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

Rural and Surveying Engineering
Institution: National Technical University of Athens
Date: 5 June 2021



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 Undergraduate Study Programme (Integrated Master) in **Rural and Surveying Engineering** of the **National Technical University of Athens** 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 Undergraduate Study Programme (Integrated Master) in **Rural and Surveying Engineering** of the **National Technical University of Athens** comprised the following five (5) members, drawn from the HAHE Register, in accordance with Laws 4009/2011 & 4653/2020:

- 1. Prof. Emmanuel Stefanakis (Chair)**
University of Calgary, Canada

- 2. Assoc. Prof. Dimitrios Skarlatos**
Cyprus University of Technology, Cyprus

- 3. Prof. Anthony Stefanidis**
College of William & Mary, USA

- 4. Prof. Spiros Pagiatakis**
York University, Canada

- 5. Polychronis Akritidis**
Technical Chamber of Greece, Greece

II. Review Procedure and Documentation

The panel was invited to conduct the study programme review in mid-May 2021. Most of the review material was made available on 20 May 2021. The package included the HAHE guidelines and forms, the quality indicators of the undergraduate programme in review, and the proposal of the programme academic accreditation with all relevant appendices. The panel members attended the HAHE's orientation meeting on 31 May 2021. The same day, the complete accreditation package was shared with the panel.

On 1 June 2021, the panel first met with the Vice-Rector/President of MODIP and the Dean of School of Rural and Surveying Engineering followed by a meeting with OMEA members and MODIP members. Then, the panel met with members of the Teaching Staff and members of the Teaching and Technical Staff.

On 2 June 2021, the panel first met with 10 Students followed by an online tour and discussion with members of the Administrative Staff and members of the Teaching Staff. The panel also met with Graduates of the programme.

On 3 June 2021, the panel met with Employers and Social Partners and then with OMEA and MODIP members, as well as with the Vice Rector/President of MODIP and the Dean of the School of Rural and Surveying Engineering. Then, the panel met with the Coordinator of OMEA and the Dean of the School.

On 4 & 5 June 2021, the panel convened to write the Accreditation Report. All meetings were held virtually (via Zoom s/w app).

All sessions included a constructive discussion with all attendees and the input collected along with the accreditation documents have been used by the panel to complete this accreditation report.

The Panel has found the accreditation documents to be extensive, well-documented and very comprehensive. The same observations apply to the presentations of the programme by Dean Ioannidis and Prof. Papadopoulou.

III. Study Programme Profile

The School's curriculum aims to cover the scientific and technical activities of Rural and Surveying Engineers, Greece's production and development goals, as well as future prospects in those areas. It aims at providing students with the necessary scientific and technological education that will enable them to perform satisfactorily in a chosen (specific) area of Rural and Surveying Engineering.

The curriculum covers the three departments of the School:

- Department I: Topography (Spatial data acquisition, handling, processing and geovisualization);
- Department II: Geography and Regional Planning (spatial analysis, urban planning, regional planning, physical geography and environmental assessment); and
- Department III: Infrastructure Works and Rural Development (transportation and water management).

The duration of studies is 5 years (i.e. 10 semesters, with the 10th semester dedicated to the diploma thesis).

The School has currently 32 faculty members (12 women and 20 men). Department I has 21 faculty members, Department II has 3 faculty members, and Department III has 8 faculty members.

A total of 131 courses are offered. The total number of courses required for the completion of studies is 61 courses (about 7 courses per semester, 14 courses per academic year). Of those courses, 47 are core (mandatory) courses and 14 are electives. Electives are chosen from a pool of 84 courses and represent 17% (1/6) of the available electives.

In recent years, an average of 110-140 students are admitted annually to the programme, and approximately 70 students graduate from it. Currently there are about 1,400 students registered in the School.

Students attending the 9th semester must take a project course in the area of their major specialization, thus special project courses have been introduced in the curriculum, that require collective/group work in one or more scientific areas. The practical experience of the students is further enriched through geodetic, photogrammetric and remote sensing field camps, as the students are exposed to realistic working conditions.

The objectives of the curriculum were based on the aims of the School as set by the legislature, the assessment of earlier curricula, and current scientific and technological standards and developments. Emphasis was given to the introduction of geoinformation science and technology courses in the curriculum. Both faculty members and students participated in the process. Also, the professional association of Rural and Surveying Engineers and the sister School at the Aristotle University of Thessaloniki were consulted.

The last revision of the curriculum took place in 2001. Currently there is an initiative underway to reassess the strategic objectives and character of the School, leading also to the development of a new undergraduate curriculum. Finally, there is an imminent change of the name of the School to: "Rural and Surveying Engineering & Geoinformation Engineering."

PART B: COMPLIANCE WITH THE PRINCIPLES

Principle 1: Academic Unit Policy for Quality Assurance

INSTITUTIONS SHOULD APPLY A QUALITY ASSURANCE POLICY AS PART OF THEIR STRATEGIC MANAGEMENT. THIS POLICY SHOULD EXPAND AND BE AIMED (WITH THE COLLABORATION OF EXTERNAL STAKEHOLDERS) AT ALL INSTITUTION'S AREAS OF ACTIVITY, AND PARTICULARLY AT THE FULFILMENT OF QUALITY REQUIREMENTS OF UNDERGRADUATE PROGRAMMES. THIS POLICY SHOULD BE PUBLISHED AND IMPLEMENTED BY ALL STAKEHOLDERS.

The quality assurance policy of the academic unit is in line with the Institutional policy on quality, and is included in a published statement that is implemented by all stakeholders. It focuses on the achievement of special objectives related to the quality assurance of study programmes offered by the academic unit.

The quality policy statement of the academic unit includes its commitment to implement a quality policy that will promote the academic profile and orientation of the programme, its purpose and field of study; it will realise the programme's strategic goals and it will determine the means and ways for attaining them; it will implement the appropriate quality procedures, aiming at the programme's continuous improvement.

In particular, in order to carry out this policy, the academic unit commits itself to put into practice quality procedures that will demonstrate:

- a) the suitability of the structure and organization of the curriculum;*
- b) the pursuit of learning outcomes and qualifications in accordance with the European and the National Qualifications Framework for Higher Education;*
- c) the promotion of the quality and effectiveness of teaching;*
- d) the appropriateness of the qualifications of the teaching staff;*
- e) the enhancement of the quality and quantity of the research output among faculty members of the academic unit;*
- f) ways for linking teaching and research;*
- g) the level of demand for qualifications acquired by graduates, in the labour market;*
- h) the quality of support services such as the administrative services, the Library, and the student welfare office;*
- i) the conduct of an annual review and an internal audit of the quality assurance system of the undergraduate programme(s) offered, as well as the collaboration of the Internal Evaluation Group (IEG) with the Institution's Quality Assurance Unit (QAU).*

Study Programme Compliance

In accordance with NTUA's published *Policy on Quality Assurance*, duly administered and managed by the Quality Assurance Unit (MODIP), the School of Rural and Surveying Engineering has made important strides and has demonstrated true commitment in the implementation of its quality policy in support of its characteristic academic profile, vision and mission, as succinctly described in the official documents and in the proposal of academic accreditation of the undergraduate programme.

The proposal for the academic accreditation of the undergraduate programme, the plethora of documents, the oral presentations, and the in-depth and engaging conversations with the School's leadership, teaching staff and stakeholders demonstrated that the programme quality imperative is on a sure path of continuous improvement. More specifically:

- The curriculum has been undergoing continuous improvements and adaptation to the strategic goals and objectives of the School. The suitability of the structure and organization of the curriculum by and large serves very well the goals and objectives. The School has demonstrated dedication and determination to revamp the programme substantially, to offer a more effective and sustainable curriculum; the new curriculum proposal (under development/approval) promises to re-examine and reorganize the subjects taught, aiming at a simpler and more structured programme that is expected to give the students a clear picture of the overall goal of their studies.
- The School has been very successful in the pursuit of defining and promoting comprehensive course learning outcomes, clearly linked to required professional qualifications and in accordance with national and international standards for higher education. Pedagogy, teaching quality and effectiveness appear to be continuously improving by implementing a variety of delivery modes, methods and strategies that respect diversity, and promote equity and inclusion.
- Since the last reform of the curriculum, which took place about 20 years ago, the School has adopted a student-centered learning and teaching model in an effort to strengthen the active participation of students in the learning process. The effectiveness of the student-centered learning approach has also been noted by the student representatives.
- The students overwhelmingly stated that the teaching staff are thoroughly qualified and knowledgeable on the subject matter of their expertise and provide substantial and unwavering support to them.
- Specific surveys and metrics duly kept by the School show that the output of quality research and funding has been steadily and substantially increasing over the last several years.
- The School has demonstrated in practice that research improves the quality of teaching by providing purpose and direction as well as future trends in the goals and objectives of the students' education. A large number of undergraduate students are involved in research projects thus, exemplifying the strong links between research and teaching.
- Representatives of programme graduates, employers and social partners positively identified that the qualifications acquired by the graduates are rich and highly regarded. The programme graduates *"are perfectly trained and ready to be embedded in the labour market"* and that *"they know how to think and solve problems"*.
- The quality of the support services, such as administrative services, the Library, and the student welfare office as well as space infrastructure, equipment, software, and IT support appear to be adequate. The School has set specific targets for upgrading the building infrastructure, the creation of conference rooms and a space technology museum. Sustainability is a main concern of the School.
- The Institution has in place the Quality Assurance Unit (MODIP), while the School has formed its Internal Affairs Evaluation Group (OMEA) for the assessment of the educational work. There is regular communication and good cooperation between MODIP and OMEA for handling issues related to evaluation procedures within the School. Furthermore, OMEA informs and cooperates with the respective School committees in order to monitor the implementation of the curricula and propose remedial and/or improvement actions. Overall, the Quality Assurance policies and

procedures appear to be functioning effectively and according to the legislation framework.

Panel Judgement

Principle 1: Institution Policy for Quality Assurance	
Fully compliant	X
Substantially compliant	
Partially compliant	
Non-compliant	

Panel Recommendations

The Accreditation Panel is impressed by the procedures and processes in place to ensure quality assurance and can only recommend that they continue and/or evolve in accordance with the standards specified by HAHE/MODIP/OMEA.

Principle 2: Design and Approval of Programmes

INSTITUTIONS SHOULD DEVELOP THEIR 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.

Academic units develop their programmes following a well-defined procedure. The academic profile 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 National Qualifications Framework for Higher Education are described at this stage. The approval or revision process for programmes includes a check of compliance with the basic requirements described in the Standards, on behalf of the Institution's Quality Assurance Unit (QAU).

Furthermore, the programme design should take into consideration the following:

- *the Institutional strategy*
- *the active participation of students*
- *the experience of external stakeholders from the labour market*
- *the smooth progression of students throughout the stages of the programme*
- *the anticipated student workload according to the European Credit Transfer and Accumulation System*
- *the option to provide work experience to the students*
- *the linking of teaching and research*
- *the relevant regulatory framework and the official procedure for the approval of the programme by the Institution*

Study Programme Compliance

NTUA's undergraduate Programs must be of high quality and exhibit critical objectives, such as a) coherence and scientific depth, b) response to the current and future development needs of the country, c) adaptation of the educational process to modern interactive forms of teaching, link of academic content to profession and research, e) active and productive academic departments for effective dissemination of knowledge and f) sustained connections and uniformity with distinguished European universities and polytechnics.

The scientific objective of the School is the measurement, analysis, visualization, monitoring and understanding of the physical environment and of the global Earth as well as the design and management of infrastructure projects related to the natural and built environment, using modern, integrated and intelligible geospatial approaches and technology.

The current structure of the academic programme, which has been fully implemented since 2004, offers a total of 131 courses, curating five (5) areas of specialization through 15 different course pathways. The completion of 61 courses plus a diploma thesis (total 300 ECTS) constitute the minimum requirement to graduate. The plethora of the courses and the large number of the areas of specialization may not be very beneficial or even practical for the professional opportunities in Greece.

In response to modern socio-economic challenges compounded by the rapid technological developments, the School has undertaken proactively the revitalization and modernization of the programme. In doing so, the School has successfully developed and/or strengthened very effective channels of communication with the active participation of current undergraduate and graduate students, institutions, graduates and professionals as well as with scientific and professional bodies, such as the Technical Chamber of Greece (TEE), the Panhellenic Association of Professional Rural and Surveying Engineers, and the sister department of the Aristotle University of Thessaloniki. The involvement of the stakeholders was realized through various committees and a very well-defined process with a specific timeline that started in 2006, and it is now nearing completion with the final governmental approval expected in the Fall of 2021. It is important to note that one of the critical programmatic changes is the renaming of the School to "School of Rural and Surveying Engineering - Geoinformatics Engineering." The School must be commended for their herculean effort, dedication and perseverance in carrying through this important task, despite the very challenging times of economic downturn, austerity measures, and the pandemic.

The programme provides students with opportunities for work experience through Internship that corresponds to 4.5 Credits (ECTS) in the European Diploma Supplement and is counted in the required number of courses for graduation. As indicated in the student guide, the internship is of 2 months duration and takes place in the public or private sectors or in recognized research centers of the country. In practice however, the duration of the internship can be longer than two months and this seems to be unclear to the host institutions, agencies, or companies who are reluctant to participate in the internship programme or hire students for only two months.

The TEMPUS and ERASMUS+ programs provide additional opportunities for the students to enhance their skills and education. The School posts the announcements of opportunity but does not seem to promote these programs adequately or provide enough support or encouragement to the students to participate. However, these programs appear to positively influence the School in the design/update of its own existing courses, learning material, evaluation methods, workshops, etc., while promoting interaction with academics from foreign universities, integration of minority or other underrepresented groups into the education system etc. More work is needed in this area.

Within the framework of Quality Assurance, the School is commended for strengthening the linkages of teaching and research via specific goals, objectives and actions. The production of new knowledge and geotechnologies through basic and applied research, the interface of educational process with research conducted in laboratories and research units, the involvement of PhD candidates in the educational process, and the participation of undergraduate students in research projects, are important elements in the integration of teaching and research and must be further encouraged and promoted. To this end, it is commendable that the increased active participation of the teaching/research faculty and staff in international, European and national research groups has been a catalyst for the promotion of the integration of research and education.

Panel Judgement

Principle 2: Design and Approval of Programmes	
Fully compliant	X
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*
	X	

Panel Recommendations

- The School must rethink the areas of specialization offered by the programme by taking into consideration the emerging professional opportunities. While academic growth to include additional areas always provides benefits, it may also introduce risks in the form of inability to adequately curate some of the areas that are nominally offered. Therefore, we recommend that the School try to reduce significantly the number of course offerings (currently 131) and decrease the number of possible course pathways (currently 15).
- The internship programme should offer clear, unequivocal and viable options to students and potential employers. In particular, the length of the work term must be attractive to employers to participate in the programme while satisfying the minimum academic requirement.
- The School must have a more substantial participation in the TEMPUS and ERASMUS+ (and other) programs, by offering sufficient support and encouragement to the students. Likewise, the School must create the required infrastructure to attract foreign students.

Principle 3: Student-centred Learning, Teaching and Assessment

INSTITUTIONS SHOULD ENSURE THAT THE 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.

Student-centred learning and teaching plays an important role in stimulating students' motivation, self-reflection and engagement in the learning process. The above entail continuous consideration of the programme's delivery and the assessment of the related outcomes.

The student-centred learning and teaching process

- *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 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.*

In addition:

- *the academic staff are familiar with the existing examination system and methods and are supported in developing their own skills in this field;*
- *the assessment criteria and methods are published in advance;*
- *the assessment allows students to demonstrate the extent to which the intended learning outcomes have been achieved. Students are given feedback, which, if necessary is linked to advice on the learning process;*
- *student assessment is conducted by more than one examiner, where possible;*
- *the regulations for assessment take into account mitigating circumstances;*
- *assessment is consistent, fairly applied to all students and carried out in accordance with the stated procedures;*
- *a formal procedure for student appeals is in place.*

Study Programme Compliance

The school has made significant efforts to adjust and improve the modes of delivery and pedagogical methods to advance student-centered learning and teaching in the undergraduate programme. Although the school has suffered a significant reduction in the number of faculty members over the last two years (approx. 25%), the significant number of teaching and technical staff seems to be filling the gap and providing remarkable support to the students. Most of the courses in the programme include a term project and other components (e.g., exercises, assignments, etc.) designed to encourage student synergy and promote experiential learning. This approach has also mitigated the limited assessment a written final exam offers. Entrepreneurs, industry representatives and renowned researchers offer invited lectures or site-tours to the students as part of the syllabus in multiple courses. The existing curriculum includes one course called "Thema" (Project Theme) in the 9th semester that engages the students to work collectively and come up with a solution to a real-

world problem using their creativity and the knowledge acquired in the previous years of study. This year, a new elective course called “Praktiki askisi” (internship) has been introduced in the last year of study to offer senior undergraduate students the opportunity to work in a real-work environment for a period of 2-6 months. A total of 35 internship positions have been secured in government and private sectors across the country, while 25 students have registered for this course. As the school is now working on the curriculum review, it is anticipated that the internship programme will offer more opportunities of this kind to its future students.

The School has been actively involved in “Capacity Building” initiatives through Erasmus to develop new educational material in various subjects (Geodesy, Cartography, Transportation, etc.) as well as to facilitate the mobility of students and staff. In addition, the School has signed MOUs with 2 Universities in the U.S.A. and benefits from lectures and theses supervision support on specialized topics offered by external faculty members. While there are obvious benefits to this, we should also recognize that the delivery of some lectures in English language may limit the ability of some students to fully take advantage of this option.

Low participation in student surveys does not allow for the evaluation of efforts or the collection of feedback to measure impact and identify necessary modifications for more effective teaching and learning approaches. On the other hand, student representatives have a voice in the administration bodies (Undergraduate Studies Committee, Department Meetings and Faculty Council). Relations between student representatives and school staff have been normalized in recent years and this has laid the groundwork for a constructive discussion on tackling problems related to course load, instruction methods, course assessments, etc.

Students truly appreciate the value of student clubs with an academic focus as they promote student participation, open up new opportunities for collaborations, and strengthen the student community across the School and University. The “Free and Open-Source Community NTUA” has been the most attended club from the School’s students with multiple activities that enforce teaching and learning.

There are also processes in place to ensure that students have the ability to pursue their academic rights when such cases arise. Individual students have the option of filing an appeal or complaint with the school administration, which is then reviewed by the Department Director, the Undergraduate Studies Committee and resolved by a decision at the Faculty Council. The student can appeal the latest resolution to the University Senate.

Accessibility to the two computer labs seems to be limited. The labs are open weekdays from 8 a.m. until 4:30 p.m. and booked for 5 hours for regular classes. Although most of the software used is either FOSS or remotely available (cloud permissions or VPN access), students without a relatively powerful PC / laptop are at a disadvantage. Lab hours cannot be extended to evening hours or weekends due to lack of support staff. Limited accessibility also applies to other equipment labs of the school (remote sensing, photogrammetry, survey stores, etc.) due to lack of support staff.

Panel Judgement

Principle 3: Student- centred Learning, Teaching and Assessment	
Fully compliant	X
Substantially compliant	
Partially compliant	
Non-compliant	

Panel Recommendations

- Engage and/or increase student participation to provide input in long-term processes, such as curriculum reviews, and short-term actions like student surveys (in other parts of this report, the panel makes some suggestions on how to increase the participation in student surveys). Use student survey results to improve teaching practices by all academic staff. Use student survey results to recognize the efforts by teaching staff (annual teaching awards).
- Pursue additional MOUs with national and international universities (especially the ones with Greek-speaking faculty members) and share educational resources/courses (lectures/material/theses supervision, etc.).
- Support the less privileged members of the student population to ensure that they can take full advantage of the available opportunities. This may include securing funding to support students who cannot afford a PC/laptop (which is actually an issue that should be addressed at the level of NTUA or even the pertinent Ministry, rather than this particular School), making the labs accessible for longer hours during the week (incl. evenings and weekends) and securing funding for support staff.
- The School may have an opportunity to link the Internship experience with the Diploma Thesis, leading to theses that address issues of interest to the hosts of internships, thereby further strengthening the connections between the School and its numerous stakeholders.

Principle 4: Student Admission, Progression, Recognition and Certification

INSTITUTIONS SHOULD DEVELOP AND APPLY PUBLISHED REGULATIONS COVERING ALL ASPECTS AND PHASES OF STUDIES (ADMISSION, PROGRESSION, RECOGNITION AND CERTIFICATION).

Institutions and academic units need to put in place both processes and tools to collect, manage and act on information regarding student progression.

Procedures concerning the award and recognition of higher education degrees, the duration of studies, rules ensuring students progression, terms and conditions for student mobility should be based on the institutional study regulations. Appropriate recognition procedures rely on institutional practice for recognition of credits among various European academic departments and Institutions, in line with the principles of the Lisbon Recognition Convention.

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).

Study Programme Compliance

The School of Rural and Surveying Engineering of the NTUA has a fully regulated process to monitor student progress throughout their studies. The central Information System of student records of the NTUA collects information about the progress of all students, and this allows the Secretariat of the School to derive all relevant information on individual and aggregate levels.

These data are analysed by the secretariat and continuously updated records are derived about e.g., the highest performance rates, the duration of studies, the student's mobility, gender statistics, etc. The report and presentations showed some relevant data.

The School has a ratified Regulatory Code.

Scholarships and awards are given to the best students per academic year. Awards are also given to the graduates based on their graduation performance and also to students (undergraduate or postgraduate) who publish peer reviewed papers in journals or conferences. Financial support is also available (albeit at a rather limited level) to support participation in annual conferences.

Students receive a detailed diploma transcript with all required information about their studies. The transcript can be produced automatically from the system.

Panel Judgement

Principle 4: Student Admission, Progression, Recognition and Certification	
Fully compliant	X
Substantially compliant	
Partially compliant	
Non-compliant	

Panel Recommendations

- There is a concern that the number of students admitted in the programme may be very high. Our understanding is that the School would prefer an annual incoming class of 70-75 students, but instead they get close to 130-140. This is impacting the programme, by stressing resources, and potentially affecting the metrics that are used to assess the programme. *We would therefore recommend that the School undertake a study to assess how students perform as a function of their performance in the admission exams, and therefore on their order of admittance.* For example, do the top 70 students admitted every year graduate at higher percentages and faster than the students who are admitted in the spots 70-140? Do they have more problems with some of the math and physics requirements that may slow their progress? While the decision on how many students are admitted in the programme is beyond the control of the School, it would be beneficial to gain a better understanding of the impact of decisions on the number of admitted students on the programme itself, and of course on the lives of these students.
- Students' awards and procedures should be broadly published and communicated among the academic society, e.g., to be published on the website of the School.
- Given that the admission system brings students into the programme that may lack awareness of the school's discipline and as a result may lack the motivation to pursue a degree in Rural and Surveying Engineering, the School should reach out to these students as early as possible and offer them an exposure to the diverse aspects of the discipline as well as the career opportunities after graduation. The committee recommends that the School intensify the existing outreach activities as well as establish a more personalized communication with students who seem disengaged.

Principle 5: Teaching Staff

INSTITUTIONS SHOULD ASSURE THEMSELVES OF THE QUALIFICATIONS AND COMPETENCE OF THE TEACHING STAFF. THEY SHOULD APPLY FAIR AND TRANSPARENT PROCESSES FOR THE RECRUITMENT AND DEVELOPMENT OF THE TEACHING STAFF.

The Institutions and their academic units have a major responsibility as to the standard of their teaching staff providing them with a supportive environment that promotes the advancement of their scientific work. In particular, 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 recognize 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.*

Study Programme Compliance

Both the research funding revenue and publication record of faculty members has increased significantly since 2016 despite the 25% reduction of the academic staff. This is the result of the extreme efforts made by all personnel in the school – faculty, teaching and technical staff, administrative staff, post-doctoral fellows, and doctoral students – over the years marked by the economic crisis and the pandemic.

Today's reality is deemed unsustainable. Faculty members in the School report an increase in the teaching load up to 50%. The opportunities for personal development are minimal. School resources allow up to 1-2 sessional instructors to cover for sabbatical leaves and as a result, most faculty members are denied such leaves. The increased teaching load has a negative impact on both research and service productivity of academic staff.

The limited resources also preclude granting any teaching or service release to faculty members with outstanding research or external to the University service (e.g., President duties of International Associations, CEO of National Agencies, etc.) record; or offering adequate administrative support.

The School's Teaching and Technical Staff comprising 31 members, most of whom possess a Doctoral degree, have a remarkable contribution to the delivery of the undergraduate programme. The School offers opportunities and promotes their professional development through research leaves, support for attending conferences, etc.

The School adopts and promotes diversity in the background/expertise of new faculty recruitments. Regarding the academic background, most (21) faculty members are Surveying Engineers, but there are also Civil Engineers (7), Electrical Engineers (3), and Architects (1).

As for gender balance, there are only 12 women out of 32 faculty members. On the other hand, there is a good balance in the Teaching and Technical Staff (16 women and 15 men for EDIP and 6 women and 8 men for ETEP).

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.

Panel Judgement

Principle 5: Teaching Staff	
Fully compliant	X
Substantially compliant	
Partially compliant	
Non-compliant	

Panel Recommendations

- The School needs new faculty hires. The School's staff has done everything possible to deliver a top-quality undergraduate programme and to prepare the engineers of tomorrow with a constantly shrinking faculty body. This is unsustainable. The quality of the programme depends on the availability of resources that will guarantee a healthy balance between teaching-research-service (e.g., 40%-40%-20% for faculty members) and opportunities for professional development for all academic staff. This strong message must be communicated to the University and the Government.
- The School should introduce a formal recognition of its staff achievements through annual awards for research, teaching and service.
- The School should make an effort to attract more women applicants in future faculty positions and to achieve a more balanced gender representation in the future pool of faculty members (teaching staff).

Principle 6: Learning Resources and Student Support

INSTITUTIONS SHOULD HAVE ADEQUATE FUNDING TO COVER 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 funding and means to support learning and academic activity in general, so that they can offer to students the best possible level of studies. The above means could include facilities such as libraries, study rooms, educational and scientific equipment, information and communications services, support or 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 or international students, students with disabilities) and 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. However, the internal quality assurance ensures that all resources are appropriate, adequate, and accessible, and that students are informed about the services available to them.

In delivering support services the role of support and administrative staff is crucial and therefore they need to be qualified and have opportunities to develop their competences.

Study Programme Compliance

The austerity measures had a significant impact on all operational components of the School, including learning resources, hardware and software. Fortunately, during the last two years, some increase in public investments has rectified shortcomings in both.

Currently, the main concern of the School is upgrading Geoinformation Lab computers, which is a critical infrastructure for teaching and practice. It is scheduled to be completed within this calendar year, but the current opening hours of 08:30-16:30, are not adequate for the needs of students and faculty. The one thing that limits these operating hours is the lack of funds to support the lab personnel. Alternatives have been incorporated (open source and free s/w, license renting, VPN for floating licenses, educational licenses) in teaching, in line with modern educational practices.

Dionysos Satellite Centre, a key infrastructure of the School, which was neglected during the economic crisis, is being revitalized with teaching and research activities, while the faculty is in quest for external funding to fully restore its operation.

The large number of students can be detrimental to the pursuit of student-centered learning. Nevertheless, there are policies in place to allow individual students to pursue their particular needs. The students might not be aware of such policies, hence not taking advantage of those.

A well-balanced diversity of teaching approaches is used, varying from class lectures, exercises, development of field practical skills, one subject course, and internship, to a substantial individual diploma thesis. The study programme is well balanced between theory and practice, ensuring that graduates will have solid skills when entering the market. This has been verified by most of the employers and social partners interviewed during this process. Individual concerns from employers have been recorded but are mostly subjective to their specific needs. All participants agreed on the adaptability of the graduates to a variety of jobs as well as rapid adoption of additional skills, highlighting the benefit of the existing programme. Some graduates have expressed the necessity to emphasize some aspects of their education (mostly programming skills), with additional courses.

Nevertheless, they were unable to indicate which courses should be removed from the current study programme.

Students commented very positively on the variety of learning activities that define the pedagogical aspects of the programme. They also expressed in unison their appreciation of the availability and willingness of faculty to address their needs and counsel them.

Despite the significant workload during the austerity period, and the compound effects of the COVID-19 pandemic, both administration and teaching personnel have performed excellently. The number of faculty members has been reduced due to austerity measures and unexpected losses during the last two years. This led to increased teaching load to the remaining faculty. Some faculty members have also been recognized by becoming elected at leadership positions (President, Director, Chair, or equivalent) of highly prestigious International associations/committees (FIG, CIPA) or in National Organizations (Cadastre, Hellenic Ministry of Environment and Energy), which helps elevate the University's profile, but at the same time imposes substantial time commitment requirements on these faculty members.

Panel Judgement

Principle 6: Learning Resources and Student Support	
Fully compliant	X
Substantially compliant	
Partially compliant	
Non-compliant	

Panel Recommendations

- Both faculty and administration staff have worked over and above their line of duty, and under very challenging conditions. This needs to be remedied. At a minimum, it is imperative to maintain the proposed rate of replacing outgoing by incoming personnel at the ratio of 1:1. But to ensure the growth of the School the panel recommends an improved ratio, further increasing the numbers of incoming faculty. This will allow for example to reinstate minimum academic expectations, such as sabbatical leaves, which will help further develop faculty competences, and support the pursuit of prestigious international or national leadership posts.
- During the last two years public funding for updating and maintaining equipment has slightly increased but has not been restored to pre-austerity levels. For a School that is undertaking a substantial growth and broadening of its discipline, this can be quite detrimental. Therefore, we propose that the corresponding budget be further increased. It is also recommended that the tender policy be streamlined, to expedite equipment acquisition processes and avoid losing public funding.
- While some of the computational needs are nominally local to a School, modern computing developments may need to be addressed at the level of the NTUA instead of an individual School. High Computing or Cloud computing resources are representative examples. We would therefore recommend a cross School-NTUA team to study these issues and suggest appropriate solutions.

Principle 7: Information Management

INSTITUTIONS 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.

Institutions are expected to establish and operate an information system for the management and monitoring of data concerning students, teaching staff, course structure and organisation, teaching and provision of services to students as well as to the academic community.

Reliable data is essential for accurate information and for decision making, as well as for identifying areas of smooth operation and areas for improvement. Effective procedures for collecting and analysing information on study programmes and other activities feed data into the internal system of quality assurance.

The information gathered depends, to some extent, on the type and mission of the Institution. The following are of interest:

- *key performance indicators*
- *student population profile*
- *student progression, success and drop-out rates*
- *student satisfaction with their programme(s)*
- *availability of learning resources and student support*
- *career paths of graduates*

A number of methods may be used for collecting information. It is important that students and staff are involved in providing and analysing information and planning follow-up activities.

Study Programme Compliance

The School has established several metrics to systematically assess student population profile, progression, success, dropout rates and many more. Additional metrics about resources, publication volume and research budget are also available, all of which assist in a better understanding of strengths and weaknesses. These metrics are under continuous assessment by the Dean and Deputy Dean, for mid- to long-term planning. Nevertheless, some of the metrics are affected by broader policies, dictated by the Ministry, hence impossible to be improved without external to the School intervention. It should be noted that the School is regularly accepting up to 150% more students than suggested by the School (based on capacity), which has a clear impact on resource allocation and learning outcomes.

The increase of students' participation in teaching staff evaluation questionnaires is essential. Students' evaluation is encouraging, showing considerable improvement during the 2020-2021 academic year (although still in the range of 5%), and we encourage that this trend continues.

Communication and feedback from graduates are limited to the activities from the Panhellenic Association of Professional Rural and Surveying Engineers. This seems to be common in several other University Schools. Therefore, funding has been found to resolve this problem under the University's central policy through the development of Alumni association.

Overall, the panel feels that the programme is on track but some of the processes are in their early implementation stages.

Panel Judgement

Principle 7: Information Management	
Fully compliant	X
Substantially compliant	
Partially compliant	
Non-compliant	

Panel Recommendations

- It is recommended to introduce regular graduate visits and presentations (online as well), which would be beneficial for current students to appreciate the versatility of our profession and as feedback to faculty of improvements in the Study Programme.
- The connection with alumni is one area for improvement. We recommend that the School take full advantage of available networking solutions to reconnect with its alumni and connect these alumni with current students. This may be an issue that has to be addressed at the level of NTUA, not just at the School level.
- The School presented a variety of metrics that capture operational issues of the programme. It is unclear how this information is aggregated and disseminated in the form of KPIs to communicate goal setting and compliance. We would recommend therefore establishing an annual report summarizing these metrics. We would also recommend identifying the appropriate dissemination route for such content to ensure that stakeholders (e.g., faculty members) have full access to it.
- The current approach of two annual index lists is not ideal for visualization and timeline monitoring. It is recommended to be kept in a digital format to allow analysis.

Principle 8: Public Information

INSTITUTIONS SHOULD PUBLISH INFORMATION ABOUT THEIR TEACHING AND ACADEMIC ACTIVITIES WHICH IS CLEAR, ACCURATE, OBJECTIVE, UP-TO-DATE AND READILY ACCESSIBLE.

Information on Institution's activities is useful for prospective and current students, graduates, other stakeholders and the public.

Therefore, institutions and their academic units provide information about their activities, including the programmes they offer, the intended learning outcomes, the qualifications awarded, the teaching, learning and assessment procedures used, the pass rates and the learning opportunities available to their students, as well as graduate employment information.

Study Programme Compliance

The School uses standard methods/platforms to publish its resources and accomplishments. These include the School website, and the "MyCourses" site. All announcements of the Secretariat of the School are uploaded onto the website of the School, together with standard information about the programme, activities, news, etc., about the School.

All substantive course information, such as teaching material, literature, PowerPoint presentations, books, the structure of courses, exercises and instructions, the intended skills and qualifications, exams, deliverables and pass rates are uploaded onto the central system "MyCourses" of NTUA. A dedicated page is the portal for a particular course and is accessible by all academic members and students. This information is also accessible from the site of the School.

The School also uses standard social media platforms, such as Facebook and Instagram. Serious aspects and urgent announcements are also communicated to students by email. The School is in the process of pursuing more innovative communication avenues, in form of YouTube videos for some of its labs. We believe that this will resonate better with the younger generation of students, and fully support this effort.

There was also a recent event on the centennial celebration of the School, which brought together alumni, faculty, and students. It is worth mentioning that this was referred to by the students during our interviews, and this is indicative of the significant impact that such events have. There is some concern though that this opportunity was not followed up by establishing an actual network that would allow connections among these members of the School community.

Panel Judgement

Principle 8: Public Information	
Fully compliant	X
Substantially compliant	
Partially compliant	
Non-compliant	

Panel Recommendations

Reflecting its strength, the programme has a large number of highly visible graduates in academia, research, and practice, and it is impressive to see that they pursue quite diverse careers. We feel that it would be beneficial to the students to be aware of these opportunities offered through this programme, and we would encourage the School to pursue professional networking activities (ranging from groups in LinkedIn to dedicated websites accessible through the School website) to better link with its graduates and foster community-building activities.

Principle 9: On-going Monitoring and Periodic Internal Review of Programmes

INSTITUTIONS SHOULD HAVE IN PLACE AN INTERNAL QUALITY ASSURANCE SYSTEM FOR THE AUDIT AND ANNUAL INTERNAL REVIEW OF THEIR 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 study programmes aim to maintain the level of educational provision and to create 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. Revised programme specifications are published.

Study Programme Compliance

There has been an impressive advancement of the academic standing of the faculty over the past few years, as reflected through a number of metrics, including citations. This clearly demonstrates that the School faculty are well versed in the latest research trends in the field. This has been clearly used to adjust course content in the programme, with numerous examples provided in the School Application document.

Regarding the links to issues of societal interest, the programme has been, and continues to be aware of and responsive to such issues, becoming an academic leader in the environment- society nexus. The summer class of Geodetic Exercise is a perfect example of connecting curriculum and education with societal needs. The School faculty have also been very active in international activities related to World Culture Heritage sites, often reaching leadership positions in corresponding International Scientific Associations. Findings from the active research portfolio of its faculty are used to update coursework and inform Diploma Theses. Over the past year, the School has also shown remarkable leadership during the on-going pandemic, with a faculty member co-authoring the recent released UNECE report on Covid-19 Recovery Action Plan for Informal Settlements.

Moving to another view of the response to societal issues, if we take into account that the School managed to continue its course offerings uninterrupted in the middle of the pandemic, we clearly understand that it is able and willing to adjust to societal issues. We were very impressed to hear that the School had provisioned to have some laptops to become available to students in need during that time, even though apparently, they did not end up needed. This is very impressive and reflects a School and faculty that care for the students, a comment repeatedly made also by students during the dedicated session.

There were comments from students that the workload tends to be high, but the same students

indicated that this is actually a positive thing.

There have been substantial efforts to improve the labs and collaborative computing spaces for the students. The School should be congratulated for this, and we would like to urge the Ministry of Education to further support these initiatives with suitable budgets. There is a concern that the lack of funds for personnel forces some of these computing facilities to close daily earlier than desired.

Panel Judgement

Principle 9: On-going Monitoring and Periodic Internal Review of Programmes	
Fully compliant	X
Substantially compliant	
Partially compliant	
Non-compliant	

Panel Recommendations

Student participation in the assessment of the course through the corresponding online questionnaires tends to be low. This is sadly a global phenomenon, not limited to Greek Universities or this particular school. The School may want to consider limiting the time window during which these questionnaires may be filled, as students postpone filling them out due to lack of urgency, and then sometimes forget about them. Another option may be to have the questionnaires completed as part of the final exam, or even to make filling them out as a mandatory assignment to get the class grade released. There is also an apparent concern from students on whether these questionnaires actually lead to change, and we recommend that the School work on this. We would suggest holding periodic sessions with students to discuss some of the comments they provide in these forms, to make them feel that their views and comments are indeed taken into account, and to present some of the actions that the School is taking to address them.

Principle 10: Regular External Evaluation of Undergraduate Programmes

PROGRAMMES SHOULD REGULARLY UNDERGO EVALUATION BY COMMITTEES OF EXTERNAL EXPERTS SET BY HAHE, AIMING AT ACCREDITATION. 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 committee of independent experts. HAHE grants accreditation of programmes, 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 template's requirements, and as a catalyst for improvement, while opening new perspectives towards the international standing of the awarded degrees.

Both academic units and institutions participate in the regular external quality assurance process, while respecting the requirements of the legislative framework in which they operate.

The quality assurance, in this case the accreditation, is an on-going process that does not end with the external feedback, or report or its follow-up process within the Institution. Therefore, Institutions and their academic units ensure that the progress made since the last external quality assurance activity is taken into consideration when preparing for the next one.

Study Programme Compliance

The last review of the programme took place in 2013. The proposal for the accreditation of the undergraduate program and the presentations made in the context of the current review addressed both the recommendations made, and the corresponding actions taken. Overall, the School addressed almost all of these recommendations, with the obvious exception of the ones that were impossible to address because they are dictated by broader legal frameworks (e.g. the number of exam periods). One could argue that the most impressive move was the actual change of the name of the School and programme, with the new name reflecting the geoinformatics component that is becoming increasingly important in the field. While all of the above are very impressive, they become even more so if we consider that in 2013 onwards, the country underwent one of the worst economic crises in its history, and a pandemic. These make the accomplishments of the School on revising its programme simply stunning, and they should be congratulated for their effort.

Furthermore, the material presented for this review was very thorough, substantive, and forward-looking, which makes it clear that the School takes these reviews seriously, as an opportunity to grow and improve. This gives us even more confidence on its ability to navigate through these reviews (which tend to be challenging issues for any academic unit) and use the findings to improve.

The exceptional efforts done by the School to respond to the 2013 review leaves no concerns that the School will do an excellent job managing this Accreditation Report as well. The one recommendation we would like to make is for the School to assess the effects of the COVID period as it prepares to fully reopen in person, hopefully in the Fall of 2021. While the forced distance education mode that had to be followed over the past 14 months has limited some past practices of person-to-person interactions, it has also had some positive impact too. For example, students appeared to be happy with the CAD-heavy design courses.

Panel Judgement

Principle 10: Regular External Evaluation of Undergraduate Programmes	
Fully compliant	X
Substantially compliant	
Partially compliant	
Non-compliant	

Panel Recommendations

We would recommend that the School undertake a brief survey students and faculty to ask their comments on what worked well and what did not, during these past 14 months, and use this information appropriately as it moves forward.

PART C: CONCLUSIONS

I. Features of Good Practice

- The programme is well respected among the global academic community, and it pursues innovation to follow and contribute to the rapid evolution of this academic field.
- The programme offers a coherent and scientifically in-depth education, to successfully link academic content with practice and research thus, educates professionals and scientists. This is demonstrated by the very successful and diverse careers of its graduates.
- The programme has demonstrated robustness in terms of adapting itself to interactive forms of teaching both through the evolution of its courses as well as evidenced through its response to the COVID-induced remote learning conditions.
- The School addresses issues that are critical to the current and future development needs of the country, and of broad societal interest.
- A great atmosphere of camaraderie among faculty and students demonstrates a healthy learning environment.
- The diversity of educational modules, ranging from traditional lectures and practical exercises to internships is supporting the integration of practice, experiential learning, and innovation.

II. Areas of Weakness

- The constant decline in the number of faculty members is threatening the quality of the programme. This has to be remedied immediately.
- The programme relies on expensive and dedicated equipment and software licenses and the present budget is clearly inadequate to meet its present and projected future needs.
- The number of students entering the programme is too high and this is detrimental to the well-being of the School. We recommend a closer collaboration between the Government authorities, stakeholder communities, and School to identify the appropriate incoming class size.

III. Recommendations for Follow-up Actions

Recommendations have been listed under the assessment of each principle earlier in this report. The School is encouraged to consider these recommendations and take relevant actions.

Emphasis should be given in the following actions:

- Continue and/or evolve the processes to ensure quality assurance according to the standards specified by HAHE/MODIP/OMEA. (Principle 1)
- Rethink the areas of specialization offered by the programme by taking into consideration the emerging professional opportunities and the School's capacity to deliver a high-quality

programme. Both the internship programme (“Praktiki askisi”) as well as student mobility programme should be enhanced. (Principle 2)

- Student participation in long-term processes, such as curriculum reviews, and short-term actions like student surveys, should be increased. Additional MOUs with national and international universities should be established. Support to the less privileged members of the student population to ensure that they can take full advantage of the available opportunities should be secured. (Principles 3 and 9)
- Gain a better understanding of the impact of decisions on the number of admitted students on the programme and the lives of these students. The School should intensify the existing outreach activities as well as establish a more frequent and personalized communication with students who seem disengaged. (Principle 4)
- The School needs new faculty hires that will guarantee a healthy balance between teaching-research-service and opportunities for professional development for all academic staff. A formal recognition of the staff achievements through annual awards for research, teaching and service should be introduced. Efforts to attract more women applicants in future faculty positions and to achieve a more balanced gender representation in the future pool of faculty members should be made. (Principles 5 and 6)
- It is imperative that public funding be restored to pre-austerity levels for modernizing and maintaining lab equipment and services. (Principle 6)
- Connection with alumni is one area for improvement. The variety of metrics that capture operational issues of the programme should be aggregated and disseminated in the form of KPIs to communicate goal setting and compliance. (Principle 7)
- Increase exposure of current students to the opportunities offered by this programme through professional networking and community-building activities. (Principle 8)
- Undertake a students and faculty surveys to collect comments on what worked well and what did not, during these past 14 months, and use this information appropriately as it moves forward. (Principle 10)

The EEAP recommends that all above be considered before the next External Evaluation.

IV. Summary & Overall Assessment

The Principles where full compliance has been achieved are: **1, 2, 3, 4, 5, 6, 7, 8, 9, and 10.**

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

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

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

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

The 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
	X	

**The members of the External Evaluation & Accreditation Panel for the UGP
(Integrated Master)**

Name and Surname

Signature

- 1. Prof. Emmanuel Stefanakis (Chair)**
University of Calgary, Canada

- 2. Assoc. Prof. Dimitrios Skarlatos**
Cyprus University of Technology, Cyprus

- 3. Prof. Anthony Stefanidis**
College of William & Mary, USA

- 4. Prof. Spiros Pagiatakis**
York University, Canada

- 5. Polychronis Akritidis**
Technical Chamber of Greece, Greece