

## Academic Plan of Department of Physics 2023-2024:

Semester	Paper	Time Frame	Topics	Teachers	Other Activities		
1	GCC-1	July	(A) Mathematical Physics 1. Preliminaries	PMC	Class Test		
			(B) Classical Mechanics 1. Review of Newton's Laws	PT			
			Mechanics Practical 1 & 2	PMC & PT			
		August	(A) Mathematical Physics 2. Ordinary Differential Equations 3. Vectors	PMC	Class Test		
			(B) Classical Mechanics 2. Work Kinetic Energy Theorem 3. Dynamics of a system of particles	PT			
			Mechanics Practical 3 & 4	PMC & PT			
		September	(A) Mathematical Physics 4. Curvilinear coordinates	PMC	Class Test		
			(B) Classical Mechanics 4. Central force	PT			
			Mechanics Practical 5 & Revision	PMC & PT			
		October (Puja Vacation: 21 <sup>st</sup> -31 <sup>st</sup> )	(B) Classical Mechanics 7. Mechanics of Continuum Revision, Home Assignment & Work Sheet	PMC	Class Test		
			(B) Classical Mechanics 6. Scattering Revision, Home Assignment & Work Sheet	PT			
			Mechanics Practical Practice	PMC & PT			
		November (Puja Vacation: 1 <sup>st</sup> -16 <sup>st</sup> )	Revision, Home Assignment & Work Sheet	PMC			
			Revision, Home Assignment & Work Sheet	PT			
		December (Christmas 24 <sup>th</sup> - 31 <sup>st</sup> )	Revision & University Examination	PMC			
			Revision & University Examination	PT			
		SEC-1		July	2. Introduction to programming in python (Version 3.x)	PMC	Class Test
					1. Introduction to Graph Plotting (2D only, using GNUPLOT)	PT	
	August			2. Introduction to programming in python (Version 3.x)	PMC	Class Test	
				1. Introduction to Graph Plotting (2D only, using GNUPLOT)	PT		
	September			2. Introduction to programming in python (Version 3.x)	PMC	Class Test	
				1. Introduction to Graph Plotting (2D only, using GNUPLOT)	PT		
	October (Puja Vacation: 21 <sup>st</sup> -31 <sup>st</sup> )			Revision, Home Assignment & Work Sheet	PMC	Class Test	
				Revision, Home Assignment & Work Sheet	PT		
November (Puja Vacation: 1 <sup>st</sup> -16 <sup>st</sup> )	Revision, Home Assignment & Work Sheet			PMC			
	Revision, Home Assignment & Work Sheet			PT			
December (Christmas 24 <sup>th</sup> - 31 <sup>st</sup> )	Revision & University Examination			PMC			
	Revision & University Examination			PT			

Semester	Paper	Time Frame	Topics	Teachers	Other Activities	
3	CC-3/GE3	July	1. Laws of Thermodynamics	PMC	Class Test	
			4 Theory of Radiation	PT		
			Thermal Physics and Statistical Mechanics Practical 1 & 2	PMC & PT		
		August	2. Thermodynamic Potentials	PMC	Class Test	
			5. Thermodynamic Potentials 6. Statistical Mechanics	PT		
			Thermal Physics and Statistical Mechanics Practical 3 & 4	PMC & PT		
		September	3. Kinetic Theory of Gases	PMC	Class Test	
			6. Statistical Mechanics	PT		
			Thermal Physics and Statistical Mechanics Practical 5 & Revision	PMC & PT		
		October (Puja Vacation: 21 <sup>st</sup> -31 <sup>st</sup> )	Revision, Home Assignment & Work Sheet	PMC	Class Test	
			Revision, Home Assignment & Work Sheet	PT		
			Thermal Physics and Statistical Mechanics Practical Practice	PMC & PT		
		November (Puja Vacation: 1 <sup>st</sup> -16 <sup>st</sup> )	Revision, Home Assignment & Work Sheet	PMC		
			Revision, Home Assignment & Work Sheet	PT		
		December (Christmas 24 <sup>th</sup> - 31 <sup>st</sup> )	Revision & University Examination	PMC		
			Revision & University Examination	PT		
		SEC A-2	July	1.Fossil fuels and Alternate Sources of energy	PMC	Class Test
				2.Solar energy	PT	
	August		3.Wind Energy harvesting, 4.Ocean Energy	PMC	Class Test	
			6.Hydro Energy 7. Piezoelectric Energy harvesting	PT		
	September		5.Geothermal Energy	PMC	Class Test	
			8. Electromagnetic energy harvesting, 9. Fuel Cell	PT		
	October (Puja Vacation: 21 <sup>st</sup> -31 <sup>st</sup> )		Revision, Home Assignment & Work Sheet	PMC	Class Test	
			Revision, Home Assignment & Work Sheet	PT		
November (Puja Vacation: 1 <sup>st</sup> -16 <sup>st</sup> )	Revision, Home Assignment & Work Sheet		PMC			
	Revision, Home Assignment & Work Sheet		PT			
December (Christmas 24 <sup>th</sup> - 31 <sup>st</sup> )	Revision & University Examination		PMC			
	Revision & University Examination		PT			

Semester	Paper	Time Frame	Topics	Teachers	Other Activities	
5	DSE-A(1)	July	2. Semiconductor Devices	PMC	Class Test	
			1. Circuits and Network	PT		
			Analog Electronics Practical 1 & 2	PMC & PT		
		August	2. Semiconductor Devices	PMC	Class Test	
			3. Regulated Power Supply 4. Field effect transistor	PT		
			Analog Electronics Practical 3 & 4	PMC & PT		
		September	5. Operational Amplifiers	PMC	Class Test	
			4. Feedback Amplifiers 5. Operational Amplifiers	PT		
			Analog Electronics Practical 5 & Revision	PMC & PT		
		October (Puja Vacation: 21 <sup>st</sup> -31 <sup>st</sup> )	Revision, Home Assignment & Work Sheet	PMC	Class Test	
			Revision, Home Assignment & Work Sheet	PT		
			Analog Electronics Practical Practice	PMC & PT		
		November (Puja Vacation: 1 <sup>st</sup> -16 <sup>st</sup> )	Revision	PMC		
			Revision	PT		
		December (Christmas 24 <sup>th</sup> - 31 <sup>st</sup> )	Revision & University Examination	PMC		
			Revision & University Examination	PT		
		SEC A-2	July	1.Fossil fuels and Alternate Sources of energy	PMC	Class Test
				2.Solar energy	PT	
	August		3.Wind Energy harvesting, 4.Ocean Energy	PMC	Class Test	
			6.Hydro Energy 7. Piezoelectric Energy harvesting	PT		
	September		5.Geothermal Energy	PMC	Class Test	
			8. Electromagnetic energy harvesting, 9. Fuel Cell	PT		
	October (Puja Vacation: 21 <sup>st</sup> -31 <sup>st</sup> )		Revision, Home Assignment & Work Sheet	PMC	Class Test	
			Revision, Home Assignment & Work Sheet	PT		
November (Puja Vacation: 1 <sup>st</sup> -16 <sup>st</sup> )	Revision, Home Assignment & Work Sheet		PMC			
	Revision, Home Assignment & Work Sheet		PT			
December (Christmas 24 <sup>th</sup> - 31 <sup>st</sup> )	Revision & University Examination		PMC			
	Revision & University Examination		PT			

Semester	Paper	Time Frame	Topics	Teachers	Other Activities
2	GCC-2	January	Kinetic theory	PMC	Class Test
			Electrostatics	PT	
			Electricity and Magnetism Practical 1 & 2	PMC & PT	
		February	Zeroth and First Law of Thermodynamics	PMC	Class Test
			Lorentz force	PT	
			Electricity and Magnetism Practical 3 Thermal Practical 4	PMC & PT	
		March	Second Law of Thermodynamics	PMC	Class Test
			Magnetostatics	PT	
			Thermal Practical 5 & Revision	PMC & PT	
		April	Entropy	PMC	
			Entropy	PT	
			Practical Revision	PMC & PT	
		May	5. Revision & Home assignments	PMC	Class Test
			2. Revision & Home assignments	PT	
			Practical Practice	PMC & PT	
June	University Examination				
	IDC-2 (Frontiers in Physics)	January	Nature of Science	PMC	Class Test
			Nature of Science	PT	
		February	Universe	PMC	Class Test
			Heat and Thermodynamics	PT	
		March	Radioactivity	PMC	Class Test
			Atoms and Molecules	PT	
		April	Radioactivity	PMC	
			Forces	PT	
		May	Revision	PMC	Class Test
			Revision	PT	
		June	University Examination		
			CVAC-2.2	January	Semiconductors and Sensors
Protection of Electrical Lines in House	PT				
February	Digital Embedded System			PMC	Class Test
				PT	
March	Digital Embedded System			PMC	Class Test
	Protection of Electrical Lines in House			PT	
April	Power Supply in Home Uses			PMC	
	Electrical Machine			PT	
May	Revision			PMC	Class Test
	Revision			PT	
June	University Examination				

Semester	Paper	Time Frame	Topics	Teachers	Other Activities
4	CC-4/GE4	January	4. Introduction to wave optics	PMC	Class Test
			1. Accoustics	PT	
			Wave and Optics Practical 1 & 2	PMC & PT	
		February	5. Interference	PMC	Class Test
			2. Superposition of vibrations	PT	
			Wave and Optics Practical 3 & 4	PMC & PT	
		March	5. Interference 6. Diffraction	PMC	Class Test
			3. Vibrations in String	PT	
			Wave and Optics Practical 5 & Revision	PMC & PT	
		April	6. Diffraction 7. Polarization	PMC	
			7. Polarization	PT	
			Wave and Optics Practical Revision	PMC & PT	
		May	Revision and home assignments	PMC	Class Test
			Revision and home assignments	PT	
	Wave and Optics Practical Practice		PMC & PT		
	June	University Examination			
	SEC B-2	January	2. Transformer	PMC	Class Test
			1. DC generator	PT	
		February	2. Transformer	PMC	Class Test
			1. DC generator	PT	
		March	3. AC motor	PMC	Class Test
			1. DC generator	PT	
		April	4. Measurement and faults	PMC	Class Test
			4. Measurement and faults	PT	
May		Revision	PMC		
		Revision	PT		
June		University Examination			
		University Examination			

Semester	Paper	Time Frame	Topics	Teachers	Other Activities
6	CC-2/GE2	January	3. Digital Circuits	PMC	Class Test
			1 Integrated Circuits 2. Number System	PT	
			Digital Electronics Practical 1 & 2	PMC & PT	
		February	3. Digital Circuits	PMC	Class Test
			5. Sequential Circuits	PT	
			Digital Electronics Practical 3 & 4	PMC & PT	
		March	4. Data Processing Circuits	PMC	Class Test
			5. Sequential Circuits	PT	
			Digital Electronics Practical 5 & Revision	PMC & PT	
		April	6. Registers and Counters	PMC	
			6. Registers and Counters	PT	
			Digital Electronics Practical Revision	PMC & PT	
		May	5. Revision & Home assignments	PMC	Class Test
			2. Revision & Home assignments	PT	
			Digital Electronics Practical Practice	PMC & PT	
June	University Examination				