

Morigaon College
Department of Physics

Teaching Plan

(Even semester-January 2025-July-2025)

1. Second Semester:

Serial Number	Paper	Topic	Total number of Lectures	Professor assigned	Proposed Time	Remark
1	Mathematical Physics And Electricity and Magnetism	Differential Equations	10	HJS	20 Jan- 10 Jan 2025	
2		Matrices	5	NI	20 th Jan-25 th Jan 2025	
3		Electric field and Potential	13	BT	20 th jan – 04 th Feb 2024	
4		Dielectric Properties of Matter	4	BT	05 th Feb- 10 th feb 2025	
5		Magnetic field	6	KS	20 th jan 27 th jan 2025	
6		Magnetic Properties of Matter	2	KS	28 th jan 30Jan 2025	
7		Electrical Circuit	5	HJS	3 Feb to 8 Feb 2025	
8		Practical	30	HJS	25 Jan 20 May 2025	

2. Fourth Semester:

Serial Number	Paper Classical Mechanics 251	Topic	Total number of Lectures	Professor assigned	Proposed time	Remark
1	Unit I	Mechanics of point of particles the Lagrangian approach	14	NI	25 Jan – 11 Feb 2025	
2	Unit II	Mechanics of point of particles the	6	NI	14 Feb – 24 Feb 2025	



		Hamiltonian				
3	Unit III	Small oscillation	5	NI	25 th Feb - 5 th Mar 2025	
4	Unit IV	Special theory of relativity	15	NI	6 th mar – 21 th Mar 2025	
5	Unit v	Fluid Dynamics	5	NI	22 th Mar – 29 th Mar 2025	
	Quantum Mechanics 252					
8	Unit I	Origin of Quantum Mechanics	3	KS	10 th Jan – 8 th Feb 2025	
9	Unit II	Dynamical variable as operators and uncertainty principle	8	KS	10 th Feb – 18 th Feb 2025	
10	Unit III	Matter wave and wave particle duality	8	KS	25 th Jan 8 Feb 2025	
11	Unit IV	Schrodinger equation and application	24	BT	24 th Feb – 28 th Feb 2025	
	Analogue electronics 253					
13	Unit I	Semiconductor devices	7	UM	20 th Jan – 27 th Jan 2025	
14	Unit II	Two terminal devices and their applications	5	HJS	29 th Jan - 4 th Feb 2025	
15	Unit III	Bipolar junction transistor	5	HJS	7 th feb – 13 th Feb 2025	
16	Unit IV	Amplifier	5	HJS	15 th feb – 23 th feb 2025	
17	Unit V	Couple Amplifier	2	HJS	3 rd mar – 5 th mar 2025	
18	Unit VI	Feedback in	4	HJS	6 th mar	

		amplifiers			to 11 th mar 2025	
19	Unit VII	Op-amp black box approach	5	UM	6 th Feb – 12 th Feb 2025	
20	Unit VIII	Sinusoidal approach	5	HJS	12 th Mar – 17 th Mar	
21	Unit IX	Application of Op-amp	04	HJS	18 th mar to 24 th Mar 2025	
22	Unit X	CRO	3	HJS	25 th Mar – 29 th mar 2025	
23	Mathematical Physics					
24	Unit I	Partial differential equation	10	UM	13 th Feb – 25 th Feb 2025	
25	Unit II	Fourier series	7	UM	2 nd Feb – 12 th Mar 2025	
26	Unit III	Complex analysis	17	UM	15 th Mar – 23 rd April 2025	
27	Unit IV	Tensor analysis	6	HJS	1 April – 6 th April 2025	
28	Unit V	Introduction to Probability	5	UM	23 rd April 30 th April	
29		Practical	30	HJS NI BT	20 th Jan – 20 th June	

3. Sixth Semester

Serial Number	Paper	Topic	Total number of Lectures	Professor assigned	Proposed time	Remark
1	Electromagnetic wave PHY-HC-601 6	Maxwell's equations	12	Mrs Kabita Sarmah	21 st Jan – 4 th Feb 2025	
2		EM wave propagation in unbound media	10	Mrs Kabita Sarmah	5 th Feb – 15 th Feb 2025	

3		EM wave in bound media	10	Mrs Kabita Sarmah	17 th Feb – 27 th Feb 2025	
4		Polarization of EM wave	12	Mrs Kabita Sarmah	28 th Feb – 1 Mar 2025	
5		Rotatory polarization	08	Mrs Kabita Sarmah	3 mar – 11mar 2025	
6		Optical fibre	03	Mrs Kabita Sarmah	12 th Mar- 18 th Mar 2025	
7		Laboratory	20	Mrs Kabita Sarmah	19 th Mar – 11 th April 2025	
8	Statistical Mechanics PHY-HC-602 6	Classical statistics	18	Mr Babul Talukdar	21th Jan – 8 th Feb 2025	
9		Classical theory of Radiations	09	Mr Babul Talukdar	10 th Feb – 20 th Feb 2025	
10		Classical theory of Radiation	09	Mr Babul Talukdar	21th Feb – 1 Mar 2024	
11		Quantum theory of radiation	09	Mr Babul Talukdar	3 rd Mar- 12 th Mar 2025	
12	Statistical Mechanics PHY-HC-602 6	Bose-Einstein Statistics	13	Mr Babul Talukdar	15 th Mar – 27 th Mar 2025	
13		Fermi-Dirac statistics	15	Mr Babul Talukdar	29 th Mar- 17 th April 2025	
14	Astronomy and astrophysics PHY-HE-604 6	Stellar properties	15	Mr Hemanga J. Sarmah	21th jan – 5 th Feb 2025	
15		The sun and the solar system	15	Mr Hemanga J. Sarmah	6 th Feb – 22 th Feb 2025	
16		Positional astronomy	10	Mr Hemanga J. Sarmah	24 th Feb – 7 th Mar 2025	
17		Astronomical techniques	10	Mr Hemanga J. Sarmah	9 th Mar- 19 th Mar 2025	
18		Galaxies	10	Mr Hemanga	20 th may –	

				J. Sarmah	2 April 2025	
19		Large scale structure and cosmology	15	Mr Hemanga J. Sarmah	3 rd April – 21 th April 2025	
20	Classical Dynamics PHY-HE-605 6	Classical mechanics and point particles	22	Mr N.I. Ali Ahmed	21 st Jan – 14 th feb 2025	
21		Small amplitude oscillations	10	Mr N.I. Ali Ahmed	15 th Feb – 28 th Feb 2025	
22		Special theory of relativity	33	Mr N.I. Ali Ahmed	3 rd Mar- 5 th April 2025	
23		Fluid dynamics	10	Mr N.I. Ali Ahmed	7 th April – 22 nd April 2025	
24		Practical	30	HJS NI BT	20 th Jan – 20 th May 2025	

