MSc by Research in Electrical and Electronics Engineering

MSc PROGRAM STUDY REGULATION

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ARTICLE 1

PROGRAM AIM & OBJECTIVES – LEARNING OUTCOMES – MSC DEGREE

1.1 Aims

The aim of this program is to offer graduate-level studies leading to the Master of Science By Research in Electrical and Electronics Engineering. The major objectives of the program are to produce graduates that (i) are specialized in an area of their choice within the field of Electrical and Electronics Engineering, (ii) have acquired adequate research skills and experience in order to staff research teams in research institutions and laboratories, (iii) are able to make an informed decision as to whether they should engage in PhD studies in the field of Electrical and Electronics Engineering.

1.2 Objectives

Under the supervision and guidance of the experienced academic staff, students are encouraged and led to delve into a specific area of interest within the field of Electrical and Electronics Engineering and to engage in innovative research in this area. Research areas are strongly connected to the research carried out in the Laboratories of the Department. Students become members of the laboratory teams right from the beginning of the study program; they are thus smoothly introduced to the research atmosphere, procedures and ethics. Laboratories host, encourage and scaffold young researchers in their first steps towards independent research. Moreover, through this program, students that aspire to PhD studies can get a lived experience of research and make an informed decision as to whether they will engage in a long-term project, such as PhD studies are – and this at minimum risk of dropout; a benefit for both the involved parties, student and supervisor/department.

These objectives dictate the character of the program that features a limited number of places opened annually, strict selection criteria, and close academic supervision throughout the study program. Taught courses are kept to a minimum (24 ECTS) in order to maximize the part dedicated to research (66 ECTS). Research work towards the MSc thesis starts from day one, proceeds along all 3 academic semesters of the program and is culminated by the (required) publication of the results in relevant, internationally renowned journals or conference proceedings, as deemed suitable by the supervisor.

1.3 Learning Outcomes

Upon successful completion of this MSc program, students are expected to be able to:

1. Demonstrate their expertise in the chosen area of specialization within the field of Electrical and Electronics Engineering. To do so, they are expected to understand, describe and classify the underlying theories, knowledge representation models, methods and tools employed to address existing as well as emerging problems / challenges and open research questions in this area.

2. Analyze problems, construct solutions and comparatively evaluate alternative solutions or approaches within their chosen area of research.

3. Design and implement (initially, under supervision and later on, independently) research plans based on specific research methodologies and protocols, in order to pose, test and accept or reject scientific hypotheses, through theoretic or experimental approaches.

4. Describe and present in an accurate, detailed and complete manner the results of their work, either individual or teamwork, in speech, text or other multimedia form.

5. Collaborate with peer scientists and engineers on cross-disciplinary fields and apply their specialized skills in the development of innovative knowledge and technology.

6. Cultivate and demonstrate their awareness on the rules and ethics of research regarding personal, social, economic and environmental dimensions and the impact of research results on all these axes and discern new / open issues or challenges when and where they arise.

7. Develop their personal research interests in order to proceed to the next grade of PhD studies in more focused / specialized areas within the field of Electrical and Electronics Engineering.

1.4 MSc Degree

A call for applications is issued annually, after endorsement by the Assembly of the Department. The call opens a number of places grouped under research areas of specialization within the field of Electrical and Electronics Engineering as these are proposed by the academic staff members willing to supervise research in the respective area. In addition to the area of specialization, each place is accompanied by a proposed research title, brief description, prerequisite knowledge and skills and expected research outcomes. Areas of specialization, as listed below, are mentioned on the MSc title conferred:

1. Energy
2. Telecommunications
3. Electronics
4. Computing Systems
5. Cross-disciplinary areas: Defense / Education / Biomedical / Marine / Industrial Automation technologies

The above list is not exclusive; new specialization areas may be proposed by academic staff members to be included in future calls, upon approval by the Assembly of the Department.

Upon successful completion of all requirements of the program, the Department confers the “Master of Science By Research in Electrical and Electronics Engineering” degree. The specialization area, as defined in the respective call and selected by the graduate, is mentioned on the degree. Furthermore, the specific title of research is detailed in the Diploma Supplement issued upon graduation.

ARTICLE 2

PROGRAM ADMINISTRATION

As designated by national legislation (Law 4957/2022, article 82), the MSc program is hierarchically administered by

- the Senate of the University of West Attica,
- the Assembly of the Department of Electrical and Electronics Engineering,
- the MSc Program Coordinating Committee, and
- the MSc Program Director.

Responsibilities are detailed below.

2.1 MSc Program Coordinating Committee

The MSc Program Coordinating Committee (CC) is comprised of the MSc Program Director and 4 more academic staff members of the Department whose areas of specialization are relevant to the MSc program subject and who are involved in the program as module instructors or MSc thesis supervisors. All 5 CC members are appointed by the Assembly of the Department. Professors Emeriti may be appointed as CC members, on the condition that they undertake instruction or supervision in the program.

2.2 MSc Program Director

One of the CC members is appointed by the Assembly of the Department as the MSc Program Director, for a 2-year term of office. The Director is chosen preferably among Professors or Associate Professors. Terms of office may be renewed for any number of times.

The Director and other CC members are not entitled to renumeration or reimbursement of any type against their administrative responsibilities and office duties.

2.3 MSc Program Administrative and Secretarial Support

The MSc program administrative and secretarial support is handled by the Secretariat of the Department. Duties include the support for the issue of annual calls for applications and candidate selection processes, the financial administration and record keeping, the secretarial support of the CC members and Director, the keeping and updating of the Student Registry, the inauguration of graduates, the issue of MSc degree titles, Diploma Supplements and all relevant certificates, as well as the preparation of graduation ceremonies.

ARTICLE 3

CANDIDATES AND ACADEMIC STAFF

3.1 Candidates

The annual call for applications opens 25 places per academic year. Applications are accepted from candidates who hold an academic title of the 1st cycle, at Level 6 of the EQF or equivalent, from an academic institution accredited by Greek NARIC. Candidates may check the status of their degrees online in https://www.doatap.gr/national-registry-of-foreign-recognized-higher-education-institutes/. The ideal candidate should hold a degree in Electrical and/or Electronics and/or Computer Engineering. Degrees in other Engineering Faculties or degrees in Sciences are also welcome. Applications of candidates who hold degrees in other disciplines are judged per case by the Selection Committee.

3.2 Teaching

Teaching duties in the MSc program are assigned yearly to academic staff members by the Assembly of the Department. The following classes of academic staff members may get a teaching assignment:

1. Professors of the Department or of other Departments of the same or other Greek University,
2. Professors Emeriti or retired professors of the Department or of other Departments of the same or other Greek University,
3. Adjunct professors,
4. On-contract professors,

5. Visiting professors or Visiting researchers,
6. Researchers and other scientists tenured in the research and technology institutions described in Greek Law 4310/2014 (A 258) or in any other Research Center or Institute, in Greece or abroad,
7. Renowned scientists with specialized knowledge and experience in the MSc program subject.

3.3 MSc Thesis Supervision

MSc thesis supervision duties may be assigned to any academic staff member of the first 6 classes enumerated in paragraph 3.2, provided they hold a PhD in a relevant field. MSc thesis supervision duties are assigned yearly by the Assembly of the Department. The same body may assign such duties to academic staff members that do not teach in the MSc program but hold a PhD in a relevant field.

3.4 Renumeration

All academic staff members involved in teaching or supervision are entitled to renumeration against the program budget, according to the provision of Greek Law 4957/2022, article 83, as it stands.

3.5 Teaching Assistantships

The Assembly of the Department may assign Teaching Assistantship (TA) duties to PhD candidates enrolled in the Departmental PhD program of studies. In these cases, PhD candidates offer ancillary work in the MSc program courses and laboratories under the supervision of an academic staff member.

ARTICLE 4

APPLICATION AND SELECTION PROCEDURES

Application and selection procedures follow Greek Law 4957/2022 and the MSc Program Study Regulation. Procedures are detailed in the following paragraphs.

4.1 Call for applications

The call for applications for studies starting in the fall semester of a given academic year is issued during the spring semester of the previous academic year. The call is prepared by the MSc program coordination committee, is endorsed by the Assembly of the Department and is published online in the website of the MSc program, the website of the Department and the website of the University. The MSc program Director takes care to advertise the annual call as widely as possible.

The call includes:

- Minimum requirements for an acceptable application,
- Necessary documents that should accompany the application form,
- Deadline for filing of application forms and accompanying documents as well as ways and address of filing (in paper or in electronic form, etc.),
- Selection procedure and criteria,
- Interview dates, in case interviews are to be held,
- Any other detailed deemed necessary or helpful for a successful application and merit selection.

Applications are filed with the Secretariat of the Department, as detailed in the annual call and within the deadline set therein. If necessary, the deadline may be postponed by the Assembly of the Department.

In order to prepare the annual call, CC issues a call to all departmental Research Labs to contribute Research proposals in their specialization area, each Research Proposal accompanied by a number of places to be opened in the current call. Academic staff members that do not belong to a Research Lab may also contribute Research Proposals individually. The final contribution from each Research Lab may be the result of an internal discussion, evaluation and selection process.

A Research Proposal should include

a) the academic staff member willing to supervise this research and the hosting Research Lab,
b) one of the specialization areas as defined in Article 1 herein; the specialization area is mentioned on the MSc degree,
c) the specific title of the proposed research; the research title is also the title of the MSc thesis to be carried out in the 3rd semester of study,
d) a brief description of the research proposed, prerequisite knowledge and skills and expected research outcomes.

The candidate selection committee is appointed by the Assembly of the Department; It consists of the Directors of the Research Labs that participate with Research Proposals in the current call, or any Lab members they designate to act in their place.

Candidates may apply for up to three Research Proposals, in order of preference. The Selection Committee evaluates all candidacies and produces a sorted list of merit, on the basis of the criteria stated in the call. Specifically, candidates receive two marks, one on the basis of their application and accompanying documents that certify their qualifications and a second one on the basis of a personal interview held with the committee. Their place in the list depends on the average of these two marks. The committee forms a list of successful candidates and a list of runners-up and then works with the first list: applications are accepted in order of merit and places are given by order of preference. This procedure continues until either the list of successful candidates or the list of opened places is exhausted.

In case the committee detects specific knowledge gaps in a successful candidate, the place is offered on the condition that the candidate attends and succeeds in up to two (2) undergraduate courses from the Departmental Syllabus, before graduation.

4.2 Application and accompanying documents

A complete application 'portfolio' is comprised of

1. A completed and signed application form, along with the following documents:
2. Curriculum Vitae detailing studies and (if applicable) any professional/teaching/research experience. In that case, a digital copy of all relevant documentation and possible research publications should be submitted (see nr. 5 and nr. 6 below). In case undergraduate studies included a dissertation or thesis, this should also be submitted in digital form,
3. A copy of the degree of 1st cycle studies or a graduation certificate, stating the degree GPA and accompanied by the corresponding Diploma Supplement or Transcripts,
4. A copy of the degree of 2nd cycle studies or a graduation certificate, stating the degree GPA and accompanied by the corresponding Diploma Supplement or Transcripts, where applicable,
5. Publications in scientific journals or conference proceedings, (co-)authored by the candidate, where applicable,
6. Professional or research experience certificates, where applicable,
7. A photocopy of ID (valid passport, for foreign candidates),
8. Two confidential recommendation letters from academic teachers/supervisors or professional superiors,

9. Letter of intent for the specific MSc program (max 500 words),
10. English language certification at level B2 of the CERF or equivalent (minimum; ideal candidates should hold C2 level certificates or equivalent), or equivalently a degree of 1st or 2nd cycle of studies completed in an English-speaking program. Candidates that do not possess a B2-level certification or equivalent may prove their fluency in English through a test organized and delivered in UNIWA. Success in this test does not constitute a valid B2 certification beyond UNIWA, however.

Validity of the degrees of candidates obtained in academic institutions not in Greece are checked by the Secretariat of the Department through the Greek NARIC, according to the procedure defined in Greek Law 4957/2022, Chapter A, Article 304.

4.3 Candidate evaluation and selection procedure

As already stated, this is a merit selection procedure completed in two phases:

a) evaluation of the application and the accompanying documents that certify qualifications, and
b) a personal interview of the candidate held with the Selection Committee.

Marks gained by a candidate during each of these phases are defined by legislation and the MSc Program Study Regulation, as detailed in the annual call.

During application evaluation phase, the Secretariat of the Department (i) checks all received applications for completeness, (ii) validates all accompanying documentation (especially, candidates' degrees) and (iii) produces an alphabetic list of applicants forwarded to the Selection Committee along with all accompanying documentation. The Selection Committee picks out and rejects any out of time applications or any applications lacking the minimum requirements and then marks the rest of the applications and orders them by merit (mark). Marks are given for all qualifications claimed and documented (see next paragraph) and especially for:

a) Letter of intent,
b) Degree or diploma GPA,
c) Dissertation or Degree Thesis or Diploma Thesis grade, if the candidate's studies of 1st cycle require a dissertation or thesis,
d) Certified knowledge of a second foreign language besides English,
e) A second degree gained for studies either of the 1st cycle (EQF level 6 or equivalent) or of the 2nd cycle (EQF level 7 or equivalent),
f) Research activity,
g) Research publications.

On the basis of the marks obtained in this first phase, a number of high-ranking applicants are invited to a personal interview with the Selection Committee. Their number cannot exceed the double of the places offered in the current call.

4.4 Interview

The second phase of the selection process is an interview to be held between candidates who ranked high in the first phase and the Selection Committee. In the interview, the candidate is expected to be able to discuss topics on his/her selected area of specialization as well as topics of broader scientific interest. The discussion aims to evaluate:

- The general composure and scientific adequacy of the candidate regarding the subject studied in the MSc program, as well as the correspondence of the candidate's profile to that outlined in the reference letters,
- The motivation and interest of the candidate in the program,
- Previous experience in activities relevant to the program subject,

- Communication and other social skills of the candidate,
- Possible knowledge gaps in the background of the candidate,
- The capacity of the candidate to carry out research, as perceived by the Committee.

Interviews are graded individually by each member of the Committee. The final grade received by a candidate is the average of the grades given by the Committee members.

4.5 Selection criteria

Selection criteria applied by the Selection Committee are defined in order to promote candidates who preferably

- Hold a university degree in Electrical and/or Electronics and/or Computer Engineering (Degrees in other Engineering Faculties or degrees in Sciences are also welcome; degrees in other disciplines are evaluated on a per case basis),
- 'Very Good' (B+) or higher mention on their degree from studies of the 1st cycle,
- English language certified at C1 level of the CERF or equivalent, or higher.

Qualifications that are highly graded in the selection process are

- Participation in research activities, such as research projects, proportionally to duration and task assignment,
- (Co-)authorship of research publications, proportionally to their impact as measured by the Impact Factor or any other similar index. Candidates who have (co-)authored publications of Impact Factor > = 1.0 are given top priority in the selection process.

As already clearly stated, research work is an essential part of this program. Consequently, both the selection process and the selection criteria are stricter than in a typical MSc program. The successful candidate is expected to carry out innovative research, i.e., research that generates or employs new information/data (scientific measurements, publications or other material) or develops a novel approach or solution as compared to existing / conventional ones. This research is expected to produce a publication of its results. The requirement for at least one publication before graduation is set to support the general aim of the MSc thesis that is the development of advanced skills in research, in expression/communication, in the formulation of scientific hypotheses and in the interpretation and presentation of research results. Therefore, the Selection Committee may decide to reject an application if it judges that the applicant does not fulfill the research criterion, even if he/she fulfills all other criteria.

4.6 Final evaluation and announcement of selection results

The final score of a candidate is in the 0 to 100 scale and is the average of two marks with equal weights:

a) One mark gained from the application and the accompanying documents that certify qualifications x 50% and
b) One mark gained from the personal interview of the candidate held with the Selection Committee x 50%.

The merit list of candidates is formed in descending order of the final score. Candidates above 50 / 100 are considered successful and may be offered a place depending on the availability of their 3 preferences. Successful candidates not granted a place due to exhaustion of their 3 preferences are considered runners-up. The list of successful candidates and the list of runners-up, if any, are announced by the Committee. Candidates can appeal against the results regarding their personal case, within 5 working days from the announcement of the results. Appeals must contain a justification, are submitted in written to the Secretariat of the Department and are judged finally by the Committee. Subsequently, the Committee forms the final list of successful candidates and

forwards it to the Assembly of the Department for endorsement. Results are then publicly announced through the MSc program website.

4.7 Enrollment in the program

Successful candidates are invited to enroll in the program within ten (10) days of the announcement of the final results. In doing so they must file with the Secretariat of the Department all necessary registration documents along with a receipt of payment of the first instalment of the semester tuition fees.

If one or more successful candidates do not enroll, the runners-up, if any, are invited to enroll, in the order of their ranking on the approved merit list.

Following enrollment, the list of enrolled students is forwarded by the Secretariat to the Assembly of the Department, the CC and the Research Laboratories or individual academic staff members that had contributed Research Proposals. CC appoints a tripartite examination committee for each new student. The academic staff member who had contributed the specific Research Proposal is by default one of the 3 members. Furthermore, at least one of the 3 members comes from a Research Laboratory different than that of the supervisor. Replacement of an appointed examination committee member is possible in cases of leave of absence, paid or not, sick leave, resign or major force reasons.

Depending on the annual budget availability of each Research Laboratory and/or of the Department, Teaching Assistantships may be offered to MSc students, in order to aid faculty members of the Department in their undergraduate teaching duties. In this case, the student signs a contract with the Department, for up to 10 hours per week work, paid per hour.

ARTICLE 5

DURATION OF STUDY

5.1 Full-time studies

The program is offered only in full-time study mode. Classes start in the Fall Semester of every academic year. The typical length of studies to graduation is three (3) academic semester; the 3rd one is dedicated to the preparation and defense of a MSc thesis.

Students may need to prolong their studies due to unforeseen reasons; in that case, they have to apply for extension of studies. In their application, they have to state and document the need for an extension. Extensions are granted by the CC for whole academic semesters only. The maximum duration of studies including any extensions is six (6) academic semesters. This means that a student may get up to a maximum of three (3) academic semesters of extension. If program requirements are not all completed at the end of the 3rd semester of extension, the CC automatically expels the student from the program.

5.2 Study break

Students may apply for a break of studies. In their application, they have to state and document the need for a break. Study breaks are granted by the CC for whole academic semesters only. Regardless of the time of application, a study break starts in the beginning of the following academic semester. A student is not entitled to more than two (2) breaks overall. Study breaks are not considered in the maximum duration of studies. During the break, student privileges are suspended.

5.3 Transfer to the PhD Program

Upon successful completion of all requirements of the 1st year of studies, a student may apply for transfer to the PhD Program of the Department, on the condition of approval of the MSc thesis supervisor. In that case, and in order to qualify as a PhD candidate according to the respective regulation, the student must already hold a Master Degree or an Integrated Master Degree.

The application for transfer is filed according to the procedure previewed in the PhD Program Regulation of the Department, where admission criteria for applicants from this MSc program are set. Among other provisions, the PhD Program Regulation defines how the student's research experience gained in the 1st year of this MSc program may be quantified and considered for partial fulfillment of the requirements for the PhD.

ARTICLE 6

CURRICULUM

The MSc program curriculum corresponds to 90 ECTS units. The curriculum is structured in academic semesters. All modules and educational activities correspond to a number of ECTS units gained within the semester they are offered. In order to graduate, a student must have successfully completed the following:

1. Attend and get a passing grade in six (6) course modules (5 mandatory modules and 1 elective module),
2. Carry out, submit and defend a MSc thesis,
3. Publish the results of their research in a scientific journal or conference, as deemed suitable by the research supervisor.

The list of course modules and other academic activities is given in the following Table 6.1:

TABLE 6.1: THE MSC PROGRAM CURRICULUM

M/O* (mandatory / optional)

Module Code	Module Title	M/O*	ECTS	STUDENT EFFORT in HOURS
MANDATORY MODULES				
A.1	Research Methodology – Scientific Writing	M	6	180
A.2	Scientific Computing and Mathematical Modeling	M	6	180
A.3	Supervised Research I *Students carry out research in their specific research topic, supervised by an academic staff member. Technical Report I, including intermediate research results obtained in the 1st semester, is prepared and turned in by the student at the end of the semester. Technical Reports are presented by the students to their respective examination committees and are graded. They can be used as parts (chapters) of the final MSc thesis.*	M	18	540
B.1	Science, Technology, Society: From History to Policy	M	6	180
B.3	Supervised Research II *Students carry out research in their specific research topic, supervised by an academic staff member. Technical report*	M	18	540

	II, including intermediate research results obtained in the 2nd semester, is prepared and turned in by the student at the end of the semester. Technical Reports are presented by the students to their respective examination committees and are graded. They can be used as parts (chapters) of the final MSc thesis.			
C.1	MSc Thesis *Completion of supervised research and preparation of the MSc thesis that includes intermediate and final results. The MSc thesis is written, turned in and defended by the student to the respective examination committee. Presentation is in public. The MSc thesis is graded.*	M	30	900
C.2	Publication of research results *Research results have to be published in an international refereed scientific journal or international refereed scientific conference with proceedings, as deemed suitable by the supervisor. A copy of the publication or an acceptance letter has to be filed for graduation. At least one such publication is required.*	M	0	0
OPTIONAL MODULES (Electives: students select 3 out of 8)				
B.2.1	Selected Topics in image Processing and Computer Vision	O	2	60
B.2.2	Multifunctional materials and Wearable Devices	O	2	60
B.2.3	Multilayer structures in Organic Optoelectronic Devices	O	2	60
B.2.4	Fiber Bragg Gratings in optical fiber communications and sensing applications	O	2	60
B.2.5	Advanced topics in Antennas and 5G Communications	O	2	60
B.2.6	Special Control Schemes in Wireless Sensor Networks	O	2	60
B.2.7	Selected topics in Small Hydroelectric Power Plants	O	2	60
B.2.8	E-learning: Mining, Analytics and Visualization of Educational Data	O	2	60
	TOTAL for graduation		**90**	**2,700**

Any 3 out of the 8 electives B.2.1 – B.2.8 may be selected by the student. Three such electives constitute one course module of 6 ECTS. Electives are taught intensively and are scheduled serially to cover the length of the 2nd semester of studies.

The Syllabus of the MSc program, organized in three (3) academic semesters, is given in the following Table 6.2:

TABLE 6.2: THE MSC PROGRAM SYLLABUS

Module Code	Module Title	Contact Hours per Week	ECTS	Student Effort in hours
SEMESTER A (30 ECTS)				
A.1	Research Methodology – Scientific Writing	2	6	180
A.2	Scientific Computing and Mathematical Modeling	2	6	180

A.3	Supervised Research I	N/A	18	540
SEMESTER B (30 ECTS)				
B.1	Science, Technology, Society: From History to Policy	2	6	180
B.2.a	Elective A (out of 8 modules B.2.1 – B.2.8)	2	2	60
B.2.b	Elective B (out of 8 modules B.2.1 – B.2.8)	2	2	60
B.2.c	Elective C (out of 8 modules B.2.1 – B.2.8)	2	2	60
B.3	Supervised Research II	N/A	18	540
SEMESTER C (30 ECTS)				
C.1	MSc Thesis	N/A	30	900
C.2	Publication of Research Results	N/A	(-)	(-)
	TOTAL		**90**	**2,700**

Course module descriptions, as detailed in **Appendix I**, are an integral part of this Regulation.

6.1 Joint or intensive instruction options

Course modules A.1, A.2, B.1 and B.2 may by taught jointly across the MSc programs of the Department or jointly with the Specialization Modules of the Integrated Master program of the Department, if need arises. Upon approval from the Assembly of the Department, a course module may be taught intensively in a one- or two-week period. In that case, the class schedule is announced in the beginning of the semester, before student enrollment. Intensive mode of instruction may not apply to more than one module in given semester.

6.2 Instruction mode

Classes are taught and examined either face-to-face in class or online, through teleconferencing, or in a blend of these two modes. The specific teaching mode is announced in the beginning of every new academic semester, before student enrollment. In the case of teleconferencing, the UNIWA-endorsed teleconferencing platforms are used. Furthermore, UNIWA-endorsed e-learning platforms, such as eclass or moodle, may be used by the class instructors to upload learning content in digital form, such as material for study, class notes, presentations, videos, proposed bibliography, tests/exams, etc. This MSc program does not offer any course module in asynchronous e-learning mode.

6.3 MSc program language

The MSc program uses the English language as the sole working language for instruction, examinations and all other educational activities and events.

6.4 Supervised Research Modules and Technical Reports

In order to gain the 18 ECTS corresponding to each of the course modules A.3 “Supervised Research I” or B.3 “Supervised Research II”, the student has to carry out research in his/her specific research topic, supervised by an academic staff member. A Technical Report including intermediate research results obtained in the current semester, is prepared and turned in by the student at the end of the semester (Technical Report I or II, respectively). Technical Reports are prepared by the student according to the respective template of the program. They are presented to the examination committees and are graded. The final grade is the average of the grades given individually by each committee member. Technical Report contents can be used as parts (chapters) of the final MSc thesis.

Supervised research in the selected research area and title is carried out by the students either in the hosting Research Laboratory or in an external institution, industry, company or Research Center that collaborates with

the hosting Research Laboratory, under joint supervision. In that case, the supervisor from the side of UNIWA is held responsible by the MSc program regarding the student progress.

6.5 MSc thesis

In order to gain the 30 ECTS corresponding to the course module C.1 "MSc thesis", the student has to complete and conclude his/her supervised research and preparation of the MSc thesis that collectively presents all obtained results, intermediate and final. The MSc thesis is written by the student according to the respective template of the program. MSc thesis is turned in and orally defended by the student to the respective examination committee. The procedure is held in public. The examination committee may (i) accept the MSc thesis as it is, (ii) return the thesis to the student along with comments for improvement and set a new deadline for defense, or (iii) reject the thesis. An accepted MSc thesis is graded by the examination committee on the basis of the set of defined evaluation criteria and grade breakdown, as detailed in this Regulation. The final grade is the average of the grades given individually by each committee member. After the committee files the MSc thesis grading form with the Secretariat, the student has to upload the thesis in full text in the UNIWA repository POLYNOE, under the MSc program partition, for the grade to become final.

6.6 Publication of research results

A final requirement for graduation is the publication of research results, as in course module C.2 "Publication of research results". The publication must be co-authored by the student and his/her research supervisor at least - and possibly by other researchers that contributed to this research, as decided by the supervisor. Acceptable publications are those in international refereed scientific journals or international refereed scientific conferences with proceedings and review in the full text of the paper. Publication sources must be accessible and renowned (indexed in Web of Science, Scopus, PubMed, INSPEC, CROSSREF). For the student to meet this requirement, either a copy of the publication or a copy of the submitted manuscript along with the letter of acceptance, must be filed with the Secretariat by the supervisor.

ARTICLE 7

TEACHING – EXAMINATIONS – EVALUATION AND GRADING

7.1 Teaching

Teaching is organized in two academic semesters, Winter and Spring, each extending to 13 weeks of lectures followed by 2 weeks of examinations (examination period of January for course modules taught in the Winter semester and examination period of June for course modules taught in the Spring semester). Furthermore, in the examination period of September, students may re-sit in any course module exam, either of the Winter or of the Spring semester.

Students enroll in a number of modules in the beginning of each new academic semester. Attendance of classes for these modules is mandatory, as is the participation in all other educational activities of the program as detailed in the Curriculum and the Syllabus. In particular, it is important that students participate in all research-related events organized by the MSc program, the respective Research Labs or the Department.

Classes are taught according to the announced schedule. Delays beyond 15 minutes are considered as missed class; the student, however, may still attend the class. Students who have missed more than two (2) of the scheduled classes, automatically fail the module and are not allowed to participate either in the regular exam period or the September exam period. Student attendance is recorded by each class instructor who evaluate participation and progress continuously.

If a class is cancelled for any reason, it is rescheduled by the class instructor who announces the new date and time in the website. Students have to closely follow the MSc program website, to keep updated on announcements, news and events.

7.2 Examinations

Student progress and performance may be assessed by written or oral exams, by projects and presentation, by tests and quizzes or in any other way detailed in the course module description tab along with the corresponding grade breakdown. Assessment may take place in midterm, at the end of the term, at both time points or continuously, throughout the semester.

7.3 Evaluation and Grading

Grading is in the 0.0 – 10.0 scale. Grades are given with accuracy of one decimal digit. Passing grade is 5.0 for all modules. For graduation, however, a GPA of 6.0 or above is required. GPA is computed as the average of the final grades obtained by the student in the course modules, each weighted by the corresponding ECTS units. GPA is given with accuracy of two decimal digits. GPA is accompanied by performance ranking as follows:

8.50 – 10.00: Excellent
6.50 – 8.49: Very Good
6.00 – 6.49: Good
5.00 – 5.99: Unsatisfactory
0.00 – 4.99: Fail

In the case of an 'Unsatisfactory' or a 'Fail' result (GPA less than 6.00), the Department does not confer the MSc degree and title. Instead, the student receives a Certificate of Attendance stating all successfully completed modules or other educational activities, along with their grades and ECTS units.

Instructors file examination results and grades with the Secretariat within two (2) weeks after the end of the corresponding examination period. They also file with the Secretariat all documentation for the grade given, such as written exam sheets, technical reports, project reports, presentations, etc. All these are kept in record by the Secretariat.

7.4 MSc thesis preparation and evaluation

The MSc thesis is written and submitted by the student under the research area and research title defined in the respective call. In the case that a modification of the research title (within the same research area) is deemed necessary, so that the new title describes more accurately the research work, an application along with a brief justification has to be filed with the Secretariat by the supervisor. Applications can be filed at any time before the MSc thesis examination procedure. They are forwarded to the Assembly of the Department for consent and become effective immediately afterwards.

MSc thesis is undertaken and carried out strictly on an individual basis. The MSc thesis text should extend to up to 20,000 words approximately. In case of theses that include the development of novel audiovisual or of other digital material or software application, the thesis text can be reduced to 10,000 words approximately. The thesis preparation must follow the plan, stages and schedule agreed between the student and the supervisor.

MSc theses are submitted for examination within the deadline announced by the Secretariat, at the end of each academic semester. Thesis preparation extensions are granted for exceptional reasons such as health issues. Thesis preparation extensions are granted by the CC for whole academic semesters only, after a written justified and documented application of the student.

MSc theses are submitted for examination along with a form signed by the supervisor who states that the thesis is completed and ready for evaluation. The thesis is submitted in digital form, along with any supplemental digital

material. A single printed and bound copy is given to the Secretariat for MSc records, after examination, acceptance and grading of the thesis. Thesis text formatting should strictly follow the instructions and template of the MSc program, which is decided by the CC and made available online in the program website. The text should be preceded by an abstract of 300-400 words approximately, along with a set of 4-6 keywords.

An MSc thesis is examined by the tripartite examination committee that includes the supervisor. The student presents and orally defends the thesis to the committee. The procedure is held in public and the date and place are announced in time by the Secretariat. The committee may (i) accept the MSc thesis as it is, (ii) return the thesis to the student along with comments for improvement and set a new deadline for defense, or (iii) reject the thesis.

1. In the first case, the thesis is graded by the examination committee on the basis of the set of defined evaluation criteria and grade breakdown, as detailed in Appendix II of this Regulation. The final grade is the average of the grades given individually by each committee member. After the committee files the MSc thesis grading form with the Secretariat, the student has to upload the thesis in full text in the UNIWA repository POLYNOE, under the MSc program partition, for the grade to become final.
2. In the second case, the whole procedure is repeated for the defense and acceptance of the improved thesis version.
3. In the third case, the Department does not confer the Master of Science degree and title. Instead, the student receives a Certificate of Attendance stating all successfully completed modules or other educational activities, along with their grades and ECTS units.

Accepted and graded MSc theses must be uploaded in full text in the digital repository of UNIWA Library POLYNOE. After the examination committee files the MSc thesis grading form with the Secretariat, the student has to upload the thesis in full text in POLYNOE, under the MSc program partition, for the grade to take effect.

7.5 Anti-plagiarism rules

Students should clearly and meticulously cite any external sources of material(s) used in the text of the MSc thesis or in any other text(s) students submit during their studies to fulfill the requirements of the MSc program. They also take special care to place quoted text in quotation marks, so as to differentiate it from their own original text. Quoted text coming from external sources or text similar to already published text(s) of the same or other author(s) should not exceed 20% of the total thesis text, excluding bibliographic references and cover pages. Observation of the above limit is checked by the supervisor on the final thesis text, prior to submission of the text for examination, using the UNIWA-endorsed software tool (*turnitin®* or other). In the case of Technical Reports I and II and of the MSc thesis, the resulting percentage of similarity is forwarded by the supervisor to the other two members of the examination committee.

Plagiarism is considered a grave academic offense. The term covers all cases of

- appropriation or use of the work(s) or part of work(s) of others, either published or not, without the due reference,
- re-use of previous work(s) or parts of work(s) by the same author that have already been submitted and evaluated within a different framework, without clearly stating so,
- quotation of any documentation material without the due reference to its source.

In the unfortunate case that a student commits any of the above academic offenses and after a documented proposition by the CC, the Assembly of the Department may decide to expel of the student. The expelled student receives a Certificate of Attendance stating all successfully completed modules or other educational activities, along with their grades and ECTS units.

ARTICLE 8

STUDENT RIGHTS AND OBLIGATIONS

8.1 Student Support – Academic counsellors – Counsellors for students with disabilities

MSc students have all the rights and are entitled to all support activities and means that are offered to undergraduate students in UNIWA, with the exception of the right to receive a free copy of each textbook for the MSc course modules. In particular, the supervisor of a student acts as his/her academic counsellor and remains in close collaboration with the student throughout his/her study program. The counsellor for MSc students with disabilities is the same academic staff member that is appointed to this role for undergraduate students of the Department. The Department and UNIWA have to ensure that students with disabilities are given equitable access to the university premises, the learning material and the instruction.

8.2 Keeping updated and participating

MSc students are welcome to participate in all research-related or other, general interest events and activities organized by the MSc program, the Department, the Faculty or other units of UNIWA, to the extend that such participation supports and positively affects their studies. In particular, they are welcome to participate in research group seminars, focus groups and discussions, bibliographic updates seminars or presentation, lab tours and visits, workshops or conferences on subjects related to the MSc, lectures or any other scientific event.

8.3 Financial administration – Student Fees – Scholarships

Financial administration of the MSc program in undertaken by UNIWA Special Account for Research Grants (SARG) (https://elke.uniwa.gr/en/home/).

The fees for this MSc program are set to 1,000 euros per academic semester or 3,000 euros for the total study program. Fees are paid per semester, in two equal installments at the beginning and in the middle of the term, upon notification from the Secretariat, except for the fees of the 1st semester that are payable in a single installment in order to register in the program. Semesters of extension incur fees at the 50% of the nominal semester fees. No fees are payable during break of study semesters.

Depending on budget availability, the MSc offers yearly a limited number of scholarships for top performing students, in the form of a fee waiver for the 3rd semester of studies, decided on the basis of performance in the 1st and 2nd semester of studies. Scholarships are proposed by the CC and granted by the Assembly of the Department. Students who have applied for and received extension(s) of study are not considered for these scholarships.

8.4 Evaluation of the MSc program and instructors by the students

Evaluation of every course module as well as of every class instructor takes place by the end of instruction period of each semester. Evaluation procedure and forms are defined by legislation, UNIWA Internal Regulation and the directives of the UNIWA Quality Assurance Unit (https://modip.uniwa.gr/en/home/). In particular, students complete an anonymous online questionnaire for each course module they are enrolled in during the current semester. The questions refer to the course module content, the instruction process and the efficiency of the instructor. Evaluation results are treated as confidential and are forwarded to the corresponding class instructor(s) as feedback for their personal update and improvement. Within the following semester, evaluation statistics, anonymized and free of any personal / identification data, are published on the MSc website and are forwarded to the Assembly of the Department to support decision making.

8.5 Teaching Assistantships

Depending on budget availability of the MSc program, the involved Research Laboratories and/or of the Department, Teaching Assistantships (TA) may be offered to MSc students, in order to aid faculty members of the Department in their undergraduate teaching duties. TAs are granted by the Assembly of the Department, after a proposition by the CC, following an open call and a selection process. Selected students sign a contract with the Department, for up to 10 hours per week work, paid per hour.

8.6 Participation in LLP ERASMUS

MSc students are entitled to participate in mobility programs within the LLP ERASMUS framework, to a peer academic or research institution abroad. To qualify for mobility, students should have successfully completed all requirements of the 1st semester of study. Incoming students from peer institutions at the MSc level are also welcome in the program.

8.7 Graduation

The graduation ceremony takes place during an Assembly of the Department, in the premises of the Department or the Faculty and in the presence of the MSc program Director, the Head or Deputy Head of the Department, the Dean or Deputy Dean of the Faculty of Engineering and a representative of UNIWA Rectorate when available. All other details of the ceremony are defined by the Faculty of Engineering Regulation for all the MSc programs offered by the Faculty of Engineering Departments. In the graduation ceremony, graduates receive the original Master of Science title along with the Diploma Supplement (in English).

A point that should be stressed is that a Master of Science degree cannot be conferred to a student who does not hold a degree for studies of the 1st cycle (Level 6 of the EQF or equivalent) from a university or equivalent academic institution that is accredited by the Greek NARIC.

8.8 Discontinuation of studies – Expulsion of students

The Assembly of the Department may decide to discontinue the study (i.e., to expel a student) in the following cases:

1. following an application from the student who wishes to discontinue his/her studies,
2. following a documented proposition of the CC, in case one of the following holds true:
   a) the student has exceeded the maximum length of study, as set in this Regulation, either because he/she abstained from required activities or because of poor performance and failure in examinations or other evaluation processes so that it has become impossible for the student to complete all program requirements within the maximum length allowed,
   b) the student has committed offenses that have violated the MSc program study Regulation, the UNIWA Internal Regulation, or other legislation, as this is verified by the competent body,
   c) while preparing an MSc thesis or other deliverable required by the MSc program, the student has violated the regulations on Intellectual Property Rights (Greek Law 2121/1993, as it holds) as this is verified by the competent body.

An expelled student receives a Certificate of Attendance stating all successfully completed modules or other educational activities, along with their grades and ECTS units.

ARTICLE 9

MSC PROGRAM INFRASTRUCTURE, EQUIPMENT AND RESOURCES

9.1 Infrastructure – Laboratories – Libraries

Students are given access to the classrooms and laboratories of the Department as well as to the printed and online material and collections of the UNIWA Libraries. For the needs of their research, students are given access to the following Research Laboratories of the Department, as they currently stand or as they may be reconfigured by the relevant competent bodies:

1. Electrical Circuits and Power Measurements Laboratory
2. High Voltage and Energy Systems Lab
3. Building and Industrial Energy Systems Lab
4. Electronics and Computer Technologies Lab
5. Wireless and Optical Devices and Communication Networks Laboratory
6. Smart Technologies, R.E.S. and Quality Lab
7. Electronic Devices and Materials Laboratory
8. TelSiP Research Lab
9. microSENSES Research Laboratory
10. Research Laboratory of Energy Applications and Energy Saving Systems
11. COmputer Networks & SErvices Research laboratory (CONSERT)

Students use the premises and equipment of the hosting Laboratory under the supervision of the lab personnel and observe at all times the Laboratory Regulation and especially the safety regulations included therein.

9.2 Operation costs

MSc program costs are covered primarily by student fees. Additional funding may come from the budget of the hosting Laboratories (see previous paragraph), from grants, donations or any other financial support, from bequests, from research projects, and from UNIWA, either directly against own university income or indirectly, against the annual state allowance and/or the state Public Investments Program for UNIWA.

9.3 Term-closing Report

Upon completion of an administrative term of office, the outgoing Director coordinates the preparation and submission of a detailed Term-closing Report that covers all educational, research and financial aspects of the MSc program during the outgoing administration's term of office. The report is submitted to the Assembly of the Department for discussion and approval.

ARTICLE 10

EVALUATION AND ACCREDITATION OF THE PROGRAM

10.1 Internal Evaluation

As already stated in the student rights and obligations article, internal evaluation of every course module as well as of every class instructor takes place by the end of instruction period of each semester. Internal evaluation procedures and forms are defined by legislation, UNIWA Internal Regulation, the directives of the UNIWA Quality Assurance Unit (https://modip.uniwa.gr/en/home/) and the current MSc program study Regulation.

Detailed evaluation results are treated as confidential and are promptly forwarded to the corresponding class instructor(s) as feedback for their personal update and improvement. Within the following semester, evaluation statistics, anonymized and free of any personal / identification data, are published on the MSc website and are forwarded to the Assembly of the Department to support decision making.

On the basis of the evaluation results obtained in the two academic semesters of an academic year, the CC prepares an annual Internal Evaluation Report, typically right after the completion of the September examination period. The Report along with the annual statistical results, carefully anonymized and free of any personal / identification data, is forwarded by the CC to the Assembly of the Department, to all academic staff members involved in the MSc program, to the students through the MSc program website and to the UNIWA Graduate Study Programs Committee.

Furthermore, the CC discusses the results and proposes a set of measures or actions to be undertaken in order to fill gaps or remedy weak points revealed by the internal evaluation, in order to improve the MSc program. The proposal is addressed to the Assembly of the Department for decision making.

10.2 External Evaluation and Accreditation

External evaluation and accreditation of the MSc program is regulated by Greek Legislation, EU legislation and the procedures and forms set by the Hellenic Authority for Higher Education (H.A.H.E., https://www.ethaae.gr/en/). Accreditation by this national body is mandatory for all academic study programs offered in Greece. Furthermore, in order to enhance the quality of the studies offered, the MSc program regularly files a portfolio for evaluation and accreditation by independent international (European) authorities.

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