



**HELLENIC MEDITERRANEAN UNIVERSITY
FACULTY OF ENGINEERING
DEPARTMENT OF ELECTRONIC ENGINEERING**

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**INVITATION FOR ENTRY APPLICATIONS FOR THE MASTER OF SCIENCE (MSc) COURSE
“LASERS, PLASMA & APPLICATIONS” AT THE DEPARTMENT OF ELECTRONIC ENGINEERING
OF THE HELLENIC MEDITERRANEAN UNIVERSITY**

**Master of Science in
Lasers, Plasma & Applications
<http://ippl.hmu.gr/lapla-msc-degree>**

The Department of Electronic Engineering and the Institute of Plasma Physics & Laser (<http://ippl.hmu.gr>) of the HELLENIC MEDITERRANEAN UNIVERSITY announce a call for applications for the entry in the Postgraduate Program (MSc degree) of study in *Lasers, Plasma & Applications*

Deadline: Applications can electronically be submitted until **19/09/2022** at the e-mail address [:gitona@hmu.gr](mailto:gitona@hmu.gr)
Documents should also sent by post at:

**Mrs Niki Gitona
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Department of Electronic Engineering
Romanou 3, 73133, Chania
Crete, GREECE**

Object – Purpose of the course:

The MSc programme in "Lasers, Plasma & Applications" promotes scientific knowledge and research by providing a high level of specialized knowledge to its students to meet the research and development needs of the international academic and labor market environment. In particular, the purpose of the MSc programme of study is to offer its students a high level of postgraduate education in a theme related to the science and applications of Lasers and Plasmas which in recent years has been rapidly and continuously advancing internationally. The training of young scientists in this extremely important field will enable the students to participate actively in the international developments concerning such innovative technologies and cutting-edge knowledge.

Objectives of the MSc programme of study "Lasers, Plasma & Applications":

1. the education and preparation of its students for the acquisition of the necessary knowledge so that upon graduation they are ready to join a PhD programme of study in the field,
2. the staffing of the academic and research institutions (Higher Education Institutions, Research Centers) with highly trained scientific personnel of specialized knowledge
3. to enable its students and graduates to broaden their horizons with acquiring new knowledge strengthening their competitiveness in the European and international labor market,
4. to strengthen the skills of its graduates aiming to independently or in collaboration with other scientists establish new innovative small and medium enterprises.

Duration of the course:

The MSc course is offered as a full-time or part-time option according to article 33 of law 4485/2017 as it applies. The minimum duration for the award of the Postgraduate Specialization Diploma (MSc diploma) is set at three (3) semesters of study, of which the third is available for the elaboration of the postgraduate diploma thesis.

Fees

There are no tuition fees for the enrolled MSc students.

Curriculum

Full-time postgraduate students must successfully attend ten (10) compulsory courses in the first two (2) semesters of study. Part time postgraduate students must successfully complete ten (10) compulsory courses within four (4) semesters. The master's thesis for full-time students is conducted in the third semester of study. For part-time students, the master's thesis can take up to one year. Each postgraduate student is required to successfully attend and be tested in courses corresponding to thirty (30) ECTS units per semester. Each course corresponds to six (6) ECTS units. They must also prepare and write a master's thesis, which corresponds to thirty (30) ECTS units.

Ninety (90) ECTS units are required to obtain the MSc Diploma.

The taught language of the course is English. The master's thesis in will also be written in English by all students.

The curriculum of the course is described below:

SEMESTER POSTGRADUATE COURSES FOR FULL TIME STUDENTS

First semester

a/a	Course	ECTS
1	Plasma Physics	6
2	Principles of Lasers	6
3	Nonlinear optics	6
4	Principles of computational modeling	6
5	Lasers Optics & imaging	6
	Total	30

Second semester

a/a	Course	ECTS
1	Lasers matter interaction & experimental methods	6
2	Laser's spectroscopy	6
3	Plasma diagnostics & waves in plasmas	6
4	Lasers & plasma simulations	6
5	Modern topics in Lasers & plasmas	6
	Total	30

Third semester

a/a		ECTS
1	Thesis	30
	Total	30

The students of the course will have the option (optional) of mobility in partner Institutions in Europe, both for the elaboration of the diploma thesis and for the attendance of a course or courses. Mobility is supported by the Erasmus program.

Information

For information you can contact Ms. Niki Gitona, tel.: +302821023058, e-mail: gitona@hmu.gr or visit the website of the course or contact the Director of the course Professor Michael Tatarakis, e-mail: mictat@hmu.gr