

HELLENIC REPUBLIC



NATIONAL AND KAPODISTRIAN UNIVERSITY OF ATHENS
SCHOOL OF SCIENCE
DEPARTMENT OF PHYSICS

DIPLOMA SUPPLEMENT
SECOND CYCLE

The Diploma Supplement model was developed by the European Commission, Council of Europe and UNESCO/CEPES. The purpose of the supplement is to provide sufficient independent data to improve the international "transparency" and fair academic and professional recognition of qualifications (diplomas, degrees, certificates etc.). It is designed to provide a description of the nature, level, context, content and status of the studies that were pursued and successfully completed by the individual named on the original qualification to which this supplement is appended. It should be free from any value judgments, equivalence statements or suggestions about recognition. Information in all eight sections should be provided. Where information is not provided, an explanation should give the reason why.

1. INFORMATION IDENTIFYING THE HOLDER OF THE QUALIFICATION

1.1 Family name(s):

1.2 Given name(s):

1.3 Date of birth (*day/month/year*) – Place – Country of Birth: - ATHENS - GREECE

1.4 Student identification number or code (*if available*):

2. INFORMATION IDENTIFYING THE QUALIFICATION

2.1 Name of qualification and (*if applicable*) title conferred (*in original language*):

**Μεταπτυχιακό Δίπλωμα Ειδίκευσης, ΜΔΕ (Metaptychiako Diploma Eidikefsis -
Postgraduate MSc Degree of Specialization)**

2.2 Main field(s) of study for the qualification:

Applied Physics with specialization in Environmental Physics

2.3 Name and status of awarding institution (*in original language*):

**Εθνικό και Καποδιστριακό Πανεπιστήμιο Αθηνών, ΕΚΠΑ
(National and Kapodistrian University of Athens, NKUA)
Public University**

2.4 Name and status of institution (*if different from 2.3*) administering studies (*in original language*):

The same as in paragraph 2.3.

2.5 Language(s) of instruction/examination:

Greek



KITSIOS GEORGIOS 1

3. INFORMATION ON THE LEVEL OF THE QUALIFICATION

3.1 Level of qualification:

Second Cycle of Education (Postgraduate studies)

3.2 Official length of programme:

3 semesters for full-time or 6 semesters for part-time, 90 ECTS

A full academic year is equivalent to 60 ECTS units and each semester to 30 ECTS (European Transfer System). Compliance with the ECTS (European Credit Transfer and Accumulation System) regulations started in 2007, when the Greek Legislation was harmonized with the relevant European one (Ministerial Decision no Φ5/89656/B3, art. 1-3, Hellenic Government Gazette no 1466/2007/B). Each course is credited with a number of ECTS (≥ 5) according to the student's workload (contact hours, laboratory work, examination etc.) and accumulation of credits (ECTS) is accomplished after successful completion of the course.

3.3 Access requirement(s):

The postgraduate program admits graduates of the Departments of the School of Sciences from Greek Universities and of Faculties from Technical Universities as well as from equivalent foreign University Departments, which are recognized by the Hellenic National Academic Recognition Information Center (NARIC). Moreover the program admits graduates from Greek Technological Educational Institutes (TEI) and from Senior Military Academies with diploma relevant to the content of the postgraduate program.

4. INFORMATION ON THE CONTENTS AND RESULTS GAINED

4.1 Mode of study:

Full-time or part-time

4.2 Programme requirements:

The duration of postgraduate studies leading to the Degree of Specialization in Environmental Physics is three semesters and the maximum allowed duration is two years. During the first two semesters, the student has to complete successfully five compulsory specialization courses: *Solar and terrestrial radiation – Atmospheric Thermodynamics, Geophysical Fluid Dynamics, Methods and instrumentation in environmental measurements – Computational Methods, Atmospheric Physics and Chemistry* and six elective specialization courses from the thirteen offered: *Atmospheric Dynamics, Synoptic Meteorology, Urban Environmental Physics, Building energy design, Climate - Climate Variations, Physical Oceanography, Principles and applications of Remote Sensing, Cloud Physics and Mesoscale Convective Systems, Land – air – sea Interactions, Environmental Management, Atmospheric modeling, Agricultural and Forest Meteorology - Hydrology, Physics of Middle and Upper Atmosphere.*

Attendance to these courses is mandatory. Successful completion of each course requires the mark 6 out of 10 at the examinations (*Regulation of the Postgraduate Study Program of the Department of Physics, article 6, par. 4*).

In addition to these courses and during the third semester, the student should undertake individually a research project leading to a postgraduate thesis, which is evaluated



by a three member committee. The final evaluation of the research thesis is responsibility of the Section of Environmental Physics - Meteorology.

A department member is assigned as the tutor to each student upon entering the postgraduate program. The tutor follows the progress of the student and approves the courses selected by the student.

The graduate students in order to obtain their Postgraduate Degree in Applied Physics with Specialization in Environmental Physics are required to successfully complete three semesters (full-time) or 6 semesters (part-time) that correspond to a total 90 ECTS.

4.3 Programme details:

Courses that the student has successfully attended, as well as subjects for which the student has received recognition or exemption (COMSPE = compulsory specialization courses, ELESPE = elective specialization courses).

CODE	COURSE TITLE	TYPE	ECTS	GRADE	EXAMINATION PERIOD
14601	Solar and terrestrial radiation – Atmospheric Thermodynamics	COMSPE	6	7	FEBRUARY 2015
14602	Geophysical Fluid Dynamics	COMSPE	6	8	SEPTEMBER 2015
14603	Methods and instrumentation for environmental measurements – Computational Methods	COMSPE	7	9	FEBRUARY 2015
14604	Numerical Methods - Applications to Geophysical Fluids	COMSPE	5	9	FEBRUARY 2015
14605	Atmospheric Physics and Chemistry	COMSPE	6	6	FEBRUARY 2015
14607	Synoptic Meteorology	ELESPE	5	9	JUNE 2015
14608	Urban Environmental Physics	ELESPE	5	9	JUNE 2015
14609	Building energy design	ELESPE	5	10	JUNE 2015
14610	Climate - Climate Variations	ELESPE	5	9	JUNE 2015
14612	Principles and applications of Remote Sensing	ELESPE	5	9	JUNE 2015
14615	Environmental Management	ELESPE	5	10	JUNE 2015
14999	Postgraduate Diploma Thesis		30	10	FEBRUARY 2016
	TOTAL		90		

Postgraduate Diploma Thesis: Experimental and theoretical evaluation of green roofs systems on a building


 ΚΙΤΣΙΟΣ ΓΕΩΡΓΙΟΣ

4.4 Grading scheme and, if available, grade distribution guidance:

The degree of the MSc is determined from the average of the courses' degrees (using a weight of 1) and the degree of the diploma thesis (using a weight of 3) with a two decimals accuracy.

A scale of 1 to 10 applies to the marks of each subject in the Hellenic Higher Education:

Άριστα (Arista) Excellent: 8.50-10.00

Λίαν Καλώς (Lian Kalos) Very Good: 6.50-8.49

Καλώς (Kalos) Good: 6.00-6.49

Ανεπιτυχώς (Anepytichos) Fail: 0-5.99

Minimum passing grade: 6 (*Regulation of the Postgraduate Study Program of the Department of Physics, article 9, par. 1*).

4.5 Overall classification of the qualification (*in original language*): **8,93 "Arista" ("Excellent")**

5. INFORMATION ON THE FUNCTION OF THE QUALIFICATION

5.1 Access to further study:

The qualification allows access to doctoral studies.

5.2 Professional status (*if applicable*):

The current qualification is academically recognized as a Master's Degree. It is also recognized as equivalent to a postgraduate professional qualification both in the Private and in the Public Sector, provided that the corresponding committee of the employment organization considers its subject related with the employee's position.

6. ADDITIONAL INFORMATION

6.1 Additional information:

6.2 Further information sources:

National and Kapodistrian University of Athens (NKUA)	http://en.uoa.gr/
Department of Physics, NKUA	http://en.phys.uoa.gr/
Postgraduate Studies in Department of Physics, NKUA	http://www.phys.uoa.gr/metaptyxiakes-spydes.html
Ministry of Education, Research and Religious Affairs	http://www.minedu.gr/english
Hellenic National Academic Recognition Information Center (NARIC)	http://www.doatap.gr/en/index.php
Section of Environmental Physics and Meteorology	http://en.env.phys.uoa.gr/
Regulation of the Postgraduate Study Program of the Department of Physics	http://en.phys.uoa.gr/postgraduate-studies/postgraduate-study-program-of-the-department-of-physics/regulation.html



7. CERTIFICATION OF THE SUPPLEMENT

7.1 Date:

7.2 Signature:

7.3 Capacity: BY ORDER OF THE RECTOR, THE GENERAL DIRECTOR OF EDUCATION:
ΑΙΚΑΤΕΡΙΝΙ ΑΣΙΜΑΚΟΠΟΥΛΟΥ

7.4 Official stamp or seal:



A handwritten signature in black ink, consisting of a stylized 'K' and 'G'.

ΚΙΤΣΙΟΣ ΓΕΩΡΓΙΟΣ

8. INFORMATION ON THE NATIONAL HIGHER EDUCATION SYSTEM

HIGHER EDUCATION

(Source: "Structures of education, vocational training and adult education systems in Europe", EURYDICE/CEDEFOP/ETF 2003)

Higher Education consists of two parts: the University, which includes the Universities, Technical Universities and the Athens School of Fine Arts, and the Technological that includes the Technological Educational Institutes. An organisational alteration of university education is the Hellenic Open University (EAP).

• Technological sector – Technological Educational Institutions (T.E.I.)

Higher technological education is mainly provided by the Technological Education Institutes (TEI), which are self-governing legal entities under public law, supervised and subsidised by the state through the Ministry of National Education and Religious Affairs.

TEIs differentiate from Universities, regarding their role, their orientation and courses and the diplomas they lead to. They provide theoretic and practical education adequate for the application of scientific, technical, artistic and other knowledge and professional skills. TEIs emphasize on educating executives of high quality standards that will be able to combine knowledge with application, and to use and promote modern Technology. There are today 15 Technological Education Institutes in various cities and towns in Hellas.

Admission requirements

Students are admitted to higher education Institutes according to their performance at national level examinations taking place at the second and third grade of *Lykeio*.

Fees – Financial support for students

In TEIs admission to courses is free. Textbooks are distributed free of charge. Meals and housing is provided also, depending on the student's family income, while students are also entitled to medical care and a reduced fare on means of public transport.

Academic year

The academic year starts on September 1 and ends on July 5. It is divided into two semesters.

Courses

Each TEI Department is responsible for the drawing of the programme of studies (curriculum), which includes the titles of compulsory, compulsory elective or optional courses, their content, the weekly hours and the teaching methods, along with the chronological sequence or interdependence of courses, as some have been described as prerequisites of other, dependent, courses. The curriculum consisting of seven (7) or eight (8) semesters adapts to the defined number of semesters required to lead to the diploma of each Department.

Each semester of studies in TEI Departments includes fifteen (15) weeks of classes and is followed by two examination periods, of two weeks each. The curriculum also includes apprenticeship in the workplace for at least six (6) months under the supervision of the Department.

Assessment – Qualifications

Students are assessed by the professor of the course by means of examinations or tests and assignments given out, along with the final semester examinations.

For a student to be granted a diploma, he/she should have a. successfully attended all courses; b. drafted a graduation project the mark of which is considered in the diploma mark, and c. successfully completed apprenticeship in the workplace.

A student completes studies and is granted a diploma when succeeding in the defined courses and gathering the necessary academic credits (a.d.m.). The holder of a TEI Department Diploma is entitled to work in the corresponding professional field. It is possible for a TEI Department to include more specialised directions or for a student to decide to attend more specialised courses, and to be directed to a more specified field. In any case, the Department diploma is cohesive. A TEI diploma is valid without any further accreditation procedure required.

• University sector: undergraduate level

According to the Constitution of Hellas (article 16, paragraph 5) University education is provided exclusively by the State in institutions, which are fully self-administered legal entities of public law. The Minister of National Education and Religious Affairs exercises state supervision. The general objective of the courses in University departments is to provide a high level of theoretical and all-round training to the country's future professionals, scholars, scientists and academics. University courses place emphasis on the documentation, production, development and transmission of knowledge, science and technology, on pure and applied research and on the development of modern postgraduate studies. The ultimate aim of University education is to equip graduates with the ability to adapt to the ever changing and constantly growing demands of financial and community life.

In Hellas there are twenty three (23) Universities.

The Universities consist of faculties. The faculties comprise a group of related disciplines to ensure the interaction necessary for the development of knowledge and for the coordination of research and teaching. Faculties are divided into departments. The department is the main operating academic unit, which covers a discipline's field of knowledge. The department course leads to a single degree.

Each department can grant more than one specialisation of this single degree. Departments are divided into sections. The section co-ordinates the teaching of that part of the department's field of knowledge, which corresponds to its special field. The Universities operate through independent departments, which are not subject to any faculty or through departments that are subject to faculties. To ensure the best operation of every University, laboratories and clinics are established which belong to the Section or Department and, under certain conditions, to the faculty. Their operation is governed by the internal regulations of each University. In every University a library is established to serve research and teaching purposes. It operates as an independent and decentralised service consisting of the Main University library and the department libraries.

Admission requirements

Students are admitted to higher education Institutes according to their performance at national level examinations taking place at the second and third grade of *Lykeio*. For admission to certain faculties (such as physical education, science, foreign languages and literature, military schools etc.) candidates are examined additionally in special courses or sports.

Fees – Financial support for students

In Universities admission to courses is free. Textbooks are distributed free of charge. Meals and housing is provided also, depending on the student's family income, while students are also entitled to medical care and a reduced fare on means of public transport.

Academic year

The academic year begins on the 1st September of each year and ends on August 31 of the following year. The educational task for each academic year is structured chronologically into two semesters. Each semester includes at least thirteen (13) full weeks of classes and three (3) weeks of examinations. The first semester begins in the second fortnight of September and the second semester ends during the second fortnight of June.

Courses

The programme of studies of every University department contains the titles of the courses (compulsory, compulsory elective and optional), their subject matter, the number of hours of classes per week and other useful information about the courses. The programme of studies is adapted to the number of semesters required to receive a degree (minimum of eight).

A department's programme of studies may include a compulsory practical training for students in the workplace for at least six (6) months under the supervision of the department.

Teaching task include:

1. Independent lectures of a course; 2. Laboratory and clinical exercises and, in general, practical training for students; 3. Supervision of an undergraduate thesis and the holding of seminars or other similar activities which aim to consolidate students' knowledge.

The teaching task is assisted by the use of textbooks and other teaching aids that are distributed free of charge to students, as well as by ensuring that students have access to the relevant Hellenic and foreign bibliography.

Assessment – Qualifications

In every course, the faculty member teaching the course must at his or her discretion hold written and/or oral examinations or to rely on assignments or laboratory exercises to award the student's mark. In the event that a student fails a compulsory course, he or she is obliged to repeat it in a subsequent semester. In the event of failure in an optional course, the student may either repeat it in a subsequent semester or replace it by another optional course. Students complete their studies and receive their degree when they have passed the required number of courses and have accumulated the required number of credits.

Degree types are defined by the internal regulation of the university and are valid in the labour market without any further certification.

• University sector: post-graduate level

At Hellenic Universities there are postgraduate study programmes (PMS) that lead to the granting of a postgraduate specialisation degree (MDE) and/or Doctorate. The responsibility to operate a PMS falls in the Department covering the field of knowledge of the postgraduate study programme, and the Minister of National Education grants the final approval. In some postgraduate programmes it is possible to have the involvement of TEI Departments. Candidates are admitted to *Postgraduate Study Programmes (PMS)* either through a selection process or through examinations (written or oral). A necessary condition is the knowledge of a foreign language (for Hellenic candidates), while in the selection process the mark received on the candidate's undergraduate degree, performance in undergraduate courses related to the PMS, the undergraduate thesis, and any research or writing activity on the part of the candidate are taken into account. The necessary requirement for registration in a doctoral programme is for the candidate to hold a University postgraduate specialisation degree (MDE), organised and operating in the same University. The duration of a *Postgraduate Study Programme (PMS)* cannot be less than one calendar year. The programme of studies, the courses taught and the number of hours required in each course are set out by the *Special General Assembly (GSES)* of the Department and are approved by the University Senate. To be awarded a doctoral degree, a candidate must write an original thesis, which is expected to contribute to the advancement of knowledge and science. The research work should be conducted within a strictly defined framework and under the supervision of a three-member advisory committee appointed by the relevant University department.

• Open university

In 1997 the *Hellenic Open University (EAP)* was established, constituting an independent and fully self-administered *Higher Education Institution (AEI)* and in the form of a legal entity under public law. The mission of the EAP is to provide distance – undergraduate and postgraduate – education and adult education, by developing and utilising appropriate educational materials and teaching methods. Among the goals of the EAP is to promote scientific research in the field of transmitting knowledge from a distance. The EAP organises vocational training or retraining programmes that lead to certification of attendance, or educational programmes which, under certain conditions, can lead to the awarding of academic degrees (undergraduate or postgraduate). The EAP welcomes without entry exams *Lykeio* Leaving Certificate holders or those with an equivalent or corresponding Secondary Education certificate from Hellas or abroad. A priority is given to candidates aged 23-45 and to the inhabitants of the country's remote areas. In case of the quite common situation of an increased demand, then students are selected by drawing lots. In particular, this institution provides the possibility of higher education studies irrespective of the candidates' age, i.e. it ensures them a 'second chance' for lifelong learning and training. Also, the EAP offers University studies to those, who, for whatever reason, cannot attend classes or laboratories. Already since 1998 EAP postgraduate programmes have been operating, which lead to postgraduate specialisation diplomas and certificates of postgraduate education.

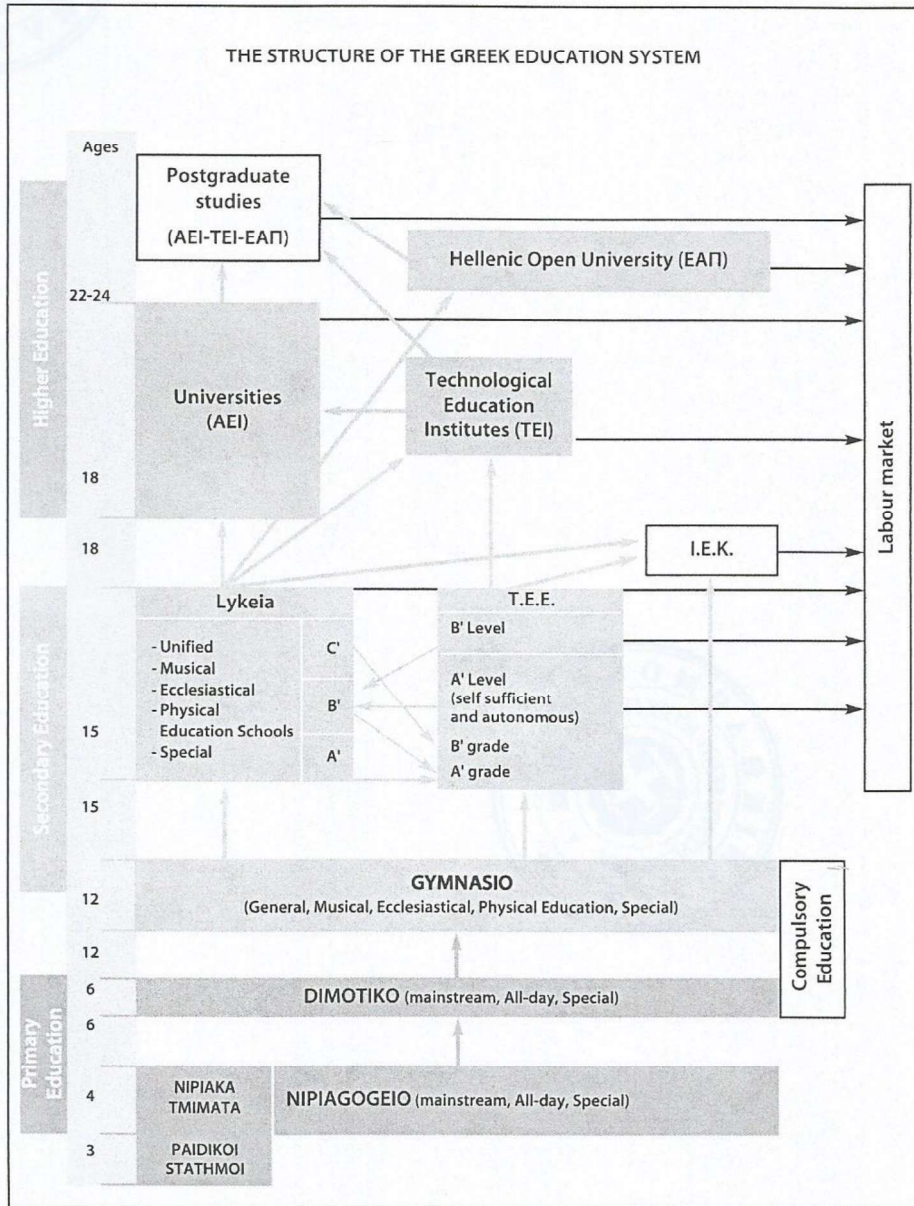
THE STRUCTURE OF THE GREEK EDUCATION SYSTEM

Education in Greece is compulsory for all children 6-15 years old; namely, it includes Primary (*Dimotiko*) and Lower Secondary (*Gymnasio*) Education. The school life of the students, however, can start from the age of 2.5 years (pre-school education) in institutions (private and public) called "*Vrefonipiaki Paidikoi Stathmi*" (creches). In some *Vrefonipiaki Stathmoi* there are also *Nipiaka Timmata* (nursery classes) which operate along with the *Nipiagogeia* (kindergartens). Attendance at Primary Education (*Dimotiko*) lasts for six years, and children are admitted at the age of 6. Along with the regular kindergartens (*Nipiagogeia*) and the *Dimotika*, All-day primary schools are in operation, with an extended timetable and an enriched Curriculum. Post-compulsory Secondary Education, according to the reform of 1997, consists of two school types: *Eniaia Lykeia* (Unified Upper Secondary Schools) and the Technical Vocational Educational Schools (*TEE*). The duration of studies in *Eniaia Lykeia* (EL) is three years and two years (a' level) or three years (b' level) in the Technical Vocational Educational Schools (*TEE*). Mutual student transfer from one type of school to the other is possible. Along with the mainstream schools of Primary and Secondary Education, Special *Nipiagogeia* (kindergartens), *Dimotika*, *Gymnasia*, *Lykeia* and upper secondary classes are in operation, which admit students with special educational needs. Musical, Ecclesiastical and Physical Education *Gymnasia* and *Lykeia* are also in operation. Post-compulsory Secondary Education also includes the Vocational Training Institutes (*IEK*), which provide formal but unclassified level of education. These Institutes are not classified as an educational level, because they accept both *Gymnasio* (lower secondary school) and *Lykeio* (upper secondary school) graduates according to the relevant specializations they provide.

Public higher education is divided into Universities and Technological Education Institutes (*TEI*). Students are admitted to these Institutes according to their performance at national level examinations taking place at the second and third grade of *Lykeio*. Additionally, students are admitted to the Hellenic Open University upon the completion of the 22 year of age by drawing lots.

The following graph presents concisely the structure of the Greek education system, as it consists of institutions of the formal, classified or unclassified education. Formal education is characterized by the fixed length of study, the possibility of repetition and the award of a formal school-leaving certificate which is the official authorization. As a consequence of the classification of the education institutions, a title (school-leaving certificate, degree etc.) is compulsory for students at each education level in order to continue to the next. It should be outlined that the graph offers a general overview of the education system with its main aspects being supervised by the Ministry of Education and which form the major part of it. However, a broader analysis shows that the total of the education services provided for in Greece form a much more complex, multilevel and differentiated infrastructure. Moreover, many other educational services, classified or unclassified, are provided for in the formal education system, either in co-operation with it or completely independently. A detailed description of the Greek Education System is offered in EURYBASE, the EURYDICE database of the European Education Systems.

THE STRUCTURE OF THE GREEK EDUCATION SYSTEM




 ΚΙΤΣΙΟΣ ΓΕΩΡΓΙΟΣ





APOSTILLE - Επιστημείωση

(CONVENTION DE LA HAYE DU 5 OCTOBRE 1961
Σύμβαση της Χάγης της 5ης Οκτωβρίου 1961)

1. Χώρα: ΕΛΛΑΣ
PAYS: HELLAS

Το παρόν δημόσιο έγγραφο
LE PRÉSENT ACTE PUBLIC

2. έχει υπογραφεί από τον/την: ΑΣΗΜΑΚΟΠΟΥΛΟΥ ΑΙΚΑΤΕΡΙΝΗ
A ÉTÉ SIGNÉ PAR:

3. που ενέργησε με την ιδιότητα: ΓΕΝΙΚΗ ΔΙΕΥΘΥΝΤΡΙΑ
AGISSANT EN QUALITÉ DE:

4. φέρει τη σφραγίδα/επίσημα του φορέα: ΕΘΝΙΚΟ & ΚΑΠΟΔΙΣΤΡΙΑΚΟ ΠΑΝΕΠΙΣΤΗΜΙΟ
EST REVETU DU SCEAU/ ΑΘΗΝΩΝ-Ε.Κ.Π.Α.
TIMBRE DE:

Η βεβαίωση χορηγείται/ATTESTÉ

5. στην ΑΘΗΝΑ
À ATHÈNES

6. την(ημερομηνία) 21/11/2016
LE

7. από την ΑΠΟΚΕΝΤΡΩΜΕΝΗ ΔΙΟΙΚΗΣΗ ΑΤΤΙΚΗΣ —
PAR L' ADMINISTRATION DÉCENTRALISÉE DE L' ΑΤΤΙΚΕ

8. με αριθμό 72976
SOUS No

9. Σφραγίδα/επίσημα
SCEAU/TIMBRE

10. Υπογραφή
SIGNATURE



ΚΟΜΑΡΗ Π ΕΛΕΝΗ

