



ΕΛΛΗΝΙΚΗ ΔΗΜΟΚΡΑΤΙΑ
HELLENIC REPUBLIC



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Accreditation Report
for the Undergraduate Study Programme of:

History and Philosophy of Science

Institution: National and Kapodistrian University of Athens

Date: 29 May 2021



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



Report of the Panel appointed by the HAHE to undertake the review of the Undergraduate Study Programme of **History and Philosophy of Science** 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 External Evaluation & Accreditation Panel

The Panel responsible for the Accreditation Review of the Undergraduate Study Programme of **History and Philosophy of Science** of the **National and Kapodistrian University of Athens** comprised the following five (5) members, drawn from the HAHE Register, in accordance with Laws 4009/2011 & 4653/2020:

- 1. Prof. Nikolaos Psarros (Chair)**
University of Leipzig, Leipzig, Germany

- 2. Prof. Maria Antoniou**
Pace University, New York, USA

- 3. Assoc. Prof Panagiotis Christias**
University of Cyprus, Nicosia, Cyprus

- 4. Assoc. Prof. Athanasios (Sakis) Gekas**
York University, Toronto, Canada

- 5. Assoc. Prof. Spyros Panagiotou**
McMaster University, Hamilton, Canada

II. Review Procedure and Documentation

Due to the COVID-19 pandemic crisis and relevant measures taken by the Greek government, the entire undergraduate study program review took place remotely via the Zoom platform. No events or technical problems marked the process of evaluation, which, despite the lack of physical presence, went according to planning. Technical communication with the National and Kapodistrian University of Athens (NKUA) and the accreditation panel was well established and never interrupted. The interaction, in technical terms, was of great quality and the means to ensure it were appropriate.

The main objective of this report is to accredit the Undergraduate Study Programme, to properly consult its members and to offer respectful, collegial, and frank advice that may contribute to the programme's future development.

The External Evaluation and Accreditation Panel (EEAP) considered the following documents prior to the online site visit:

- The HAHE Guidelines for the Members of the External Evaluation & Accreditation Panel, and Standards for Quality Assurance of Undergraduate Programmes.
- The Template for the Accreditation Report and a mapping grid.
- The Proposal for the Accreditation of the Undergraduate Programme 'History and Philosophy of Science' of the NKUA.
- A statement of the Quality Assurance Policy of the Undergraduate Programme 'History and Philosophy of Science' of the NKUA, dated May 11, 2020.
- The Study Guide (Οδηγός Σπουδών) of the year 2019.
- The Regulations for Undergraduate Studies (Κανονισμοί προπτυχιακών σπουδών) of the Undergraduate Programme 'History and Philosophy of Science' of the NKUA.
- A complete set of module descriptions (Περιγράμματα μαθημάτων) for 2020-21.
- A table of Quality Aims (Στοχοθεσία Ποιότητας), with timeline for their completion.
- A set of the questionnaire templates used for the evaluation by students of the programme's modules, with an explanation and interpretation of the statistics.
- The statement of the Department's Quality Assurance Unit (ΜΟΔΙΠ) from January 30, 2020.
- Quality indicators for the academic years 2015-16, 2016-17, 2017-18, 2018-19.
- The External Evaluation report for the Department of the Philosophy and History of Science of the University of Athens from November 2010.

During the online visit, additional documents were made available to the panel, namely:

A PowerPoint presentation of the quality assurance procedures of the NKUA

Material regarding the number of active and graduated students of the academic year 2019-20.

The ministerial decree of April 30, 2018, defining the subjects of secondary education courses that can be taught by ΠΕ33 graduates of the Study Programme.

The documentation provided to the Panel both before and during the site visit was complete, detailed and clearly organised, and the Panel were grateful to the Undergraduate Programme for facilitating their task in this way.

The EEAP attended an online briefing (via Zoom) by the HAHE on Monday, April 26, 2021.

The site visit, conducted via Zoom, took place on Monday, May 24, and Tuesday, May 25, 2021. The NKUA provided technical support which enabled the visit to proceed without problem and for which the Panel was most grateful. During the site visit, the following online teleconference meetings were held:

1. Teleconference with, the Vice-Rector for Academic and Student Affairs and President of ΜΟΔΙΠ Prof. **Dimitris Karadimas**, and the Head of the Department Prof. **Aristotle Tympas**.
2. Teleconference with OMEA and ΜΟΔΙΠ representatives and ΜΟΔΙΠ staff.
3. Teleconference with teaching staff members (ΔΕΠ).
4. Teleconference with 10 students.
5. An online tour of the Department's facilities and library provided through a detailed video <http://www.phs.uoa.gr/to-tmima/egkatastaseis.html>, and a teleconference with members of the teaching (ΔΕΠ) and administrative staff members to discuss facilities and learning resources, especially the library, students' registrar services, centre for psychological support, etc.
6. Teleconference with recent Programme graduates to discuss their experience of studying at the specific Undergraduate Programme and their subsequent career path.
7. Teleconference with employers and social partners to discuss relations of the Undergraduate Programme 'History and Philosophy of Science' with external stakeholders.
8. A final meeting with the representatives of the OMEA and ΜΟΔΙΠ. The purpose of this meeting was to discuss points or findings which needed further clarification, though in fact the Panel had already been supplied with all the information that it needed.
9. The Panel gave an informal presentation of its findings to the Vice-Rector of the University and President of the University's Quality Assurance Unit (ΜΟΔΙΠ), the Head of the Department and members of the OMEA.

In preparing this report the EEAP tried to avoid unnecessary repetitions. However, some repetitions are unavoidable due to the nature of the formulation of the principles that had to be addressed.

The Panel wishes to thank the National and Kapodistrian University of Athens for arranging and hosting these meetings and for the exceptional spirit of openness and collaboration with which it responded to the queries of the Panel over the course of the two days of the site visit.

III. Study Programme Profile

The Department of History and Philosophy of Science was established in 1993 by Presidential Decree No. 57 of 5/3/1993 (Government Gazette A, 26) and began operating in the academic year 1994-95 with the admission of its first students. Its original name was 'Department of Methodology, History and Theory of Science'. By Presidential Decree No. 35 of 24/4/2017 (Government Gazette A', 59) the Department was renamed and henceforth bears the name 'Department of History and Philosophy of Science'. The department is one of the very few remaining departments in the world that treat History and Philosophy of Science as a single subject and offer a first degree. Following the recommendations of the 2010 evaluation, the Department proceeded with a reorganization of its undergraduate study curriculum that resulted in the reduction of the offered courses to the current 42.

The undergraduate study programme requires the students to choose among three 'foci' of their studies, namely:

1. History of Science and Technology (IET)
2. Philosophy of Science and Technology (ΦET)
3. History and Philosophy of Science and Technology (IΦET)

Each student chooses a focus at the beginning of their 3rd year of study, which they are allowed to revise until the end of that year. Each student is required to attend successfully:

- seven (7) elective compulsory courses in History of Science and Technology and three (3) elective compulsory courses in Philosophy of Science and Technology, if they focus on IET,
- seven (7) elective compulsory courses in Philosophy of Science and Technology and three (3) elective compulsory courses in History of Science and Technology, if they focus on ΦET
- five (5) elective compulsory courses in History of Science and Technology and five (5) elective compulsory courses in Philosophy of Science and Technology if they focus on IΦET.

At the beginning of each semester, students declare the number of courses they will take during the semester, and in which they will be examined at the end of the semester. The maximum number of courses that can be enrolled in is set by decision of the General Assembly of the Department and is as follows:

- For the first and second semester: up to 4 courses per semester
- For the third and fourth semester: up to 8 courses per semester
- For the fifth and sixth semester: up to 12 courses per semester
- For the seventh and eighth semester: up to 16 courses per semester

For students following the old study programme, the number of courses is determined by special decision of the Department.

The method of calculating the degree grade is uniform for all higher education institutions in Greece and is determined by Ministerial Decree no. Φ141/B3/2166 (Φ.Ε.Κ. 308 τ. Β. 18/06/1987), as amended and supplemented by the provisions of Ministerial Decrees No. Φ141/B3/2166 (Φ.Ε.Κ. 308 τ. Β. 18/06/1987), as amended and supplemented by the provisions of Ministerial Decrees No. F.141/B3/2457/1988 (Official Gazette 802 B), F.141/B3/2882/1989 (Official Gazette 507 B) and F.141/B3/4182/1989 (Official Gazette 693 B).

Students may obtain teaching competence in the area ΠΕ33, which encompasses the following subjects:

- Principles of Philosophy
- History of Science and Technology
- Roots of European Civilisation
- History of Social Sciences
- Logic
- Theory and Practice
- Problems of Philosophy
- Topics in History

Regarding the pedagogical and teaching competence of the graduates of the Department, the Assembly of the Department of History and Philosophy of Science of the University of Athens, at its 10th Regular Meeting of 28 February 2019, recognized that graduates of the Department meet the criteria for pedagogical and teaching competence as defined by article 111 of Law 4547/2018, provided that they have successfully completed the following courses of the Curriculum:

- History of Science I: Antiquity and Middle Ages
- History of Science II: Modern Ages
- Philosophy of Science
- Philosophy of Social Sciences
- Laboratory of Text Studies
- At least two (2) of the elective compulsory courses 'Cognitive Science', 'Museology', and 'History of Social Sciences'
- At least one of the elective courses 'History and Methodology of Psychology' and 'Museums of Science and Technology'

The total number of ECTS points obtained in the above eight (8) courses must exceed 30. Additionally, the students can obtain the computer proficiency that is a necessary prerequisite for employment in the Greek public sector.

The exams are administered in accordance with the programme drawn up by the Curriculum Committee and approved by the General Assembly of the Department. Students have the right to sit the examination for a course only if they have enrolled in the course during the registration period of the semester in question.

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 undergraduate study programme in Philosophy and History of Science aims at providing a **high qualification** in a **broad thematic spectrum** in History and Philosophy of Science ranging

from the classical triad of the Natural Sciences, Physics, Chemistry and Biology, to Economics, Social and Cognitive Science and Law. Additionally, there are elective courses in topics like Museology, Cultural Management and Religious Studies.

In its current form the study programme displays the following **positive aspects**:

- Broad range of offered course themes.
- The study guide (Οδηγός Σπουδών) is well structured and easy to comprehend. It provides all information necessary to compose the individual study plan.
- Wide use of essays in lieu of written exams.
- Opportunity of student participation in the activities of the research laboratories operated by the Department of History and Philosophy of Science.
- Encouragement of students to participate in national and international congresses.
- Encouragement of students to participate in the ERASMUS+ programme.

Despite its very commendable and ambitious aims, the study programme in its current form appears unable to provide more than superficial and general insights into many of the offered topics. Additionally, it suffers from the following flaws which impede the full development of its positive aspects:

- The parts of the study guide devoted to the advertisement of the past activities of the Department of History and Philosophy of Science and the publications of the teaching staff are **redundant** and **distract** the user from the main purpose of the guide. These parts may be moved to an appendix or published separately.
- There are still **too many exams**. According to the study plan, the students must take about 42 exams in four years, which amounts to ca. 5,7 ECTS points awarded per course attended on average. There are two courses that award 7,5 ECTS points each, 19 courses that award 6 ECTS points each, 19 courses that award 5,5 ECTS points each, one 3,5 ECTS point course and one 3 ECTS point course.
- The main difference between the 6 and the 5,5 ECTS point courses lies in the lesser total workload of the latter, the number of the hours devoted to teaching being constant and amounting to 39 hours per semester. The 7,5 ECTS point courses include, apart from the teaching in classes, also teaching in smaller study groups due to the specific nature of the topics of these courses (mathematics and physics). These differences are **only nominal** and are **not supported** by any reason arising from the very nature of the courses themselves.
- The graduation with a BA thesis with a value of 11 ECTS points, in lieu of the attendance of two 5,5 ECTS point courses, is optional. Despite the fact that the Bologna Process does not necessitate the implementation of a mandatory BA thesis, the EEAP thinks that this institution **is necessary** for a study programme that is mainly research oriented and aspires

to train highly qualified graduates that are able to continue their studies in renowned international institutes.

- **It is not clear why** the courses declared by the Department as necessary to obtain pedagogic and teaching competence (required for applications to teaching positions in the Greek secondary education system in the area ΠΕ33) **are sufficient** for such competence. In order to provide adequate pedagogic and teaching competence for its students the Programme might have included some courses in pedagogy offered by Departments of the NKUA specializing in the area.
- The fact that the Programme and the Department are part of the School of Science of the University of Athens **is not reflected** in the structure and the contents of the Programme. One would expect that the students of an interdisciplinary programme devoted to the History and Philosophy of Science should obtain at least a basic training in the Sciences they are challenged to reflect upon from practitioners of these Sciences, and that the students have some exchange with the scientific and intellectual environment of the School of Science. The Programme offers compulsory introductory courses in Physics, Biology and Mathematics of its own design, which, in the case of Physics and Mathematics, are accompanied by practical exercises. The course in Biology provides, according to the description, only a theoretical overview of the discipline. It is striking that there is no introductory course in Chemistry, although this discipline has played a major role in the consolidation of the modern scientific worldview in the 18th, 19th and 20th centuries, and its contribution to the modern understanding of nature is as important as the contribution of the other main Sciences.

Panel Judgement

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

Panel Recommendations

- The Programme should be restructured so that the **apparent arbitrariness** in the different number of ECTS points awarded in courses that have equal presence and actual workload demands is omitted or justified by the very nature of the courses.
- The Programme should be restructured in such a way that students obtain the basic training in the necessary scientific skills in form of a distinguishable **'minor' study programme** of 80 ECTS that is composed of courses offered by Departments that are specialised in the related scientific fields. This could be done by allowing the students to attend introductory courses offered by the relevant Departments.
- The composition of a BA thesis with a nominal value of 12 ECTS points should become **mandatory** for students who aim to pursue further academic studies and a career outside the secondary education system.
- In order to obtain the necessary pedagogical and teaching competence students who pursue a ΠΕ33 career in the secondary education system should also attend special pedagogical courses offered by the relevant Department. Alternatively, the Department might consider the possibility of establishing courses in **Didactics of Science** in secondary education.
- In the long term the Department should consider the creation of **larger modules** of 10 ECTS points with a more **formal structure** that will allow for a more flexible teaching both with regard to the form and the content of the courses. This reform will help to overcome the rigid system of formal lecture teaching, which prevails in the Greek universities, in favour of teaching units that will **encourage the students to participate more actively** in the learning process. The EEAP recognizes that such developments take place already, especially during the second part of the study period (i.e., in the third and the fourth year). However, these teaching forms rely mainly on the willingness and the enthusiasm of the teaching staff and are not 'stabilized' by the actual formal framework. Furthermore, the formal definition of the modules would render obsolete the necessity of formally approving and re-accrediting the whole Study Programme at every minor change, and thus allowing the teachers to adjust their material content according to their areas of competence, the needs of the students and the level of the studies.

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 programme was first approved by the Senate of NKUA in 1993 and so we do not know if such requirements as included under 'Principle 2: Design and Approval of Programmes' were followed at that time. But the directions included under Principle 2 stipulate that programmes be developed by "following a defined written process" or "a well-defined procedure". On the basis of this stipulation, our evaluation of the programme's compliance with Principle #2 is mixed. While the living, dynamic embodiment of the programme appears to operate as if guided by certain academic and educational objectives, institutional practices, criteria, and organizational structures, some of these desiderata are more envisaged by members of the academic personnel of the Department rather than clearly articulated and codified in documents approved by formal processes of the Department itself or the University at large. If there are such documents, the Panel did not see them. Attempts to discover such documents on the programme's or the University's website were fruitless. By the way, the University's website in particular is chaotic.

The dichotomy between what the Department likes to do and what the Department is required to do by formally recognised rules and regulations is nicely brought out by the following

example. The Panel was given the opportunity to conduct separate interviews with current students, with graduates of the programme, and with external shareholders. (By the way, all groups were enthusiastic about the programme and the Department). Obviously, these groups are and, more importantly, are thought of as very important partners in the life of the programme. And yet, it is not obvious if these groups were involved in the design of or in revisions to the programme or, if they were so involved, whether they had the right to be in accordance with formally recognized and promulgated procedures and principles.

The Student Guide offers a plethora of useful and clear information to prospective students, but it does not explain why the elements on which it gives clear and useful information should be part of the programme.

Panel Judgement

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

Panel Recommendations

- State explicitly and adopt formally the principles informing the programme and the procedures by which it carries out its various functions.
- The statements of principles and procedures should name all shareholders in the enterprise of the programme (including students, alumni, and external shareholders).

Principle 3: Student-centered 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, in general, plays an important role in stimulating students' motivation, self-reflection and engagement in the learning process. Students and graduates were feeling particularly grateful to the Department's academic staff for orienting them in the HFS program and helping them find their own education and research path. This is mainly due to the engagement of the teaching staff. It respects and attends to the diversity of students and their needs, enabling flexible and learning paths. The teaching staff invests in a personalized relation with students, based on mutual respect in the student - teacher relationship, thus reinforcing the student's sense of autonomy, while ensuring adequate guidance and support.

The main teaching method relies on lectures ex cathedra, mostly for the first years of study. As we have been informed by the academic members of the Department, many of the last years' courses can rely on students' presentations and teacher's comments and further development of the treated subject. Students can also follow seminars and laboratory work (i.e., study of specific works).

Courses are research-informed. The level of the undergraduate students does not permit research driven teaching, especially regarding courses taught by colleagues whose research activities require a deep knowledge and understanding of exact sciences like biology. In general, given that the students of the HFS program have almost exclusively a philological background in their high school studies, it is difficult for them to relate to the logic, content and proceedings of particular sciences like mathematics or physics. The program relies almost exclusively on general introductions in sciences and then develops the history of particular sciences and the philosophy of science in general.

The main course assessment that would allow students to demonstrate the extent to which the intended learning outcomes have been achieved is the BA Thesis. Unfortunately, this course is not mandatory. In general, the assessment is consistent, fairly applied to all students and carried out in accordance with the stated procedures and relies on one examiner. In particular, essay writing is very often used as an alternative for written final exams.

Student evaluation of the teaching is consistently undertaken, and results are reintroduced in the process of the self-evaluation and reform of the study program.

A formal procedure for student appeals is in place, in the form of the Student Advocate, an institution with the following responsibilities: examining student requests for problems with academic and administrative services and seeking solutions to these problems; facilitating student contacts with the institutions and administrative services; examining student reports-complaints about violations of provisions and rules of university law and ethics, and informing students about their rights and obligations as members of the University community.

Panel Judgement

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

Panel Recommendations

Introduce a system of minor studies that would allow students to follow physics or mathematics or biology studies over and above the HPS curriculum. For example, students could have their major in HPS (160 ECTS) and a minor in Physics (80 ECTS from the Department of Physics).

Principle 4: Student Admission, Progression, Recognition and Certification

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

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

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

Graduation represents the culmination of the students' study period. Students need to receive documentation explaining the qualification gained, including achieved learning outcomes and the context, level, content and status of the studies that were pursued and successfully completed (Diploma Supplement).

Study Programme Compliance

The SP, following the rules and regulations of the NKUA, has put in place both processes and tools to collect, manage and act on information regarding student progression. Despite the significant reduction of the Faculty Members of the unit (from 33 in 2012 to 25 in 2019) the Department offers a large number of optional courses on every year of study. At a small scale there are options for students to take courses from other Departments, such as from the Department of Mathematics (although students expressed their disappointment that there are not more courses available to them from other Departments, and indeed EEAP offered relevant recommendations). In total, students have the opportunity to choose from a number of courses (56 beyond the 21 compulsory ones) that reflects their interests. Specifically, the Department offers during the first week of each academic year, a welcome ceremony to new students, during which students are informed about the research interests of faculty members; each new student is assigned to a faculty member, to whom students can approach and discuss any issue concerning academic issues.

Student mobility

The Accreditation proposal lays out clearly the degree requirements and the Study Programme (SP hereafter) website provides all the necessary information appropriately for students to know their obligations as per institutional regulations. Procedures that concern the entry of about 120 students allow the department to maintain a low student to faculty ratio. The SP provides all the necessary information for the duration of studies, the rules on student progression, the terms and conditions for study mobility (ERASMUS). The number of students who benefit from opportunities for student mobility are few (ten per year, so less than 10% of the number of students admitted annually); this is not the Department's responsibility, it is the number of students allocated to the Department by the University. Although the number of students admitted to Erasmus+ programme is not mentioned, the rules and regulations are clearly communicated to students. Procedures regarding the recognition of credits among various European academic departments and Institutions, are in line with the principles of the Lisbon

Recognition Convention and are clearly communicated to students in the Department's website and study guide.

The Department has set as one of its main goals the participation in university networks (e.g., CIVIS, ESST), student participation in conferences and workshops and student exchange.

Monitoring Student Progress

During our meeting with students and graduates of the Programme and according to the accreditation proposal, EEAP noted that the University has introduced automated mechanisms for data management, to ensure monitoring student progress. The Programme and University administration staff informs students about the progress and communicates all academic matters to students effectively; this results in efficient monitoring of student progress, as well as to overall student satisfaction and to the compliance with the quality standards. The Department collects data for student enrolment and progression. In the year 2019-20, the Department admitted 128 students; 405 were in the 'n+2' category, meaning up to six years since registration. The category to note is the number of 'active' students, in the year 2019-20, was 608. The total number of graduates in the same year was 126, an almost exact ratio of 1 to 1, which is very impressive. All necessary data was provided by the ΜΟΔΙΠ.

Data based on student evaluation and questionnaires were provided for the year 2017-18; questionnaires were provided to students of 29 courses, both compulsory and elective ones and the Department received 859 questionnaires, a high – but unknown exactly – response rate; these were printed questionnaires, while since electronic questionnaires have not produced such a high response rate. Results were deemed satisfactory, especially the opinion of students for faculty, faculty response to student queries and needs, while there was room for improvement as far as the quality of the educational material offered is concerned.

The students consulted during the accreditation process expressed their enthusiasm for the SP, its curriculum, the solid foundation of knowledge they said they received to progress in their academic careers, as well as in professions in the public and private sector. Students expressed their satisfaction with the internship programme of two months, but expressed their interest in a longer internship period, which however is regulated by law; stakeholders, students, and faculty expressed their preference for a longer internship period. Students expressed their wish for more scholarships that are not bound to very specific criteria (e.g., place of origin), stated that they consult regularly the website, which they found very useful and has been recently updated; students were also content with the academic facilities offered (Library, laboratories, lecture rooms), and stated that they would benefit from extended opening hours. Several students expressed the benefits they gain from a 'very active student community' that includes regular communication and consultation with their professors and their fellow students; at the same time several students expressed their wish for more faculty appointments that would potentially renew the curriculum and offer fresh research and teaching perspectives. Overall, the SP has been inspiring to many students to advance their academic career as researchers in graduate programmes beyond the Department or NKUA, as seen in the number of graduates EEAP met who are currently doctoral students or professors in History and Philosophy programmes in world-class universities (University of Cambridge, University of Indiana, etc.).

Following the completion of exams and assignments and receiving the necessary number of credits, students receive the appropriate documentation, explaining their qualifications, learning outcomes and the section of their degree (History and Philosophy of Science, etc.) and are stated clearly in their Diploma Supplement; more information regarding the period of studies and the qualifications gained is provided by the Department on their own initiative.

Panel Judgement

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

Panel Recommendations

- Continue to support student needs.
- Offer more opportunities for experiential education (visiting sites related to course material. Connect with similar programmes in universities abroad to organize network learning modules and advance academic intercultural cooperation).

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 Department of History and Philosophy of Science consists of a group of high quality, committed faculty members, special teaching staff (ΕΔΙΠ) and affiliated researchers (Επιστημονικοί Συνεργάτες). They maintain high standards in their teaching and research duties. The academic staff comprises of 24 faculty members (ΔΕΠ), 5 special teaching staff members (ΕΔΙΠ) and 30 affiliated researchers (Επιστημονικοί Συνεργάτες).

They are all appointed into the three (3) Divisions of the Department: Philosophy and Theory of Science and Technology (PTST), History of Science and Technology (HST), Sciences of Cognition and Thinking (SCT).

The faculty are all active in research publishing and presenting their work in appropriate venues. Additionally, the faculty are participating in significant research programmes and networks. The faculty have been appointed and promoted through the ranks following the established Greek framework (N.4009/2011, N.4386/2016, N.4405/2016, N.4452/2017, N.4485/2017, N.4521/2018 as well as Φ.122.1/6/14241/Ζ2/27.01.2017 Υ.Α.(ΦΕΚ Β' 225) and is taking place on the information system found at www.apella.minedu.gov.gr. There is a tenure and promotion committee that includes members from other universities and follows a rigorous evaluation of the research and teaching credentials of the faculty under consideration. These rather complex rules are common to all Greek universities. The department has set up and follows transparent processes for the recruitment of

qualified faculty. Special emphasis is given in highlighting the importance of teaching and research.

The faculty have the opportunity for a sabbatical, or a leave to teach at other institutions via ERASMUS+. Such activities promote faculty mobility and could be used to introduce improvements in the course delivery. Currently, Erasmus and sabbatical leaves are the only means for teaching staff mobility. The department offers one semester of sabbatical leave every three years and this seems to be allocated on a mutual basis and agreement among teaching faculty.

The research activity of the academic staff is clearly one of the strengths of the department, as evident by the number of publications in high-quality journals and reputable conferences. Overall, the faculty in the department are productive scholars, committed teachers, with a record of continuous professional development supported by the department and the university, and engaged public intellectuals through their service to the profession, the region of Athens, Greece in general, and international institutions and organizations. The current research programmes include among others: 'PYTHIA: The Perils of Prediction in the Physical Sciences', 'CONEF: Configuring Environment and Food, Critical Techno-Scientific Networks and the Agro-Food Sector in Greece', Contextualizing biobanking in Greece: histories, practices, discourses — BIO-CONTEXT. Currently, there are 5 groups of faculty members (running research budgets of 800.000 Euros), 3 groups of post-doc students (450.000 Euros), 4 post-doc students involved in individual research and 10 PhD candidates.

We did observe a significant effort of the teaching faculty to bring quality research into the undergraduate classrooms. Students are getting involved and participating in research projects. The link between teaching and research is also documented and strengthened by the operation of the three Laboratories of the Department, which contribute significantly to educational and research activities. The three Laboratories are: 1) The Laboratory of Electronic Processing of Historical Archives, 2) The Laboratory of Cognitive Science and Educational Technology and 3) The Laboratory of Knowledge Management (New Title: Philosophy, Ethics, Policy and Communication of Science and Technology).

Faculty members responsible for the operation of these laboratories emphasized the need of technical support which could be addressed only through the hiring of ΕΤΕΠ (special technological personnel). Right now, the Department of History and Philosophy of Science does not have any ΕΤΕΠ member, and this is a significant obstacle for the operation of the laboratories. We also noted the need of hiring teaching assistants with whom faculty members could share the workload of the supervision of students during lab activities. In general, the labs are furnished with sophisticated and high technology equipment, but they lack the suitable personnel to run them more efficiently and utilize all their potentials (undergraduate and post-doc students, special technology personnel, teaching assistants).

Contact and credit hours are determined by the Education Department and the department teaching loads reflect that. The average teaching load on an undergraduate level is approximately 20 hours per week (delivering of lectures,

preparation of course materials, meeting with students), depending on the nature of the course being taught. In addition to that, faculty supervise undergraduate, Master's, and Doctoral theses, either as the chair or a committee member, both within the department and the University as well as in other institutions, national and international. As part of their service to the profession, faculty are members of university boards, editorial boards, and research groups, and contribute expert advice to various community and scholarly organizations both locally and internationally.

Faculty are evaluated in all areas of their work using the process determined by the institution's Quality Assurance Committee (ΜΟΔΙΠ) through its internal quality assurance system and through the process determined by the Committee on Internal Evaluation (ΟΜΕΑ). This process follows global best practices and includes student evaluations of classes taught, annual collection and review of faculty scholarship and administrative service. However, they are not offered the opportunity for self-assessment or peer assessment.

Panel Judgement

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

Panel Recommendations

- The Department is encouraged to establish frequent (once a year) self-assessment procedures for its faculty. This could be facilitated by the creation of a common questionnaire (Faculty Activity Report) for all faculty where they will be asked to report their teaching/research/service achievements and/or participation in the current academic year. This will help the faculty to prepare their tenure and/or promotion dossiers and provide them and any external/internal evaluation committee to glance over their achievements in a particular year or set of years.
- The Department or the University might also consider rewarding teaching and/or research excellence, after establishing clear and transparent relevant criteria. This could be in the form of an 'Excellence in Teaching/Research/Service award'.

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

According to the video material provided by the Department, the EEAP deems the facilities available to the study program to be adequate. The building infrastructure for teaching purposes and the library is satisfactory. On the other hand, the working premises for the teaching and the administration staff have been already regarded as outdated. At present, a new modern building is erected that will house the offices and will provide some additional seminar space.

The University employs up-to-date communication technologies, including e-learning platforms and conference software. The teachers have modern audio-visual equipment at their disposal. Study material and course information can be obtained from the library in digital form. During the current pandemic, some problems were reported regarding the supply of teaching material via the ΕΥΔΟΞΟΣ system. In some cases these problems could be resolved by allowing the students to borrow some of the necessary books from stocks kept in the library.

The premises provide full wi-fi coverage and students, staff and guests can use the eduroam protocol.

The teaching staff reported, however, that the number of computer workstations available to the students is insufficient. This shortage became more noticeable under the present pandemic conditions that necessitated the reduction of the number of students present in the computer laboratories. An additional pressing problem is that the Department does not have the technical staff (ΕΤΕΠ) needed to operate and maintain the computer pools. This shortage was felt during the zoom sessions of this accreditation panel, which were set up and maintained by a member

of the teaching staff and not by a specialised technician, as it is the norm with other accreditations.

Another issue addressed by the teaching staff is the inadequate protection of the premises. There have been burglary incidents in the past that resulted in the theft of very expensive and necessary equipment. The security situation appears to have improved in the last two years. The EEAP endorses further measures that will increase the security of the premises and the protection of students and staff.

Regarding the counselling of the students, the Programme deploys a system of personal counsellors that are appointed to each new enrolling student and accompany them during their studies. However, the students reported that they are missing an institutional counselling office that would help them with their professional orientation after their graduation.

The students are very satisfied with the support of their teachers. The EEAP noticed that the teachers devote a significant part of their time teaching in smaller groups that enable the deployment of interactive teaching methods.

Panel Judgement

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

Panel Recommendations

- Employ specialised technical staff (ΕΤΕΠ) for operation and maintenance of the computer pools and the special equipment used in the laboratories.
- Increase the number of available computer workstations for the students.
- Set up a counselling office for professional orientation for graduates.
- Take appropriate measures to ensure the security and the protection of premises, staff and students from criminal actions.
- Upper-level undergraduates could be employed as library assistants in order to allow a better and longer use of the library. This could be recognised as an internship.

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 Department maintains the overall accountability for overseeing the continuous improvement of its academic provision, research outputs, and the performance standards of its students. The University and the Department have a well-established management information system for the management and monitoring of data concerning students, teaching staff, course structure and organization, and teaching and learning. The departmental information resides on the centralized information system network of the university and its secretariat records through the use of the 'my-studies' software. The ΜΟΔΙΠ of the National and Kapodistrian University of Athens is responsible for overseeing the continuous improvement of its academic provision and research outputs, as well as the efficient operation of its academic services, in accordance with international practices and the guidelines required by HAHE. The EEAP has been given access to various data visualizations (graphs, tables etc.), although this wealth of information should also be accessible to the academic community and the general public through the Departmental portal.

The EEAP confirms that the current system of collecting, analysing, and using information relating to an efficient management of the Undergraduate Program is quite satisfactory and has proven helpful for the identification of problems and the development of appropriate solutions.

As such, the Department adheres to the institutional principles which govern the collection of data regarding students, teaching staff, course structures, annual monitoring, assessments, progression, and completion rates. As it is demonstrated in the yearly knowledge-performance-indicators (KPIs) documents a list of KPIs has been established. The Panel recommends that KPIs should have **Specific, Measurable, Achievable, Realistic and, Timely** bound (S.M.A.R.T.) goals that are monitored, adjusted, and re-defined at regular intervals (e.g. annually).

The department conducts several surveys targeting a variety of student bodies: students in their first 3 years of study and graduating students. The questions of these surveys are adequate enough and assist in extracting useful conclusions about a number of areas of interest like teaching methods, student progression, etc.

Student evaluations are obtained with the completion of questionnaires (with quantitative and quality questions) at the end of the semester and for each course they attended, but this is not mandatory. The result is a satisfactory, but not very high response rate. Since the academic year 2017-18 digital questionnaires replaced the previous printed ones; this resulted in lower response rates, although one would expect the opposite, since usually digital means are more easily circulated and filled in. To address this issue the Department might consider practical measures.

The EEAP noted that there are no staff surveys. The alumni surveys are sporadic. The Department has not made enough effort to connect with their alumni. The EEAP feels much more needs to be done. The Department's alumni are a valuable resource for informed feedback and an important ally in promoting quality assurance. During the most recent alumni survey in 2021 (the previous one took place in 2011), the participation rate was only 25,3 % (340 graduates responded out of a total of 1340). Although this data allows us to draw conclusions regarding the academic and career paths of its graduates, the department should develop a set of long-term procedures for analysing these data and reflecting on the outcomes with an approach that monitors the implementation of long-term strategies and goals.

Panel Judgement

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

Panel Recommendations

- Set up online procedures for the monitoring of the employability and career path of the graduates/alumni.
- Establish procedures for strengthening the ties with the alumni (Alumni events, invitations to campus, etc.).
- Encourage the establishment of staff surveying on a regular basis and ensure that they are properly analysed.
- Establish an alumni/career office which will survey alumni as to their careers and satisfaction with the program. Such an office would analyse the collected data and provide thoughtful recommendations to the department.
- Take actions to improve the response rate of student evaluation questionnaires, as suggested above.

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 public website of the Department provides access to all necessary information about:

- The Department's organization and necessary information, links and contacts with the secretariat and the academic staff.
- A fully developed Studies Guide that details the UG and Graduate Study Programs, the courses' descriptions, and individual pages for each course with information about pedagogical approach, notation standards, bibliography etc.
- The student' parcourse within the Department (registration, program and courses' information, classrooms etc.)
- Academic activities, such as colloquia, public talks, and presentations.
- Internal (until 2015) and external evaluations' reports.

The Greek version of the website is well informed, easy to access and provides all relevant documents in order to orientate students and visitors into the academic life and organization of the Department.

The Department has also established a channel of communication with all its current students and its alumni through a Facebook page that is up-to-date and helps students and social partners into more visibility as of the areas of academic or professional concern. This specific communication stream also allows the Department to collect precious information about the academic and professional achievements of its alumni.

Furthermore, all laboratories and groups attached to the Department have developed their own internet pages and/or sites and offer a well-established presentation of their various activities and research results. Research data and findings from the research programs of the Department's scholars and working groups are thus made public to the vast community of academics and other researchers.

The Department's sites and pages have actually a big rate of visitation, which reflects the well-established communication with the various publics.

Panel Judgement

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

Panel Recommendations

- Provide a clear and visible statement of the vision of the Department. Prof. Psillos provided the Committee with a memorandum that could actually form the basis of such a statement.
- The website is not especially informative as to how revisions or changes of the Study Programme are formally adopted. Also, the internal evaluations' reports from 2015 to today are missing.
- The main University site is too crowded and chaotic (certainly not user friendly), and redirections to the HPS may produce confusing results (in one case redirection to the HPS undergraduate programme returned "page not found", while redirection to the Graduate Programme produced results from 2012). HPS must alert the competent authorities on the state of the University's website for what concerns them.
- Complete the website in English.

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

The programme does have an internal system for auditing its continued quality by means of the evaluation of courses, the teaching staff, and the performance of students. The absence in the last few years of any communications (in writing) by the programme's internal Quality Assurance Committee regarding areas of concern would indicate that no such concerns were found. This is indeed confirmed by our perusal of outcomes of course and teaching evaluations provided for the past five years, which are extremely positive.

Within the exigencies and capacities of the national and University life, the programme appears to be trying its best. Such desiderata as are within the power of the programme to satisfy are already satisfied. Other desiderata may only (or, in the main) be satisfied by other parties (e.g., the University or the government).

The programme is up to date and curated by sociable and highly expert staff. It does offer fertile ground for professional and meaningful personal growth on the part of students. In our online interviews with students and staff the ambiance of the place came through (albeit electronically) as friendly and familial. This impression was confirmed by the testimony of both in-programme students and recent and older graduates.

The effectiveness of the methods of assessing student performance or the satisfaction of students' needs, and expectations are dependent to a significant extent on factors beyond the capacity of the programme at present. For example, the educative experience of the student may be better served, and a more fruitful indicator of student capabilities may be employed by, say, splitting courses in semesters 1-4 into a number of smaller tutorial sections for the purposes of in-person or electronic discussions, group projects or the writing of individual essays. But such

a practice will require a number of so-called Teaching Assistants who will, of course, have to be remunerated or given bursaries or scholarships. Such an eventuality cannot possibly be countenanced by the programme itself. The University or the government will have to provide the necessary funding.

The same may be said about the technical support available to the programme. Suffice it to say that the only technical expert available to facilitate the several online interviews with and presentations to our Panel was himself a member of the programme's teaching faculty.

Panel Judgement

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

Panel Recommendations

- Introduce Teaching-Assistants and small student study groups.
- Employ specialised technical staff (ΕΤΕΠ) for the technical support of the Programme.

Principle 10: Regular External Evaluation of Undergraduate Programmes

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

HAHE is responsible for administrating the programme accreditation process which is realised as an external evaluation procedure, and implemented by a committee of independent experts. HAHE grants accreditation of programmes, with a specific term of validity, following to which revision is required. The accreditation of the quality of the programmes acts as a means of verification of the compliance of the programme with the template's requirements, and as a catalyst for improvement, while opening new perspectives towards the international standing of the awarded degrees.

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

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

Study Programme Compliance

The last external evaluation of the Department was conducted in October 2010 and the results have been uploaded on the ΜΟΔΙΠ website (Β10Γ). The accreditation proposal states that recommendations were taken into consideration to a 'significant degree (about 70%)' to improve study experience and the quality of studies and services offered by the Department; there were detailed explanations provided for the recommendations not applied. Specifically, the SP responded to the recommendation to introduce teaching of basic science courses (Biology, Mathematics, Physics) by faculty in other Departments and postgraduate researchers affiliated with the Department.

In relation to the recommendation to focus and strengthen core courses (Philosophy and History of Science and Technology) the Department revised the curriculum significantly upgrading core courses; in 2016-17, the Department Council approved the new curriculum that has been offered since 2017-18. Faculty has also responded to the recommendation to offer more opportunities to students for mobility abroad by extending agreements with universities abroad.

The Department also complied with the recommendation to offer detailed SP information each semester and academic year; complied with the offering of electronic questionnaires for course evaluation. Most importantly, the Department reduced the number of courses required for graduation, modified the role of the undergraduate dissertation by making it optional and strengthened the number of seminars offered and the percentage of essays to the final grade, following the recommendations of the external evaluation committee. The Department also responded to the recommendation that the Department does not remain independent but is integrated to a School, by joining the School of Science.

The Response of the Department to the External Evaluation acknowledges that budget cuts and the rigid legal framework do not allow the hiring of staff and faculty and improvement of

facilities. Overall, the External Evaluation Review was very positive for the educational, research and administrative services the Department offers. The Department responded to most of the recommendations and is committed to implementing the rest, at least those that depend on the Department and the NKUA.

Panel Judgement

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

Panel Recommendations

The EEAP urges the conduct of regular external evaluations in the future.

PART C: CONCLUSIONS

I. Features of Good Practice

- Broad range of offered course themes.
- The programme is scientifically up-to-date and curated by sociable and highly expert staff.
- The Department, in general, plays an important role in stimulating students' motivation, self-reflection and engagement in the learning process.
- The courses are research informed.
- The research activity of the academic staff is clearly one of the strengths of the department, as evident by the number of publications in high-quality journals and reputable conferences.
- There is a significant effort of the teaching faculty to bring quality research into the undergraduate classrooms.
- The study guide is well structured and easy to comprehend. It provides all information necessary to compose the individual study plan.
- Wide use of essays in lieu of written exams.
- Opportunity of student participation in the activities of the research laboratories operated by the Department of History and Philosophy of Science.
- Students are encouraged to participate in national and international congresses.
- Students are encouraged to participate in the ERASMUS+ programme.
- Student evaluation of the teaching is consistently undertaken, and results are reintroduced in the process of the self-evaluation and reform of the study program.
- A formal procedure for student appeals is in place, in the form of the Student Advocate, an institution with the following responsibilities.
- The degree requirements are stated clearly, and the SP website provides all the necessary information appropriately for students to know their obligations as per institutional regulations.
- The University has introduced automated mechanisms for data management, to ensure monitoring student progress.
- The facilities available to the study program are in general adequate. The building infrastructure for teaching purposes and the library is satisfactory.
- The University and the Department have a well-established management information system for the management and monitoring of data concerning students, teaching staff, course structure and organization, and teaching and learning.
- The Greek version of the website is well informed, easy to access and provides all relevant documents in order to orientate students and visitors into the academic life and organization of the Department

II. Areas of Weakness

- There are still too many exams.
- The main differences between the 6 and the 5,5 ECTS point courses are only nominal and not supported by any reason arising from the very nature of the courses themselves.
- The graduation with a BA thesis in lieu of the attendance of two 5,5 ECTS point courses, is optional.
- It is not clear why the courses declared by the Department as necessary to obtain pedagogic and teaching competence are sufficient for such competence.
- The fact that the Programme and the Department are part of the School of Science of the University of Athens is not reflected in the structure and the contents of the Programme.
- While the living, dynamic embodiment of the programme appears to operate as if guided by certain academic and educational objectives, institutional practices, criteria and organizational structures, such desiderata are more envisaged by members of the academic personnel of the Department rather than clearly articulated and codified in documents approved by formal processes of the Department itself or the University at large.
- The parts of the study guide devoted to the advertisement of the past activities of the Department of History and Philosophy of Science and the publications of the teaching staff are redundant and distract the user from the main purpose of the guide.
- The Department does not have the technical staff (ΕΤΕΠ) needed to operate and maintain the computer pools and the laboratories. Faculty members responsible for the operation of these laboratories emphasized the need of technical support which could be addressed only through the hiring of ΕΤΕΠ.
- There are no staff surveys. The alumni surveys are sporadic. The Department has not made enough effort to connect with their alumni.

III. Recommendations for Follow-up Actions

- The Programme may be restructured so that the apparent arbitrariness in the different number of ECTS points awarded in courses that have equal presence and actual workload demands is removed or justified by the very nature of the courses.
- The Programme may be restructured in such a way that the students obtain the basic training in the necessary scientific skills in the form of a distinguishable 'minor' study programme.
- The composition of a BA thesis with a nominal value of 12 ECTS points should become mandatory for students who aim to pursue further academic studies and a career outside the secondary education system.
- In order to obtain the necessary pedagogical and teaching competence, students who pursue a ΠΕ33 career in the secondary education system should also attend special pedagogical courses. Alternatively, the Department should consider the possibility to establish courses in Didactics of Science in secondary education.

- In the long term the Department should consider the creation of larger modules of 10 ECTS points with a more formal structure.
- State explicitly and adopt formally the principles informing the programme.
- State explicitly and adopt formal procedures for revisions to the programme. Such procedures should include students, alumni and external shareholders.
- Offer more opportunities for experiential education (visiting sites related to course material, connect with similar programmes in universities abroad to organize network learning modules and advance academic intercultural cooperation.
- Introduce Teaching-Assistants and small student study groups.
- Establish frequent self-assessment procedures for the faculty.
- Consider rewarding teaching and/or research excellence, after establishing clear and transparent relevant criteria.
- Employ specialised technical staff (ΕΤΕΠ) for operation and maintenance of the computer pools and the special equipment used in the laboratories.
- Increase the number of available computer workstations for the students.
- Attempt to increase Library's working hours and access to resources for students.
- Set up a counselling office for the professional orientation for graduates.
- Set up online procedures for the monitoring of the employability and career path of the graduates/alumni. Establish an alumni/career office which will survey alumni as to their careers and satisfaction with the program. Such an office would analyse the collected data and provide thoughtful recommendations to the department.
- Establish procedures for strengthening the ties with the alumni.
- Encourage the establishment of staff surveying on a regular basis and ensure that they are properly analysed.
- Take actions to improve the response rate of student evaluation questionnaires, as suggested above.
- Provide a clear and visible statement of the vision of the Department.
- Inform the relevant department on the state of the University's website about its problematic structure.
- Complete the English version of the Department's website.
- Take appropriate measures to ensure the security and the protection of premises, staff and students from criminal acts.

IV. Summary & Overall Assessment

The principles where full compliance has been achieved are: **3, 4, 5, 8, 9, and 10.**

The principles where substantial compliance has been achieved are: **1, 2, 6, and 7.**

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

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

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

The members of the External Evaluation & Accreditation Panel

Name and Surname

Signature

- 1. Prof. Nikolaos Psarros (Chair)**
University of Leipzig, Leipzig, Germany
- 2. Prof. Maria Antoniou**
Pace University, New York, USA
- 3. Assoc. Prof Panagiotis Christias**
University of Cyprus, Nicosia, Cyprus
- 4. Assoc. Prof. Athanasios (Sakis) Gekas**
York University, Toronto, Canada
- 5. Assoc. Prof. Spyros Panagiotou**
McMaster University, Hamilton, Canada