

Curriculum Structure

2020.04.14

	First Year of Master Degree	Second Year of Master Degree	First Year of PhD Program	
Core Curriculum	QUANTUM MECHANICS INTRODUCTION TO ELECTRODYNAMICS ELECTRODYNAMICS CLASSICAL MECHANICS STATISTICAL MECHANICS ADVANCED QUANTUM MECHANICS SEMINAR (I, II)	SEMINAR (III, IV) SCIENTIFIC WRITING (I, II)	ADVANCED QUANTUM MECHANICS ELECTRODYNAMICS CLASSICAL MECHANICS STATISTICAL MECHANICS STUDIES IN SELECTED RESEARCH TOPICS (I, II)	
Topical Field Courses				
Theoretical and Computational Physics	CONDENSED MATTERPHYSIS (I, II) COMPUTATIONAL PHYSICS (I, II) PHYSICS OF SUPERCONDUCTORS QUANTUM MANY-BODY PHYSICS QUANTUM FIELD THEORY GRAVITATIONAL-WAVE PHYSICS INDEPENDENT STUDIES IN STATISTICAL MECHANICS (I, II) · INDEPENDENT STUDIES IN COMPUTATIONAL MATERIAL PHYSICS (I, II) · INDEPENDENT STUDIES IN TOPOLOGICAL PHYSICS INDEPENDENT STUDIES IN DENSITY FUNCTIONAL THEORY (I, II) · INDEPENDENT STUDIES IN SUPERCONDUCTIVITY (I, II) · INDEPENDENT STUDIES IN SCIENCE OF INVISIBILITY (I, II) INDEPENDENT STUDIES IN NONLINEAR PHYSICS (I, II) · INDEPENDENT STUDIES IN RELATIVISTIC QUANTUM SPIN (I, II) · INDEPENDENT STUDIES IN ELECTRONIC STRUCTURE CALCULATIONS (I, II)			
Condensed matter and Material Physics	CONDENSED MATTERPHYSIS (I, II) LOW TEMPERATURE PHYSICS PHYSICS OF MAGNETISM SPIN PHYSICS QUANTUM MANY-BODY PHYSICS ELECTRON MICROSCOPY SURFACE SCIENCE MANUFACTURING TECHNOLOGY OF SEMICONDUCTOR FOR NANO DEVICE SEMICONDUCTOR NANO DEVICE PHYSICS ADVANCED LIGHT SOURCE AND SPECTROSCOPY CONDENSED MATTER PHYSICS AND ITS APPLICATIONS INDEPENDENT STUDIES IN LOW TEMPERATURE PHYSICS (I, II) · SPECIAL TOPICS IN THIN FILM PHYSICS (I, II) · INDEPENDENT STUDIES IN SPIN PHYSICS (I, II) · SEMINAR IN QUANTUM STRUCTURES(I, II) · SEMINAR IN OPTOELECTRONIC SEMICONDUCTOR PHYSICS (I, II) INDEPENDENT STUDIES IN NON-LOCAL SPIN VALVE (I, II) · INDEPENDENT STUDIES IN COHERENT IMAGING (I, II) · INDEPENDENT STUDIES IN LOW-DIMENSIONAL OPTOELECTRONIC MATERIALS (I, II) INDEPENDENT STUDIES IN TOPOLOGICAL PHYSICS (I, II) · INDEPENDENT STUDIES IN SEMICONDUCTOR (I, II) · INDEPENDENT STUDIES IN QUANTUM COMPUTING (I, II)			
Optoelectric Physics	CONDENSED MATTERPHYSIS (I, II) · SEMICONDUCTOR OPTICS SEMICONDUCTOR NANO DEVICE PHYSICS · MODERN OPTICS · QUANTUM OPTICS ELECTRON MICROSCOPY · MANUFACTURING TECHNOLOGY OF SEMICONDUCTOR FOR NANO DEVICE APPLICATION OF SYNCHROTRON RADIATION ON NOVEL MATERIALS INDEPENDENT STUDIES IN SEMICONDUCTOR LASERS (I, II) · SEMINAR IN LASER INDUCED DYNAMIC GRATINGS (I) · INDEPENDENT STUDIES IN QUANTUM OPTICS (I, II) INDEPENDENT STUDIES IN LASER INDUCED DYNAMIC GRATINGS (II) · SPECIAL TOPICS IN SEMICONDUCTOR SPECTROSCOPY(I, II) · INDEPENDENT STUDIES IN ULTRAFAST LASER SPECTROSCOPY (I, II)			
Astrophysics	INTRODUCTION TO ASTRONOMY RELATIVITY QUANTUM FIELD THEORY COMPUTATIONAL PHYSICS (I, II) GRAVITATIONAL-WAVE PHYSICS INDEPENDENT STUDIES IN ASTROPHYSICS (I, II) · INDEPENDENT STUDIES IN GRAVITY THEORY (I, II)			