

Curriculum Structure

2020.04.14

	First Year	Second Year	Third year	Fourth Year
Required Courses	<ul style="list-style-type: none"> GENERAL PHYSICS (I) GENERAL PHYSICS LABORATORY (I, II) GENERAL CHEMISTRY(I, II) GENERAL CHEMISTRY LABORATORY(I, II) CALCULUS(I, II) 	<ul style="list-style-type: none"> MACHANICS(I, II) ELECTROMAGNETISM INTRODUCTION TO ELECTRODYNAMICS APPLIED MATHEMATICS (I, II) EXPERIMENTAL PHYSICS(I, II) 	<ul style="list-style-type: none"> QUANTUM PHYSICS (I, II) STATISTICAL PHYSICS EXPERIMENTAL PHYSICS(III) 	
Core Elective Courses	<ul style="list-style-type: none"> GENERAL PHYSICS RECITATION (I, II) MATHEMATICS FOR FUNDAMENTAL PHYSICS DEMONSTRATION OF PHYSICS HISTORY OF PHYSICS 	<ul style="list-style-type: none"> ELECTROMAGNETISM RECITATION MODERN PHYSICS COLLOQUIUM ON SCIENCE AND TECHNOLOGY (I) 	<ul style="list-style-type: none"> EXPERIMENTAL PHYSICS(IV) COLLOQUIUM ON SCIENCE AND TECHNOLOGY (II) APPLIED MATHEMATICS (III) INDEPENDENT STUDIES IN PHYSICS (I, II) 	<ul style="list-style-type: none"> QUANTUM MECHANICS CONDENSED MATTERPHYSIS (I, II) INDEPENDENT STUDIES IN SPECIAL TOPICS (I, II)
Topical Field Courses				
Theoretical and Computational Physics	<ul style="list-style-type: none"> PRACTICAL PHYSICS IN DAILY LIFE 		<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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
Condensed matter and Material Physics	<ul style="list-style-type: none"> PRACTICAL PHYSICS IN DAILY LIFE 	<ul style="list-style-type: none"> PERFORMANCE AND RELIABILITY ANALYSIS OF NOVEL SEMICONDUCTOR DEVICES 	<ul style="list-style-type: none"> 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) 	<ul style="list-style-type: none"> INTRODUCTION TO OPTICAL ELECTRONIC Introduction to Energy Science and Technology THE PHYSICS OF LIQUID CRYSTALS SURFACE SCIENCE MEDICAL PHYSICS MANUFACTURING TECHNOLOGY OF SEMICONDUCTOR FOR NANO DEVICE PHYSICS OF SUPERCONDUCTORS LOW TEMPERATURE PHYSICS SPIN PHYSICS SOLID STATE PHYSICS
Optoelectronic Physics	<ul style="list-style-type: none"> PRACTICAL PHYSICS IN DAILY LIFE 		<ul style="list-style-type: none"> OPTICS APPLIED ELECTRONICS AND EXPERIMENTS (I, II) PHOTONICS AND PRACTICE (I) 	<ul style="list-style-type: none"> INTRODUCTION TO OPTICAL ELECTRONIC Introduction to Energy Science and Technology NONLINEAR OPTICS MODERN OPTICS ELECTRODYNAMICS MEDICAL PHYSICS INTRODUCTION TO ATOMIC, MOLECULAR, AND OPTICAL PHYSICS
Astrophysics	<ul style="list-style-type: none"> PRACTICAL PHYSICS IN DAILY LIFE 		<ul style="list-style-type: none"> RELATIVITY GENERAL RELATIVITY COMPUTATIONAL PHYSICS (I, II) NUMERICAL ANALYSIS EXPLORING THE UNIVERSE – INTRODUCTION TO MODERN ASTRONOMY 	<ul style="list-style-type: none"> ADVANCED QUANTUM MECHANICS INTRODUCTION TO ASTRONOMY Introduction of Particle Physics ELECTRODYNAMICS CLASSICAL MECHANICS STATISTICAL MECHANICS