

**DEPARTMENT OF PHYSICS
CITY COLLEGE**

**LESSON PLAN FOR THE UNDERGRADUATE COURSE
ACADEMIC YEAR 2021-2022**

Name of Teacher	Semester	Class	Topics to be covered	No. of lectures
Dr. Mitali Middy	Odd	B.Sc. Hons. Semester 1 CBCS Syllabus 2019	Core Course: CC2 Mechanics: Central Force Motion, Rotational Dynamics	1/week
		B.Sc. Hons. Semester 3 CBCS Syllabus 2019	Core Course: CC6 Thermal Physics: Kinetic Theory of Gases, Conduction of Heat	1/week
	Even			
Dr. Mita Mondal	Odd	B.Sc. Hons. Semester 1 CBCS Syllabus 2019	Core Course: CC2 Mechanics: Gravitation, Fluid Motion	1/week
		B.Sc. Hons. Semester 3 CBCS Syllabus 2019	Core Course: CC6 Thermal Physics: Introduction to Thermodynamics, Thermodynamic Potentials	2/week
		B.Sc. Gen. Semester 1 CBCS Syllabus 2019	General Course: GE1 Mechanics: Central force and Gravitation, Elasticity	1/week
	Even	B.Sc. Hons. Semester 4 CBCS Syllabus 2019	Core Course: CC9 Analog Electronics: Circuits and Network, Semiconductor Diode & Application, Bipolar Junction Transistor & Biasing, Field Effect Transistors	2/week
Dr. Samapti Pal	Odd	B.Sc. Hons. Semester 1 CBCS Syllabus 2019	Core Course: CC1 Mathematical Physics I: Matrices	1/week
		B.Sc. Hons. Semester 3 CBCS Syllabus 2019	Core Course: CC7 Modern Physics: Radiation and Its nature	1/week
		B.Sc. Hons. Semester 5 CBCS Syllabus 2019	Core Course: CC11 Electromagnetic Theory: Polarization, Polarization in uniaxial crystals, Rotatory Polarization	2/week
	Even	B.Sc. Hons. Semester 2 CBCS Syllabus 2019	Core Course: CC4 Waves and Optics: Wave optics, Interference, Interferometers, Diffraction	2/week
		B.Sc. Hons. Semester 6 CBCS Syllabus 2019	Core Course: CC13 Digital Systems & Application: Digital Circuits (b), Implementation of different circuits, Data processing circuits, Sequential circuits, Registers & counters	2/week
		B.Sc. Hons. Semester 6 CBCS Syllabus 2019	Core Course: CC14 Solid State Physics: Crystal Structure, Elementary Lattice Dynamics, Elementary Band Theory	2/week

Dr. Kausik Mukhopadhyay	Odd	B.Sc. Hons. Semester 1 CBCS Syllabus 2019	Core Course: CC1 Mathematical Physics I: Calculus	2/week
		B.Sc. Hons. Semester 3 CBCS Syllabus 2019	Core Course: CC5 Mathematical Physics II: Frobenius Method and Special Functions, Some Special Integrals, Partial Differential Equations	2/week
		B.Sc. Hons. Semester 5 CBCS Syllabus 2019	Core Course: CC12 Statistical Physics: Bose-Einstein Statistics, Radiation: classical and quantum aspects. Fermi-Dirac Statistics	2/week
	Even	B.Sc. Hons. Semester 2 CBCS Syllabus 2019	Core Course: CC4 Waves and Optics: Oscillations, Superposition of harmonic oscillations, Wave motion, Superposition of harmonic waves	2/week
		B.Sc. Hons. Semester 4 CBCS Syllabus 2019	Core Course: CC10 Quantum Mechanics	3/week
Dr. Anshuman Nandy	Odd	B.Sc. Hons. Semester 3 CBCS Syllabus 2019	Core Course: CC7 Basics of Quantum Mechanics, Nuclear Structure, Interaction with and within nucleus, Lasers	2/week
		B.Sc. Hons. Semester 5 CBCS Syllabus 2019	DSE-B1 Detector for Nuclear Radiations, Particle Accelerators, Particle Physics	2/week
		B.Sc. Gen. Semester 1 CBCS Syllabus 2019	General Course: GE1 Mathematical Methods	1/week
		B.Sc. Gen. Semester 5 CBCS Syllabus 2019	General Course: DSE-A2 Radiation and its nature, Foundation of Quantum Mechanics	2/week
	Even	B.Sc. Hons. Semester 2 CBCS Syllabus 2019	Core Course: CC3 Electricity and Magnetism: Magnetostatic Field, Magnetic properties of matter, Electromagnetic induction, Electrical circuits	2/week
		B.Sc. Hons. Semester 6 CBCS Syllabus 2019	Core Course: CC13 Digital Systems & Applications: Integrated Circuits, Number System. Digital Circuits(a), Computer Organization, Data Conversion	2/week
		B.Sc. Hons. Semester 6 CBCS Syllabus 2019	DSE-A2 Nano Materials & Applications: Nanoscale Systems, Synthesis of Nanostructure Materials, Characterization	2/week
		B.Sc. Gen. Semester 6 CBCS Syllabus 2019	General Course: DSE-B2 Nuclear & Particle Physics: Detector for Nuclear Reactions, Particle Accelerators, Particle Physics	2 week

Dr. Somdeb Chakraborty	Odd	B.Sc. Hons. Semester 1 CBCS Syllabus 2019	Core Course: CC1 Vector Algebra and Vector Calculus	1/week
		B.Sc. Hons. Semester 3 CBCS Syllabus 2019	Core Course: CC5 Fourier Series, Integrals Transforms, Introduction to probability	1/week
		B.Sc. Hons. Semester 5 CBCS Syllabus 2019	Core Course: CC12 Classical Statistical Mechanics, Systems of Identical particles	2/week
		B.Sc. Hons. Semester 5 CBCS Syllabus 2019	DSE-A1 Fiber optics, Holography, Introductory Nonlinear Optics	2/week
	Even	B.Sc. Hons. Semester 2 CBCS Syllabus 2019	Core Course: CC3 Electricity and Magnetism: Dirac delta function and its properties, Electrostatics, Dielectric properties of matter, Method of Images, Electrostatic Energy	2/week
		B.Sc. Hons. Semester 4 CBCS Syllabus 2019	Core Course: CC8 Mathematical Physics III	3/week
		B.Sc. Hons. Semester 6 CBCS Syllabus 2019	DSE-B2 Advanced Statistical Mechanics: Ideal Bose systems and Fermi systems, Ising model, Non-equilibrium statistical mechanics	2/week
Dr. Arindam Midya	Odd	B.Sc. Hons. Semester 1 CBCS Syllabus 2019	Core Course: CC2 Fundamentals of Dynamics, Work and Energy, Non-Inertial Systems	2/week
		B.Sc. Hons. Semester 3 CBCS Syllabus 2019	SEC A1 Scientific Writing	1/week
		B.Sc. Hons. Semester 5 CBCS Syllabus 2019	DSE A1 Einstein coefficients and Rate equations, Basic properties of laser, Resonators, transient effect, Basic Laser Systems, Practical properties and uses of laser	2/week
		B.Sc. Gen. Semester 5 CBCS Syllabus 2019	General Course: DSE A2 Laser, Special relativity	2/week
	Even	B.Sc. Hons. Semester 4 CBCS Syllabus 2019	Core Course: CC9 Analog electronics: Regulated Power Supply, Amplifiers, Feedback Amplifiers & OPAMP, Multivibrator, Oscillators	2/week
		B.Sc. Hons. Semester 4 CBCS Syllabus 2019	SEC-B2 Arduino	1/week
		B.Sc. Hons. Semester 6 CBCS Syllabus 2019	DSE-B2 Advanced Statistical Mechanics: Review of classical statistical mechanics, Quantum statistical mechanics	2/week

		B.Sc. Hons. Semester 6 CBCS Syllabus 2019	DSE-A2 Nano Materials & Applications: Optical properties, Electron transport, Applications	2/week
Ms. Debasmita Samanta	Odd	B.Sc. Hons. Semester 5 CBCS Syllabus 2019	Core Course: CC11 Maxwell Equations, EM Wave Propagation in Unbounded Media, EM Wave in Bounded Media	1/week
		B.Sc. Gen. Semester 1 CBCS Syllabus 2019	General Course: GE1 Introduction to Newtonian Mechanics, Rotational Motion	1/week
		B.Sc. Gen. Semester 3 CBCS Syllabus 2019	General Course: GE3 Laws of Thermodynamics, Thermodynamical Potentials, Kinetic Theory of Gases, Theory of Radiation	2/week
	Even	B.Sc. Hons. Semester 6 CBCS Syllabus 2019	Core Course: CC14 Solid State Physics: Magnetic Properties of Matter. Dielectric Properties of Materials, Drude's Theory, Superconductivity.	2/week
		B.Sc. Gen. Semester 2 CBCS Syllabus 2019	General Course: GE2 Electricity & magnetism: Essential Vector Analysis, Electrostatics	2/week
		B.Sc. Gen. Semester 4 CBCS Syllabus 2019	General Course: GE2 Waves & Optics: Introduction to wave Optics, Interference, Diffraction, Polarization	2/week
Ms. Devdali Banerjee Mitra	Odd	B.Sc. Hons. Semester 5 CBCS Syllabus 2019	DSE-B1 Introduction, Nuclear Reactions, Interaction of Nuclear Radiation with matter	2/week
		B.Sc. Gen. Semester 1 CBCS Syllabus 2019	General Course: GE1 Oscillations, Surface tension	1/week
		B.Sc. Gen. Semester 3 CBCS Syllabus 2019	Statistical Mechanics	1/week
	Even	B.Sc. Gen. Semester 2 CBCS Syllabus 2019	General Course: GE2 Electricity & magnetism: Magnetism, Electromagnetic Induction Electrodynamics	2/week
		B.Sc. Gen. Semester 4 CBCS Syllabus 2019	General Course: GE4 Waves & Optics: Acoustics, Superposition of vibrations, Vibration in String	1/week
		B.Sc. Gen. Semester 6 CBCS Syllabus 2019	General Course: DSE-B2 Nuclear & Particle Physics: General Properties of Nuclei, Nuclear Models, Radio activity, Nuclear Reactions	2/week

Samapti Pal 11.02.2023

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