

M.Sc. MECHATRONICS

GENERAL INFORMATION

The Master's Degree Program of Dept. Electrical Engineering and Computer Engineering at the University of Western Macedonia, School of Engineering, specializes in the fields of mechatronics, and education in the wide range of electronics, computer science and electronics.

The main goals of the MSc Mechatronics consist of providing graduates with the knowledge and technical background to:

- Understand the interdisciplinary fundamental principles of the sciences of Electrical Engineering, Mechanical Engineering and Control Systems.
- Develop skills to address complex problems in the aforementioned scientific areas.
- Conduct research, design and develop innovative products as well as apply new and efficient techniques that will enable the integration of all disciplines and technologies of engineering science.
- Coordinate interdisciplinary projects through compromises between available technology options considering issues of reliability, efficiency, cost and risk management.
- Prepare students for a high-tech work environment by emphasizing specialization and practice in the techniques and software encountered in the industrial field.
- Transfer new ideas by enhancing their ability to communicate knowledge and results both in a specialist and non-specialist audience in a simple, comprehensible and effective way.
- Support initiatives and motivate students to develop a spirit of teamwork and communication skills in order to work together and think methodically to achieve specific goals and goals.

Tuition fees are foreseen for the MSc Mechatronics. They are exempt under current legislation, up to thirty percent (30%) of the total number of students admitted to the M.Sc.

The MSc will be operational from the academic year 2019-2020 for five (5) years, during which time it will be evaluated in accordance with the provisions of paragraph 8 of article 32 of Law 4485/2017.

The institutions responsible for the administration, organization and operation of the Postgraduate Program are:

I. The Senate of the Foundation.

It is the body responsible for the academic, administrative, organizational and financial aspects of the PMS, and exercises all competencies related to the PMS. These responsibilities are not specifically entrusted by law to other institutional bodies.

II. The Assembly of the relevant Department.

Has the powers specified in paragraph 3 of article 31 of Law 4485/2017.

III. The Coordination Committee (C.C).

It is responsible for monitoring and coordinating the operation of the MSc.

IV. The Graduate Studies Committee.

The recommendation of the Department's Assembly is forwarded to the Senate through the Graduate Studies Committee, which considers its fullness.

IV. The MSc Manager.

Responsible for the smooth operation of the program.

V. The six-member Scientific Advisory Committee (S.A.C.).

It is responsible for the external academic evaluation of the MSc.

USEFUL INFORMATION FOR THE POSTGRADUATE STUDIES

The duration is set at three (3) semesters, including the time of preparation of the master's thesis.

The maximum time allowed for completion of studies is set to the double. Beyond these time limits and in exceptional cases, upon the decision of the Assembly, the graduate student will be able to extend it at an additional cost per semester.

In exceptional cases, the Assembly may, by decision of the Assembly, be granted a stay of study for a period not exceeding two (2) consecutive semesters. Suspension time is not counted towards the maximum duration of study. Upon completion of the suspension, the graduate student is obliged to attend all courses, seminars, internships etc. in which he has not been successfully assessed prior to his suspension.

The student applying for suspension should pay the tuition fees before the suspension and upon returning he / she will study without any financial obligation.

The Assembly is responsible of revising courses or deletion, following a proposal by the CC.

Indicatively, reasons for deletion may be: the student's inadequate progress (failure to participate in the educational process, attendance and examinations), failure to fulfill other obligations as set forth in these Rules of Study (failure to pay tuition, exceeding the maximum time required), a postgraduate student application for deletion or conduct that violates academic ethics, e.g. plagiarism.

Postgraduate students are entitled to:

1. Academic identity.
2. E-mail account at UOWM.
3. Access to UOWM libraries.
4. Access to an electronic database, to which UOWM subscribes. (Hellenic Academic Libraries Association-H.A.L.A).

The MSc follows the academic calendar of the University of Western Macedonia. Fall semester courses start in October. Spring semester courses start in late February or March. They last thirteen (13) full weeks.

Courses are taught on weekdays in the evenings or Saturdays to facilitate postgraduate students. Attendance is compulsory hybrid (either physical presence in the classroom or on-line). The Program is structured under the responsibility of the Director

of the MSc, who also has the responsibility of its proper functioning. The MSc Secretariat is responsible for announcing the program to the students.

The courses are taught the University of Western Macedonia campus.

The Council may decide for the curriculum to be modified and redistributed. In addition to teaching courses the MSc provides educational and research activities, such as lectures, seminars, conferences, workshops, etc. and a certificate is issued to the participants.

Postgraduate students who have completed the obligations arising from their postgraduate degree in "Mechatronics" are awarded a Master Science Degree, which is signed by the Rector of the University of Western Macedonia and the Director of the Postgraduate Study Programme.

DURATION AND STRUCTURE OF THE STUDY

Obtaining the MSc in "Mechatronics" requires a total of ninety (90) ECTS credits corresponding to 10 courses and writing a thesis.

The Postgraduate Diploma is structured in three (3) academic semesters. Each lesson is taught for 13 weeks.

The MSc studies are full time. Postgraduate students are required to attend and successfully complete postgraduate courses as well as their postgraduate diploma thesis. The total number of program courses to be successfully pursued by postgraduate students is ten (10), six (6) are compulsory and four (4) are elective.

Each course of the 1st semester corresponds to six (6) credits. Each course of the 2nd semester corresponds to five (5) credits, except the course "Mechatronics Project Design" corresponding to ten (10) credits. Each student is required to attend and successfully assess courses that correspond to thirty (30) credits per semester. The Master thesis corresponds to thirty (30) credits.

The language of instruction is Greek and / or English.

The curriculum is structured as follows:

First semester:

a/s	COURSE	(ECTS)
1	Sensors and Signal Processing	6
2	Mechanical Behavior	6
3	Microprocessors and embedded systems	6
4	Control of Industrial Systems	6
5	Power Electronics and Drives	6
	TOTAL	30

Second Semester

a/s	COURSE	(ECTS)
	COMPULSORY	
1	Mechatronics Project Design	10
	ELECTIVE (Select Four (4) from the following)	
1	Advanced Supervisory Control and Data Acquisition	5
2	Industrial Robotics	5
3	Materials Design	5
4	Hydraulic and Pneumatic Power Systems	5
5	Mechanical Systems Design	5
6	Industrial Communications	5
	Total	30

Third Semester:

a/s	COURSE	(ECTS)
1	Master Thesis	30
	Total of Credit Units	90

Postgraduate student evaluation

Students are assessed for each course by the instructor in the manner he or she has assigned prior to the commencement of the lectures (examination / assignment / or both). Their performance is evaluated on a scale of 1-10 (passing grade 5). The student who fails the exam / essay repeats the process in September. Students have the right to transfer the courses in which they failed in the examination period of the following academic year. The maximum number of courses a student can fail per semester is 50% of the semester courses.

If a postgraduate student fails the examination of the course (s) so that as defined in the Graduate Regulations it is considered that he / she has not successfully completed the program, he / she shall, upon his / her request, be examined by a three-member Faculty Board who holds a degree identical or related to the course. The three-member Faculty Board is designated by the Assembly of the Department.

Postgraduate students are required to attend courses and other activities held during the program. The maximum number of nonattendance for each graduate student is 12 teaching hours per course. Otherwise the student may have to repeat the course or even be excluded from the postgraduate program.

The overall grade of the MDE on a scale to 10 is calculated as the average of the grades of the individual courses and the master's thesis (weighting coefficients are calculated). The awarded grades are:

"Excellent" (8.5-10), "Very Good" (6.5-8.49) , "Good" (5-6.49).

MASTER THESIS

By the end of the 2nd semester, postgraduate students choose the subject of their Master Thesis and their Supervising Professor from a published thesis list. The subject of the thesis should be in the cognitive fields of the courses taught. The selection is made by submitting the Master Thesis Assignment Form to the Secretariat signed by the Supervising Professor.

The writing of the thesis may be submitted in a foreign language, with the agreement of the Supervising Professor and approval by the Departmental Assembly.

The subject of the postgraduate thesis can be changed within four months of its approval, by decision of the Assembly, following a recommendation by the Supervising Professor. Changing the subject of a postgraduate thesis is by no means a reason for extending the above deadlines. Only in exceptional cases, if there is a significant reason, the Supervisor, a Board member or a member of the Examination Committee may be replaced following a decision of the Assembly of the Department.

The specifications of the thesis are determined on the basis of the thesis guide. Upon completion of the thesis, approval and acceptance by the three-member Examination Committee is set within a specified time. The final assessment includes oral presentation before the three-member Committee.

Upon submission of the master's thesis, the student is responsible for its writing therefore responsible for plagiarism, etc.

Plagiarism is considered copying entirely, partially or utilizing other, published or otherwise unpublished work data, without properly and explicitly referring to the source, as well as citing any documentation material, even from studies by the candidate himself, without any precise and clear reference. Plagiarism is a serious academic offense.

In cases of plagiarism, in recommendation by the Supervising Professor, the Assembly may decide to permanently exclude the candidate from the Postgraduate Study Programme.

The maximum timeline for submission of the thesis is twelve (12) months from the date of its approval. In special cases, at the request of the person concerned and approved by the Assembly, the time may be extended up to one (1) year and in any case shall not exceed the maximum time foreseen for completion of studies.

Upon completion of the writing of the thesis and with the approval of the Supervising Professor, the thesis will be examined and presented before the three-member Examination Board. This may be at the end of the three examination periods (January, June and September of each year). The thesis is evaluated by the Examination Board as (a) acceptable, (b) acceptable after modifications, and (c) rejected. In the last two cases, the student is required to improve the work being reviewed by the Commission. The accepted work is graded from 5 to 10. Upon its approval by the Three-member Examination Committee, it is obligatory to post the thesis on the website of the Faculty concerned and the IRSP (Institutional Repository of Scientific Papers) of the University of Western Macedonia (<https://dspace.uowm.gr/xmlui/>).