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

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

Relevant documentation

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

Study Programme Compliance

I. Findings

The eligibility and qualification criteria for all levels of teaching staff who participate in the programme are set by a very strict set of rules established by law for all higher education institutes. These rules are applied in a clear, transparent, and meticulous way by the University.

The professional development opportunities of the teaching staff are supported by the Administration, encouraging mobility, participation in symposiums/conferences, research activities and participation in existing research labs of the Department. Short- and long-term mobility is also supported, although only short-term visits through ERASMUS+ are being

realised. Long term exchanges, such as Sabbatical leaves, have yet not taken advantage of by the faculty members.

The teaching workload of the teaching staff is more than anticipated because of the need to split classes into groups, especially during laboratory exercises. Including diploma thesis supervision and relevant activities, each member devotes on average 17 hours per week to educational activities. Faculty members are not complaining about this load, considering education as their main obligation and priority over other aspects of academic life. Nevertheless, educational duties in addition to excessive administrative workload, including unavoidable actions for the transitions from TEI to AEI status, leaves little time to be allocated to research activities.

Efforts are made to share research results with students and combine them in laboratory exercises or diploma thesis. The latter are designed to deal with specific research questions and treated as scientific initiatives.

Evaluation procedures include the annual recording of the scientific and research work of the teaching staff, as well as the evaluation of courses and teachers through the University's QAU. At the same time, the annual inventory report of the IEG of the Department is used to update the SWOT analysis of the Department and, if necessary, the undergraduate programme. In particular, the teaching staff is regularly evaluated by the students through surveys, between the 8th and 12th week of the semester. This is done in class on a random date, to ensure credibility. Results are sent to each faculty member for self-assessment and to take appropriate measures to improve their pedagogical approach, if needed. When problems or disturbing patterns are detected, the Department Chair collaborates with the faculty member for possible remedies.

II. Analysis

Although short term visits are being conducted, a Sabbatical leave has not yet been undertaken by any faculty member. Members of faculty are reluctant to do so because their teaching duties will be transferred to another already overloaded colleague and they try to avoid it, even though this decision may affect their long-term development. Nevertheless no obstacles are posed from Administration.

Faculty also wish to be more actively involved in research activities and projects, but their teaching and administrative workload is such that inevitably retracts them from it.

III. Conclusions

Teaching staff is hired in accordance with national law with clear and open procedures. Procedures and criteria for teaching staff recruitment are of high standards. Despite their considerable workload in teaching and administrative duties, on average faculty members are active researchers with publications in internationally recognised journals and conferences. Nevertheless, there is a large gap among low and high performing academics.

Opportunities for personal development are minimal and most faculty members are denied Sabbatical leaves. The increased administrative and teaching load has a negative impact on both research and service productivity of academic staff.

The School and the University seem to lack regular and systematic recognition of staff achievements through awards. Teaching, research, and service awards have multiple benefits to both the awardees and the School/University as a whole should be established.

Panel Judgement

Principle 6: Ensuring the competence and high quality of the teaching staff of the new undergraduate study programmes	
Fully compliant	
Substantially compliant	✓
Partially compliant	
Non-compliant	

Panel Recommendations

- The Department needs new permanent personnel, especially technical staff and faculty members. Technical staff is important in maintaining the Department's equipment and supporting students in field and laboratory exercises. The quality of the programme depends on a healthy balance between teaching, research, administration workload and opportunities for professional development for all teaching staff. Therefore, a supportive Administration should cover the cost of external teaching staff, so that faculty members could take Sabbatical leave.

- The faculty should be motivated and supported to participate in local and European calls of opportunity to attract research funding. Such funding will help undergraduate students to get involved in research initiatives and attract senior research personnel to assist in teaching duties. Resulting research publications will raise the Department's international profile.
- The Department (or School or University) should institute excellence awards for faculty members with exceptional teaching, research, or service (e.g., President duties of International Associations, CEO of National Agencies, etc.) record. This will motivate faculty members to become more active and in return enhance the Department's profile, recognition and standing.
- The Department should select and focus on (emphasise) a particular aspect of geoinformatics. In this way it will differentiate itself from similar departments. At the same time, it will attract more interested and possibly better qualified students.
- The Department (or School or University) could establish competitive grants focusing on a certain faculty members cluster, i.e, only among Assistant Professors, starting grants for new faculty members, additional support for researchers who attracted competitive Horizon Europe research grants, etc.
- The Department should make an effort to achieve a more balanced gender representation in faculty members and teaching staff, as well as researchers.

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

The Department has three classrooms with 305 total seats. While teaching staff reported that they need more classrooms, students felt that the Department has adequate infrastructure or even that this is one of the Department's strong suits. This is a testament of the good interdepartmental scheduling that is implemented by a specific university platform and the Department's own efforts. The instructional laboratories are adequately equipped to handle the necessary instructional needs.

The Department and UWA as a whole have rationally distributed the existing facilities, although some of the facilities are jointly used by other Schools and, by extension, their use has, as aforementioned, scheduling difficulties. In addition, the department has gone to great lengths to enhance its digital support material and ways of evaluation. This has been especially

beneficial to students who work part-time, as well as to full-time students. More specifically students are given, via the e-class platform of the Department, handouts and additional reading material to further assist them during their learning period. It was confirmed in the interview with the students that they embrace the e-class platform and the effort and material put on by their teachers. While this does not mean that in person class attendance is replaced by online access, it is a step in the right direction with student-centred learning in mind (allowing the students to implement the mode of learning that suits them best). On the other hand, the university as a whole has made efforts to accommodate the diverse needs of students (full-time, part-time, with disabilities physical or other). Examples are the easy access for students with disabilities, support material available for working students facilitating asynchronous learning, and a procedure to help students with learning disabilities (both integration and examination).

Student support services are widely available to students. There is an adequate range of support services available, including career counselling, student welfare office, student advisor, sports art/cultural facilities. Some of these services are offered by the Department's secretariat whereas others are offered centrally by the University.

II. Analysis

Students expressed general satisfaction with the infrastructure and services provided by the Department and the University as a whole.

Notably, an area of concern is the number of faculty members (18 professors of all ranks) and technical staff (2), especially considering the number of courses offered. On the other hand, the Department makes great effort to hire enough academic scholars and other academic staff almost exclusively of doctoral level, through state programs and other means, to be able to maintain the required educational standard. While this is admirable, the cost of this constant state of uncertainty is considerable. Two new assistant professor positions are in the electoral process, but still it is an expressed area of concern for the Department especially when concerning the sustainability of the department. Also, it was made clear by the faculty members that the lack of technical staff to support their activities hinders greatly their educational and research efforts. This is a matter of top priority and prime concern that needs to be addressed in the immediate future.

The students appear to be familiar with the services provided by the Department, in no small part due to the efforts the Department makes during the start of the 1st semester of the students in the School to guide them through the seeming maze of university life (opening ceremony, week of presentations from 1st year professors).

III. Conclusions

The Department has made steps to support its students and, more importantly, make all services available and well-known, and familiarise its incoming students with its existing facilities. However, one issue to be addressed in the future is the small number of permanent teaching and technical staff in the Department, given the large number of incoming students and courses offered.

The new buildings, which are currently in the tendering process, should be able to cover classroom needs.

Panel Judgement

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

Panel Recommendations

- Faculty members should cover all individual fields of the undergraduate program, which is not currently the case.
- The most urgent need is for more technical staff positions, given that the Department has expensive equipment for field measurements that need regular service and updating, and specialised laboratories that need technical specialists to run and supervise them.
- Library use is limited, as expressed through student questionnaires. This should be addressed, by providing training to the students in online searching and accessing a variety of sources and repositories, both in the library and on the world wide web.
- The Department is in need of high-capacity classrooms, for the proper delivery of the curriculum.

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

The Department and the University have established, via QAU, procedures and online systems for the collection, analysis and use of data on their organisation, operation and quality of programmes of study. Specifically, the data collected pertains to information related to the following aspects:

- Online student records, which contain all information provided by students, teaching staff and secretariat of the Department, and it is used for assessing the quality of the programme and the operation of the Department.
- Online platform for the assessment and evaluation of courses and teaching staff through regular student satisfaction questionnaires for each course.
- Online presentation of overall statistics per course and on average of the results of the completed student questionnaires.
- QAU's online system with information on each faculty member, their students, the courses they teach and their assessment by the students.
- Online platform for the recording of the research records (research projects, publications, citations, etc.) of the faculty members.
- Online presentation of overall statistics of the research records of the faculty members.

The Department currently collects information on the number of admitted, ongoing and graduating students, minimum entrance marks, the student progression, number of courses and students per course, number of students on internships and Erasmus exchanges, and statistics on examinations, time to completion and other performance indicators. Such performance indicators relate to, and are used for: classification of the student body with respect to time to completion, interest in elective courses, participation in internships and exchanges; structuring and improvement of teaching and programme delivery methods; student progression and success (e.g., success rates in exams, graduated/admitted ratios, length of study); adequacy of teaching and support staff (e.g., student/teacher ratios), facilities and equipment; teaching effectiveness; and research output of the faculty members.

Collection of data on student satisfaction while in the programme and after they graduate is a future goal of the Department. Ways of annually collecting data on student progress and satisfaction with the teaching staff, services, facilities and support, as well as on work placement, professional development and life-long learning opportunities of the graduates are currently being developed.

II. Analysis

All collected data and satisfaction questionnaires are tabulated and systematically analysed by the Department's Group for Internal Evaluation (IEG, OM.E.A.). The results are communicated to the administration and to faculty members, and are utilised by the Department for strategic planning, operational and programme improvement, as well as for the further development and improvement of teaching and research, and availability and accessibility of facilities and resources.

It is clearly evident from the provided materials and the on-site visit that the Department is fully committed to the continuous development and improvement of three key areas: (i) its academic offerings and all components of its undergraduate programme, (ii) the strengthening of its research, and (iii) the promotion of its programme and its graduates to society at large. The progress is quantified and monitored through appropriate performance indicators developed specifically for each of these three areas, which are recorded and compared on an annual basis.

III. Conclusions

The University and the Department have developed and implemented efficient, easily accessible systems, and appropriate procedures and indicators, for the collection and analysis of data and information necessary for the improvement of the academic and research programmes. These will also inform the strategic planning and future development of the Department. In addition, they will improve student support and student satisfaction, and increase the visibility and outreach of the program. Although additional tasks need still to be completed (e.g., tracking students after they graduate, monitoring their employment and professional progress, and offering extensive life-long learning opportunities), there has been tremendous progress in a very short time span in collecting, analyzing and utilizing data on institutional as well as on departmental level, and therefore the committee finds the Surveying and Geoinformatics Engineering programme fully compliant in Principle 8.

Panel Judgement

Principle 8: Collection, analysis and use of information for the organisation and operation of new undergraduate programmes	
Fully compliant	✓
Substantially compliant	
Partially compliant	
Non-compliant	

Panel Recommendations

In addition to their existing uses, it is recommended that the collected data and resulting information from the data analysis be used

- to track the research output of the faculty members (additional indicators on research projects, collaborations, funding, involvement with and service in scientific societies will need to be developed for this purpose);
- to gauge the competitiveness of the Department with respect to the relevant 'sister' departments in Greece and abroad;
- to inform external stakeholders, employers, current and past students of the progress made in teaching, research and services;
- to increase the visibility and outreach of the programme nationally and internationally by publicising the successes in education and research so as to
 - o attract more undergraduate and graduate students;
 - o increase work term and internship student placements;
 - o increase the opportunities for research funding and collaborations;
 - o create a community of graduates who will become life-long supporters of the Department.

Although not urgent, the EEAP believes that, given the excellent systems already in place for collecting and analysing data, the above recommendations can be implemented quite quickly.

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 Department has developed its website, <https://geo.uniwa.gr>, that provides complete information in Greek about its operation and activities (undergraduate programmes, learning outcomes, degrees awarded, teaching, learning and assessment procedures used, learning and employment opportunities available to students). In the English version, however, there are basic deficiencies. Although in the Greek version the basic information of the University, the Department, the new undergraduate programme, the courses, information about the staff (teaching, laboratory, administrative) and the course outlines of the programme are available, in the English version, there is information available only for the staff and (in a single file) the courses taught.

As regards information of a practical nature, there is no explicit reference to the specific website, but a reference to the university website. Unfortunately, information on access and accommodation is not easily accessible. There is only a reference, in the "contact" field, to the address and the general map of the institution (google maps), so that the person concerned cannot find out exactly where the academic unit is.

The Policy for Quality Assurance of the academic unit is accessible in the "department" field.

In addition, all information is up to date, clear, and easily accessible on the website, and there is the possibility of improving accessibility for people with dyslexia, visual impairments, etc., and voice support.

Finally, there is no mention of the institution's social networks or any other public information activities about the activities of the academic unit.

II. Analysis

Public information concerning the new undergraduate programmes is made available through its website, <https://geo.uniwa.gr>. The website is suitably structured in sections for easier access by visitors, and all the basic information concerning the academic unit is posted. In the English version, the basic information is minimal, and in both versions there is a lack of information of a practical nature.

Overall, the public information could be significantly improved in order to enhance the outreach of the unit, through information delivery and an active presence in social networks.

The basic need for daily information for students is met, but there is a lack of information to alumni and other stakeholders and the public.

III. Conclusions

Principle 9, on informing the public about new undergraduate programmes complies substantially.

The website is modern and well structured so that visitors can easily find the information they are looking for.

There are several possibilities for improvements to make Principle 9 fully compliant.

Panel Judgement

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

Panel Recommendations

Public Information Concerning the New Undergraduate Programmes could be significantly improved by:

- adding key information to the English version of the website,
- providing information to users via social networks,
- supplementing practical information, and
- posting outreach and information activities for schools, other educational institutions, stakeholders, and the promotion of the activities of the academic unit.

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 Periodic Internal Review of the New Study Programme is an existing and established process, as set by UWA Administration. This process is a collective project and requires the participation of several bodies inside and outside the Department, namely:

- Department's Assembly
- Department's Internal Evaluation Group (IEG)
- Department's Curriculum Committee
- External Advisory Board
- Quality Assurance Unit of the UWA

Each body has well defined terms of reference and procedures. Its composition is also defined according to UWA regulations. Procedures are also described in UWA rules and regulations.

The individual procedures of the internal evaluation of the undergraduate programme include the following:

- Annual internal evaluation of the Study Program
- Feedback of the Study Programme strategy
- Improvement of curriculum structure

In brief, the annual assessment starts after IEG receives students' questionnaires. The evaluation is done based on statistical analysis of several KPIs against the strategic planning of the Department. If there are shortcomings, IEG asks the Department's Curriculum Committee to suggest changes on the sequence of courses, or their curriculum. This is done in collaboration with all affected faculty members. As a result, the revision of the curriculum primarily concerns specialty courses, but also includes foundation courses. Also, courses whose implementation has been problematic may be removed or their content is proposed to be integrated into new courses. The final proposed changes are being forwarded to the External Advisory Board along with a template/questionnaire, which are then submitted to the Department's Assembly and afterwards to QAU.

II. Analysis

The suggested process is well defined and well described in the documentation provided. Given this is the first accreditation of the UGP, there is no history of such internal reviewing process or its results.

III. Conclusions

The internal review process has been set up according to international standards and should be repeated regularly. Nevertheless, it has not been applied so far, hence no evaluation is possible.

Panel Judgement

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

Panel Recommendations

The systematic internal evaluation process keeps track of the Department's progress. It is a lever for improving the studies provided at all levels of education. The process applied so far is thorough and detailed and as such should be maintained in the coming years.

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

This is the first external evaluation to be carried out under the new academic unit format. The earliest evaluation done in the previous structure was in 2008, as we were informed by the academic unit administration. In the documents available to us, there is no report on this. Even if it were available, its assessment would not add anything useful to this authority because it relates to a different structure and there is a significant time lag from the present.

However, we are aware that the QAU of the University of West Attica in the framework of monitoring the quality of university units has defined a procedure for the utilisation of the recommendations of the EEAP.

Furthermore, after the institutional accreditation of the Internal Quality Assurance System (IQAS) and the receipt of the Certification Decision from the HAHE on 23/02/2021, the QAU will send as required, an Interim Monitoring Report of the IQAS in the biennial period. In this context, the Institution, but not the academic unit separately, was evaluated by external evaluators.

II. Analysis

Before the first external evaluation is carried out, there is no possibility of a substantial and documented analysis of its effectiveness in evaluating and accreditation the new undergraduate programme. However, from the process so far, it has been evident that the staff members attach great importance to external evaluation of their programme in order to improve the academic unit, because they have shown great interest in presenting and explaining all the required information.

All stakeholders participated actively, including the student representatives, even though the University was closed on the day of the site visit by the EEAP.

III. Conclusions

The meaningful evaluation of Principle 11 "Regular external evaluation and accreditation of the new undergraduate programmes" cannot take place during the first external evaluation.

Panel Judgement

Principle 11: Regular external evaluation and accreditation of the new undergraduate programmes	
Fully compliant	✓
Substantially compliant	
Partially compliant	
Non-compliant	

Panel Recommendations

The documents provided by QAU were detailed and informative and provided the necessary information for the EEAP to perform its evaluation. They should therefore be regularly updated to assist the next external evaluation process.

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 Accreditation Proposal submitted by the Department of Surveying and Geoinformatics Engineering jointly with the presentation of the department facilities was found to have provided the necessary documentation for the transition period the department is currently going through.

Provision was made for students that were enrolled in the pre-existing study program, to be able to continue their studies in the new study program. On the downside however, that doesn't apply for students who were enrolled in the pre-existing study programme and had at the start of the academic year 2018-2019 exceeded the necessary number of years to complete the technological undergraduate programme by over 2 years.

Special provision has been made for the conduct of the obligatory practical training of the students enrolled in the pre-existing study programs. More specifically, practical training will be performed with the same regulations and duration that are going to be used in the new study programme by the students still enrolled in the previous study program.

The QAU has filed a detailed report on the transition period from the previous existing undergraduate program, detailing the obligations the department had by law and how they are implemented.

It is important to note however that the department has made efforts to ensure that they are informed about the timeframe available to them in order to complete their studies, along with monitoring their progress and remaining number of courses (see document B32_06).

II. Analysis

The department's plan to facilitate the smooth conclusion of the first cycle of study for students completing the pre-existing study programme is to do so by the matching table issued by the department. More specifically, Chair has provided a table matching each class of the pre-existing study programme with one from the new study programme that can be consulted by the students to understand which courses from the new study programme they must complete.

Concluding all students continuing their studies in the pre-existing study programme will do so by completing the necessary classes remaining, for them to be eligible for their previous department's corresponding diploma, in the form of completing the corresponding class as dictated by the matching table announced by the chairman of the department.

An important thing to note is that the same matching tables are to be used by students who have decided to continue their studies in the new study program. Despite their decision to continue their studies in the new study program, students are not obliged to complement their study with any additional classes thus making it unclear how all the educational results of the new study programme are going to be achieved, considering the more demanding nature of the classes in the new study programme in contrast with the corresponding ones from pre-existing study programs.

Regarding the institution of practical training during the transitional period the department is now going through, students still enrolled in the previous study programme are to complete their obligatory semester-wide practical training via the implementation of it in the new study programme which is reduced to 3-months (being an elective for the students in the new study program). While the committee understands that the department is not obliged to implement a different procedure, it isn't clear how the duration and implementation of these internships

will capture the essence and learning outcomes students studying in a technological department must get in order to successfully complete their studies.

Finally, it should be mentioned that little to no information was given about the efforts the department is going to or has made in order to help students still enrolled in pre-existing programs of study to be able to cope with the more demanding level of classes they have to now complete, in order to be able to get their diploma.

III. Conclusions

The department has made considerable progress in the transition period from the previous study program. The procedures for monitoring the progression of students still enrolled in the previous study programme is in place but it is unclear if those statistics are being considered in implementing measures to ensure the smooth conclusion of studies for students still enrolled in the previous study program. In addition it is the view of the EEAP that it could be more beneficial to implement student internships for the students still enrolled in the previous study programme using the pre-existing framework during the remainder of the transition period in order for the institution to function more suitably for the needs of a student receiving technical education.

Panel Judgement

Principle 12: Monitoring the transition from previous undergraduate study programmes to the new ones	
Fully compliant	✓
Substantially compliant	
Partially compliant	
Non-compliant	

Panel Recommendations

The panel recommends the creation of a university linked tutor system in order to accelerate the transition that students need to make as well as taking further assistive measures to ensure the students, still enrolled in the previous study program, timely completion of the new study program.

PART C: CONCLUSIONS

I. Features of Good Practice

- The Department's equipment is of high standard, complete and modern. Nevertheless, funding is needed to be maintained properly and regularly updated following technological trends.
- Faculty relations are collaborative. Teachers support each other and they cooperate without issues in teaching, research, and administrative tasks.
- The relationship between teachers and students is excellent and well accepted by both sides.
- The educational process is efficiently supported by electronic services.
- The student feedback acquisition methodology, as well as the processing of collected data, is very efficient and the results are taken into consideration for teaching and undergraduate programme amendments.
- UWA's digital administration system and support for internal and external evaluation are detailed, well-organized, and efficient.
- The teaching staff of the Department is of a high standard. All except for one, are PhDs holders with significant teaching experience and research recognition.

II. Areas of Weakness

- Limited number of faculty members and significant deficiencies in categories EDIP and ETP staff.
- Limited infrastructure compared to the number of laboratory courses and active students. Lack of large capacity classrooms.
- The admission criteria are relatively low and this has an impact on the graduation rate and the inhomogeneity in student performance. This fact, in conjunction with transfers from departments with a particularly low admission base, poses a threat to the Department's sustainability.
- The delay in graduation may also be attributed to the fact that a large percentage of the Department's students are employed in order to support their studies.
- The entrance criteria should be increased so that better students are attracted.
- Faculty is overloaded with teaching and administrative duties, to the detriment of research and personal development.

III. Recommendations for Follow-up Actions

- Decrease the number of students admitted annually to the number recommended by the Department, possibly also raising the minimum required points of admission.
- Increase the number of permanent faculty members (to 21 initially, if possible) and at least double the technical staff. The new hires should cover educational gaps in the programme.
- Decrease the number of temporary teaching staff on contract, increase their length of employment, and require PhD qualifications for all.
- Expand the lecturing spaces of the Department.
- Provide incentives to students and staff to excel in education and research.
- Underperforming staff should be offered personalised consultation and various aids to perform at a higher level.
- All faculty should be supported and encouraged for Sabbatical leaves as part of their continuous development.
- The faculty should be motivated and supported to participate in competitive local and European research calls, to attract external research funding.
- Obtain programme accreditation.
- On the next iteration of the UPG, the ECTS units assigned to each course and diploma thesis should be revised to reflect the actual workload.
- The Academic Advisor should be more actively involved in detecting underperforming students and consulting them, so that they successfully complete their studies.
- The Department should place emphasis on at least one specific aspect of geoinformatics, as a way to differentiate itself from similar departments.
- The Department needs high-capacity classrooms for the proper delivery of the curriculum.
- Outreach of the Department should be enhanced.

IV. Summary & Overall Assessment

The Principles where full compliance has been achieved are: **1, 2, 3, 4, 5, 8, 10, 11, 12.**

The Principles where substantial compliance has been achieved are: **6, 7, and 9.**

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

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

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

The External Evaluation & Accreditation Panel agrees that this Programme leads to a Level 7 Qualification according to the National & European Qualifications Network (Integrated Master)	YES ✓	NO
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The members of the External Evaluation & Accreditation Panel

Name and Surname

Signature

- 1. Prof. Emeritus Michael Sideris (Chair)**
University of Calgary, Calgary, Alberta, Canada
- 2. Assoc. Prof. Dimitrios Skarlatos**
Cyprus University of Technology, Limassol, Cyprus
- 3. Mr. Michail Kalogiannakis**
Technical Chamber of Greece, Athens, Greece
- 4. Mr. Stylianos Mataras, student**
University of Patras, Patras, Greece