



ΕΛΛΗΝΙΚΗ ΔΗΜΟΚΡΑΤΙΑ
Α Δ Ι Π
ΑΡΧΗ ΔΙΑΣΦΑΛΙΣΗΣ ΚΑΙ ΠΙΣΤΟΠΟΙΗΣΗΣ
ΤΗΣ ΠΟΙΟΤΗΤΑΣ ΣΤΗΝ ΑΝΩΤΑΤΗ ΕΚΠΑΙΔΕΥΣΗ

HELLENIC REPUBLIC
HQA
HELLENIC QUALITY ASSURANCE
AND ACCREDITATION AGENCY

Accreditation Report for the Undergraduate Study Programme of:

Geology and Geoenvironment
Institution: National & Kapodistrian University of Athens
Date: 21/06/2019

ΑΡΙΣΤΕΙΔΟΥ 1 & ΕΥΡΥΠΙΛΔΟΥ, 105 59 ΑΘΗΝΑ
Τηλ.: +30 210 9220944, FAX: +30 210 9220143
Ηλ. Ταχ.: adipsecretariat@hqa.gr Ιστότοπος: <http://www.hqa.gr>

1, ARISTIDOU ST., 105 59 ATHENS, GREECE
Tel.: +30 210 9220944, Fax: +30 210 9220143
Email: adipsecretariat@hqa.gr Website: www.hqa.gr



Ευρωπαϊκή Ένωση
Ευρωπαϊκό Κοινωνικό Ταμείο

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 HQA to undertake the review of the Undergraduate Study Programme of **Geology and Geoenvironment** of the **National and Kapodistrian University of Athens** for the purposes of granting accreditation

TABLE OF CONTENTS

| | |
|--|-----------|
| Part A: Background and Context of the Review | 4 |
| I. The Accreditation Panel..... | 4 |
| II. Review Procedure and Documentation | 5 |
| III. Study Programme Profile..... | 6 |
| Part B: Compliance with the Principles | 7 |
| Principle 1: Academic Unit Policy for Quality Assurance | 7 |
| Principle 2: Design and Approval of Programmes | 9 |
| Principle 3: Student- centred Learning, Teaching and Assessment | 12 |
| Principle 4: Student Admission, Progression, Recognition and Certification | 14 |
| Principle 5: Teaching Staff..... | 15 |
| Principle 6: Learning Resources and Student Support..... | 17 |
| Principle 7: Information Management | 19 |
| Principle 8: Public Information | 21 |
| Principle 9: On-going Monitoring and Periodic Internal Review of Programmes..... | 22 |
| Principle 10: Regular External Evaluation of Undergraduate Programmes | 23 |
| Part C: Conclusions | 24 |
| I. Features of Good Practice..... | 24 |
| II. Areas of Weakness | 24 |
| III. Recommendations for Follow-up Actions..... | 24 |
| IV. Summary & Overall Assessment | 25 |

PART A: BACKGROUND AND CONTEXT OF THE REVIEW

I. The Accreditation Panel

The Panel responsible for the Accreditation Review of the Undergraduate Study Programme of **Geology and Geoenvironment** of the **National and Kapodistrian University of Athens**, comprised the following five (5) members, drawn from the HQA Register, in accordance with the Law 4009/2011:

1. Prof. Theodoros NTAFLOS (Chair)
University of Vienna, Austria

2. Prof. Filippos TSIKALAS
University of Oslo, Norway

3. Prof. Georgia PE-PIPER
Saint Mary's University, Halifax, Canada

4. Assist. Prof. Konstantinos CHALIKAKIS
Avignon University, France

5. Mr. Dionysios GKOUTIS
Geotechnical Chamber of Greece, Greece

II. Review Procedure and Documentation

The Accreditation Panel (AP) convened on Monday April 15th 2019 at the HQA (Hellenic Assurance & Accreditation Agency) Headquarters in Athens. The AP was briefed by the HQA on the Quality Assurance (QA) accreditation guidelines and standards. During the briefing, the panel received the folder of materials for the site visit at the Department of Geology and Geoenvironment (DGGE) of the National & Kapodistrian University of Athens (NKUA). Moreover, the AP was provided, among other material, the DGGE Proposal for Accreditation of the Internal Quality Assurance System, as well as information on the quality indicators from 2015-16 and 2016-17 and the DGGE External Evaluation Report of 2012. Subsequently, the AP met and discussed on the strategy and issues to be considered during the site visit.

The same day, the AP met with the University Vice Rector, the Quality Assurance Unit (MODIP), the Internal Evaluation Group (OMEA) and the Department Head and Department Vice Chair. The Vice Rector also serves as the MOPID President. The AP was briefed on the history and academic profile of the NKUA and DGGE, the department's current status, its strengths and areas for improvement. The above were supported by additional documents complementing the on-screen presentations. The AP had an extensive meeting with OMEA and discussed the compliance of the Geology and Geoenvironment undergraduate program to the standards for quality accreditation set by HQA.

On Tuesday 16th, the AP visited some facilities of the DGGE such as the museum of Mineralogy, the microscope laboratories (Mineralogy, Paleontology) the Scanning Electron Microscope (SEM), and the sedimentology and computer laboratories. Subsequently, the AP visited classrooms (teaching and research laboratories) and discussed issues of the undergraduate study program and potential reforms with the students. Unfortunately, a small group of students prevented the AP from visiting more facilities and classrooms in order to complete the on-site visit.

The AP moved to the "Kostis Palamas" building (downtown Athens) where the AP subsequently met with the faculty and staff members of the DGGE discussing the undergraduate study program, professional development opportunities, student evaluations, faculty workload, connections between teaching and research, and a wide-range of related departmental matters. After that, the AP met with undergraduate, MSc, and PhD candidates at the department. The AP also met with graduates, alumni, and external stakeholders. At the end of the day, the AP had a short debriefing meeting discussing the site visit outcomes and the outcomes of the first day of meetings. A final meeting was held among the AP, Vice Rector, the Head and Vice Chair of the Department, the OMEA, and the MODIP.

From Wednesday April 17th to Saturday 20th, the AP worked on completing the Accreditation Report.

III. Study Programme Profile

The DGGE at NKUA is a dynamic organization with a large history in geological studies covering a broad spectrum of the geo- and environmental sciences. Currently the department consists of 18 Professors, 9 Associate Professors, 16 Assistant Professors, 19 teaching staff (EDIP), 12 specialized technical staff (ETEP), 1 technical personnel, 3 Museum guards and 9 administration staff.

The DGGE is divided into the following six Divisions:

- (i) Mineralogy and Petrology
- (ii) Historical Geology and Paleontology
- (iii) Geography and Climatology
- (iv) Geophysics and Geothermics
- (v) Dynamic, Tectonic and Applied Geology
- (vi) Economic Geology and Geochemistry

The annual number of newly admitted students determined by the State of Greece is approximately 118 and with transfers for special reasons reaches 148 (2017/2018 data). However, the total undergraduate student population is ca. 1685 students, since a significant number of students fail to complete their studies within the normal 4-year cycle. The active student population graduates within 6 years on average.

OMEA data show 140+ first year enrolled students and graduating students distributed as follows: 28.25% graduated in 4 years, 4.63% in 5 years, 3.20% in 6 years and 63.92 in 6+ years. The number of students that successfully graduate in 4 to 6 years appears to be increased, in general terms, during the last years. For Fall 2018, MODIP information shows that the DGGE student enrolments were as follows: 1685 undergraduates, 586 postgraduate (MSc), and 246 PhD candidates.

A single BSc in Geology and Geo-Environment with a 4-year (8 semesters) attendance is offered at the undergraduate level. According to the 2018-19 Student Handbook the undergraduate program requires 40 courses, of which 32 are core (mandatory), 7 are electives (optional) from a pool of 51 courses, and a mandatory undergraduate thesis (Διπλωματική Εργασία). A 2–4 months internship is optional and encouraged, pending availability. The program of studies has run, more or less in the same form with minimal updates, since 2011 and with unaltered philosophy since earlier minimal core updates in 2003 and in the 1990's.

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

The NKUA has established an appropriate Quality Assurance policy clearly defining review processes and Key Performance Indicators (KPIs), where the Academic unit is in line with the institutional policy. The MODIP is monitoring and enforces the Quality Assurance. The continuous improvement of the above is assured by a committee consisting by 15 members from the DGGE department (OMEA).

The OMEA is in line with MODIP for the improvement of the undergraduate program. Relevant information is shared to DGGE academic staff members and student representatives by email and presentations at departmental meetings, but the Internal Evaluation Reports have

not been posted on the web. Student, academic staff, and administrative personnel roles are well defined.

Panel judgement

Please tick one of the following:

| Principle 1: Institution policy for Quality Assurance | |
|--|----------|
| Fully compliant | x |
| Substantially compliant | |
| Partially compliant | |
| Non-compliant | |

Panel Recommendations

The AP strongly recommends that student participation and their opinions are of significant importance for continuous improvement of the curriculum.

The Internal Evaluation Reports by OMEA should be published on the DGGE website. This will result in further transparency that will help to bring out the needed improvements.

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

The AP found that the DGGE undergraduate program is compliant with the above, based on the appropriate departmental documentation and academic staff presentations (OMEA). Moreover, the anticipated student workload is in accordance with the European Credit Transfer and Accumulation System (ECTS).

However, it is important to highlight that:

- The number of students is high, even allowing for the fact that 50% have been in the program for more than 6 years and thus are partially inactive. Considering the high number of students, the existing laboratory infrastructure of the DGGE has not the capacity to offer optimal conditions for a solid and good education ready to satisfy the necessities of the society.
- Clear strategic goals with reference to the undergraduate program and in accordance to international practice were not identified.
- Although some efforts have been undertaken, the AP found that the DGGE did not substantially incorporate important recommendations from the External Evaluation (2012) in relation to the study program under accreditation (e.g. course content overlap, lack of prerequisite courses, cross-disciplinary courses,

small number of fieldwork days, insufficient general education in Mathematics, Physics and Chemistry).

- The results and recommendations of the DGGE Internal Evaluation reports and the Development Planning Committee in 2017 (Επιτροπή «Ανάπτυξης του Τμήματος» έτους 2017) probably have been considered but are not yet implemented. As an example, the proposed major structural reorganization of the Divisions will have a positive impact on the study program.
- The stakeholders have not been consulted for the planning of the study program.
- Some course content overlap appears to exist in a number of mandatory courses, even when delivered by instructors from the same Division (e.g. courses Y3203/Y6201, Y6204/Y7202, Y1201/Y5201, Y1205/Y2202 etc.).
- From the meetings with undergraduate students, the AP found that they largely support the implementation of course prerequisites.
- One of the main outcomes of the AP meetings with undergraduate and graduate students, as well as with the alumni and the stakeholders, is that the study program provides an excellent theoretical background but largely lacks a significant applied component.
- Student learning outcomes in the Course Syllabus are in compliance with the European and National Qualifications Framework for Higher Education. However, the AP noticed that some outcomes must be edited to be in full compliance with the HQA guidelines. For example, “to do”, “must do”, and “should do” must be replaced by “do”.
- The undergraduate program meets the expectations set by the Geotechnical Chamber of Greece.

Panel judgement

| Principle 2: Design and Approval of Programmes | |
|--|----------|
| Fully compliant | |
| Substantially compliant | |
| Partially compliant | x |
| Non-compliant | |

Panel Recommendations

1. The number of students should be reduced in order to meet the DGGE teaching capacity.
2. Reorganization of the department's structure for an efficient undergraduate study program and research is highly needed.
3. The number of the mandatory courses (33) among total available (85) should be reduced and structured to fulfil cross-disciplinary (cross-Division) courses and to incorporate research-based methodologies. In addition, the number of compulsory courses is also high (52). Any compulsory courses with less than 7 students for 3 consecutive years should be excluded from the study program.
4. The stakeholders should be consulted for revisions and future planning of the study program.
5. The AP recommends implementation of some course prerequisites where possible. The DGGE should investigate optimal ways to implement the above.
6. The practical and field work component of the study program should be increased with possible cross-Division collaboration.
7. The DGGE should fully incorporate in the undergraduate study program the regulated professional obligations and rights set by the PD 344/2000 and the Geotechnical Chamber of Greece.
8. Increased State funding of the DGEE is required. Nevertheless, the existing available funds should be distributed not according to the Divisions' needs but according to the DGGE needs, in order to promote the cross-disciplinary cooperation.
9. The DGGE should keep updated employment records for its graduates via collaboration with the Geotechnical Chamber of Greece and the statistical outcomes should be available.
10. The AP believes that following up the student Practical Work Internship (Πρακτική Άσκηση) with a related undergraduate Diploma Thesis (Διπλωματική Εργασία) will have an important educational benefit.

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 AP finds that for all lecture courses the overall grade can be assessed using multiple examination measurements within the EU standards. The course frameworks describe properly and in detail the course contents as well as the assessment criteria methods.

The AP found that student participation in the course evaluations varies between about 5-7%. In the field work courses, however, the participation percentage ranges from 90-100%. Students are of the opinion that parts of the Department are resistant to change and disregard the student views.

Panel judgement

| Principle 3: Student- centred Learning, Teaching an Assessment | |
|---|----------|
| Fully compliant | x |
| Substantially compliant | |
| Partially compliant | |
| Non-compliant | |

Panel Recommendations

1. The following steps must be made to increase student participation in course evaluations:
 - a. Students should be notified and reminded by email that their course is due for evaluation.
 - b. During class hours, the instructor should also emphasize the importance of participation in the evaluation process.
 - c. Other possible innovative ways (e.g. mobile phone app) should be adopted.
 - d. The DGGE/NKUA should also consult other universities for effective employed ways.
2. There is a need for a special course focused on English language specific for Geological Sciences, including report writing, referencing and oral presentation skills.
3. The role and duties of the Academic Advisor should be clearly defined and properly communicated to the students. Communication and collaboration are very important and should be enhanced.

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

Undergraduate students are admitted via State examinations. A small percentage of students is also admitted via departmental administered examinations. It is important to state that the DGGE has no control over the admitted undergraduate students.

Panel judgement

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

Panel Recommendations

1. The number of students should be reduced in order to meet the DGGE teaching capacity.
2. The DGGE should inform the students about the regulation framework and the administration procedures for the profession of Geologist via the Geotechnical Chamber of Greece and the other professional bodies.

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

No clear long-term strategic goals have been defined by the DGGE in relation to future academic staff recruitment independent of near-future retirements.

MODIP closely monitors the procedure for hiring new academic staff. The DGGE maintains an updated web site for informative and self-promoting purposes.

Based on the available data, there are no clearly defined procedures and opportunities such as mentoring to promote the professional and pedagogic development of the teaching staff.

The AP found innovations of teaching methods in some courses but efforts should be undertaken for wider implementation.

The academic staff promotes the department well via public and private media appearances.

The DGGE has established structures for academic staff collaboration with other Universities, research laboratories, and industry.

Panel judgement

| Principle 5: Teaching Staff | |
|-----------------------------|----------|
| Fully compliant | |
| Substantially compliant | x |
| Partially compliant | |
| Non-compliant | |

Panel Recommendations

Clear long-term strategic goals should be defined by the DGGE in relation to future academic staff recruitment independent of near-future retirements. The vacancy of an academic position should be replaced not only according to the short-term necessities of the department but based on the long-term strategy (for research and teaching).

The AP recommends the NKUA should provide, especially for junior faculty and staff, specialized seminars about writing research proposals; oral, public and scientific presentations; mentorship; time and financial budgeting; and pedagogics etc.

Undergraduate courses could be also provided through external lecturers that can cover specialized scientific subjects, thereby improving the quality of the study program.

The AP recommends the creation and monitoring of a transparent timetable for all teaching members of the faculty (DEP, EDIP).

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 Vice Rector informed the AP that the annual operating University budget is very limited.

The AP was informed about existing water leaking damages and issues with the lighting in general spaces. There were complaints about the hygiene facilities (damaged and/or locked toilets). We should emphasize that the DGGE has identified these problems and informed the University administration multiple times.

The AP noticed aged teaching and research equipment. It is very important to state that the existing single ocular microscopes used for teaching purposes raise severe health and safety issues and are not in compliance with current EU safety norms.

The AP found that for a large number of lecture courses, the student grade is heavily weighted towards the final examination periods.

The available Erasmus+ positions are very limited due to the Central Management of the programme.

Panel judgement

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

Panel Recommendations

The AP emphasizes the importance of increases in the University annual operating budget. Moreover, the AP also underlines the importance of the building maintenance as soon as possible.

The AP strongly recommends the upgrading and replacement of aged teaching laboratory facilities, and that the sparse similar efforts by the DGGE in recent years should be promptly followed up at a greater scale. It is also recommended to create core departmental facilities for widely used analytical techniques for both cross-disciplinary research and teaching purposes.

Instructors in all DGGE courses should employ additional student performance indicators.

The DGGE should take all necessary steps, in collaboration with the Central Management of the Erasmus+ programme, to increase available positions in order to meet the departmental demand.

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 analyzing information and planning follow-up activities.

Study Programme compliance

The AP found that the student participation in the course evaluations varies between about 5–7%. Such a percentage is not representative!

The MODIP website is not up-to-date and the OMEA of the DGGE does not publish the Internal Evaluation reports. The AP notes the recent steps undertaken by the DGGE to comply with the above (publication of the Internal Evaluation reports for 2013-2017; however, 2017-2018 Internal Evaluation report should be also published) following the AP recommendation.

The DGGE does not monitor the career paths of graduates.

Panel judgement

| Principle 7: Information Management | |
|-------------------------------------|----------|
| Fully compliant | |
| Substantially compliant | x |
| Partially compliant | |
| Non-compliant | |

Panel Recommendations

1. The following steps must be made to increase student participation in the course evaluations:
 - a. Students should be notified and reminded by email that their course is due for evaluation.
 - b. During class hours, the instructor should also emphasize the importance of participation in the evaluation process.
 - c. Other possible innovative ways (e.g. mobile app) should be adopted.
 - d. The DGGE/NKUA should also consult other universities for effective employed ways.
2. The DGGE should keep track of the graduate path careers via collaboration with the Geotechnical Chamber of Greece and the statistical outcomes should be available.

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 DGGE website provides most of the above needed information. However, the AP was unable to find student pass rates and graduate employment information as well the Internal Evaluation reports.

Panel judgement

| Principle 8: Public Information | |
|---------------------------------|----------|
| Fully compliant | x |
| Substantially compliant | |
| Partially compliant | |
| Non-compliant | |

Panel Recommendations

All available data should be publicly available at the DGGE website in a form that is easily interpretable.

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

According to the Proposal for Accreditation of the DGGE (2018, page 47) the Annual Internal Evaluation Reports should be published to the department's website. However, the AP was unable to locate the reports on the websites neither of MODIP nor of DGGE.

Panel judgement

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

Panel Recommendations

All the Annual Internal Evaluation Reports must be promptly published on the MODIP and DGGE websites. The AP notes the recent steps undertaken by the DGGE to comply with the above (publication of the Internal Evaluation reports for 2013-2017; however, 2017-2018 Internal Evaluation report should be also published) following the AP recommendation.

Principle 10: Regular External Evaluation of Undergraduate Programmes

PROGRAMMES SHOULD REGULARLY UNDERGO EVALUATION BY COMMITTEES OF EXTERNAL EXPERTS SET BY HQA, AIMING AT ACCREDITATION. THE TERM OF VALIDITY OF THE ACCREDITATION IS DETERMINED BY HQA.

HQA is responsible for administrating the programme accreditation process which is realised as an external evaluation procedure, and implemented by a committee of independent experts. HQA 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

In 2012, an External Evaluation Panel was appointed by HQA and evaluated the DGGE. The AP found that the DGGE complied with some of the past review recommendations, however did not comply with a number of substantial recommendations.

Panel judgement

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

Panel Recommendations

The AP strongly recommends that DGGE sets a road map with priorities in order to implement the external evaluation recommendations and to consider the outcomes of the DGGE Internal Evaluation reports and of the Development Planning Committee in 2017 (Επιτροπή «Ανάπτυξης του Τμήματος» έτους 2017) report.

PART C: CONCLUSIONS

I. Features of Good Practice

The DGGE provides a good general theoretical background on the study program.

Very good relationships among students, academic and administrative staff.

The academic staff promotes the department via extensive school outreach activities as well as academic staff publication records and media appearances.

The DGGE attracts a significant number of external funds.

The museums of Mineralogy & Petrology and Palaeontology & Geology are very important assets of the DGGE and provide extremely valuable research, educational and outreach services.

II. Areas of Weakness

No clear long-term strategic goals have been defined by the DGGE in relation to both teaching and research.

The continuing administrative dysfunction (Division boundaries) negatively impacts the undergraduate program.

The provided practical education is disproportionately small compared to the theoretical part of the study program.

Lack of cross-disciplinary courses and research-based teaching methods.

Lack of core departmental facilities.

Aged and inadequately maintained equipment.

Lack of continuous updating of website by the MODIP/DGGE.

Some key issues, such as high student enrolment, State funding, etc. are beyond the authority of the University.

III. Recommendations for Follow-up Actions

Future external audits should examine if the AP recommendations have been implemented by the DGGE appropriate authorities.

Reorganization of the department's structure for an efficient undergraduate study program and research is of the highest priority and should be implemented.

IV. Summary & Overall Assessment

The Principles where full compliance has been achieved are: 1, 3, 4, 8

The Principles where substantial compliance has been achieved are: 5, 6, 7, 9, 10

The Principles where partial compliance has been achieved are: 2

The Principles where failure of compliance was identified are: none

| Overall Judgement | |
|-------------------------|----------|
| Fully compliant | |
| Substantially compliant | x |
| Partially compliant | |
| Non-compliant | |

The members of the Accreditation Panel

Name and Surname

Signature

1. Prof. Theodoros NTAFLOS
University of Vienna, Austria
2. Prof. Filippos TSIKALAS
University of Oslo, Norway
3. Prof. Georgia PE-PIPER
Saint Mary's University, Halifax, Canada
4. Assist. Prof. Konstantinos CHALIKAKIS
Avignon University, France
5. Mr. Dionysios GKOUTIS
Geotechnical Chamber of Greece, Greece