

**DEPARTMENT OF PHYSICS
CITY COLLEGE**

**LESSON PLAN FOR THE UNDERGRADUATE COURSE
ACADEMIC YEAR 2022-2023 [Even Semesters 15.03.2023 onwards]**

Dr. Samapti Pal [Associate Professor]

Class	Topics to be covered	No. of lectures	Examination
B.Sc. Hons. Semester 2 CBCS 2019	Core Course: CC4 Waves and Optics: Wave optics, Interference, Interferometers, Diffraction	2 classes/week	As assigned by the University
B.Sc. Hons. Semester 6 CBCS 2019	Core Course: CC13 Digital Electronics: Digital Circuits (B), Implementation of different circuits, Data processing circuits, Sequential Circuits, Registers and Counters	2 classes/week	
B.Sc. Hons. Semester 6 CBCS 2019	Core Course: CC14 Solid State Physics: Crystal Structure, Elementary Lattice dynamics	1 classes/week	

Dr. Kausik Mukhopadhyay [Assistant Professor]

Class	Topics to be covered	No. of lectures	Examination
B.Sc. Hons. Semester 2 CBCS 2019	Core Course: CC4 Waves and Optics: Oscillations, Superposition of harmonic oscillations, Wave motion, Superposition of harmonic waves	2 classes/week	As assigned by the University
B.Sc. Hons. Semester 4 CBCS 2019	Core Course: CC8 Mathematical Physics: Special Theory of relativity	1 classes/week	
B.Sc. Hons. Semester 4 CBCS 2019	Core Course: CC10 Quantum Mechanics: Quantum mechanics of simple harmonic oscillator, Generalized Angular Momenta and Spin, Spectra of Hydrogen atom and its fine structure, Atoms in Electric & Magnetic Fields, Many electron atoms	2 classes/week	
B.Sc. Hons. Semester 6 CBCS 2019	Core Course: CC14 Solid State Physics: Elementary Band Theory, Superconductivity	1 classes/week	
B.Sc. Hons. Semester 6 CBCS 2019	DSE-A2 Nano Materials & Applications: Optical Properties, Electron Transport, Applications	2 classes/week	

Dr. Anshuman Nandy [Assistant Professor]

Class	Topics to be covered	No. of lectures	Examination
B.Sc. Hons. Semester 2 CBCS 2019	Core Course: CC3 Electricity and Magnetism: Magnetostatic Field, Magnetic properties of matter, Electromagnetic induction, Electrical circuits	2 classes/week	As assigned by the University
B.Sc. Hons. Semester 6 CBCS 2019	Core Course: CC13 Digital Electronics: Integrated Circuits, Number System, Digital Circuits (A), Computer Organization, Data Conversion	2 classes/week	
B.Sc. Hons. Semester 6 CBCS 2019	DSE-A2 Nano Materials & Applications: Nanoscale Systems, Synthesis of Nanostructure Materials, Characterization	2 classes/week	
B.Sc. Gen. Semester 6 CBCS 2019	General Course: DSE-B2 Nuclear & Particle Physics: Detector for Nuclear Reactions, Particle Accelerators, Particle Physics	2 classes/week	

Dr. Somdeb Chakraborty [Assistant Professor]

Class	Topics to be covered	No. of lectures	Examination
B.Sc. Hons. Semester 2 CBCS 2019	Core Course: CC3 Electricity and Magnetism: Dirac delta function and its properties, Electrostatics, Dielectric properties of matter, Method of Images, Electrostatic Energy	2 classes/week	As assigned by the University
B.Sc. Hons. Semester 4 CBCS 2019	Core Course: CC8 Mathematical Physics III: Variational Calculus, Complex Analysis	2 classes/week	
B.Sc. Hons. Semester 4 CBCS 2019	Core Course: CC10 Quantum Mechanics: Wavepacket description, General discussion of bound states in an arbitrary potential, Quantum theory of hydrogen-like atoms	1 classes/week	
B.Sc. Gen. Semester 4 CBCS 2019	General Course: GE4 Waves & Optics: Acoustics, Superposition of vibrations, Vibration in String	1 classes/week	
B.Sc. Hons. Semester 6 CBCS 2019	DSE-B2 Advanced Statistical Mechanics: Ideal Bose systems and Fermi systems, Ising model, Non-equilibrium statistical mechanics	2 classes/week	

Dr. Arindam Midya [Assistant Professor]

Class	Topics to be covered	No. of lectures	Examination
B.Sc. Hons. Semester 4 CBCS 2019	Core Course: CC9 Analog electronics	3 classes/week	As assigned by the University
B.Sc. Hons. Semester 4 CBCS 2019	SEC-B2 Arduino	1 classes/week	
B.Sc. Gen. Semester 4 CBCS 2019	General Course: GE4 Waves & Optics: Introduction to Wave Optics, Interference, Diffraction, Polarization	2 classes/week	
B.Sc. Hons. Semester 6 CBCS 2019	DSE-B2 Advanced Statistical Mechanics: Review of classical statistical mechanics, Quantum statistical mechanics	2 classes/week	

Ms. Debasmita Samanta [SACT]

Class	Topics to be covered	No. of lectures	Examination
B.Sc. Hons. Semester 6 CBCS 2019	Core Course: CC14 Solid State Physics: Magnetic Properties of matter, Dielectric Properties of Materials, Drude's Theory	2 classes/week	As assigned by the University
B.Sc. Gen. Semester 2 CBCS 2019	General Course: GE2 Electricity & magnetism: Essential Vector Analysis, Electrostatics	2 classes/week	

Ms. Devdali Banerjee Mitra [SACT]

Class	Topics to be covered	No. of lectures	Examination
B.Sc. Gen. Semester 2 CBCS 2019	General Course: GE2 Electricity & magnetism: Magnetism, Electromagnetic Induction Electrodynamics	2 classes/week	As assigned by the University
B.Sc. Gen. Semester 6 CBCS 2019	General Course: DSE-B2 Nuclear & Particle Physics: General Properties of Nuclei, Nuclear Models, Radio activity, Nuclear Reactions	2 classes/week	