

## UNDERGRADUATE CURRICULUM

First Semester	Credit Hours	Second Semester	Credit Hours
General Chemistry I	4	General Chemistry II	4
General Chem. Lab I	3	General Chem. Lab. II	3
Calculus I	5	Calculus II	5
Physics I	5	Physics II	5
Physics Laboratory I	3	Physics Laboratory II	3
Turkish I	2	Turkish II	2
Scientific English I	2	Scientific English II	2

First Semester	Credit Hours	Second Semester	Credit Hours
Computer Appl. in Math. and Physics	2	Int. to Computational Programming	2
Circuit Analysis	4	Analog Electronics	4
Devre Analizi Lab.	3	Analog Elect. Lab.	3
Linear Algebra	5	Differential Eqn.	5
Physics III	5	Modern Physics	5
Physics Lab.III	3	Modern Physics Lab.	3

First Semester	Credit Hours	Second Semester	Credit Hours
Electricity & Magn. I	4	Dijital Elektronik	3
Mechanics	5	Dijital Elektronik Lab.	3
Quantum Mech. I	4	Electricity & Magn. II	3
University Elective	2	Int. to Statistical Phys.	5
Elective I	3	Quantum Mech. II	3
Elective II	3	Elective III	3

First Semester	Credit Hours	Second Semester	Credit Hours
Solid State Physics	4	Atom Physics	3
Optics	4	Nuclear Physics	3
Elective IV	3	Nuclear Physics Lab.	3
Elective V	3	Elective VI	3
Applied Elective	4	Elective VII	3

## GRADUATE PROGRAMS

The Department offers Master of Science and Doctor of Philosophy in Physics. The theoretical and experimental research groups are as follows:

### Experimental Fields:

- Atmospheric Physics and Biophysics
- Structural and Optical Properties of Materials
- Thin Film
- Positron/Positronium Physics
- Nano Devices
- Characterication of Organic Material
- Characterization of Semiconductor Contacts
- Microphotonics and Optofluidics
- Magnetic Properties of Matter

### Theoretical Fields:

- Gravitation and Cosmology
- Geometrical, Spectroscopical, Electronical and Optical Properties of Molecules
- Statistical Thermodynamics of Polymers
- Superconductivity and Simulation
- Ultra-Fast Electron Dynamics
- Electron-Ion Collisions
- Computational Nanomaterials
- Plasma Physics



## MARMARA UNIVERSITY PHYSICS DEPARTMENT

Main objective and goal of Physics Department, commenced education in 1992, are to improve thinking and reasoning potentials of the attending students, to direct towards scientific research and to bring up physicists of the future by providing the best level of education. Our department comprises to provide training and research in Positron, Muon, Dedector Physics, High Energy, Microphotonics, Nanodevices, Nanotechnology, Spectroscopy, Nuclear, Atmospheric and Biophysics Laboratories.



Our aim is to have qualified academic members, who acquire infrastructure and equipment that are necessary to make advanced technological researches, and to use these facilities in the solution of the underlying problems in Physics' community in the world. We also aim to ensure that the graduated students, raised in the advanced research environment, are included in the list of most preferred graduates, and to ensure that our department occupies the leading position in Turkey as well as a reputable position in the international platform.

## WHY STUDY PHYSICS AT MARMARA UNIVERSITY?

### Why Physics in Marmara?

- ✓ An academic staff that has solid international experience
- ✓ State of art laboratories for research
- ✓ Research oriented education
- ✓ One to one relationship between student and faculty
- ✓ Up-to-date and world standard curriculum
- ✓ Education opportunity via widespread Erasmus network
- ✓ Double Major and Minor programs
- ✓ Social, Sportive and Cultural Activities

### Skills Provided by Physics Department

- ✓ Analytical thinking skill
- ✓ Mathematical expression skill
- ✓ Learning to teach skill
- ✓ Philosophical approach
- ✓ Research and learning skills
- ✓ Scientific project development skill
- ✓ Predisposition towards team work
- ✓ Management techniques
- ✓ Expressive-impressive communication skills
- ✓ Professional behaviour and ethical approach

## GENERAL ADMISSION REQUIREMENTS

### MÜYÖS - Marmara University Entrance Exam for Students from Abroad

This exam is intended for full time studentship applicants.

The exam consists of 2 separate tests; namely The Basic Learning Skills Test and the Turkish Proficiency Test.

For detailed information please visit:

<http://muyos.marmara.edu.tr/en/>

**TÜRKİYE SCHOLARSHIP-** Türkiye Scholarship is a non-refundable scholarship, provided for only international students who will study in higher education level in Turkey.

The aim of Türkiye Scholarships is to improve mutual understanding with other countries and to contribute richness of global information with people oriented approach.

Candidates can only apply online via Türkiye Scholarship web sites: [www.turkiyeburslari.gov.tr](http://www.turkiyeburslari.gov.tr) and [www.trscholarships.org](http://www.trscholarships.org)



## CONTACTS AND USEFUL LINKS

### For further information ..

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FACULTY OF ARTS and SCIENCES

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