

**DEPARTMENT OF PHYSICS  
CITY COLLEGE**

**LESSON PLAN FOR THE UNDERGRADUATE COURSE  
ACADEMIC YEAR 2023-2024 [Even Semesters: 01.04.2024 onwards]**

**Dr. Samapti Pal [Associate Professor]**

Class	Topics to be covered	No. of lectures	Examination
B.Sc. Hons. Semester 6 CBCS 2019	Core Course CC13: Digital Electronics: 3. Digital Circuits (B), 4. Implementation of different circuits, 5. Data processing circuits, 6. Sequential Circuits, 7. Registers and Counters	2 class/week	As assigned by the University
B.Sc. Hons. Semester 6 CBCS 2019	Core Course CC14: Solid State Physics: 1. Crystal Structure, 2. Elementary Lattice Dynamics	1 class/week	

**Dr. Kausik Mukhopadhyay [Assistant Professor]**

Class	Topics to be covered	No. of lectures	Examination
B.Sc. Hons. Semester 2 CCF 2022	DSC-2 Basic Physics Basic Electricity and Magnetism: Unit A: Magnetostatics, Unit B: Introduction to Thermodynamics	2 class/week	As assigned by the University
B.Sc. Hons. Semester 4 CBCS 2019	Core Course CC8: Mathematical Physics-III Special relativity	1 class/week	
B.Sc. Hons. Semester 4 CBCS 2019	Core Course CC10: Quantum Mechanics: 1. Wavepacket description 2. General discussion of bound states in an arbitrary potential 3. Quantum mechanics of simple harmonic oscillator 4. Quantum theory of hydrogen-like atoms 5. Generalized Angular Momenta and Spin	2 class/week	
B.Sc. Hons. Semester 6 CBCS 2019	Core Course CC14: Solid State Physics: 6.Elementary band theory, 7. Superconductivity	1 class/week	

**Dr. Anshuman Nandy [Assistant Professor]**

Class	Topics to be covered	No. of lectures	Examination
B.Sc. Hons. Semester 6 CBCS 2019	Core Course CC13: Digital Electronics: 1. Integrated Circuits, 2. Number System, 3. Digital Circuits (A), 8. Computer Organization, 9. Data Conversion	2 class/week	As assigned by the University
B.Sc. Hons. Semester 6 CBCS 2019	DSE A2: Nanomaterials: 1. Nanoscale Systems, 2. Synthesis of Nanostructure Materials, 3. Characterization	2 class/week	
B.Sc. Gen. Semester 6 CBCS 2019	DSE B2: Nuclear & Particle Physics: 5. Detector for Nuclear Reactions 6. Particle Accelerators 7. Particle Physics	2 class/week	

**Dr. Somdeb Chakraborty [Assistant Professor]**

Class	Topics to be covered	No. of lectures	Examination
B.Sc. Hons. Semester 2 CCF 2022	DSC-2: Basic Physics Basic Electricity and Magnetism: Unit A: Electrostatics, Lorentz force	1 class/week	As assigned by the University
B.Sc. Hons. Semester 2 CCF 2022	IDC	1 class/week	
B.Sc. Hons. Semester 4 CBCS 2019	Core Course CC8: Mathematical Physics-III: Variational Calculus; Complex Analysis	2 class/week	
B.Sc. Hons. Semester 6 CBCS 2019	DSE B2: Advanced Statistical mechanics: 3. Ideal Bose systems and Fermi systems 4. Ising model 5. Non-equilibrium statistical mechanics	2 class/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 class/week	As assigned by the University
B.Sc. Hons. Semester 4 CBCS 2019	SEC Arduino	1 class/week	
B.Sc. Hons. Semester 6 CBCS 2019	DSE B2: Advanced Statistical Mechanics: 1. Review of classical statistical mechanics 2. Quantum statistical Mechanics	2 class/week	

**Dr. Ayan Mitra [Assistant Professor]**

Class	Topics to be covered	No. of lectures	Examination
B.Sc. Gen. Semester 2 CCF 2022	MDC 2: Basic Electricity and Magnetism: Unit A: Electrostatics, Lorentz force	1 class/week	As assigned by the University
B.Sc. Gen. Semester 2 CCF 2022	IDC	1 class/week	
B.Sc. Hons. Semester 4 CBCS 2019	Core Course CC10: Quantum Mechanics: 6. Spectra of Hydrogen atom and its fine structure 7. Atoms in Electric & Magnetic Fields 8. Many electron atoms	1 class/week	
B.Sc. Gen. Semester 4 CBCS 2019	GE4: Waves & Optics: 1. Acoustics 2. Superposition of vibrations 3. Vibration in String	1 class/week	
B.Sc. Hons. Semester 6 CBCS 2019	DSE A2: Nanomaterials: 4. Optical Properties, 5. Electron Transport, 6. Applications	2 class/week	

**Ms. Debasmita Samanta [SACT]**

<b>Class</b>	<b>Topics to be covered</b>	<b>No. of lectures</b>	<b>Examination</b>
B.Sc. Hons. Semester 6 CBCS 2019	Core Course: CC14: Solid State Physics: 3. Magnetic Properties of Matter, 4. Dielectric Properties of Materials, 5. Drude's theory	2 class/week	As assigned by the University
B.Sc. Gen. Semester 2 CCF 2022	Physics Minor: Basic Electricity and Magnetism: Unit A: Magnetostatics, Unit B: Introduction to Thermodynamics	2 class/week	

**Ms. Devdali Banerjee Mitra [SACT]**

<b>Class</b>	<b>Topics to be covered</b>	<b>No. of lectures</b>	<b>Examination</b>
B.Sc. Gen. Semester 4 CBCS 2019	GE4: Waves & Optics: 4. Introduction to wave Optics 5. Interference 6. Diffraction 7. Polarization	2 class/week	As assigned by the University
B.Sc. Gen. Semester 6 CBCS 2019	DSE B2: Nuclear & Particle Physics: 1. General Properties of Nuclei; 2. Nuclear Models; 3. Radio activity 4. Nuclear Reaction	2 class/week	