

# Physics

## 1. General Overview

Physics seeks to understand various kinds of natural phenomena with theories and experiments and find ways to apply this knowledge to everyday life. We continually develop new courseworks to cope with the rapidly changing world and provide students with state-of-the-art knowledge. Selected courses are taught in English. We run laboratories for Nuclear Physics, Solid State Spectroscopy, Nano and Mesoscopic Physics, Plasma and Astrophysics.

## 2. Educational Goals/Objectives

- To teach fundamental principles in physics
- To produce experts with international competitiveness
- To equip students with independent problem-solving capability

## 3. Areas of Specialization and/or Course Titles

- Freshman: Physics and Lab, Chemistry and Lab, Calculus
- Sophomore: Mechanics, Modern Physics, modern physics Lab, Mathematical Physics, Wave Phenomena, Future Plans, Electricity and Magnetism, Electronics, Electronics and Lab
- Junior: Quantum Mechanics, Statistical Physics, Electromagnetism Lab, Application Programming, Optics, Optics Lab, Relativity and Cosmology, Computer Simulation
- Senior: Solid State Physics, Nuclear and Particle Physics, Advanced Lab, Nano Physics, Semiconductor Physics, New Material Physics, Current Topics in Physics, Thesis Research in Physics

## 4. Career Opportunities/Job Situation

As physics is a common basis for all the engineering subjects and is a good place to train for problem-solving techniques, our graduates find their careers and/or jobs in many different areas. Some examples are as follows:

- physics-related industry (semiconductor, LCD, measuring equipment, energy industry)
- research fellow in institutes (Institute of Standards and Science, Electronics and Telecommunications Research Institute, Basic Science Institute, etc.)
- physics teacher in secondary school
- graduate school for advanced degrees
- research duty in a research institute in place of military service

## 5. Related Licenses

- Class II Teacher's License in Physics for Secondary School
- Patent Attorney
- Engineer Electricity
- Engineer Electronics, Engineer Electronic Computer, Engineer Semiconductor Design
- Industrial Engineer Electronic Circuit Design, Industrial Engineer Digital Control, Industrial Engineer Semiconductor Design
- License in Radioisotope
- Professional Engineer Nuclear Power, Professional Engineer Radiation Management
- Engineer Nuclear Energy, Engineer Thermal Management
- Engineer Nondestructive Testing