Curriculum Structure

	First Year	Second Year	Third Year	Fourth Year
Required Courses	● General Physics (I, II) ● General Physics Laboratory (I, II) ● General Chemistry (I, II) ● General Chemistry Laboratory (I, II) ● Calculus (I, II)	● Mechanics (I, II) ● Electromagnetism ● Introduction to Electrodynamics ● Applied Mathematics (I, II) ● Experimental Physics (I, II)	● Quantum Physics (I, II) ● Statistical Physics ● Experimental Physics (III)	
Core Elective Courses	● General Physics Recitation (I, II) ● Mathematics for Fundamental Physics ● Demonstration of Physics ● History of Physics	● Electromagnetism Recitation ● Modern Physics ● Colloquium on Science and Technology (I)	● Experimental Physics (IV) ● Colloquium on Science and Technology (II) ● Applied Mathematics (III) ● Independent Studies in Physics (I, II)	● Quantum Mechanics ● Condensed Matter Physics (I, II) ● Studies in Special Topics (I, II)
Required Courses (EMI Program)	● Introduction to Theoretical Physics (I, II) ● Experimental Approaches in Physics (I, II) ● Essential Coding and Data Analysis on Physics ● General Chemistry (I, II) ● General Chemistry Laboratory (I, II) ● Calculus (I, II)	● Introduction to Quantum Physics (I, II) ● Physics Implementation (I, II) ● Mathematics and Coding on Physics (I, II)	● Independent Studies in Physics (I, II) ● Introduction to Quantum Technology	● Studies in Special Topics (I, II)
Topical Field Courses				
Theoretical and Computational Physics	● Physics in Our Daily Life		● Relativity ● General Relativity ● Numerical Analysis ● Computational Physics (I, II) ● Quantum Physics and The Physical Properties of Nanostructures ● Programming on Electronic Devices and Internet of Things	● Advanced Quantum Mechanics ● Electrodynamics ● Classical Mechanics ● Statistical Mechanics ● Introduction to Astronomy ● Introduction of Particle Physics ● Physics of Superconductors ● Topology and Differential Geometry in Physics ● Solid State Physics
Quantum Materials Physics	● Physics in Our Daily Life	● Performance and Reliability Analysis of Novel Semiconductor Devices	● Applied Electronics and Experiments (I, II) ● Introduction to Nano-Science and Technology ● Introduction to Nano-Semiconductors ● Quantum Physics and The Physical Properties of Nanostructures ● Photonics and Practice (I)	● Introduction to Optical Electronics ● Introduction to Energy Science and Technology ● The Physics of Liquid Crystals ● Surface Physics ● Medical Physics ● Manufacturing Technology of Semiconductor for Nano Device ● Physics of Superconductors ● Low Temperature Physics ● Spin Physics ● Solid State Physics
Quantum Optoelectronics	● Physics in Our Daily Life		● Optics ● Applied Electronics and Experiments (I, II) ● Photonics and Practice (I)	● Introduction to Optical Electronics ● Introduction to Energy Science and Technology ● Nonlinear Optics ● Modern Optics ● Electrodynamics ● Medical Physics ● Introduction to Atomic, Molecular, and Optical Physics
Astrophysics	● Physics in Our Daily Life		● Relativity ● General Relativity ● Computational Physics (I, II) ● Numerical Analysis ● Exploring the Universe – Introduction to Modern Astronomy	● Advanced Quantum Mechanics ● Introduction to Astronomy ● Introduction of Particle Physics ● Electrodynamics ● Classical Mechanics ● Statistical Mechanics