



**Aristotle University of Thessaloniki**  
**Faculty of Sciences - School of Physics**

**Programme of Postgraduate Studies (MSc)**  
**in**  
**Electronics and Telecommunications -**  
**Radioelectrology**

**Internal Operating Regulations**

2026

## General Provisions

The second cycle of studies consists of attending a Postgraduate Studies Programme (P.S.P.) and is completed with the award of a Postgraduate Studies Diploma (P.S.D.).

These Postgraduate Study Regulations supplement the provisions of Chapter IX [Organisation and Operation of Second and Third Cycle Study Programmes] of Law 4957/2022 (Government Gazette 141/A/21-7-2022): "New Horizons in Higher Education Institutions: Enhancing the quality, functionality and connection of HEIs with society and other provisions", as well as the Regulations for the Operation of Postgraduate Study Programmes at Aristotle University of Thessaloniki.

## Article 1

### Subject - Purpose of the P.S.P.

The Department of Physics of the Faculty of Science of the Aristotle University of Thessaloniki organises and operates a Postgraduate Studies Programme (P.S.P.) entitled " "Electronics and Telecommunications (Radioelectrology)".

**The aim** of the M.Sc. programme is to offer a comprehensive second-cycle programme of study focusing on education, research methodology and specialisation in the fields of Electronics and Telecommunications. It draws on the solid infrastructure and expertise of the Department of Physics at Aristotle University of Thessaloniki to provide organised postgraduate studies in the field of Electronic Physics and its applications.

The **aim** of the MSc programme is to train highly specialised scientists with advanced technical skills who will be able to offer society services related to electronic technology in the fields of electronic circuits and telecommunications. Graduates will be able to meet the demands of the modern job market in areas such as: Analogue and Digital Circuits, Embedded Systems, Wireless Communications, Broadband Communications, Microwave Networks – Antenna Systems, Computer and Data Communication Networks, Internet of Things, Machine Learning Applications.

**The learning outcomes and qualifications** of those who successfully complete the programme aim to specialise graduates in advanced subjects, both at the research and application levels, providing them with skills that enable them to:

- analyse and design analogue and digital integrated circuits and systems,
- develop systems and techniques for electronic measurement and sensor systems,
- architectural design and study of digital and embedded systems,
- analyse and design microwave devices and antennas,
- the development of radio communication systems,
- the analysis and design of communication/computer networks,
- assessment of electromagnetic pollution from emission systems through specialised measurements,
- the assessment of electronic and telecommunications devices in terms of electromagnetic compatibility,
- the development and use of specialised software for the design of electronic circuits and telecommunications systems,

- the application of machine learning in the study and design of electronic and telecommunications systems.

In addition, graduates acquire the ability to work, either independently or in teams, on research activities, in many cases within the framework of international research programmes, to seek new knowledge and keep up to date with the latest developments in science, to present and defend their work to third parties.

Finally, with the breadth of scientific knowledge provided in Electronic Physics and research methodology, graduates acquire the skills and flexibility to adapt to new research fields related to their field of study.

## Article 2

### Awarded Title

The M.Sc. programme "Electronics and Telecommunications (Radioelectrology)" of the Department of Physics has two (2) specialisations:

A) Electronics.

B) Telecommunications.

Postgraduate students who complete the course of study in these specialisations are awarded a Postgraduate Diploma (P.S.P.) with the title:

A) "Electronics and Telecommunications (Radioelectrology) with a specialisation in Electronics".

B) "Electronics and Telecommunications (Radioelectrology) with a specialisation in Telecommunications".

Successful completion of the M.Sc. programme leads to level seven (7) of the National and European Qualifications Framework in accordance with Article 47 of Law 4763/2020 (A' 254).

## Article 3

### Administration bodies of the MSc programme

The bodies responsible for the administration, organisation and operation of the MSc programme are:

**I. *The Senate of the Institution***, which is responsible for academic, administrative and organisational matters relating to the Postgraduate Programme and exercises all powers relating to the Postgraduate Programme that are not assigned by law to other bodies.

**II. *The Postgraduate Studies Committee***, which is formed by decision of the Senate and consists of the relevant Vice-Rector, who acts as Chair, as well as one (1) member of the Teaching and Research Staff (D.E.P.) from each School of the Aristotle University of Thessaloniki and one (1) member from the categories of Special Teaching Staff (E.E.P.), Laboratory Teaching Staff (E.D.I.P.) and Special Technical Laboratory Staff (E.T.E.P.) of the Aristotle University of Thessaloniki. The members of the Committee have experience in organising and participating in second cycle programmes. The term of office of the Committee is two (2) academic years.

**III. *The Assembly of the Department of Physics***, which has the following responsibilities:

- a. establishes committees to evaluate the applications of prospective postgraduate students and approves their enrolment in the Postgraduate Studies Programme,
- b. assigns teaching duties to the instructors of the M.Sc. programme,
- c. proposes to the Senate the amendment of the decision establishing the M.Sc. programme, as well as the extension of the duration of the M.Sc. programme,
- d. sets up examination committees to examine the theses of postgraduate students and appoints a supervisor for each thesis,
- e. verifies the successful completion of studies in order to award the title of the Postgraduate Programme,
- f. approves the report of the M.Sc. programme, following a recommendation by the Coordinating Committee (CC).

By decision of the Department Assembly, the responsibilities of items a) and d) may be transferred to the Coordinating Committee (CC) of the M.Sc. programme.

**IV. *The Coordinating Committee (CC) of the M.Sc. programme***, which consists of the Director of the M.Sc. programme and four (4) members of the Department's teaching staff who have a field of expertise related to that of the M.Sc. programme and undertake teaching duties in the M.Sc. programme. The members of the CC are appointed by decision of the Departmental Assembly and have the following responsibilities:

- a. prepares the initial annual budget of the Postgraduate Programme and any amendments thereto, provided that the Postgraduate Programme has resources available in accordance with Article 84 of Law 4957/2022, and recommends its approval to the Special Research Fund Account (ELKE), excluding the quarterly revisions of the annual budgets referred to in b) of paragraph 3 of Article 239 of Law 4957/2022,
- b. prepares the P.S.P. report and recommends its approval to the Department Assembly,
- c. approves the expenditure of the P.S.P. and may delegate this responsibility to the Director of the P.S.P.,
- d. approves the awarding of scholarships, whether reciprocal or not, in accordance with the provisions of the decision establishing the Postgraduate Programme and the Regulations for Postgraduate and Doctoral Programmes of Study,
- e. recommends to the Departmental Assembly the distribution of teaching duties, as well as the assignment of teaching duties to the categories of teachers specified in Article 83 of Law 4957/2022.
- f. proposes to the Department Assembly the invitation of Visiting Professors to cover the teaching needs of the Postgraduate Programme,
- g. prepares a draft amendment to the curriculum, which it submits to the Departmental Assembly,
- h. recommends to the Department Assembly the redistribution of courses between academic semesters, as well as issues related to the qualitative upgrading of the curriculum.

**V. *The Director of the Postgraduate Programme***, who is selected from among the members of the Department's teaching staff, preferably at the rank of Professor or Associate Professor, is appointed by decision of the Departmental Assembly for a two-year term, with the possibility of renewal without restriction and is not entitled to additional remuneration for his administrative work.

**The Director** has the powers provided for in Article 82(4) of Law 4957/2022:

- a. chairs the Departmental Council, draws up the agenda and convenes its meetings,
- b. proposes issues concerning the organisation and operation of the Postgraduate Programme to the Department Assembly,
- c. submits proposals to the Special Committee and other bodies of the Postgraduate Programme and the Higher Education Institution on matters relating to the effective operation of the Postgraduate Programme,
- d. is the Scientific Director of the Postgraduate Programme in accordance with Article 234 of Law 4957/2022 and exercises the corresponding powers,
- e. monitors the implementation of the decisions of the bodies of the P.S.P. and the Internal Regulations of Postgraduate and Doctoral Study Programmes, as well as the implementation of the budget of the P.S.P.

The Director of the Postgraduate Programme and the members of the Special Committee are not entitled to any remuneration or compensation for the performance of their duties related to the execution of their tasks.

Secretarial support for the MSc programme is provided by the Secretariat of the Department of Physics. The Secretariat of the MSc programme is responsible for keeping the files and grades of postgraduate students. It also informs postgraduate students on matters relating to the organisation and operation of the Postgraduate Programme. Finally, it is responsible for preparing the items to be submitted to the Departmental Assembly.

#### **Article 4**

##### **Categories of candidates for the Postgraduate Programme**

The MSc programme accepts holders of first-cycle degrees from Greek universities and equivalent recognised foreign institutions, and in particular:

1. Graduates of Departments of Physics, Computer Science and Technology, Informatics and Telecommunications,
2. Diploma holders from the Departments of Electrical Engineering and Computer Engineering, Electrical Engineering and Computer Technology, Electronics and Computer Engineering, Information Technology and Electronic Systems Engineering, Information Technology, Computer and Telecommunications Engineering, Information and Communication Systems Engineering.
3. Graduates of the Hellenic Air Force Academy.
4. Holders of first cycle degrees from institutions not mentioned in the above categories with a programme of study relevant to that of the MSc. The relevance of the programme of study is examined by the Three-Member Selection and Examination Committee Candidates.

The recognition of foreign degrees for admission to a postgraduate programme is carried out by the Academic Departments. If the first cycle of studies was completed abroad, the candidate is not required to obtain equivalence of qualifications from the Interdisciplinary Organisation for the Recognition of Academic Qualifications and Information (Δ.O.A.T.A.Π.). Even if equivalence is provided, recognition is still carried out by the Department of Physics.

The Academic Departments are responsible for the **academic recognition of degrees only**, not for equivalence. DOATAP remains responsible for the equivalence of degrees.

Interested parties who have already applied or are studying in a postgraduate programme are exempt from this obligation, subject to the presentation of an individual recognition document from DOATAP, and their application or continuation of studies is examined based on the criteria of the new law.

**How to check** the general type of first cycle degree:

1. authenticity is certified:

1.1. by the Hague stamp,

1.2. by submitting the degree and simultaneously informing the foreign university by the interested party. The notification is accompanied by an official email from the foreign university, enabling the Secretariat of the relevant Academic Department to verify the authenticity.

2. if the specialisation awarded by the degree is required, the verification is carried out by checking the degree certificate and the detailed transcript or the Diploma Supplement,

3. If we are interested in the grade, we use the correspondence with the procedure announced by the D.O.A.T.A.P.

4. Academic recognition concerns only the specific procedure, is confirmed by a decision of the Department Assembly and **is not given to the interested party**. If the candidate wants a relevant certificate, they must apply to DOATAP for equivalence.

## Article 5

### Number of Admissions, Criteria and Selection Process

The maximum number of admissions per year is set at twenty (20) postgraduate students. The P.S.P. cannot operate with fewer than eight (8) postgraduate students. Each specialisation cannot operate with more than thirteen (13) and less than three (3) postgraduate students.

The Postgraduate Studies Programme, following a decision by the Physics Department Assembly, announces positions annually for the admission of graduates/diploma holders through an open process. Specifically, the announcement specifies the admission requirements, the number of places available, the categories of candidates who are accepted, the admission procedure, the scoring and selection criteria, the application deadlines, and the required supporting documents. It also specifies the written examinations, based on the adequacy or relevance of the candidates' first cycle of studies, the subject matter of the examinations, the examination dates, and the method of grading.

The announcement for the admission of postgraduate students is published on the Department's website. Applications accompanied by the necessary supporting documents are submitted to the Department Secretariat, either in printed or electronic form.

The method of evaluation (scoring) of the above criteria is the responsibility of the Departmental Assembly and is included in detail in the present Regulations of the Postgraduate Programme.

The selection process of candidates, by decision of the Department Assembly, is carried out by a competent Three-Member Selection and Examination Committee composed of faculty members who have undertaken postgraduate work in the Postgraduate Programme.

The Commission shall draw up a complete list of all candidates and, after checking them, shall reject those who do not meet the minimum criteria and conditions laid down. It shall conduct written examinations as described in this article. It then invites the shortlisted candidates who meet all the necessary criteria and have submitted all the necessary supporting documents to an interview.

The criteria for scoring and selecting candidates include [maximum number of points one hundred (100)]:

- a. Degree/Diploma Grade [up to twenty-five (25) points].
- b. Time taken to obtain the degree in relation to the minimum required [up to ten (10) points].
- c. Grades in undergraduate courses related to the subjects of Electronics and Telecommunications [up to twenty (20) points]. Specifically, the following performance is taken into account:
  - in eight (8) compulsory courses of the undergraduate programme of the Department of Physics and
  - in a number of elective courses equal to the maximum number that an undergraduate student can take, according to the current curriculum of the Department of Physics.

In the case of candidates from other Departments/Schools, the Three-Member Selection and Examination Committee matches the courses in the candidate's curriculum with the above courses.

- d. Performance in the Bachelor's or Master's Thesis relevant to the MSc programme [up to ten (10) points].
- e. Other qualifications, such as professional experience in a relevant field (duration and type), research experience, publications and writing activity, papers, other degrees, attendance at seminars related to the subject of the MSc programme, etc. [up to five (5) points].
- f. Performance in the entrance examination for the specialised courses on "Electronic Circuits" and "Telecommunications Systems". If the candidate is not examined because their training is deemed sufficient in the above subjects, the corresponding performance grades from their undergraduate studies are taken into account (up to twenty (20) points). The candidate's training is considered adequate when the material taught in accordance with their curriculum covers at least eighty per cent (80%) of the material to be examined in the corresponding specialised course.
- g. Interview by the Three-Member Selection and Examination Committee [up to ten (10) points]. The interview covers the assessment of: i) the candidate's motivation for choosing the specific MSc programme and their aspirations after obtaining the diploma [thirty per cent (30%)], ii) the ability to attend the programme in person, taking into account possible objective difficulties [thirty per cent (30%)] and iii) the candidate's general understanding of the fields of Electronics and Telecommunications, their familiarity with relevant concepts, and questions about their thesis or dissertation [forty per cent (40%)].

The evaluation or scoring of the above criteria is carried out with an accuracy of two (2) decimal places and is included in the Appendix to these Regulations for the Operation of the Postgraduate Programme.

In addition to the scoring based on the above criteria, the following are also necessary conditions for admission to the Postgraduate Programme:

a. Candidates must have graduated with a first-cycle degree grade greater than or equal to six out of ten (6/10).

b. Candidates must have a good command of English, while foreign nationals must also have a good command of Greek. Candidates who do not hold valid certificates of proficiency in English (at least level B2, according to the Council of Europe system, which is accepted by the A.S.E.P.) are required to take an exam to test their ability to translate scientific texts adequately, which is conducted by the Department of Physics during the entrance exam period following the application period. Alternatively, a degree or Master's degree from a Greek university or an equivalent foreign university may be submitted, showing the successful completion of an English-language undergraduate or postgraduate programme. The same applies to foreign candidates who, if they do not hold valid certificates of proficiency in the Greek language, are required to take an exam to demonstrate their ability to understand the Greek language sufficiently.

c. Candidates must ensure that two (2) letters of recommendation are sent to the email address of the Postgraduate Programme, as specified in the announcement, one (1) of which must be from a lecturer of the Department (or School) from which they graduated and the other from a lecturer in the Department (or School) from which they graduated or from any employers they may have worked for.

d. Candidates whose training in Electronics and/or Telecommunications is deemed insufficient based on their curriculum must take special examinations in one (1) or both (2) of the relevant courses, which are determined by the Department Assembly and are listed together with the corresponding examination material in the announcement (see scoring criterion f). Candidates' training is considered adequate when the material they have been taught in accordance with their curriculum covers at least eighty per cent (80%) of the examination material for the relevant specialised course.

e. For candidates who are graduates of departments or schools with a relevant subject area not explicitly mentioned in the announcement, the Three-Member Selection and Examination Committee is responsible for assessing the adequacy of the relevance of their studies. If the relevance of their studies is deemed sufficient, the same admission criteria (a to g) apply as for other candidates.

After the evaluation process of the candidates' applications is completed, the final list of successful candidates is drawn up. If two (2) or more candidates are tied for the last place in the ranking, the selection is made based on the degree grade of the first cycle of studies and, at a second level (if necessary), on the basis of the grade in undergraduate courses related to the MSc programme.

The final list of successful candidates and any alternates, once approved by the Department Assembly, is posted on the Department Secretariat's notice board and on the P.S.P. website.

Appeals against the results may be submitted within five (5) working days of the announcement of the results.

The registration of successful candidates takes place within a period specified by the Department Secretariat in an announcement on the Department's website. If a candidate does not enrol within the specified deadline, the failure to enrol is considered a refusal to accept the position, which is then filled by the next successful candidate.

## Article 6

### Duration and Conditions of Study

#### Duration

The duration of study in the MSc programme leading to the award of the MSc degree is set at a minimum of four (4) semesters, which includes the time required for the preparation and assessment of the Master's Thesis.

The maximum time allowed for completion of studies is set at six (6) semesters.

Postgraduate students are eligible for part-time study, the duration of which may not exceed twice the normal duration of study. Part-time study is available to those who can prove that they work at least twenty (20) hours per week and to non-working postgraduate students who are unable to meet the minimum requirements of the programme "full-time" study and for special, extremely serious cases (e.g. illness, workload, serious family reasons, military service, force majeure), which are decided by the Department Assembly. The application for part-time study is submitted at the beginning of the study cycle, accompanied by the supporting documents required by the Department.

Furthermore, postgraduate students may be granted, upon submission of a relevant application, a suspension of studies, which may not exceed two (2) consecutive semesters. During the suspension, the postgraduate student loses their student status. The period of deferment is not counted towards the maximum duration of normal study. Upon resumption of their studies, postgraduate students return to normal student status with all the rights and obligations provided for in the Postgraduate Studies Programme.

Furthermore, upon submission of a justified request prior to the completion of the maximum duration of study, postgraduate students may request an extension of up to two (2) semesters to complete their studies or their Master's Thesis. The Coordinating Committee submits the request to the Department Assembly, stating the reasons for the requested extension, which approves or rejects the requested extension of studies.

Applications for extension and suspension may be submitted only once. They must state the reasons and be accompanied by the necessary supporting documents required for their substantiation. Military service is automatically recognised as grounds for suspension of studies.

Applications from postgraduate students for suspension or extension of studies must be submitted to the Secretariat of the Department of Physics before the start of the academic semesters.

#### Terms of study

In order to successfully complete the MSc programme and obtain the MSc degree, students must pass the courses as specified in the MSc programme syllabus, successful completion of the Master's Thesis, and completion of at least one hundred and twenty (120) credit units (ECTS). In addition, compulsory attendance at ten (10) lectures with the following content is required: Technical project management issues, guest lectures, presentations of Master's Theses and doctoral dissertations, research papers at selected conferences, general issues (bibliographic research, writing reports, etc.). The lecturer in charge of the lecture is required to keep an attendance register and update the unified attendance table. During each examination period, the Director of the Postgraduate Programme informs the Department Secretariat with a relevant document that includes the list of postgraduate students who have completed the required number of attendances.

The Physics Department Assembly may expel a postgraduate student for the following reasons:

- a. automatically, upon request by the postgraduate student,
- b. if the maximum period of study provided for in these Regulations for the Postgraduate Programme has elapsed and the studies have not been completed,
- c. if the postgraduate student does not complete thirty per cent (30%) of the required credits for obtaining the Master's Degree within the normal duration of studies.
- d. for inappropriate academic conduct. This case is examined by the Department Assembly upon request and documented recommendation of the Coordinating Committee of the Postgraduate Programme. The Assembly, after taking into account the opinion of the Ethics Committee of the Institution, may expel the postgraduate student from the Postgraduate Programme. In the case of plagiarism, reference is made to Article 16 of these Regulations.

### **Tuition Fees**

There are no tuition fees for the Postgraduate Programme.

## **Article 7**

### **Student Rights and Obligations**

Postgraduate students enrol and participate in the Postgraduate Programme under the terms and conditions set out in these Operating Regulations. Postgraduate students have all the rights, benefits and facilities provided for undergraduate students, except for the right to free textbooks. The Department must ensure facilities for postgraduate students with disabilities or special educational needs, e.g. special examination methods, access to educational facilities, teaching laboratories, etc.

Postgraduate students admitted to the MSc programme are required to:

1. Attend all laboratory classes regularly and without exception, and at least eighty per cent (80%) of the theoretical classes of the current curriculum.
2. Participate in all educational and research activities.
3. A prerequisite for obtaining the MSc is attendance at ten (10) lectures organised under the auspices of the MSc programme.
4. Submit course declarations on time each semester.
5. Submit the assignments required for each course within the specified deadlines.
6. If they have received a scholarship, they must offer reciprocal work, if this is required (contribution to the library and research and, where necessary, to the services of the University).
7. Submit to the Department Secretariat, prior to the evaluation of their postgraduate thesis, a solemn declaration that it does not contain any plagiarism.
8. Respect and comply with the decisions of the Postgraduate Programme bodies, as well as academic ethics. Failure to comply with the above, without a documented justification, may result in failure of a course or exclusion from the Postgraduate Programme.

Failure to comply with all of the above without a serious and documented excuse is grounds for expulsion of the postgraduate student from the Postgraduate Programme.

## Article 8

### Curriculum-Knowledge Assessment

The M.Sc. programme is structured in four (4) semesters and the total number of credits (ECTS) required to obtain the Master's Degree is one hundred and twenty (120). It offers the following two (2) specialisations:

- Electronics.
- Telecommunications.

Postgraduate students choose their specialisation at the beginning of the second semester. Postgraduate students are distributed with a view to ensuring the smooth operation of the two (2) specialisations. Thirty per cent (30%) is set as the maximum percentage difference between the two (2) specialisations from the equal admission of postgraduate students. For example, in the case of the admission of twenty (20) postgraduate students, the equal distribution is ten (10) per specialisation and the maximum number of students admitted to a specialisation is thirteen (13).

The priority of first choice between the two (2) specialisations is based on the performance of postgraduate students during the first semester of study according to the following weighting factors:

- Electronic Circuits: three (3).
- Telecommunications Systems: three (3).
- Signals and Systems: two (2).
- Software Programming and Applications Laboratory: two (2).

The grade for each course is multiplied by the corresponding weighting coefficient, and the sum of the products is the final number of credits. Only passing grades are taken into account when calculating the points for each student. In the event of a tie between two (2) or more postgraduate students, the ranking order at the time of admission of postgraduate students to the MSc programme is taken into account.

The detailed curriculum for the four (4) semesters of study is structured as follows:

In the first semester, four (4) compulsory courses are taught, corresponding to thirty (30) ECTS credits.

In the second semester, two (2) compulsory courses and two (2) specialisation compulsory courses are taught, corresponding to thirty (30) ECTS credits.

In the third semester, three (3) specialisation compulsory courses and one (1) core elective course are taught, and part of the master's thesis is completed, corresponding to thirty (30) ECTS credits.

In the fourth semester, one (1) general elective course is taught, and the master's thesis is completed, corresponding to thirty (30) ECTS.

The number of elective courses offered each year is determined based on the preferences of the postgraduate students.

The official language of the MSc programme is Greek. The master's thesis (M.Th.) may be written in Greek or English.

Classes are held in person.

A prerequisite for obtaining the MSc is that postgraduate students attend ten (10) lectures during their studies.

## A) Study programme

### Specialisation in Telecommunications

First semester [Total ECTS thirty (30)]			
No	Course Title	Course type (comp./special. comp. /elective) (*)	ECTS
1	Telecommunications Systems	Y	8
2	Electronic Circuits	Y	8
3	Signals and Systems	Y	6
4	Software Programming & Applications Laboratory	Y	8
Second semester [Total ECTS thirty (30)]			
No	Course Title	Course type (comp./special. comp. /elective) (*)	ECTS
1	Digital Systems	Y	7
2	Computer and Data Communication Networks	Y	7
3	Telecommunications Laboratory	YE	7
4	Antennas – Microwaves	YE	9
Third semester [Total ECTS thirty (30)]			
No	Course Title	Course type (comp./special. comp. /elective) (*)	ECTS
1	Wireless Communications Laboratory	YE	8
2	Wireless Communications	YE	6
3	Satellite Communications	YE	6
4	Core Elective Course	BE	5
5	Master's Thesis (Part 1) §	DIP	5
<i>Core Elective Courses</i> [students choose one (1) course]			
No	Course Title	Course type (comp./special. comp. /elective) (*)	ECTS
1	Optical Communications	BE	5
2	Sensors and Measurement Systems	BE	5
Fourth semester [Total ECTS thirty (30)]			
No	Course Title	Course type (comp./special. comp. /elective) (*)	ECTS
1	General Elective Course	GE	5
2	Master's Thesis (Part 2) §§	DIP	25
<i>General Elective Courses</i> [students choose one (1) course]			

No	Course Title	Course type (comp./special. comp. /elective) (*)	ECTS
1	Internship	GE	5
2	Introduction to the Java programming language	GE	5
3	Machine Learning Applications	GE	5
4	Electromagnetic Compatibility of Electronic and Telecommunications Devices	GE	5

(\*): Y: Compulsory, YE: Specialisation Compulsory, BE: Core Elective, GE: General Elective

§ In Part 1 of the unified Master's Thesis, preparatory actions are carried out, such as bibliographic research and review, as well as the selection of the research methodology (software and hardware to be used, numerical techniques, etc.).

§§ In Part 2 of the integrated Master's Thesis, all research activities related to the thesis are carried out, as well as its writing.

### Specialisation in "Electronics"

First semester [Total ECTS thirty (30)]			
No	Course Title	Course type (comp./special. comp. /elective) (*)	ECTS
1	Telecommunications Systems	Y	8
2	Electronic Circuits	Y	8
3	Signals and Systems	Y	6
4	Software Programming & Applications Laboratory	Y	8
Second semester [Total ECTS thirty (30)]			
No	Course Title	Course type (comp./special. comp. /elective) (*)	ECTS
1	Digital Systems	Y	7
2	Computer and Data Communication Networks	Y	7
3	Electronic Circuits Laboratory	YE	7
4	Integrated Circuit Design	YE	9
Third semester [Total ECTS thirty (30)]			
No	Course Title	Course type (comp./special. comp. /elective) (*)	ECTS
1	Digital Systems Laboratory	YE	8
2	Analogue Circuit Design	YE	6
3	Embedded Systems	YE	6
4	Core Elective Course	BE	5
5	Master's Thesis (Part 1) §	DIP	5
<i>Core Elective Courses [students choose one (1) course]</i>			

No	Course Title	Course type (comp./special. comp. /elective) (*)	ECTS
1	Optical Communications	BE	5
2	Sensors and Measurement Systems	BE	5
<b>4th semester [Total ECTS thirty (30)]</b>			
No	Course Title	Course type (comp./special. comp. /elective) (*)	ECTS
1	General Elective Course	GE	5
2	Master's Thesis (Part 2) §§	DIP	25
<i>General Elective Courses</i> [students choose one (1) course]			
No	Course Title	Course type (comp./special. comp. /elective) (*)	ECTS
1	Internship	GE	5
2	Introduction to the Java programming language	GE	5
3	Machine Learning Applications	GE	5
4	Electromagnetic Compatibility of Electronic and Telecommunications Devices	GE	5

(\*): Y: Compulsory, YE: Specialisation Compulsory, BE: Core Elective, GE: General Elective

§ In Part 1 of the unified Master's Thesis, preparatory actions are carried out, such as bibliographic research and review, as well as the selection of the research methodology (software and hardware to be used, numerical techniques, etc.).

§§ In Part 2 of the integrated Master's Thesis, all research activities related to the thesis are carried out, as well as its writing.

In the event of a course cancelled, a replacement course will be provided. The date and time of the replacement course will be posted on the P.S.P. website.

The start and end dates of the courses, as well as the duration of the examination periods, are determined by the academic calendar or by decision of the Department Assembly.

## **B) Assessment of knowledge - Student evaluation**

Assessment for individual courses or other educational activities takes place at the end of each semester through written or oral or laboratory examinations, assignments or a combination of the above.

The method of assessment is determined by the instructor of each course at the beginning of the academic semester. The percentage of participation in other educational activities (in laboratory exercises, assignments and seminars where applicable) is determined in the final grade of each course for each course separately, following a recommendation by the instructor of each course and approval by the Coordinating Committee of the MSc programme.

Grades may be sent to the Department Secretariat within two (2) weeks after the end of the examination period each semester. In September, an examination period is set for all courses of the year. Grades are sent with an accuracy of one (1) decimal place.

The grading scale for evaluating the performance of postgraduate students ranges from zero (0) to ten (10), as follows:

- Excellent (8.5 to 10).
- Very Good (6.5 to 8.5, not including).
- Good (6 to 6.5, not including).
- A passing grade is six (6) and above.

Attendance at lectures or any other educational activity is compulsory. A postgraduate student is considered to have attended a course (and therefore has the right to participate in the examinations) only if he/she has attended at least eighty per cent (80%) of the theoretical hours of the course and one hundred percent (100%) of the laboratory training in any courses where this is required. Otherwise, the postgraduate student is required to retake the course in the following academic year.

In cases of emergency or force majeure, examinations may be conducted using electronic means, provided that the integrity of the assessment process is ensured.

In cases of illness, it is recommended that the instructor facilitate the postgraduate student in whatever way he or she deems appropriate (e.g., oral or distance examination).

If a postgraduate student fails a course or courses twice (2) and is deemed to have not successfully completed the programme, upon request, they will be examined by a three-member committee of faculty members of the Department who have the same or a related field of expertise as the course being examined and are appointed by the Department Assembly. The lecturer responsible for the examination is excluded from the committee. The relevant application is submitted to the Department Secretariat within fifteen (15) days of the announcement of the course grade.

The GPA is calculated as the weighted average of the courses in the Master's programme and the Master's thesis (weighting is based on the credit units of the courses and the Master's Thesis) and is calculated, to two decimal places, as follows:

***The grade for each course and the Master's Thesis is multiplied by the corresponding number of credit units (ECTS) and the sum of the products is divided by the minimum number of credit units required to obtain the GPA. The Internship is graded on a ten-point scale.***

The mathematical formula is as follows:

$$P.S.D. \text{ grade} = (\text{Grade for course 1} \times \text{ECTS for course 1} + \text{Grade for course 2} \times \text{ECTS for course 2} + \dots + \text{Grade for master's thesis} \times \text{ECTS for master's thesis}) / \text{Total number of ECTS}.$$

### **C) Master's Thesis (M.Th.)**

For the completion of a Master's Thesis (M.Th.), the Coordinating Committee, upon request by the candidate on specified dates, which includes the proposed title of the Master's Thesis, the proposed supervisor and a summary of the proposed thesis, shall recommend to the Department Assembly the appointment of a supervisor and the formation of a three-member Examination Committee for the approval of the thesis, one (1) member of which is the supervisor. The duration of the M.Th. cannot be less than one (1) calendar semester.

The right to supervise Master's Theses and participate in three-member examination committees is granted to lecturers in the categories as described in Article 83(3) of Law 4957/2022, provided that they hold a doctoral degree:

- a. Members of the teaching staff, special teaching staff, special laboratory teaching

staff and technical teaching staff of the Department or other Departments of the same or another Higher Education Institution or Higher Military Educational Institution (ASEI),

b. Emeritus Professors or retired members of the teaching staff of the Department or other Departments of the same or another Higher Education Institution,

c. Collaborating professors,

d. Lecturers,

e. Visiting professors or visiting researchers,

f. Researchers and specialist functional scientists from research and technological bodies referred to in Article 13A of Law 4310/2014 (A' 258) or other research centres and institutes in Greece or abroad.

The members of the Three-Member Examination Committee must have the same or a related scientific specialisation as the subject area of the Postgraduate Programme.

The preparation of the Master's Thesis is governed by the Academic Code of Conduct of the Aristotle University of Thessaloniki. Every creator or co-creator of any intellectual work is entitled to be mentioned and recognised as such, enjoying the property and moral rights/powers deriving from the specific work. Exceptionally, if the original intellectual creation ("work") is the final output of a remunerated research project commissioned by an entity outside the Aristotle University of Thessaloniki, the property rights of the creator or co-creators may be limited by the terms of the contract awarding the research project, while the moral rights remain with the creator or creators, subject to the contractual restrictions necessary for the exploitation/economic use of the intellectual creation produced.

The presentation of the Master's Thesis requires a positive recommendation from the Three-Member Examination Committee. A specific date and place for the public defence of the Master's Thesis is set by the Special Committee of the Postgraduate Programme.

After the defense of the Master's Thesis, minutes are drawn up stating the individual grade of each member of the Three-Member Examination Committee, the average grade, and any comments or remarks.

If the thesis is rejected, the postgraduate student may resubmit their thesis, incorporating the comments for improvement within a period specified by the three-member examination committee. If the second assessment is also negative, the postgraduate student loses the right to be awarded the Master's Degree.

In exceptional cases, if there is an objective impediment or compelling reason, it is possible to replace the supervisor or a member of the Three-Member Examination Committee, as well as to change the topic of the Master's Thesis following a decision by the Department Assembly.

The Master's Thesis may be written in Greek or English. If the Master's Thesis is written in English, it must include an extensive summary in Greek describing the methodology and main results of the thesis. The template for writing the Master's Thesis is available on the website of the Postgraduate Programme.

## **Article 9**

### **Internship**

The Internship lasts three (3) calendar months and is set at thirty-five to forty (35-40) hours/week (depending on the working hours of the supervisor at the Host Organisation). It

is defined as full-time in accordance with the applicable legislation. The duration of the Internship may be extended to six (6) months with compensation from the Host Organisation. It takes place at specific times set by the Postgraduate Programme, and more specifically, it can start every month, with the first month of commencement being February and the last month of commencement being July. The months may change for reasons of force majeure.

The Internship may be carried out in public services, Legal Entities under Public Law (LEPL), Local Government Organisations (LGO) of the first and second degree, legal entities governed by private law (LEPL) and companies, hereinafter referred to as "Host Organisations", under the guidance of a supervisor from the Host Organisation and the supervision of a lecturer from the Study Programme. The Internship may also be carried out at Host Organisations abroad, provided that supervision of the educational process is possible.

The Internship takes place exclusively at the premises or service facilities of the Host Organisation where the intern is present. In the event of traveling outside the above premises in the context of the Internship, travel and accommodation expenses shall be borne by the Host Organisation.

All procedural matters relating to the Internship are set out in the Internship Regulations of the Postgraduate Programme, which are drawn up by the Coordinating Committee in accordance with the legislation in force.

## **Article 10**

### **Scholarships**

It is possible, by decision of the Department Assembly and provided that there are sufficient funds, for the Postgraduate Programme to award scholarships to postgraduate students. Scholarships are awarded on the basis of academic, objective criteria (such as academic performance based on the average grade of the previous semester) and must be included in the approved budget of the Postgraduate Programme. The conditions for granting scholarships, as well as the obligations and rights of scholarship recipients, are determined by decision of the Department Assembly.

AUTH may award reciprocal scholarships to postgraduate students with the obligation to support the educational process and provide auxiliary teaching work. The Postgraduate Programme determines the maximum amount of the reciprocal scholarship per postgraduate student, the maximum number of hours of weekly employment and other details regarding the awarding of scholarships. Postgraduate students are informed by the Department Secretariat.

## **Article 11**

### **Teaching Staff**

The teaching work of the MSc programme is assigned, upon recommendation of the MSc programme's Special Committee and decision of the Department Assembly, to the following categories of teachers:

1. members of the teaching staff, special teaching staff, laboratory teaching staff and technical teaching staff of the Department of Physics or other Departments of the Aristotle University of Thessaloniki or other Higher Education Institutions or Higher Military Education Institutions,

2. professors emeritus or retired members of the teaching staff of the Department of Physics or other departments of the Aristotle University of Thessaloniki or other universities,
3. collaborating professors,
4. appointed lecturers,
5. visiting professors or visiting researchers,
6. researchers and specialist operational scientists from research and technological bodies referred to in Article 13A of Law 4310/2014 (A' 258) or other research centres and institutes in Greece or abroad,
7. scientists of recognised standing who have specialised knowledge and relevant experience in the subject area of the Postgraduate Programme.

The decisions of the Assembly on the distribution of teaching duties must include the following information:

1. the name of the lecturer,
2. their position,
3. the type of teaching work assigned to each lecturer (course, seminar) and
4. the number of teaching hours per course or seminar.

The visiting lecturer is obliged to adhere to the weekly teaching schedule, as determined by the Special Interdepartmental Committee, and to follow the examination and assessment conditions, as described in the present Regulations of the Postgraduate Programme.

The obligations of the teaching staff include, among other things, the description of the course or lectures, the provision of relevant bibliography, the method of examination of the course, and communication with postgraduate students.

Teaching in the Postgraduate Programme is carried out in accordance with the course timetable drawn up under the responsibility of the Director of the Postgraduate Programme.

Upon commencement of the postgraduate programme, each postgraduate student is assigned one (1) permanent member of the postgraduate programme's teaching staff as an Academic Advisor. Their role is to monitor the progress of students' studies, to be informed by lecturers of any continuous absences of students under their responsibility, and to inform them (through the Secretariat) that such absences may result in failure of the course. In addition, the Academic Advisor provides assistance in selecting a postgraduate thesis topic, taking into account the research interests of the postgraduate student. Postgraduate students are required to contact their academic advisor for any problem that may affect the smooth progress of their studies.

The Academic Advisor provides postgraduate students with the necessary guidance to meet the requirements of the Postgraduate Programme.

The Academic Advisor ensures that he/she meets regularly with the postgraduate students under his/her supervision, at least twice (2) per semester. His/her duties include, among others:

- Identifying the needs and research interests of postgraduate students, supporting their aptitudes and skills, and encouraging them to pursue areas that suit them.
- Informing and facilitating contact between postgraduate students and the collective bodies of the Postgraduate Studies Programme and the administrative services.

- Providing assistance in drawing up their individual semester study programme and determining the topic of their postgraduate thesis.
- Identifying postgraduate students who owe many courses.
- Taking care of and preparing a plan for these postgraduate students.

The teaching staff, administrative staff, and relevant departments of the Institution cooperate with and support the Academic Advisors in their work, while taking into account their information, comments, suggestions, and requests regarding any shortcomings or malfunctions that create problems for students, as well as any proposals for addressing them.

Upon recommendation by the Coordinating Committee of the Postgraduate Programme or the Director of the Postgraduate Programme, doctoral candidates of the Department may be assigned auxiliary teaching duties under the supervision of a Postgraduate Programme instructor. Support work is defined as assisting faculty members in their teaching duties, supervising postgraduate students, conducting tutorials and laboratory exercises, supervising examinations and marking exercises. By decision of the Department Assembly, auxiliary work may be assigned or a call for expressions of interest may be published in subjects offered in the postgraduate programme. The call for expressions of interest specifies the deadlines for submitting applications and the specific qualifications required.

During the period of educational leave or suspension of duties, lecturers may provide teaching services to the Postgraduate Programme, if they deem that their programme allows it, provided, of course, that this is essentially and practically feasible under the prevailing conditions, an issue which must be assessed on a case-by-case basis by the competent authority.

## **Article 12**

### **Programme Revenue - Financial Management Procedure**

The resources of the Postgraduate Programme may come from:

1. donations, sponsorships and financial support of any kind,
2. bequests,
3. funds from research projects or programmes, particularly those of the European Union,
4. own resources of the Aristotle University of Thessaloniki,
5. the state budget and the Public Investment Programme, and
6. any other legal cause.

The resources of the P.S.P. are allocated to cover the operating expenses of the P.S.P.

The resources of the P.S.P. are managed by the Special Research Fund Account (E.L.K.E.) of the A.U.Th.

No tuition fees are charged for the P.S.P.

The Postgraduate Programme prepares, in accordance with the legislation in force, a detailed budget for the five (5) years of operation, which includes all types of programme resources and its operating costs.

### **Article 13**

#### **Administrative Support - Material and Technical Infrastructure**

The Department of Physics provides the premises (classrooms and laboratories) in which the academic activities of the MSc programme are carried out.

Administrative and secretarial support for the MSc programme is provided by the Secretariat of the Department of Physics in relation to:

- a. the annual announcement for admission to the MSc programme,
- b. the collection of applications and supporting documents from candidates,
- c. the enrolment of admitted candidates,
- d. keeping files and records of postgraduate students' grades,
- e. the registration of postgraduate student applications and their forwarding to the Director of the Postgraduate Programme and/or the Head of Department,
- f. checking the completion of studies, issuing the Master's Degree Certificate and its Appendix, and
- g. specific issues determined by decisions of the Department Assembly.

### **Article 14**

#### **Graduation Ceremony**

The swearing-in ceremony is not a prerequisite for the successful completion of studies, but it is a necessary condition for the award of the MSc degree. The oath is administered during the Department Assembly, in the presence of the Director of the Postgraduate Programme, the Chair of the Department/Dean of the School or their Deputy and, if possible, a representative of the Rector.

Postgraduate students who have successfully completed the Master's programme may, in exceptional cases (studies, residence or work abroad, health reasons, etc.), apply to the Department Secretariat for exemption from the obligation to register.

### **Article 15**

#### **Type of Master's Degree Awarded (M.Sc.)**

The title of the MSc is a public document and is awarded by the Department of Physics of the Aristotle University of Thessaloniki. The MSc, issued by the Department Secretariat, bears the name of the Department of Physics organising the MSc programme, the emblem of the Aristotle University of Thessaloniki, the date of completion of studies, the date of issue of the M.Sc., the graduation protocol number, the title and specialisation of the M.Sc., the details of the postgraduate student and the assessment grade "Good", "Very Good" or "Excellent".

Before the award of the Master's Degree and after the successful completion of the Master's Programme, the graduate may be awarded a certificate of successful attendance and completion of the Programme.

In addition to the P.S.D., a Diploma Supplement is awarded [Article 15 of Law 3374/2005 and Ministerial Decision Φ5/89656/B3/ 13-8-2007 (Government Gazette 1466/vol. B/13-8-2007)], which is an explanatory document providing information on the nature, level, general educational context, content and status of studies successfully completed, and

does not replace the official qualification or detailed course grades awarded by the institutions.

## **Article 16**

### **Plagiarism**

When submitting any postgraduate thesis, the postgraduate student is required to state whether they have used the work and opinions of others.

Plagiarism is considered a serious academic offence. Plagiarism is defined as copying someone else's work, as well as using someone else's work, whether published or unpublished, without proper citation. The inclusion of any documentary material, even from the postgraduate student's own studies, without proper reference, may result in a decision by the Departmental Assembly to expel the student.

In the above cases, and following a reasoned recommendation by the supervising professor, the Departmental Assembly may decide to expel the postgraduate student.

Any misconduct or violation of academic ethics is referred to the Special Committee of the Postgraduate Programme for assessment and recommendation for addressing the issue at the Departmental Assembly. Misconduct is also considered to include plagiarism or intellectual theft and, more generally, any violation of intellectual property provisions by a postgraduate student when writing papers as part of their coursework or preparing a postgraduate thesis.

The Institution's Ethics Committee is responsible for violations of the rules of ethics and quality of studies.

## **Article 17**

### **Certification-Evaluation of Postgraduate Programmes**

Following the decision to establish a postgraduate programme and prior to its commencement, the programme must be certified by the Hellenic Authority for Higher Education (H.A.H.E.), in accordance with paragraph 1(c) of Article 8 of Law 4653/2020 (A' 12). After their establishment, the P.S.P. are periodically certified, in accordance with subparagraph bb) of paragraph b) of Article 8(1) of Law 4653/2020, as part of the evaluation of the academic unit to which they belong.

In the event of an amendment to the establishment decision, the P.S.P. must be recertified by the H.A.H.E., provided that the amendment concerns elements such as the subject matter, the purpose of the programme, the learning outcomes and the qualifications acquired through its successful completion, as well as the specialisations that award a different diploma.

The postgraduate programmes of each Department, including interdepartmental, interinstitutional and joint postgraduate programmes, for which the Department provides administrative support, are evaluated as part of the periodic evaluation/certification of the academic unit by the Hellenic National Academic Accreditation System. In this context, the overall assessment of the work carried out by each MSc programme is evaluated, the degree to which the objectives set at its establishment have been achieved, its sustainability, the absorption of graduates into the labour market, its contribution to research, its internal evaluation by postgraduate students, the advisability of extending its operation, as well as

other information relating to the quality of the work produced and its contribution to the national strategy for higher education.

If, during the evaluation stage, a postgraduate programme is deemed not to meet the conditions for continuing its operation, its operation is terminated upon the graduation of the students already enrolled, in accordance with the decision establishing it and the regulations governing postgraduate and doctoral programmes.

### **Internal Evaluation of MODIP**

In order to ensure and improve the quality of the P.S.P. the Quality Assurance Unit (MO.DI.P.) of the Aristotle University of Thessaloniki conducts periodic internal evaluations of the P.S.P. within the framework of the Institution's Internal Quality Assurance System and in accordance with the instructions and guidelines of the H.A.H.E.

The obligations of the Administrative Bodies and the teaching staff of the Postgraduate Programme also include all the procedures provided for in the relevant instructions and guidelines of MO.DI.P.-A.U.Th. for the internal and external evaluation and certification of Study Programmes and academic Units.

### **Evaluation of teaching staff and courses by students**

For the sole purpose of improving the level of studies of the Postgraduate Programme and with absolute assurance of their anonymity, students are invited to evaluate the courses and teachers each semester.

For reasons of uniformity in the collection of statistical data and the ability to draw conclusions that can be used for the educational work of the Departments and the Institution as a whole, the evaluation questionnaires are prepared by the MO.DI.P. and may vary slightly, based on the specific characteristics and needs of each academic unit and/or each course. They are completed electronically.

The evaluation is conducted under the responsibility of the Internal Evaluation Team (O.M.E.A.) operating in the Department of Physics, in collaboration with M.O.D.I.P.-A.U.Th. and is carried out through the latter's Quality Management Information System (Q.M.I.S.). The Department's Administration and I.E.G. are required to take systematic action to ensure student participation in the evaluation, in accordance with the guidelines of the M.O.D.I.P. and the relevant decisions of the Senate.

OMEA members of each Department monitor, through the Quality Management Information System of the MODIP, the degree of student participation in the evaluation process, analyse the relevant results and inform the Administrative Bodies of the P.S.P. and the corresponding academic unit. The evaluation questionnaires concern each course taught and each lecturer separately.

The administrative bodies of the Postgraduate Programme and the academic unit, in collaboration with the corresponding OMEA, are required to study the results of the evaluation, announce their findings, decide on the publication of the summary results of the evaluation, when deemed necessary and in any case after the announcement of the semester course grades, in accordance with the applicable legislation on the protection of personal data, and take action to address any problems.

## **Article 18**

### **Study Guide**

The P.S.P. publishes a Study Guide to inform postgraduate students about its operation.

The Study Guide is posted on the P.S.P. website and includes:

1. General Information, as well as useful electronic information about the Institution and the Department, in particular about administrative services or collective bodies that postgraduate students can contact for the successful completion of their studies.
2. The purpose and subject matter of the Postgraduate Programme, as well as the qualifications acquired after the award of the Postgraduate Diploma (P.G.D.).
3. The academic calendar, which includes the start and end dates of academic semesters, examination periods, holidays, periods for the presentation of postgraduate dissertations and any other obligations such as internships, seminars, conferences, etc.
4. The course programme, specialisations, credit units, teaching staff, and the rights and obligations of postgraduate students.
5. The official language of instruction and thesis writing.
6. The administration of the postgraduate programme.
7. Useful databases.
8. Use of the Library.
9. Services for postgraduate students.

#### **Article 19**

##### **Transitional provisions**

Any issue that arises in the future that is not covered by the relevant legislation, the Regulations for Postgraduate Programmes of the Aristotle University of Thessaloniki and the present Regulations for the Operation of the Postgraduate Programme, shall be addressed by decisions of the competent collective bodies and amendments to the relevant Regulations.

## APPENDIX

### Selection criteria and evaluation algorithm for prospective students for admission to the Postgraduate Programme "Electronics and Telecommunications (Radioelectrology)"

#### 1. Degree/diploma grade (up to 25 points)

$$y_1 = 6.25(x - 6) \quad x = \text{degree grade} \\ 6 \leq x \leq 10, \quad \text{if } x < 6.0: \text{Rejection}$$

#### 2. Time taken to obtain degree in relation to minimum requirement (up to 10 points)

$$y_2 = 10 \left( 2 - \frac{x}{N} \right) \quad x = \text{time taken to obtain degree} \\ N = \text{minimum study time} \\ y_2 = 0 \text{ for } x \geq 2N$$

#### 3. Undergraduate courses related to the MSc programme (up to 20 points)

$$y_3 = 2 \frac{\sum_M \beta_i}{N}$$

Where

- $\sum_M$  is the sum of the grades ( $\beta_i$ ) of the  $M$  undergraduate courses relevant to the MSc programme, excluding those related to the specific examination courses (see criterion 6)
- $N$  is the maximum number of relevant courses taken into account.

The number  $N$ , the undergraduate courses relevant to the MSc programme, as well as the specific examination courses are determined by the Selection and Examination Committee.

#### 4. Thesis or dissertation related to the M.Sc. programme (up to 10 points)

$$y_4 = x, \quad x = \text{evaluation grade}$$

#### 5. Other qualifications (up to 5 points)

$$y_5$$

Professional experience in a related field (duration and type), research experience, publications and writing activity, assignments, other degrees, attendance at seminars related to the subject of the MSc programme, etc.

#### 6. Performance in the entrance examination for specialised courses (up to 20 points)

$$y_6 = 2\mu, \quad \mu = \text{average } (x_i), \quad x_i > 5$$

where  $x_i$  are the performance scores in the specialised courses

In cases where candidates are not examined because their training in the above subjects is deemed sufficient, the corresponding performance scores from their undergraduate studies are taken into account.

#### 7. Interview by the Three-Member Selection and Examination Committee (up to 10 points)

$$y_7 = x, \quad x = \text{assessment grade}$$

$$\text{Total score: } y = \sum y_i$$