

National Chiayi University Polytechnic Institute of Electronic Physics Bachelor degree course framework map

General Education (30 credits)

Basic literacy Required courses 14 credits

Chinese[6]
English[6]
Programming[2]
Physical Education[0]
Service Learning[0]

Boya literacy Elective Courses 16 credits

There are five major fields: Citizen Literacy and Social Care, History and Culture Conservation, Life Exploration and Environmental Care, Self-development and Communication, Material Science and Life Application, etc. Students should take at least one of the three fields, while others are free to choose as electives.

Common Curriculum (6 credits)

Calculus(I)(II) [6]

Foundation Program of Electro physics (28 credits)

General Physics (I) (II) [6]
General Physics Experiment (I) (II) [2]
General Chemistry (I) (II) [6]
General Chemistry Experiment (I) (II) [2]
Linear Algebra and Vector Analysis [3]
Engineering Mathematics (I) [3]
Mechanics (I) [3]
Electromagnetism (I) [3]

Core Program of Electro physics (28 credits)

Circuit Analysis(I) [3]
Experimental Physics (I) (II) [2]
Engineering Mathematics (II) [3]
Electronics (I) [3]
Electromagnetism (II) [3]
Optics (I) [3]
Quantum Physics (I) (II) [6]
Thermal and Statistical Physics (I) [3]
Electronics Experiment (I) [1]
Special Research Topics (I) [1]

Other Elective Courses (15 credits)

Either Electro physics or
other electives

Program of Optoelectronics Techniques / **Practices (21 credits)

Mathematics for Fundamental Physics [3]
Circuit Analysis (II)[3]
Applications of Computer in Physics[3]
Introduction to Electrophysics [2]
Mechanics (II) [3]
Magneto-optics [2]
Problem-Based Learning Topics (1) -Instrumentation Engineering [3]
Optics (II) [3]
Physics of Semiconductor Devices (I) (II) [3]
Thermal and Statistical Physics (II) [3]
Introduction to Computational Physics [3]
Experimental Physics (III) [1]
Special Research Topics(II)**(III)**(IV) [3]
**Professional Off-campus Practicum[9]
Introduction to Optoelectronic Technology [3]
Optical Electronics [3]
Optoelectronic Semiconductor Device [3]
Introduction to Solid State Physics(I) (II) [3]
Laser Optics [3]
Optoelectronic Experiment [1]
Undergraduate Seminar (I) (II) [2]
Modern Optics [3]
Optoelectronic Measurement and Analysis [3]
Solar Cell [3]
*Seminar (IV) [1]

Program of Semiconductor and Electronic Techniques / **Practices (21 credits)

Mathematics for Fundamental Physics [3]
Digital Logic [3]
Circuit Analysis (II) [3]
Applications of Computer in Physics[3]
Introduction to Electrophysics [2]
Mechanics (II) [3]
Problem-Based Learning Topics (1) -Instrumentation Engineering [3]
Electronics (II) [3]
Physics of Semiconductor Devices (I) (II) [3]
Thermal and Statistical Physics (II) [3]
Introduction to Computational Physics [3]
Experimental Physics (III) [1]
Electronics Experiment (II) [1]
Special Research Topics(II)**(III)**(IV) [3]
Introduction to Quantum Mechanics [3]
First-Principle Computations [3]
Optoelectronic Semiconductor Device [3]
Undergraduate Seminar (I) (II) [2]
Introduction to Solid State Physics (I) (II) [3]
Introduction to Semiconductor Manufacturing Technology [3]
Solar Cell [3]
*Seminar (IV) [1]
**Professional Off-campus Practicum[9]

© Course Description

Department of Electronic Physics
Graduation Credits

At least 128 credits, contain:

1. School General Studies 30 credits
2. College Common Course 06 credits
3. Department of basic courses 28 credits
4. Department of core courses 28 credits
5. Professional elective courses 21 credits
6. free elective (this department or external courses can be) 15 credits

The company is located in:

© Note:

1. Students must complete 21 required credits with either one of the programs in the Core Program: **Program of Optoelectronics Techniques / Practices; Program of Semiconductor and Electronic Techniques / Practices.**
2. International students will receive international exchange scholarships for overseas study, overseas experience, off-campus internship with overseas students, exchange students and double degree students if they are enrolled in this course, have a master's degree and have excellent academic records.
3. Students who are willing to take education courses can make plans in freshman or sophomore year. For details, please refer to the website of the teacher training center or contact the organizer of the teacher training center by phone.