



ΕΛΛΗΝΙΚΗ ΔΗΜΟΚΡΑΤΙΑ

Εθνικόν και Καποδιστριακόν
Πανεπιστήμιον Αθηνών

— ΙΔΡΥΘΕΝ ΤΟ 1837 —

APPENDIX A11

**Internal regulations for the operation of the Inter-
institutional program of graduate studies «Logic»**

Regulations of the Inter-institutional Program of Graduate Studies (IPGS) of the Department of History and Philosophy of Science of the National and Kapodistrian University of Athens (NKUA), the Research Centre for Greek Philosophy of the Academy of Athens (AA) and the School of Applied Mathematical and Physical Sciences of the National Technical University of Athens (NTUA) entitled «Logic».

ARTICLE 1. SUBJECT-AIM

1.1 The aim of the IPGS «Logic» is the provision of in-depth studies and the high-level training and specialization of graduate students in the science of Logic, as well as in its interaction with Mathematics and Philosophy, both for the needs of research in said science and for the needs of education and any other area requiring skills for analytical and synthetic thinking.

1.2 The IPGS leads to the award of a "Logic" Graduate Diploma, after full and successful completion of studies based on the curriculum, in the following specializations:

1. «History and Philosophy of Logic»
2. «Logic and Foundations of Mathematics»
3. «Mathematical Logic».

1.3 The titles are awarded by the Department of History and Philosophy of Science of NKUA, in co-operation with the Research Centre for Greek Philosophy of AA and the School of Applied Mathematical and Physical Sciences of NTUA.

1.4 The expected learning outcomes are the following: (a) acquisition of knowledge concerning the basic concepts and methods of Logic, (b) familiarization with the historical development of Logic, starting from the fundamental logical researches of Aristotle and the Stoics and ending with the ground-breaking works of Frege, Russell, Dedekind, Peano, Hilbert, Gödel, Turing and other leading researchers of the 19th and 20th centuries, (c) understanding of the use and effect of logical concepts and tools for the foundation of Mathematics, in order to highlight their consistency and unity, (d) deepening the applications of Logic in Philosophy, especially in relation to central problems in its branches, such as Epistemology and Metaphysics, (e) understanding how to use logical methods and tools in the construction of arguments, as they are employed in various forms of private and public life (courts, boards of directors, ethics of health sciences, negotiations, etc.).

Upon successful completion of the program, graduates will be able to: (a) formulate and support oral and written analyses to interpret, communicate and critically evaluate contemporary developments in Logic, (b) express responsible opinions about theories, established and under development, concerning the nature of Mathematics, (c) inform researchers, young as well as experienced, in a scientific way, on knowledge of Logic, Mathematics and Philosophy which forms a solid foundation either for the realization of doctoral studies or for employment in the field of education or in any field that requires skills for analytical and synthetic thinking.

ARTICLE 2. STRUCTURE AND GOVERNING BODIES OF THE IPGS

Competent bodies for the operation of the IPGS, in accordance with Law 4957/2022, are:

2.1 At NKUA level, competent bodies are the Committee for Graduate Studies and the Senate.

2.2 At the Department level, competent bodies are:

2.2.1 Committee of the Program of Studies

The Committee of the Program of Studies (CPS) has a two-year term and consists of eleven

(11) members, of whom five (5) come from the Department of History and Philosophy of Science of NKUA and three (3) from each of the other institutions that participate in the operation of the IPGS (a total of six members from the other institutions). The CPS is established by decision of the Senate of NKUA following recommendations of the Assemblies of the competent bodies of the institutions that participate in the operation of the IPGS. Members of the CPS come from DEP members, researchers and Professors Emeriti of the institutions participating in the operation of the IPGS. The CPS is responsible for:

- a) recommending to the Senate, through the Committee for Graduate Studies, the necessity of amending the IPGS, as well as extending the duration of the IPGS,
- b) designating the Director and the members of the Steering Committee of the IPGS,
- c) setting up committees for the evaluation of the applications of prospective graduate students and approving their registration in the IPGS,
- d) assigning teaching work among members of the teaching staff of the IPGS, being able to assign auxiliary teaching work at the IPGS to doctoral candidates of the cooperating institutions under the supervision of a member of the teaching staff of the IPGS,
- e) setting up committees for the examination of diploma dissertations of graduate students and designating the supervisor of each dissertation,
- f) certifying the successful completion of the course and awarding the Diploma of Graduate Studies,
- g) approving the report of the IPGS, following the recommendation of the Steering Committee,
- h) exercising any other legal authority.

The CPS assigns the exercise of the powers of paragraphs c) and e) to the Steering Committee of the IPGS.

2.2.2 Steering Committee

The Steering Committee (SC), which has a two-year term, consists of five (5) members, one (1) of whom is the Director of the IPGS and the remaining four (4) are appointed by the members of the CPS.

The distribution of the members of the SC by cooperating organization is as follows:

-Two (2) DEP/EDIP members of the Department of History and Philosophy of Science of NKUA

-One (1) researcher of the Research Centre for Greek Philosophy of AA

-One (1) DEP member of the School of Applied Mathematical and Physical Sciences of NTUA.

The SC is responsible to monitor and coordinate the program, especially for:

- a) preparing the initial annual budget of the IPGS and its amendments and recommending its approval to the Special Account for Research Grants,
- b) drawing up the report of the program and recommending its approval to the CPS,
- c) approving the expenditure of the IPGS,
- d) approving the award of scholarships, remunerative or non-remunerative, in accordance with what is defined in the founding decision of the IPGS and the Regulations of Graduate and Doctoral Studies of NKUA,
- e) recommending to the CPS the distribution of teaching work, as well as the assignment of teaching work,
- f) recommending to the CPS the invitation of Visiting Professors to meet the teaching needs of the IPGS,

- g) preparing a plan for the modification of the curriculum, which it submits to the CPS,
- h) recommending to the CPS the redistribution of courses among academic semesters, as well as on issues related to the quality upgrade of the curriculum.

2.2.3 Director

The Director has a two-year term, renewable without limitation. The CPS designates one of its members as Director of the IPGS.

The Director is responsible for:

- a) chairing the SC, as well as the CPS, drawing up the agenda and convening its meetings,
- b) recommending on issues related to the organization and operation of the IPGS to the CPS,
- c) recommending to the SC and other bodies of the IPGS and NKUA on matters related to the effective operation of the IPGS,
- d) being Scientific Manager of the program and exercising the corresponding responsibilities,
- e) monitoring the implementation of the decisions of the governing bodies of the IPGS and the Internal Regulations of graduate and doctoral study programs, as well as monitoring the implementation of the budget of the IPGS,
- f) exercising any other authority defined in the decision establishing the IPGS.

The Director of the IPGS, as well as the members of the SC and the CPSO, are not entitled to remuneration or any compensation for the performance of the responsibilities assigned to them and related to the performance of their duties.

2.3 Secretarial support

- a) The Secretariat of the Department of History and Philosophy of Science of NKUA is responsible for the secretarial and administrative support of the IPGS.
- b) The Secretary of the Department designates an employee or employees – depending on the number of Programs of Graduate Studies and the workload – as responsible for the Programs of Graduate Studies of the Department.
- c) As the IPGS has its own resources, it can hire, in accordance with current legislation, external collaborators for secretarial and administrative support, who are again under the supervision of the Department's Secretariat.

ARTICLE 3. CATEGORIES AND NUMBER OF ADMISSIONS

3.1 The IPGS admits Graduates from Schools of Science, Schools of Economics and Political Sciences, Polytechnic Schools and Schools of Philosophy of Greek Universities or of recognized cognate institutions abroad, as well as TEI graduates of related subjects.

3.2 The maximum number of students admitted to the IPGS is set at ten (10) per specialization, thirty (30) in total. The maximum number of admissions is determined according to the number of members of teaching staff and the student-instructor ratio, the infrastructure, the classrooms available and the absorption of graduates by the labor market.

3.3 In addition to the number of admissions, one (1) member of the EEP, EDIP and ETEP categories is accepted per year, as long as the work he/she performs at his/her institution is related to the subject matter of the IPGS.

3.4 Holders of IKY scholarships, foreign scholars of the Greek state, for the same or related academic subject as that of IPGS, are admitted without examinations.

ARTICLE 4. ADMISSION PROCEDURE

4.1 The selection of students is made in accordance with applicable legislation, the

Regulations for Graduate and Doctoral Studies of NKUA and the provisions of these Regulations.

4.2 Every March, by decision of the CPS of the IPGS, an announcement for the admission of students to the IPGS is published and posted on the website of the IPGS and NKUA. Relevant applications together with necessary supporting documents are submitted to the Secretariat of the IPGS within a deadline specified in the announcement, which may be extended by a decision of the CPS of the IPGS.

4.3 The CPS delegates to the SC the task of selecting the students to be admitted.

4.4 Necessary supporting documents are:

- Application form
- Curriculum vitae
- Photocopy of identity card or passport (both sides)
- Copy of degree or certificate of completion of studies
- Transcript of records for undergraduate courses
- Certificate of English language proficiency (level B2 or higher)
- Recommendations letters
- Scientific publications, if any
- Proof of professional or research activity, if any
- Certificate of recognition of foreign academic qualification.

4.5 For candidates holding academic degrees from foreign institutions who do not present a certificate of recognition from DOATAP, the following procedure is followed :

The CPS of the IPGS appoints a committee responsible for determining whether a foreign institution or a type of foreign institution title is recognized.

The committee checks whether a foreign institution or a type of foreign institution title is included in the relevant Register of foreign institutions maintained and updated by DOATAP.

If the foreign institution belongs to the list of institutions in article 307 of Law 4957/2022, then the candidate is required to present a certificate of place of study, which is issued and sent by the foreign University. If Greek territory is confirmed as the place of studies or part of them, the degree is not recognized, unless the part of studies done in Greek territory is in a public Higher Education Institution (AEI).

4.6 The evaluation of candidates and the selection of those to be admitted is based on the following criteria:

- Degree mark (weight 20%)
- Relevance of the candidate's University degree and knowledge to the subject of the IPGS (weight 20%)
- Recommendation letters (weight 20%)
- Relevant research or professional activity (weight 20%)
- Oral interview by the SC (weight 20%).

4.7 Based on the overall criteria, the SC prepares the student ranking list and submits it for approval to the CPS.

Successful candidates should register with the Secretariat of the IPGS within thirty (30) days from the decision of the CPS.

In the event of a tie (with mathematical rounding to a whole unit of the scale of 100), candidates with the same ranking are admitted, in a percentage not exceeding 10% of the maximum number of admissions.

In case of non-registration of one or more students, runners-up (if any) will be invited to register in the IPGS, based on their order in the approved ranking list.

ARTICLE 5. DURATION OF STUDIES

5.1 The duration of studies in the IPGS leading to the award of a Diploma of Graduate Studies (DGS) is four (4) academic semesters, including time for the preparation and submission of the diploma thesis.

5.2 Part-time study is possible, provided that a reasoned request is submitted and approved by the CPS of the IPGS.

Students eligible for applying for part-time study are:

- a) students who are provably employed for at least twenty (20) hours per week,
- b) students with disabilities or special educational needs,
- c) students who are athletes in parallel and during their studies belong to sports clubs registered in the electronic registry of sports clubs of article 142 of Law 4714/2020 (A' 148), which is maintained at the General Secretariat for Sports, under the following conditions:
 - ca) for the years in which they earn a distinction corresponding to 1st to 8th place in individual sports during panhellenic championship games in which at least twelve (12) athletes belonging to at least eight (8) athletic clubs participate or they compete in teams of the upper two (2) divisions in group sports or they participate as members in national teams in paneuropean games or other international games under the Greek Olympic Committee, or
 - cb) they participate at least once, during their study in the IPGS for which they apply for part-time status, in Olympic or Paralympic Games or Olympic Games for Deaf Athletes. Students who fall under this sub-case may enroll as part-time students, provided they submit a request which is approved by the Dean of the School of Science of NKUA.

The duration of part-time study cannot exceed twice the duration of regular study. The maximum duration of study applies also in this case.

5.3 An extension of the maximum duration of study is possible, provided that a reasoned request has been submitted by a student and has been approved by the CPS. The length of an extension cannot exceed the normal duration of study in the IPGS. Hence, the maximum length of time allowed for completion of study in the IPGS is set at eight (8) academic semesters.

5.4 Students who have not exceeded the maximum length of study, provided they submit a reasoned request to the CPS of the IPGS, may interrupt their study for a period of time that does not exceed two (2) academic semesters. Suspension of studies is granted for serious reasons (military service, illness, childbed, absence abroad, etc.).

Requests should be reasoned and accompanied by all relevant supporting documents provided by competent public authorities or organizations, which prove the reasons for the requested suspension of study. During the period of suspension of study, student status is suspended and participation in all educational activities is not allowed. The number of academic semesters during suspension of study does not count for the maximum duration of normal study.

At least two (2) weeks before the end of his/her suspension period, a student has to enroll again in the program, to continue his/her study with the rights and obligations of active students. After having submitted a relevant request, a student may terminate his/her period of suspension and return to the program, provided he/she has been granted a suspension of

study for two consecutive academic semesters. Every request concerning the termination of a period of suspension of study has to be submitted at least two (2) weeks before the beginning of the second semester of suspension.

5.5 The duration of suspension or extension of study is discussed and approved on a case-by-case basis by the SC, which submits a recommendation to the CPS of the IPGS.

ARTICLE 6. CURRICULUM

6.1 The IPGS begins in the winter semester of each academic year.

6.2 To obtain a diploma of the IPGS a total of one hundred and twenty (120) ECTS credit units is required. All courses and seminars are taught on a weekly basis.

6.3 The language of instruction and submission of the graduate diploma dissertation is English.

6.4 During their study, students are obliged to attend and be examined successfully in graduate courses, as well as to prepare and submit a graduate diploma dissertation.

6.5 The preparation of the diploma dissertation is realized during the last semester of study and carries a weight of twenty (20) ECTS credit units.

6.7 Courses are taught person-to-person or, in special cases, after a proposal of the SC and approval of the CPS, by distance learning methods, according to applicable laws and the provisions of article 7 in these Regulations.

6.8 The indicative curriculum per specialization is as follows:

Specialization: History and Philosophy of Logic		
1st Semester		
Compulsory courses	Teach. hours	ECTS
L1. Mathematical Logic	3	10
L4. History of Logic	3	10
L7. Philosophy of Logic/Philosophical Logic	3	10
Total		30
2nd Semester		
Compulsory courses	Teach. hours	ECTS
L2. Set Theory	3	10
L5. Modal Logic	3	10
Elective courses (selection of one course)		
HPL1. Deontic Logic	3	10
LFM1. Constructive Mathematics	3	10
ML1. Proof Theory	3	10
Total of required ECTS credit units		30
3rd Semester		
Elective courses (selection of three courses)	Teach. hours	ECTS
L3. Computability	3	10
L6. Model Theory	3	10
L8. Philosophy of Mathematics	3	10
HPL2. Topics in History of Ancient and Medieval Logic	3	10
HPL3. Philosophy of Language	3	10
LFM2. Advanced Set Theory	3	10
LFM3. Category Theory	3	10
ML2. Topics in Computability	3	10
ML3. Topics in Logic I	3	10
ML4. Topics in Model Theory	3	10
Total of required ECTS credit units		30
4th Semester		
Elective courses (selection of one course)	Teach. hours	ECTS
L9. Philosophy of Science	3	10
HPL4. Topics in History of Modern Logic	3	10
HPL5. Topics in Philosophy of Logic/Philosophical Logic	3	10
LFM4. Topics in Philosophy of Mathematics	3	10
ML5. Topics in Logic II	3	10
ML6. Topics in Proof Theory	3	10
ML7. Topics in Set Theory	3	10
Graduate Diploma Dissertation (compulsory)		
HPLD. Dissertation		20
Total of required ECTS credit units		30

Specialization: Logic and Foundations of Mathematics		
1st Semester		
Compulsory courses	Teach. hours	ECTS
L1. Mathematical Logic	3	10
L4. History of Logic	3	10
L8. Philosophy of Mathematics	3	10
Total		30
2nd Semester		
Compulsory courses	Teach. hours	ECTS
L2. Set Theory	3	10
L9. Philosophy of Science	3	10
Elective courses (selection of one course)		
HPL1. Deontic Logic	3	10
LFM1. Constructive Mathematics	3	10
ML1. Proof Theory	3	10
Total of required ECTS credit units		30
3rd Semester		
Elective courses (selection of three courses)	Teach. hours	ECTS
L3. Computability	3	10
L6. Model Theory	3	10
L7. Philosophy of Logic/Philosophical Logic	3	10
HPL2. Topics in History of Ancient and Medieval Logic	3	10
HPL3. Philosophy of Language	3	10
LFM2. Advanced Set Theory	3	10
LFM3. Category Theory	3	10
ML2. Topics in Computability	3	10
ML3. Topics in Logic I	3	10
ML4. Topics in Model Theory	3	10
Total of required ECTS credit units		30
4th Semester		
Elective courses (selection of one course)	Teach. hours	ECTS
L5. Modal Logic	3	10
HPL4. Topics in History of Modern Logic	3	10
HPL5. Topics in Philosophy of Logic/Philosophical Logic	3	10
LFM4. Topics in Philosophy of Mathematics	3	10
ML5. Topics in Logic II	3	10
ML6. Topics in Proof Theory	3	10
ML7. Topics in Set Theory	3	10
Graduate Diploma Dissertation (compulsory)		
LFMD. Dissertation		20
Total of required ECTS credit units		30

Specialization: Mathematical Logic		
1st Semester		
Compulsory courses	Teach. hours	ECTS
L1. Mathematical Logic	3	10
L3. Computability	3	10
L6. Model Theory	3	10
Total		30
2nd Semester		
Compulsory courses	Teach. hours	ECTS
L2. Set Theory	3	10
L5. Modal Logic	3	10
Elective courses (selection of one course)		
HPL1. Deontic Logic	3	10
LFM1. Constructive Mathematics	3	10
ML1. Proof Theory	3	10
Total of required ECTS credit units		30
3rd Semester		
Elective courses (selection of three courses)	Teach. hours	ECTS
L4. History of Logic	3	10
L7. Philosophy of Logic/Philosophical Logic	3	10
L8. Philosophy of Mathematics	3	10
HPL2. Topics in History of Ancient and Medieval Logic	3	10
HPL3. Philosophy of Language	3	10
LFM2. Advanced Set Theory	3	10
LFM3. Category Theory	3	10
ML2. Topics in Computability	3	10
ML3. Topics in Logic I	3	10
ML4. Topics in Model Theory	3	10
Total of required ECTS credit units		30
4th Semester		
Elective courses (selection of one course)	Teach. hours	ECTS
L9. Philosophy of Science	3	10
HPL4. Topics in History of Modern Logic	3	10
HPL5. Topics in Philosophy of Logic/Philosophical Logic	3	10
LFM4. Topics in Philosophy of Mathematics	3	10
ML5. Topics in Logic II	3	10
ML6. Topics in Proof Theory	3	10
ML7. Topics in Set Theory	3	10
Graduate Diploma Dissertation (compulsory)		
MLD. Dissertation		20
Total of required ECTS credit units		30

Each academic year the courses offered include the compulsory courses L1-L9 and, according to the availability of teaching staff, at least two (2) of the elective courses HPL1-HPL5, at least two (2) of the elective courses LFM1-LFM4 and at least two (2) of the elective courses ML1-ML7. The distribution of courses in the semesters (winter – spring) is subject to change depending on the availability of teaching staff.

To obtain a DGS in the specialization «History and Philosophy of Logic», students are required to

- Attend successfully the compulsory courses L1, L2, L4, L5, L7 and five (5) elective courses, of which at least three (3) from HPL1-HPL5.
- Submit a Diploma Dissertation whose subject belongs to the scientific area «History and Philosophy of Logic».

To obtain a DGS in the specialization «Logic and Foundations of Mathematics», students are required to

- Attend successfully the compulsory courses L1, L2, L4, L8, L9 and five (5) elective courses, of which at least three (3) from LFM1-LFM4.
- Submit a Diploma Dissertation whose subject belongs to the scientific area «Logic and Foundations of Mathematics».

To obtain a DGS in the specialization «Mathematical Logic», students are required to

- Attend successfully the compulsory courses L1, L2, L3, L5, L6 and five (5) elective courses, of which at least three (3) from ML1-ML7.
- Submit a Diploma Dissertation whose subject belongs to the scientific area «Mathematical Logic».

Under approval of the CPS, students may attend one (1) course from another Program of Graduate Study (PGS) instead of an elective course of the specialization they have selected.

B. Course content

L1. Mathematical Logic

Propositional logic (connectives and truth tables, complete sets of connectives, propositional calculus). First-order logic (first-order languages and structures, satisfiability and truth, first-order theories and properties, soundness and completeness theorems, compactness theorem and applications). Basic notions of model theory and examples of structures.

L2. Set Theory

Intuitive introduction. Countable and uncountable sets. Cantor's theorem and the Schröder-Bernstein theorem. Zermelo's six axioms. Cartesian product of sets, relations and functions. Natural numbers and the recursion theorem. Well-ordered spaces, transfinite recursion and induction. Comparability of well-ordered spaces, Hartogs' theorem and fixed-point theorem. Axiom of choice and equivalent statements. Cardinal arithmetic, König's theorem, cofinality, regular cardinals. Axiom of replacement, ordinal numbers and their arithmetic, cardinal numbers. Cumulative hierarchy of pure founded sets.

L3. Computability

Recursive definitions and inductive proofs. Primitive recursive functions. Recursive functions. Turing computability, the Church-Turing thesis, unsolvable problems and undecidable relations. Basic theory of recursive functions and recursively enumerable sets. Applications to Logic.

L4. History of Logic

In this course, we will go through the most important landmarks in the History of Logic. (1) The Beginnings: The Socratic dialectical framework; *elenchus* and *reductio ad absurdum*. Platonic dialectic. (2) Aristotelian Logic and Stoic Logic. (3) How logic was used and developed in the Middle Ages; early modal logic, ontological proofs. (4) Mathematical logic from Frege onwards. (5) Symbolic logic as a tool in modern analytical metaphysics: modal philosophical logic, logic and semantics. The treatment of these subjects, while not entirely technical, will require acquaintance with propositional and first order predicate logic, as well as some grounding in set theory.

L5. Modal Logic

The course deals with propositional and first-order modal logic. It presents all the standard

propositional modal systems (K, T, S5, etc.) in both an axiomatic and a model-theoretic way. Also, it presents, axiomatically as well as model-theoretically, an array of first-order systems, with or without the Barcan Formula and the Converse Barcan Formula, with constant or variable domains of quantification, with or without identity, and with identity being treated as a necessary relation or as a contingent one. Soundness and completeness are proved in every case. The propositional systems are shown to be decidable. Although this is a course in formal logic, attention is paid to the philosophical motivations for, and criticisms of, the various systems discussed.

L6. Model Theory

Löwenheim-Skolem theorems. Omitting types and interpolation. Countable models of complete theories. Skolem functions and indiscernibles. Ultraproducts and applications. Saturated models and applications.

L7. Philosophy of Logic/Philosophical Logic

The course presents an overview of philosophical logic and the philosophy of logic. Each time it is taught, it covers a selection of some topics from the following categories. A) Topics in philosophical logic: 1) Extensions of classical logic: second-order logic; modal logic; temporal logic; epistemic logic. 2) Alternatives to classical logic: intuitionistic logic; many-valued logics; free logics; paraconsistent logics; quantum logic; relevance logic. 3) Mereology (the formal study of the part-whole relation). 4) Paradoxes: the sorites and the logic of vague expressions; semantic paradoxes and formal theories of truth. 5) Conditionals (that is, natural-language sentences of the form “If A then B”). B) Topics in the philosophy of logic: how do we know (if we do) that a certain logical principle is correct? what (if anything) makes a logical principle correct? is there a logical system, e.g. classical logic, that applies to all domains of discourse (logical monism) or are there only logical systems that differ in their principles and apply to different domains (logical pluralism)?

L8. Philosophy of Mathematics

The “Philosophy of Mathematics”, broadly construed, goes back to Plato and Aristotle at least. It concerns questions about the ontological status of mathematical objects and the epistemological reliability of mathematical research in general. In the last two centuries, and following the attempt of logicism to found mathematics on logic, and the ensuing emergence of logico-semantical paradoxes, as well as the foundation of the transfinite by G. Cantor, doing philosophy of mathematics requires a sound foundation in both mathematics and philosophy. This course will be both historical and systematic. Through key texts and proofs, but also by a systematic presentation of the various schools (e.g. formalism, logicism, etc.) the student will gain an overview of the field of the Philosophy of Mathematics, as it has been shaped by the pioneering works of Dedekind, Cantor and Frege to the present day.

L9. Philosophy of Science

The course is devoted to the presentation of the so called “received view of scientific theories”, shaped by the Logical Positivists, but it draws upon the traditions that influenced logical positivism, namely, classical empiricism, positivism, logicism and Wittgenstein’s philosophy. Apart from the work of logical positivists, such as Carnap, Neurath and Schlick, the work of Popper, Lakatos, Kuhn and Feyerabend is also presented. The topics addressed in the course of this historical presentation are the demarcation of science from metaphysics and pseudo-science, the distinct character of scientific methodology and research, the evaluation of scientific theories, the relation of observation to theory, scientific progress, the rationality of science, the ethics of science, the character of the scientific community and the relations between science and society.

HPL1. Deontic Logic

This course concerns the study of normative (deontic) concepts, rules and axiomatic systems. Beginning with references to medieval deontic logic, the approaches of A. Meinong, E. Mally and G. H. von Wright, as well as the axiomatic systems “Standard Deontic Logic” and

“Anderson-Kanger Reduction” and their semantics are presented. Finally, several paradoxes regarding common systems of deontic logic and attempts to resolve them will be discussed.

HPL2. Topics in History of Ancient and Medieval Logic

In this course, we will, periodically, go through pivotal texts and themes of Ancient and Medieval Logic and of the way scholars have interpreted them. For example: (1) Formal and non-formal context in Ancient Logic. (2) The interaction between Logic and Semantics in Aristotle and the Stoics. (3) Logical Paradoxes in Ancient Logic. (4) Ontological Proofs in Medieval Philosophy. (5) Freedom of the will and the Principle of the Excluded Middle in Medieval and Byzantine Philosophy.

HPL3. Philosophy of Language

Each time it is taught, the course covers a selection from among the following topics. A) General topics about language: Frege’s distinction between sense and reference; Wittgenstein’s analysis of language in the *Tractatus* and his approach to language in the *Philosophical Investigations*; Quine’s doctrine of the indeterminacy of translation; Davidson’s theories of meaning; Dummett’s theories of meaning; speech-acts (Austin, Searle, etc.); various views on propositions. B) Topics about particular categories of linguistic expressions: Russell’s theory of definite descriptions; Russell’s view that proper names are abbreviations of definite descriptions and Kripke’s view that they are rigid designators; is “exists” a predicate? the logico-semantic concept of a predicate; indicative conditionals; subjunctive conditionals; indirect speech and reports of propositional attitudes; Davidson’s account of adverbs and adverbials.

HPL4. Topics in History of Modern Logic

According to I. Kant, logic had made virtually no progress from Aristotle to his days. Despite the importance of G. Boole's *Laws of Thought* (1854), most historians of Logic would agree that modern logic begins with Gottlob Frege, and more specifically with his *Ideography* (1879). For this course, we will go through the fundamental landmarks of this fascinating period of human thought, which—according to W. O. Quine—has made logic a great part of philosophy. We will refer to and provide a rough sketch of: (1) Frege’s and Russell's attempts to found mathematics on this new symbolic/mathematical logic, (2) the logical-semantic paradoxes that arose, (3) the attempts of formalism and logicism to overcome the previous, so-called, “Crisis of the Foundations”, (4) the importance of K. Gödel's incompleteness theorems and Turing’s proof. If there is time, we will also consider how the technical tools of mathematical/symbolic logic became the background on which the newer philosophical logic was built.

HPL5. Topics in Philosophy of Logic/Philosophical Logic

Each time this course is taught, it focuses on one or two of the topics listed in the description of course L7 (“Philosophy of Logic/Philosophical Logic”) and goes more deeply into them than can be done in L7.

LFM1. Constructive Mathematics

Brouwer-Heyting-Kolmogorov interpretation of logical connectives and quantifiers. Gentzen natural deduction systems for constructive and classical logic. Gödel’s negative translation. Kripke semantics and completeness. Intuitionistic first-order arithmetic. Markov’s principle and Markov’s rule. Intuitionistic second-order arithmetic. Non-classical extensions of intuitionistic arithmetic.

LFM2. Advanced Set Theory

Gödel’s theory of constructibility and basic applications (consistency of the axiom of choice with the Zermelo-Fraenkel axioms for sets). Cohen’s forcing and applications (consistency of the negation of the axiom of choice with the Zermelo-Fraenkel axioms). Large cardinals and correspondence with consistency of theories.

LFM3. Category Theory

Definition of categories. Examples of categories. Isomorphism and constructing categories.

Free categories and Syntax. Epimorphisms. Initial and Terminal Objects. Duality. Limits and colimits. Cartesian closed categories. Monoidal categories. Presheaves. Adjunctions. Yoneda Lemma. Exponentials. Categories of categories. Applications. Monads.

LFM4. Topics in Philosophy of Mathematics

In this course, we will, periodically, examine the most central themes/problems in the Philosophy of Mathematics. For example: (1) The controversy between logicism, formalism and intuitionism regarding the foundation of mathematics. (2) The philosophical consequences of K. Gödel's incompleteness theorems. (3) The concept of infinity. (4) The relationship between proofs, truth and algorithms. The lectures will closely follow the structure and argumentation of historical texts in the philosophy of mathematics.

ML1. Proof Theory.

Proof systems: natural deduction systems, Hilbert systems, Gentzen sequent systems. The notion of cut. Cut elimination theorem and applications. Normalization and numerical bounds in cut elimination. Structure of proofs without cut. Curry-Howard isomorphism. Strong normalization.

ML2. Topics in Computability

Introduction to mathematical recursion theory with fixed-points and its applications, covering topics such as: mathematical analysis of recursive algorithms, directed-complete partial orders, recursive functions on first-order structures.

ML3. Topics in Logic I

Logic and language – an introduction. An introduction to the current trends of Universal logic. The Lindstrom and Barwise approach. Categorical abstract model theory – an introduction to the theory of institutions. The general topology approach. Examples of logical systems in a universal setting. Abstract concepts of syntax.

ML4. Topics in Model Theory

The course covers advanced topics in Model Theory, such as (a) stability and neo-stability theory (Morley's categoricity theorem and Shelah's theory of classification, examples of theories that are stable, superstable or ω -stable, study of stable groups), (b) topics concerning the decidability of first-order theories (Presburger arithmetic, theory of addition and divisibility, theory of addition and a set of squares, Hilbert's tenth problem and its variants, connections with the Bombieri-Lang and Lang and Vojta conjectures), and (c) topics concerning models of Peano arithmetic and its fragments (overspill principle, cofinal and end extensions of models, definable elements, Friedman's theorem and variations, the Paris-Harrington theorem).

ML5. Topics in Logic II

The course will focus on the concepts of specification, validation and verification. The theory will cover verification by order sorted and process algebra, temporal logic, rewriting logic and reasoning with constraints. Model checking and automated theorem proving will be discussed. Also, applications in the area of formal epistemology and formal ethics.

ML6. Topics in Proof Theory

Introduction to λ -calculus. In particular, topics covered include: pure λ -calculus, β -reduction, η -reduction, Church-Rosser theorem, representation of recursive functions in λ -calculus, undecidability theorem, λ -calculus with types.

ML7. Topics in Set Theory

Elements of classical descriptive set theory: Suslin and Borel sets, Baire functions, theorems of Lebesgue, Suslin, Lusin, founded partial orders and the Kunen-Martin theorem, projective sets and the classes of Lusin-Sierpinski, recursion theory in the reals and the Baire space, effective descriptive set theory.

ARTICLE 7. DISTANCE LEARNING

7.1 Synchronous distance learning

The educational process may use methods of synchronous distance learning exclusively and only in cases of force majeure or extraordinary circumstances, mainly when person-to-person teaching is not possible or when the use of NKUA infrastructure for educational, research and other activities is impossible, as is provided for by the legislation in force. In those cases, the Digital Governance Unit of NKUA is responsible for supporting distance learning, as well as for issues regarding the protection of personal data.

7.2 Asynchronous distance access to educational material

NKUA maintains an electronic platform accessible to persons with disabilities, through which asynchronous distance access to educational material is available. On this electronic platform, it is possible to upload educational material per course, which can include lecture notes, presentations, exercises, indicative solutions of these, etc., provided that current legislation concerning the protection of personal data is observed. Educational material of all kinds is provided exclusively for the educational use of students and is protected by Law 2121/1993 (A' 25), provided all relevant conditions are met. No video-recorded lectures replacing in-person teaching will be uploaded on the platform.

ARTICLE 8. EXAMINATIONS AND EVALUATION OF GRADUATE STUDENTS

8.1 The educational work of each academic year is structured in two study semesters, the winter and spring semesters, each of which includes at least thirteen (13) weeks of teaching and three (3) weeks of examinations. Repeat examinations for courses offered in the winter and spring semester are given in September.

8.2 It is foreseen that, whenever a lecture is cancelled for any reason, this lecture should be given on a new date; in such cases, details (new date and time) must be posted on the IPGS website.

8.3 Attendance of courses/seminars etc. is mandatory. A student is considered to have attended a course (and hence has the right to participate in the corresponding examination) only if he/she has attended at least 75% of the lectures corresponding to this course. Otherwise, the graduate student is obliged to repeat this course during the next academic year. If the percentage of a student's absences exceeds 25% for all courses, the student may be considered for deletion from the student registry. If such an issue arises, it is discussed by the SC, which submits its recommendation to the CPS.

8.4 The evaluation of students and their performance in the courses they are required to attend within the framework of the IPGS takes place at the end of each semester with written or oral examinations or is based on intermediate written assignments or a combination of all of the above. The evaluation method is determined by the instructor of each course. When conducting written or oral examinations, as evaluation methods, the integrity of the process must be guaranteed. Grading is done on a scale of 1-10. Examination results are announced by the instructor and are submitted to the Secretariat of the IPGS and the Department within four (4) weeks at the latest after the examination date. In the event that the above limit is repeatedly exceeded by an instructor, the Director must inform the CPS of the IPGS.

8.5 The contribution (percentage) of the homework assignments into the final grade of each course is determined for each course separately, after a recommendation by the corresponding instructor and is mentioned explicitly in the Study Guide of the IPGS.

8.6 Alternative assessment methods may be applied to deal with emergency needs or circumstances resulting from force majeure, such as conducting written or oral examinations

by electronic means, provided that the integrity of the alternative process of assessment is guaranteed.

8.7 It is possible to use alternative assessment methods for the performance of students with disabilities or special educational needs, after a decision of the SC and recommendation of the Committee for Disabled Students of the Department of History and Philosophy of Science, taking into account relevant instructions of the Disabled Students Accessibility Unit of NKUA.

8.8 The evaluation of students of second level programmes of study that are organized by methods of distance learning may be conducted through distance examinations, provided that the integrity of the process is guaranteed.

8.9 In the event of illness or recovery from a serious illness, instructors are advised to facilitate, in any way they consider appropriate, students (e.g. through oral distance examinations). Instructors should make sure that, throughout oral examinations, they are not alone with the students being examined.

8.10 Students are required to repeat courses for which they have not received a passing grade. However, whenever a laboratory or exercise is graded independently of a course, it does not have to be repeated, as long as it has been attended successfully.

8.11 A grade correction is allowed, if an obvious oversight or cumulative error has occurred, provided a written request by the instructor responsible has been submitted and approved by the CPS of the IPGS.

8.12 If a student fails to pass the same course more than three (3) times, the procedure defined by the applicable legislation is to be followed.

8.13 Examination papers are kept mandatorily and under the care of the instructor responsible for each course for two (2) years. After this period, examination papers are annulled and are destroyed after a decision has been taken by the CPS and a destruction protocol has been approved – unless a relevant criminal, disciplinary or any other administrative procedure is pending.

8.14 For the calculation of the mark of a degree, the weight of each course in the programme of study is taken into account, which is expressed by the corresponding number of ECTS credit units. The number of ECTS credit units of each course is also the weight indicator of this course. For the calculation of the mark of a degree, the grade of each course is multiplied by the corresponding number of credit units (of the course) and the total sum of the individual products is divided by the total number of credit units required for the award of the degree. This calculation is expressed by the following mathematical formula:

$$\text{Mark of degree} = (\sum_{k=1}^N GC_k \cdot CU_k) / TCU$$

where:

N = number of courses required to obtain the degree

GC_k = grade of course *k*

CU_k = credit units of course *k*

TCU = total number of credit units required to obtain the degree.

To obtain a DGS, each student is required to attend and be examined successfully in, depending on the specialization selected, five (5) compulsory courses and five (5) elective courses out of the list of courses offered by the IPGS and to prepare and submit a graduate diploma dissertation, thus accumulating one hundred and twenty (120) ECTS credit units.

ARTICLE 9. PREPARATION OF GRADUATE DIPLOMA DISSERTATION

9.1 The assignment of a graduate diploma dissertation (GDD) is possible after a student has attended and been successfully examined in all compulsory courses and at least three (3) elective courses of the IPGS.

9.2 The GDD is required to be independent, original, have a research character and be prepared in accordance with the specifications posted on the website of the IPGS.

9.3 After a student has submitted a request, mentioning the proposed title of the diploma dissertation and the name of the supervisor, which is accompanied by an abstract of the proposed dissertation, the SC designates the supervisor and the three (3) members of the examination committee, one of whom is the supervisor. The graduate diploma dissertation should be written in English.

9.4 The title of the dissertation may be modified, provided the student has submitted an application to the SC of the IPGS, and the supervisor has consented to it. This application should be accompanied by a short justification of why the title should be modified.

9.5 For the approval of a dissertation, the author must present it before his/her three-member examination committee.

9.6 The supervisor and the other members of the examination committee of a graduate dissertation must belong to one of the following categories of teaching staff of the IPGS:

a) members of Teaching Research Staff (DEP), Special Educational Staff (EEP), Laboratory Educational Staff (EDIP) and Special Technical Laboratory Staff (ETEP) of the cooperating Departments or other Departments of NKUA or another Higher Education Institution (AEI) or a Higher Military Educational Institution (ASEI), who are employed beyond their legal obligations,

b) Professor Emeriti or retired members of DEP of the cooperating Departments or other Departments of NKUA or another AEI,

c) cooperating instructors,

d) authorized instructors,

e) visiting professors or visiting researchers,

f) researchers and special scientists from research and technological institutions of article 13A of Law 4310/2014 (A' 258) or other research centres and institutes in Greece or abroad.

After a decision of the CPS, it is possible to assign the supervision of diploma dissertations to members of DEP, EEP, ETEP and EDIP of NKUA or another AEI, who have not undertaken teaching at the IPGS.

9.7 It is mandatory that graduate diploma dissertations, after their approval by the examination committee, are posted on the Digital Repository "PERGAMOS", in accordance to the decisions of the Senate of NKUA.

9.8 Whenever a graduate diploma dissertation contains unpublished results, at the author's request and the supervisor's consent, it is possible to post on "PERGAMOS" the abstract, with the proviso that the full dissertation will be posted later.

ARTICLE 10. OBLIGATIONS AND RIGHTS OF GRADUATE STUDENTS

10.1 Graduate students have all the rights and benefits provided for students of the first cycle of studies, until the end of any granted extension of study, except for the right to receive free textbooks.

10.2 NKUA guarantees students with disabilities or special educational needs accessibility to suggested textbooks and teaching (<https://access.uoa.gr/>).

10.3 The NKUA Career Office provides counseling support for students on study issues and professional career prospects (<https://www.career.uoa.gr/ypiresies/>).

10.4 Graduate students are invited to participate in and attend seminars of research groups, literature review discussions, visits to laboratories, conferences/workshops on subjects related to that of the IPGS, lectures or other scientific events of the IPGS etc.

10.5 The CPS of the IPGS, at the recommendation of the SC, may decide the deletion of graduate students from the student registry, if they:

- exceed the maximum number of absences,
- have failed in the examinations of one or more courses and have not completed successfully their study, in accordance with what is defined in these regulations,
- exceed the maximum length of study in the IPGS, as defined in these regulations,
- have violated written provisions regarding the treatment of disciplinary offences by the competent disciplinary bodies,
- do not pay the prescribed tuition fees,
- submit a deletion request themselves.

10.6 In the event of deletion of a student from the student registry of the IPGS, the student may apply for a certificate concerning the courses they have attended successfully.

10.7 Students may participate in international student exchange programs, such as ERASMUS+ or CIVIS, in accordance with existing legislation. In such an event, the maximum number of ECTS credit units that can be recognized amounts to thirty (30). This possibility is provided to students after the second semester of their studies. To participate in exchange programs, students should apply to the SC and follow the terms of the program. The IPGS can also be attended by students from international student exchange programs, such as the ERASMUS+ program, in accordance with bilateral agreements in effect.

10.8 Students may, upon approval of the SC, attend up to one (1) course from another PGS operating in NKUA or a different AEI.

10.9 Graduate students of NKUA may enroll in PGS of the NKUA or a different AEI in Greece or abroad in the framework of educational or research cooperation programmes, in accordance with current legislation.

10.10 Students may study in parallel in an undergraduate study program and in a graduate study program or in two (2) graduate study programs of the same or another Department of the same or another AEI.

10.11 At the end of each academic semester, students evaluate all courses offered and all instructors in the IPGS (see article 17).

10.12 Graduate students may request the issuance of a Diploma Supplement in Greek and English.

10.13 In connection to their participation in the IPGS «Logic», graduate students have to pay tuition fees amounting to

- seven hundred and fifty (750,00) euros per semester, if they are citizens of EU member states
- one thousand and five hundred (1.500,00) euros per semester, if they are not citizens of EU member states

Tuition fees are payable at the beginning of each semester.

ARTICLE 11. FEE WAIVERS

11.1 Students of the IPGS, who satisfy financial or social criteria and conditions of excellence in the first cycle of studies, are exempt from tuition fees, in accordance with current legislation. This exemption is granted for participation in only one PGS. In any case, the

number of students who are exempt from tuition fees may not exceed thirty per cent (30%) of the total number of students enrolling in the IPGS for each academic year.

11.2 A request for exemption from tuition fees may be submitted after the completion of the student selection process. The financial situation of a candidate is in no case a reason for non-selection in the IPGS.

11.3 Students who receive a scholarship from another source are not entitled to an exemption, nor are citizens of non-EU countries.

11.4 Examining the criteria for exemption from tuition fees is carried out by the CPS and a reasoned decision is issued to accept or reject the applications submitted.

11.5 If current legislation sets an age criterion, it is recommended that, for reasons of good administration and equal treatment, the date of birth of students should be considered December 31 of their year of birth.

11.6 Members of the EEP, EDIP, ETEP categories, who are accepted as supernumeraries in accordance with provision 3.3 of these regulations, are exempt from paying tuition fees.

11.7 In case that members of the same family up to the second degree are studying at the same time at the IPGS «Logic», it is possible to provide a reduction by 50% in the tuition fees paid.

ARTICLE 12. GRANTS AND PRIZES

For the realization of their studies, students can receive grants and prizes.

12.1 Grants are divided to:

a) **Excellence grants** (up to two), granted to excellent students of the IPGS, on the basis of their performance in the 1st year courses. These grants exempt their beneficiaries from tuition fees for their 2nd year of study.

Conditions

Applications for excellence grants may be submitted by graduate students who have completed one half of the normal length of study in the IPGS. Candidates must not hold a salaried position in the public or private sector nor receive a scholarship from any other body for the specified period.

Criteria

- performance in courses (average grade greater than or equal to eight)
- successful completion of all courses required by the curriculum
- personal and family income.

In the event of a tie in grade and income, a draw is held. In case a student does not accept a grant, it is awarded to the next student in the ranking order.

Procedure

Students are invited to submit to the Secretariat of the IPGS «Logic» applications, accompanied by the following documents:

- 1) transcript of grades
- 2) personal declaration, signed through the gov.gr platform, containing the following text: «I do not hold a salaried position in the public or private sector nor receive a grant from any other body for the specified period».
- 3) recent tax clearance certificate (personal and family).

The SC of the IPGS considers the applications submitted and submits a recommendation to

the CPS, which decides on the matter.

b) **Reciprocating grants.** Upon a recommendation of the SC, depending on the number of admissions and the finances of the IPGS, the CPS may award up to two (2) reciprocating grants to graduate students, for carrying out auxiliary teaching work in 1st cycle study programs. The amount granted may cover part or all of the tuition fees in the IPGS and is calculated on the basis of the number of actual working hours. At the recommendation of the SC, the hourly wage is set at the beginning of each academic year, by a decision of the CPS, which is announced to the students of the IPGS.

The cost of these grants may be borne by the budget of projects/programs, which are financed by private, international and own resources of article 230 of Law 4957/2022, as well as co-financed projects of the Corporate Agreement for the Development Framework (ESPA). The award of these grants is subject to the same conditions, criteria and procedure of paragraph 12 a) which regards excellence grants.

Auxiliary teaching work is defined as the assistance of DEP members in connection to their teaching work concerning first cycle students, i.e., conduct of tutorials and laboratory exercises, supervision of exams and marking of exercise papers.

12.2 Excellence prizes. Each year, the IPGS awards excellence prizes to the three best students upon the completion of the 1st and 2nd academic semesters, on the basis of a recommendation of the SC and a decision of the CPS. Prizes have no financial benefit. Prizes are signed by the Director of the IPGS and the Chair of the Department of History and Philosophy of Science.

Conditions

1. Average grade for 1st and 2nd semester courses greater than or equal to eight.
2. Successful completion of courses in February (1st semester) and June (2nd semester) in the normal study years of each series of students.

Procedure

After the submission of the June grades, the SC considers the grades of each series of students and, provided that the above conditions are met, ranks the students in descending order (in terms of their grade point average) and submits a recommendation to the CPS regarding the award of prizes to the three (3) top students.

Grade Average: In all considerations concerning the award of grants or prizes, the grade average is calculated using the mathematical formula:

$$\text{Grade Average} = (\sum_{k=1}^N GC_k \cdot CU_k) / TCU$$

where

N = number of courses of the corresponding semesters

GC_k = grade of course k

CU_k = credit units of course k

TCU = total number of credit units of the corresponding semesters.

ARTICLE 13. INFRASTRUCTURE AND FUNDING

13.1 For the orderly operation of the IPGS, lecture and seminar rooms, auditoriums equipped with audio-visual media and laboratories of the Department of History and Philosophy of Science of NKUA, as well as of the School of Applied Mathematical and Physical Sciences of NTUA, are available.

13.2 The Secretariat of the Department of History and Philosophy of Science of NKUA is responsible for the administrative and secretarial support of the IPGS.

13.3 Funding of the IPGS may come from:

- a) tuition fees,
- b) donations, sponsorship and all kinds of financial support,
- c) endowments,
- d) resources from research projects or programmes,
- e) own resources of NKUA,
- f) the state budget or public investment program and
- g) any other legal source.

13.4 Payments of tuition fees are made by the students themselves or by third natural or legal persons on behalf of the students, as long as this is provided for in the decision establishing the IPGS.

13.5 The management of the resources of the IPGS is carried out by the Special Account for Research Funds (ELKE) of NKUA.

13.6 Resources of the IPGS are distributed as follows:

- a) an amount corresponding to thirty percent (30%) of the total revenue derived from tuition fees is withheld by the ELKE of NKUA. This amount includes the withholding percentage in favour of the ELKE for the financial management of the IPGS. When the revenue of the IPGS comes from donations, sponsorship and any kind of financial support, endowments or resources from research projects or programmes, the withholding in favour of ELKE is that applying to revenue from corresponding funding sources,
- b) the remaining total revenue of the IPGS is available to cover the operational costs of the IPGS.

ARTICLE 14. TEACHING ASSIGNMENTS/TEACHING STAFF

14.1 Teaching work of the IPGS «Logic» is assigned, following a decision of the CPS, to the following categories of teaching staff:

- a) members of Teaching Research Staff (DEP), Special Educational Staff (EEP), Laboratory Educational Staff (EDIP) and Special Technical Laboratory Staff (ETEP) of the cooperating Departments or other Departments of NKUA or another Higher Education Institution (AEI) or a Higher Military Educational Institution (ASEI), who are employed beyond their legal obligations,
- b) Professors Emeriti or retired members of DEP of the cooperating Departments or other Departments of NKUA or another AEI,
- c) cooperating instructors,
- d) authorized instructors,
- e) visiting professors or visiting researchers,
- f) researchers and special scientists from research and technological institutions of article 13A of Law 4310/2014 (A' 258) or other research centres and institutes in Greece or abroad.
- g) scientists of recognized prestige, who have specialized knowledge and relevant experience in the subject matter of the IPGS.

14.2 All categories of teaching staff may be paid exclusively from the resources of the IPGS. Payments or other benefits from the state budget or the public investment program are not allowed. The amount of payment for each member of the teaching staff of the IPGS is determined by a decision of the CPS. In particular, instructors who are DEP members may be paid additionally for the work they offer to the IPGS, as long as they fulfill their minimum legal obligations, as defined in paragraph 2 of article 155 of Law 4957/2022. The same

provision applies analogously to EEP, EDIP and ETEP members, as long as they fulfill their minimum legal obligations.

14.3 At the request of the CPS of the IPGS to the Assemblies of the cooperating Departments/Schools/Institutions, auxiliary teaching work may be assigned to doctoral candidates, under the supervision of an authorized instructor of the IPGS.

14.4 Teaching work is assigned in accordance to a decision of the CPS, based on a recommendation of the SC of the IPGS.

Decisions of the CPS regarding teaching work assignments must include the following details:

- a) the instructor's full name,
- b) the instructor's status (e.g., DEP, EEP, EDIP, ETEP member etc.),
- c) the type of teaching work assigned to each instructor (course, seminar),
- d) the number of teaching hours per course or seminar.

14.5 The distribution of teaching work is carried out before the beginning of the academic year, both for the winter and the spring semester. In the event that the distribution of teaching work cannot be carried out simultaneously for both academic semesters, the decision must be taken before the start of each academic semester. Upon a reasoned decision of the CPS, the assignment of teaching work may be modified during the academic year.

14.6 Instructors, while they are on study leave or suspension of duties, may provide teaching work to the IPGS, if they judge that their obligations allow it, provided, of course, that, based on the current conditions, this is essentially and practically possible, a matter which must be competently judged on a case-by-case basis.

ARTICLE 15. AWARD OF DIPLOMA OF GRADUATE STUDY

15.1 Students complete their study for obtaining a DGS upon having completed the minimum number of courses and ECTS credit units required, as well as having completed successfully their graduate diploma dissertations. The CPS verifies the completion of study in order to grant the DGS to a student.

15.2 At the completion of the procedure described above, students are issued with a certificate of completion of study, their student status is annulled and their participation in collective administrative bodies of the University ceases.

15.3 The DGS certifies the successful completion of study and carries a mark, to two decimal places, on the following scale: Excellent (8.5 to 10), Very Good (6.5 to 8.5 inclusive) and Good (5 to 6.5 inclusive).

15.4 The type of DGS per kind of PGS is common to all Departments and Schools of NKUA and is included in the Institution's Graduate and Doctoral Studies Regulations.

15.5 The IPGS «Logic» awards Diplomas of Graduate Study in the following specializations:

1. «MA in History and Philosophy of Logic»
2. «MSc in Logic and Foundations of Mathematics»
3. «MSc in Mathematical Logic».

ARTICLE 16. CONFIRMATION CEREMONY

16.1 The oath is not a constituent type of the successful completion of the studies, but it is a necessary condition for granting the title document of the diploma. The confirmation takes place, within the framework of the Assembly of the Department of History and Philosophy of

Science of NKUA, at the Department, in the presence of the Director of the IPGS, the Chairperson of the Department, the Dean of the Faculty of Science of EKPA or his/her Deputy and, if possible, a representative of the Rector of NKUA.

16.2 A request for a confirmation ceremony for graduates in the Great Hall of Ceremonies of the central building of NKUA is examined on a case-by-case basis by the Rector, based on an assessment of the current possibilities and the number of participants, which will be declared by the Secretariat of the IPGS to the Directorate of Education and Research.

16.3 Graduate students, who have successfully completed the IPGS, in exceptional cases (studies, living or working abroad, health reasons etc.), can apply to the IPGS Secretariat for exemption from the obligation to participate in the confirmation ceremony. This exemption is approved by the Chairperson of the Department of History and Philosophy of Science and the Vice-Rector for Academic Affairs, International Relations, and Extroversion of NKUA.

ARTICLE 17. EVALUATION

17.1 Evaluation by the Hellenic Authority for Higher Education

The IPGS is evaluated in the context of the periodic evaluation/certification of the Department organized by the Hellenic Authority for Higher Education (HAHE). In this context, the HAHE evaluates the overall effect of the work carried out by the IPGS, the degree of fulfillment of the goals set at its establishment, its sustainability, the absorption of graduates in the labor market, the degree of its contribution to research, the internal evaluation of the program by its students, the purposefulness of extending its operation, as well as other data regarding the quality of the work produced and the contribution of the IPGS to the national strategy for higher education.

If the IPGS, during the process of its evaluation, is deemed not to meet the conditions for continuing its operation, it will operate until the graduation of all already registered students, in accordance with the founding decision of the IPGS and the Graduate and Doctoral Studies Regulations of NKUA.

17.2 Internal evaluation

The internal evaluation of the IPGS is realized yearly by the Quality Assurance Unit (QAU) of NKUA. In the internal evaluation process, all those involved in the implementation of the actions and activities of the IPGS participate; more specifically, those participating are students, members of the teaching staff, members of the administrative and technical support staff and members of the SC of the IPGS.

The process of internal evaluation is realized in accordance with current legislation, the Internal System for Quality Assurance of NKUA, the instructions and standards of the HAHE.

The internal evaluation of the IPGS includes the evaluation of teaching work, as well as all academic activities and actions of the IPGS.

Specifically, the following are evaluated:

- a) the content of the Curriculum, according to the most recent research on the subject matter of the IPGS, so as to ensure the contemporary nature of the IGPS,
- b) the work load of courses, as well as the progress and rate of completion of studies of the graduate students,
- c) the degree of satisfaction of the students' expectations from the IPGS, the services offered to support their studies and the learning environment,

d) the IPGS courses on a semester basis, through anonymous questionnaires completed by the students of the IPGS.

The utilization of the evaluation results and their communication is done through the IPGS website, as well as the websites of NKUA, the Academy of Athens and NTUA, aiming at the sustainability of the IPGS, the high level of studies, the improvement of its benefits and the efficiency of its teaching staff.

ARTICLE 18. DURATION OF OPERATION OF THE IPGS

THE IPGS will operate until the academic year 2033-2034, provided it satisfies the criteria of internal and external evaluation, in accordance with current legislation.

ARTICLE 19. FINAL PROVISIONS

For matters that are not defined in current legislation, in the Regulations for Graduate and Doctoral Studies of NKUA or in these Regulations, the governing bodies of the IPGS «Logic» are responsible to decide.

This decision is to be published in the Government Gazette.

The Rector

Gerasimos D. Siasos