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ΑΔΠΗ  
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:**

**Biology**

**Institution: National and Kapodistrian University of Athens**

**Date: 11 – 16 November 2018**

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**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 Biology of the National and  
Kapodistrian University of Athens for the purposes of granting  
accreditation

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## **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 the Higher Education Institution named: Biology, National and Kapodistrian University of Athens (ΕΚΠΑ) comprised the following four (4) members, drawn from the HQA Register, in accordance with the Law 4009/2011:

1. Assoc. Prof. Anastassios C. Papageorgiou (Chair)  
University of Turku and Åbo Akademi University, Turku, Finland
  
2. Dr. Aristotelis Antonopoulos  
Imperial College London, London, United Kingdom
  
3. Dr. Nicholas Ktistakis  
Babraham Institute, Cambridge, United Kingdom
  
4. Prof. Anastassis Perrakis  
The Netherlands Cancer Institute and University of Utrecht, Netherlands

## II. Review Procedure and Documentation

The Panel received information about the Accreditation procedure and relevant documents on the 5th of November, 2018.

The received documents included:

1. The accreditation proposal of the department's undergraduate program
2. The policy of the department regarding various benefits, activities, libraries, safety rules during the lab exercises (Appendix 1)
3. The study guide of undergraduate students (Appendix 2)
4. The legislation of different study stages (PhD thesis, Diploma work, Mobility, practical exercise) (Appendix 3)
5. Information about different courses for the old and new programme (Appendix 4)
6. Targets for the department up to 2019 (Appendix 5)
7. Results of questionnaires given to students (Appendix 6)
8. Results of the internal evaluation about the department (Appendix 7)
9. Quality data for the department and the undergraduate program (Appendix 8)
10. Additional information regarding the citations and impact factor for most of the faculty members (Appendix 9)
11. Faculty CVs (retrieved from the Biology Department web site)

The site visit on Monday, November 12 started at 9:30, with the Accreditation Panel (AP) members meeting at the offices of the HQA with members of the HQA, to discuss general procedures and guidelines of the accreditation process. AP members were also briefed on the mission of the HQA and the framework of the Higher Education Institutes (HEIs) in Greece by the President, Professor Nikoletta Paisidou, the Vice-President, Professor Vasilios Tsiantos and the managing director, Dr. Christina Mpesta. During this time, AP members discussed the proposal and asked several questions about the procedure. The afternoon session was held on the site of Panepistimiopolis. The first meeting was with key members of the Department, including the secretary of University Quality Assurance Unit (ΜΟΔΙΠ) (Konstantinos Bourletidis), the Head of Department (Prof. Issidora Papassideri) and Deputy Head (Prof. Ourania Tsitsilonis), the head of the Curriculum committee (Prof. Diamantis Sideris) for a short overview of the Department. A detailed on-site visit to all facilities of the Department of Biology of the ΕΚΠΑ (including laboratories of all seven sections, lecture theatres, museums and computer rooms) was next, which lasted about two hours. The visit continued with a tour of the classrooms, lecture halls, libraries and meeting with administrative staff members and teaching staff members. The next meeting included the heads of the seven different Sections of the Department and included Prof. Issidora Papassideri (Head of the Department), Prof. Ourania Tsitsilonis, Deputy Chair, Assoc. Prof. I. Trougakos, Prof. A. Scorilas, Prof. N. Christodoulakis, Prof. V. Aleporou, Prof. A. Legakis, Prof. M. Arianoutsou, Prof. C. Gaitanaki, Prof. E. Valakos, Konstantinos Bourletidis. The meeting concluded at 20:30.

On Tuesday November 13, all meetings took place at the 'Kostis Palamas' building to avoid potential disturbances owing to the upcoming anniversary of the 'Polytechnion' uprising. In the beginning, three separate meetings with teaching staff members (Professors, Associate and Assistant Professors, and ΕΤΕΠ/ΕΔΙΠ members) were held. These were followed by a meeting with 21 undergraduate students. Three students from each section had been selected for the meeting, from different study years; however, we noted that only one student was on Year 3, and all other students were on years 4, 5, 6 and 7. The morning meetings continued with discussion with graduates of the department (Master's and PhD candidates in the department and a post-doctoral researcher from the section of Botany). A meeting with two representatives from public and private sector and the president of the Hellenic Society of Bioscientists (Prof. Kollia, who is a member of the Department) was next. The meetings continued in the afternoon with the presence of the Vice Rector of Administrative affairs (Prof. N. Maravegias) as president of the ΜΟΔΙΠ and the ex-Vice rector (Prof. K. Buraselis) as advisor of the rectorate on academic affairs and international relation at ΕΚΠΑ. In the last meeting of the day, the panel provided an overall informal assessment and discussed briefly initial findings with the head of the department and representatives of the ΜΟΔΙΠ and Internal Evaluation Group (ΟΜΕΑ).

### III. Study Programme Profile

The department was established in 1970 after the split of the Natural Sciences department into two: Geology and Biology. The current structure of the Department of Biology consists of seven sections (Cell Biology and Biophysics, Biochemistry and Molecular Biology, Botany, Genetics and Biotechnology, Zoology and Marine Biology, Ecology and Taxonomy, and Animal and Human Physiology), which were established in 1996. The academic remit of the Department is to offer high quality knowledge, research and teaching in Biology, using modern methodology (including distance learning), to develop critical ability in the students, to promote cooperation with other faculties and to develop responsible citizens.

The duration of studies is four years (eight semesters) and currently requires 240 ECTS. The minimum number of courses to be completed are fifteen obligatory courses and about 15 elective courses (to be chosen from 37 courses on offer) as well as an obligatory Diploma project that requires two semesters for completion. 10 courses include field exercises. The department receives every year around 110 (2015-16) and 114 (2016-2017) students, which are more than the places the department is able to offer (50 and 70, respectively); notably, the total number of students increases to about 160, following transfers of students to Athens, which according to current legislation are enforced by law.

The degree offered does not give any specialization; the department wishes to keep this character and does not plan to offer any specialization.

The registered students within  $n+2$  years ( $n$ =the required years of the studies) are around 500, while students with more than  $n+2$  years are about 900; it should be noted however that, according to the head secretary and the President of the department, these students “cause minimal or no additional administrative or educational burden”.

The Department is located in the Panepistimiopolis campus and is well equipped, with plenty of space, clean, with minimal graffiti “interventions” which is justifiably a point of pride for the faculty. There are two large lecture theaters, which have been recently renovated on department expenses, and several smaller lecture rooms for elective courses. Sections have their own laboratories for practical courses.

The department has 39 staff members ( $\Delta\text{E}\Pi$ ) and 31 support staff members ( $\text{E}\Delta\text{I}\Pi/\text{E}\text{T}\text{E}\Pi$ ). Albeit this represents a massive reduction from 69 staff members a few years ago, this is well in balance with other departments of similar subject in Greek Universities ( $\text{E}\Lambda\text{S}\text{T}\text{A}\text{T}$  source), and the ratio of first-year students to staff members is similar to international standards ( $\sim 4:1$ ).

## 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.*

*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 structure of the study programme and organization of the curriculum, especially after the recent reorganization which was in line with suggestions from the last external evaluation panel, is considered well suited to the strategic goals of the department.

The department pursues learning outcomes and qualifications in accordance with the European and the National Qualifications Framework for Higher Education. Graduates should be "able to reach advanced knowledge of the field of work or study, involving critical understanding of



theories and principles”. “Advanced skills and the ability to demonstrate the virtuosity and innovation required to solve complex and unpredictable problems” in the general field of biology, are actively pursued. Graduates should be able after successful completion of the curriculum to “manage complex technical and professional activities and projects”. The curriculum, while adequate to prepare graduates to “assume responsibility for managing the professional development of individuals and groups” could include focused teaching of more complementary skills.

There is a conscious effort to promote quality and effectiveness of teaching. More modern interactive methods (“beyond PowerPoint”) need to be explored.

The staff is formally well qualified. We note that about 70-80% of the staff are department graduates (either at the graduate or postgraduate level). The last three hirings have been one internal, one from another Greek University, and one from abroad (UK), which is considered satisfactory.

Quality and quantity of the research output among faculty members of the academic unit is a clear stated aim of the Faculty.

Linking of teaching and research is actively pursued through the obligatory Diploma project that is experimentally oriented and requires completion of a research project.

Qualifications in the general field of Biology are required in the labour market. Connection with the labour market is mostly achieved by the practical placement; however, current funds are not adequate to fulfill demand.

Administrative services are available to students three hours per day, three times a week. Formal organization of a student welfare office and procedures to report troubling incidents was not evident.

Annual review procedures and internal audit of the quality assurance system of the undergraduate programme(s) were well managed in collaboration between the OMEA and ΜΟΔΙΠ.

The target values for key performance indicators (KPIs) are perhaps realistic but present stepwise minor improvements and lack aspiration.

## Panel judgement

<b>Principle 1: Institution policy for Quality Assurance</b>	
Fully compliant	
Substantially compliant	<b>X</b>
Partially compliant	
Non-compliant	

## Panel Recommendations

Teaching of complementary skills, e.g. team working, team management, time management, scientific writing, entrepreneurial skills, etc) could form part of the curriculum.

Teaching of the Scientific Method, as well as the methodology of analysis and writing of scientific publications, should be considered as a full semester course.

The quality and quantity of research are a major concern of the staff. A more active effort towards flagship research actions should be pursued that achieve high impact of the department publications, also through internal collaborative efforts.

Hiring of senior faculty, rather than junior faculty as recently chosen, capable of attracting e.g. ERC funding and international recognition, should be considered.

A less rigid interpretation of Erasmus rules in conjunction with Departmental strategy on Diploma thesis (duration of two semesters, or twenty-six weeks, should be considered equivalent to a 6-month Erasmus placement together with one month of thesis writing back in the home institute), and could lead to more students spending time abroad, and must be considered.

Policies of welfare should be made more visible to students, especially in relationship to reporting eventual harassment cases with complete confidentiality and minimal bureaucratic burden.

KPIs target values should include, apart from the periodic annual targeting, longer term targets, preferably in the four-five year horizon, to better serve the department's strategic planning. The overview tables should also indicate briefly the actions for achieving the targets (and not only reference to those).

## 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 Institute's strategy has been formulated to (a) advance Biological Science via teaching and research activity, (b) promote and produce new knowledge in all fields of Biology, and (c) provide to general society well educated and trained scientists.

The program aims to engage all students in active participation through laboratory and field practicals which complement theoretical lectures. The obligatory diploma contributes to improve student participation. However, since many students take more than four years to complete studies, one can only wonder if this is also due to lack of active participation.

We have met with two stakeholders of the labour market, both in the clinical diagnostics business. They mentioned that the graduates were well trained. However, this was a very limited view of the potential labor market stakeholders for a degree in general Biology.

The program is structured by semesters. However, there is no clear staging, for example with prerequisite courses that need to be successfully finished before other courses are taken. This leads to lack of obvious staging of the programme.

The program follows the European Credit Transfer (ECTS). However, the workload even in the new program continues to be very high, as, whereas the number of courses has been significantly reduced, the covered syllabus has not been proportionally reduced.

A “placement” system is implemented and highly appreciated by the students. However, the positions on offer do not meet demand.

Linking of teaching and research is actively pursued through the obligatory Diploma project that is experimentally oriented and requires completion of a research project.

There are procedures in place to officially implement changes and approve them in the General Assembly.

The structure of the study programme is rational and clearly articulated, and the Student Guide is complete, concise and appropriate. The Student Guide is updated every year and there is a plan to revise the study programme on a biennial basis. The curriculum revision procedures involve consultation with students.

### Panel judgement

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

### Panel Recommendations

Other methods of student engagement should be explored, such as tutorials.

Stakeholders should be clearly identified beyond the ones present in the meeting with the panel. We have only seen representation from the Diagnostics industry, which is very limited compared to the breadth of the programme. We could foresee strategic stakeholder alliances with research institutes, environmental agencies, the biomedical and pharmaceutical sector, and others.

The workload was considered too much by the students that followed the previous curriculum. In the opinion of the panel, the new curriculum is shorter (less courses) but continues to be long by international standards. The Department aims to cover a large scientific area of study. It is realistically impossible that students become experts in all areas of Biology in 2018 and beyond. While we encourage the mission of the department to serve the study of Biology in broad terms,, the coursework must be significantly lightened, aiming to **introduce advanced concepts and not to lead to technical specialization** of the students. It should aim to engage and inspire and not to provide detailed knowledge that could be acquired during Masters courses offered by the department. This philosophy should be reflected both in obligatory and elective courses.

The panel discussed the possibility of including a course (or a part of a course) on the general principles of evolutionary theory early during the curriculum, and preferably during the first semester, and not late as it is now planned. There are several reasons for this: (a) the students finish high school with a very rudimentary to non-existent exposure to the theory of evolution; (b) this theory is the underlying “grand theory” of all of biology, and its knowledge is the basis

for understanding all courses that follow, from molecular biology to ecology, and (c) there is an unfortunate tendency in Greece to view evolution and religion in some type of conflict, whereas this can be clarified to the students early on, aided by the expertise of the Biology faculty.

The panel also suggests the recruitment of a Bioinformatics faculty member who could then offer specialized courses in this very important area of Biology.

### 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 department is aware of the students with special needs and has arranged various mechanisms of support, including flexible learning paths especially during exams. Owing to the nature of the studies and the need for participation in laboratory and field exercises, including handling of instruments and interpretation of results, the department cannot cater for any level of disability but only for some.

Apart from printed material, the department has implemented different modes of teaching material availability through the use of electronic platforms, such as the e-class.

Pedagogical methods, in terms of lecturing, are mostly limited to the presentation of PowerPoint slides. The student-centred theme is rather limited and is not an active central policy of the department. It is applied voluntarily by some members of the staff. In addition, the regular evaluation of the pedagogical methods is limited only to the update of the subject area lacking any departmental cohesion of the pedagogical methods. Team-based pedagogical methods (joint student projects) are confined to specific courses.

There was no apparent evidence that evaluation and adjustment of the modes of delivery and pedagogical methods aiming at improvement are in place.

Student surveys are carried out on a regular basis for each course and laboratory exercise. The surveys are electronically administered but the compliance rate is very low. Previous rates where the surveys were carried out on paper were more successful. Students have mentioned that the questionnaires are rather long and this has been mentioned as a potential reason of the low compliance.

Students are given assignments to search bibliography, read publications and make presentations.

Students appeared to be respectful of their teachers, and at the same time the faculty were very complimentary of their students.

Although there appears to be some channels to register complaints, the feedback from the students indicated that the guidelines about the procedures were not adequately communicated.

The academic staff are familiar with the existing examination system. However, assessment criteria and methods are usually given at the time of the exam, sometimes verbally and not written on the exam paper. In general, assessment is fair for all students and some isolated incidents are easily resolved. Procedures include appeals and an ombudsperson.

Most of the assessments on the theoretical part of the courses are based on a final exam that may not reflect the achieved learning outcomes. The students are in general able to discuss their grade and re-take an exam; we note that a couple of students have however complained they had no access to their exam paper; this was clearly an exception and not the rule.

The final grade is a combination of course and lab work, which are separately evaluated by different personnel; the relative contribution varies quite a lot between courses.

Various mechanisms are available to take account of mitigating circumstances, including oral examinations when appropriate and examination by a three-member panel for students continuously struggling with a course.

## Panel judgement

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

## Panel Recommendations

The questionnaire (electronic or paper) must be substantially shorter and more focused on the needs of each course. The Department should consider efficient electronically-registered methods to maximize the use of paper-based questionnaires, which attract more participants in the surveys.

Assessment criteria should be published well in advance and included in the study guide.

The seminar programme of the department continues to be very poor although this was also highlighted as a deficiency in previous evaluations. We recommend that, with the active participation of the students, this programme is substantially relaunched to include at least one external seminar per month.

While the staff is aware of student-based learning and is cooperating well and with mutual respect with the students, it is important to enhance that culture. More group assignments and literature analysis projects should form part of the coursework and be awarded ECTS points and be part of the final mark of the exam, as early on as possible, to engage students better. An opportunity might be a course on Evolution early on as recommended, which would attract student interest, by e.g. presenting short summaries of popular science books or even analyzing religious texts on evolution.



## 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

There is a welcome reception, which since 2015 has included a tour of the department. This has been well received by the students.

There has also been the introduction of the mentoring system whereby each new student is assigned to faculty member who becomes their mentor. Although some details are still being worked out (frequency of meetings, compulsory or voluntary meetings etc) this has also been welcomed by the students.

There is no official monitoring system for progress of the students. However, the panel believes that the mentoring system is a good way to follow progress of the students.

The Erasmus program is available; despite that, both students and staff mentioned that the heavy workload effectively discourages students from spending time abroad as this would delay completion of their studies.

The ECTS system is clearly and consistently applied across the curriculum.

The Diploma Supplement is straightforwardly issued by the administration.

The panel was shown a large selection of Diploma theses that were professionally prepared and, for the most part, of high quality. In general, recommendations for thesis preparation and grading requirements are available.

A practical training is in place and in high demand. Funding for this training is provided by the ministry, and does not cover demand.

## Panel judgement

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

## Panel Recommendations

Transition from high school needs a course on scientific method or difficulties potentially encountered in the future (see above).

A network to support the practical training of the students at higher levels (currently 5%) could be further developed.

We recommend that the mentoring system be more extensively used to monitor progress of students and to identify those who are struggling to finish their studies within a reasonable time.

## 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

The current picture of the department in terms of provenance of the Faculty is as follows: Full Professors (46% with Ph.D. from Athens, 69% from Greece), Associated Professors (71% with PhD from Athens, 78% from Greece), Assistant Professors (75% Ph.D. from Athens, 100% from Greece). This distribution is clearly skewed. The positions offered in the last three years (one from within the department, one from Greece and one from the UK) suggests that an effort is being made to open up the department.

The teaching staff mentioned that they were satisfied with their professional development.

As the Diploma is obligatory there is ample opportunity to combine research with education for both students and Faculty. However, we observed that all students that we have met have spent at least a year for the Diploma. This increases burden to the staff. We also note that both Faculty (ΔΕΠ) and support Faculty (ΕΔΙΠ) feel that they are responsible for the daily supervision of the Diploma students.

The teaching is limited to mostly standard methods and is not sufficiently innovative to induce student engagement. However, efforts have been made through visiting museums.

By sharing equipment and other resources the members do give opportunity to all the Faculty to conduct better research. The Faculty is aware of the research output and the staff members promote their ranking.

The panel has not found evidence of a quality assurance procedure that would evaluate the performance of the members of staff.

The policy to attract academic staff (advertisements) is mostly through the ΑΠΕΛΛΑ system.

Teaching mobility is difficult due to work overload.

The staff considers the teaching load excessive. This is partially due to the heavy course load, since the staff to student ratio is within international standards (see above).

### Panel judgement

<b>Principle 5: Teaching Staff</b>	
Fully compliant	
Substantially compliant	<b>X</b>
Partially compliant	
Non-compliant	

### Panel Recommendations

The use of active games as teaching method or web-based tools should be further explored.

Given the prominent position of the department in Greece and the high quality of the Faculty applicants that it attracts, the panel expects that the department should be able to hire Faculty of international standing and capable of securing ERC-level funding.

Publications should focus on high impact papers where the corresponding author is also a Faculty member.

## 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 departmental facilities are very good. There is a concrete plan of improvement of the IT resources that will uplift students' productivity. The laboratories are well equipped and maintained with all necessary instruments for the efficient practical courses of the students.

The teaching facilities are rationally distributed within the sections of the department. We note that a more centralized core research facility (e.g. next generation sequencing) would be desirable but difficult to maintain.

The range of support services available to the students, i.e. boarding, dormitories, career counselling, student welfare office, sport/cultural facilities exists and is centrally managed by the ΕΚΠΑ.

There are no organized mechanisms/modules to help students with their professional development at the end of their studies, including requirements to continue their studies at national or international level.

The availability of administrative staff to ensure the smooth operation of the student support services is somewhat limited (see above).

## Panel judgement

<b>Principle 6: Learning Resources and Student Support</b>	
Fully compliant	<b>X</b>
Substantially compliant	
Partially compliant	
Non-compliant	

## Panel Recommendations

It is important for student to be informed early that a high mark for their degree (“honors”) is required for admission in post-graduate programs abroad. An orientation day for presenting the general requirement for studying abroad at the postgraduate level, should be formally offered after the first year of studies.

An orientation day presenting relevant Master courses both within ΕΚΠΑ but also in Greece should be organized for last-year students.

## 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 information system provided by ΜΟΔΙΠ allows collection of KPIs. A better presentation of collected KPIs (many are in simple text or at best at tabular format, but consolidated graphs are not in use) would be desirable. While the staff is strongly involved in collecting and analyzing information, student involvement remains problematic.

The Department collects various KPIs to monitor progress over a short period of time (one year) as implied by the tables. KPIs are plenty but somewhat hard to follow (for the panel) and we are concerned that they are also of limited use to the staff to enable continuous monitoring processes.

The general student population profile is available (e.g. gender balance, year of study, etc); however, due to lack of continuous monitoring the progress of students is not part of the profile.

Most students take longer than four years to complete their studies. The duration of the Diploma project was, in the cases we discussed, always longer than two semesters (13+13 weeks). The information management does not allow to capture easily and timely such information so as to implement corrective actions.

The information gathering system has failed to capture student satisfaction, as the students do not return questionnaires. That precludes any chances for appropriate analysis. This is an area of concern but we acknowledge the difficulty to implement such actions.

The presentation of available data is not engaging, as graphs are not used, and the information from the few surveys that are conducted is not consolidated in easily accessible graphs and tables (e.g. a table of all course surveys, participation and satisfaction) but, instead, hundreds of pages are provided, making the analysis impossible.

Learning resources are available through e-class.

It appeared that the academic unit has not established procedures for the collection of data regarding teaching methods, student progression, employability and career paths of graduates, as such data were not available to the panel. Thus, importantly, there is no information on the career paths of graduates.

### Panel judgement

<b>Principle 7: Information Management</b>	
Fully compliant	
Substantially compliant	
Partially compliant	<b>X</b>
Non-compliant	

### Panel Recommendations

The information management is a large area of concern. A substantial effort of all involved parties, led by ΜΟΔΙΠ, is necessary to address this issue. These actions should aim to improve the methodology to collect, analyze and present all information in a more efficient and engaging manner. Use of other ways of presentations, preferably in a graphical form, is highly recommended.



## 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

Key information regarding the academic unit and the study programme (i.e. structure, mode of attendance, criteria for assessment, degree awarded, teaching staff's CVs) are all available online.

The department maintains a web site that provides key information about academic activities, staff, sections and studies. Staff members provide their CVs and a link to research quality indicators. The courses are available online through the e-class platform. Information about museum operations is provided (opening hours, exhibits, activities).

The support of the Department to the Biology Olympics is commendable.

### Panel judgement

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

### Panel Recommendations

Some information provided on the web needs to be kept up-to-date.

The English language pages should not be an out-of-date copy of the Greek pages. The Department should seek to highlight only research, and in particular Diploma project opportunities in Department labs through Erasmus, as the education program is in Greek and thus not readily accessible to foreign nationals.

## Principle 9: Ongoing 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

The self-assessment exercise takes place every 2 years following the recommendation by HQA and is conducted via ΜΟΔΙΠ. From all of the information at our disposal this procedure runs smoothly and is timely, with good cooperation between Department, ΜΟΔΙΠ and HQA. This is very important because such evaluations (internal followed by external) will be required from now on for the certification of the Biology Programme every few years. However, Improvement of the information management is needed, as highlighted in Principle 7.

The outcomes of the self-assessment conducted by ΜΟΔΙΠ was fully communicated to the whole department, and in fact the leadership of the department **has implemented several procedures to solve problems that were highlighted in previous evaluations.**

In general, the department has been very proactive to collect, evaluate and act upon previous findings, resulting in clear progress in several areas.

From conversations with the Vice Rector (Professor Maravegias) and his advisor on matters related to evaluation (Professor Kostas Buraselis) it was also clear that the whole University of Athens central organization considers these evaluations very important and has put into place strong guidelines for their good execution.

## Panel judgement

<b>Principle 9: Ongoing Monitoring and Periodic Internal Review of Programmes</b>	
Fully compliant	
Substantially compliant	<b>X</b>
Partially compliant	
Non-compliant	

## Panel Recommendations

It is possible that as time goes on these types of evaluations could become more simplified and reliant on updating pre-existing information as opposed to re-creating the whole process from scratch. This would lighten the bureaucratic load on both Department and ΜΟΔΙΠ, while still ensuring that the crucial external evaluation is maintained sharp and fair.

## 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

The present accreditation takes place for the first time for the department. An external evaluation of the department took place in 2013. The members of the staff are aware of the importance of the external review and its contribution to the improvement of the department.

### Panel judgement

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

### Panel Recommendations

None.

## **PART C: CONCLUSIONS**

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

- There is a strong effort and willingness to comply with evaluation procedures.
- The new curriculum follows recommendations from previous assessment and is a strong improvement of the old one.
- A strong effort to welcome students (orientation day, tour of department, assignment of mentor) is in place.
- A good gender balance is present in all levels of staff, including leadership.
- There is strong awareness of the importance of research impact.
- The leadership is inclusive, responsive and proactive.
- There is a very good efforts for public engagement, through museum visits, that are open to regular guided school visits and to visitors.
- The initiative to coach the Biology Olympics team is commendable.
- The web-site is of very good technical quality, up-to-date, and informative.
- The teaching facilities are very good, with renovated large lecture halls, plenty of good quality smaller lecture halls, good and well-managed spaces for laboratory practicals; the spaces are clean and well managed.
- The new computer room (ready to be delivered) is of high quality.

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

- The information management systems appear to be clumsy at best, resulting in poor data collection, analysis and presentation, and inability to proactively follow up student progression in their studies.
- The heavy syllabus of the new programme, option of literature projects in only a few advanced courses, limited use of innovative pedagogical methods and lack of clear milestones in Diploma projects that tend to last too long, result in deficiencies in adhering with modern student-centered learning principles.
- The procedures for registering student complaints are present but are unclear to students and somewhat cumbersome.
- There is little emphasis on career guidance of students by providing systematic feedback to enhance awareness for national and international opportunities to continue their studies.
- The private and public stakeholders are not clearly identified and engaged, resulting in poor utilization of such resources for continuous development.
- A high degree of inbreeding of the faculty is currently present: >70% of current faculty has been in the University of Athens - most often in the same Department - from the graduate or postgraduate level.
- The administration office is open to students for a limited time only.

### III. Recommendations for Follow-up Actions

Recommendation for follow-up actions have been detailed in each of the ten sections (principles) of the accreditation. The AP wishes to highlight the following actions:

- Teaching the scientific method early in the curriculum.
- Promotion of complementary skills (presentation, entrepreneurship, etc).
- Lightening further the workload of the programme.
- Systematic introduction of group assignments and literature analysis projects.
- Introduction of innovative pedagogical methods, e.g. tutorials, case studies, debates.
- Establishment of a more regular seminar programme with student involvement.
- Improvement of the course feedback procedure collection and analysis system.
- Further development of the mentoring system to monitor progress of students.
- Provision of formalized guidance for national and international post-graduate studies.
- Improvement of data gathering and analysis of KPIs.
- Hiring of new faculty able to attract ERC-level (starting, consolidator) funding.

### IV. Summary & Overall Assessment

The Principles for which full compliance has been achieved are:

Principle 6: Learning Resources and Student Support.

Principle 8: Public Information.

Principle 10: Regular External Evaluation of Undergraduate Programmes.

The Principles for which substantial compliance has been achieved are:

Principle 1: Academic Unit Policy for Quality Assurance.

Principle 2: Design and Approval of Programmes.

Principle 4: Student Admission, Progression, Recognition and Certification.

Principle 5: Teaching Staff.

Principle 9: Ongoing Monitoring and Periodic Internal Review of Programmes.

The Principles for which partial compliance has been achieved are:

Principle 3: Student-centred Learning, Teaching and Assessment.

Principle 7: Information Management.

The Principles for which failure of compliance was identified are:

None.

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

**The members of the Accreditation Panel for the Biology Undergraduate Programme  
of the National and Kapodistrian University of Athens**

Name and Surname

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