

Department of Physics
FYUP Course Structure

S. No.	Course Code	Title of the course	Faculty Code	End Sem. Marks	Sessional Marks	Credits	Part/ Semester	Course Category	Department	Session/ Year of Introduction
1	2	3	4	5	6	7	8	9	10	11
1	PHBSMJ1001	Mechanics	S	70	30	4	I	MJC	Physics	2022-2023
2	PHBSMJ1002	Mathematical Methods	S	70	30	2	I	MJC	Physics	2022-2023
3	PHBSMJ1P01	LAB-I (GENERAL PHYSICS)	S	40	60	2	I	MJC	Physics	2022-2023
4	PHBSMN1003	Basic Mechanics	S	70	30	4	I	MNC	Physics	2022-2023
5	PHBSMN1P01	LAB-I (BASIC PHYSICS)	S	40	60	2	I	MNC	Physics	2022-2023
6	PHBSGE1004	Concepts of Physics	S	70	30	4	I	GNE	Physics	2022-2023
7	PHBSMJ2001	Electromagnetism	S	70	30	4	II	MJC	Physics	2022-2023
8	PHBSMJ2002	Analog Electronics	S	70	30	2	II	MJC	Physics	2022-2023
9	PHBSMJ2P02	LAB-II (GENERAL PHYSICS)	S	40	60	2	II	MJC	Physics	2022-2023
10	PHBSMN2003	Electricity and Magnetism	S	70	30	4	II	MNC	Physics	2022-2023
11	PHBSMN2P02	LAB-II (BASIC PHYSICS)	S	40	60	2	II	MNC	Physics	2022-2023
12	PHBSGE2004	Perspectives in Physics	S	70	30	4	II	GNE	Physics	2022-2023

13	PHBSVO2005	Basic Instrumentation Skills	S	70	30	2	II	VOC	Physics	2022-2023
14	PHBSMJ3001	Waves and Optics	S	70	30	4	III	MJC	Physics	2022-2023
15	PHBSMJ3002	Thermal Physics	S	70	30	2	III	MJC	Physics	2022-2023
16	PHBSMJ3P03	LAB-III (GENERAL PHYSICS)	S	40	60	2	III	MJC	Physics	2022-2023
17	PHBSMN3003	Optics and Electronics	S	70	30	4	III	MNC	Physics	2022-2023
18	PHBSMN3P03	LAB-III (BASIC PHYSICS)	S	40	60	2	III	MNC	Physics	2022-2023
19	PHBSGE3004	Physics for Everyday Life	S	70	30	4	III	GNE	Physics	2022-2023
20	PHBSMJ4001	Classical Mechanics	S	70	30	4	IV	MJC	Physics	2022-2023
21	PHBSMJ4002	Statistical Physics	S	70	30	2	IV	MJC	Physics	2022-2023
22	PHBSMJ4P04	LAB-IV (GENERAL PHYSICS)	S	40	60	2	IV	MJC	Physics	2022-2023
23	PHBSMN4003	Modern Physics	S	70	30	4	IV	MNC	Physics	2022-2023
24	PHBSMN4P04	LAB-IV (BASIC PHYSICS)	S	40	60	2	IV	MNC	Physics	2022-2023
25	PHBSGE4004	Optoelectronics	S	70	30	4	IV	GNE	Physics	2022-2023
26	PHBSMJ5001	Introduction to Quantum Mechanics	S	70	30	4	V	MJC	Physics	2022-2023
27	PHBSMJ5002	Mathematical Physics	S	70	30	4	V	MJC	Physics	2022-2023
28	PHBSMJ5P05	LAB-V (GENERAL PHYSICS)	S	40	60	2	V	MJC	Physics	2022-2023

29	PHBSMJ5P06	LAB-VI (ELECTRONICS)	S	40	60	2	V	MJC	Physics	2022-2023
30	PHBSMO5003	Experimental Techniques	S	70	30	4	V	MJO	Physics	2022-2023
31	PHBSMO5004	Introduction to Relativity	S	40	60	4	V	MJO	Physics	2022-2023
32	PHBSNO5005	Nonlinear Dynamics	S	70	30	2	V	MNO	Physics	2022-2023
33	PHBSNO5006	Renewable Energy Sources	S	70	30	2	V	MNO	Physics	2022-2023
34	PHBSVO5007	Programming and Computational Skills	S	70	30	2	V	VOC	Physics	2022-2023
35	PHBSMJ6001	Introduction to Nuclear and Particle Physics	S	70	30	4	VI	MJC	Physics	2022-2023
36	PHBSMJ6002	Atomic, Molecular and Solid State Physics	S	70	30	4	VI	MJC	Physics	2022-2023
37	PHBSMJ6P07	LAB-VII (GENERAL PHYSICS)	S	40	60	2	VI	MJC	Physics	2022-2023
38	PHBSMJ6P08	LAB-VIII (ELECTRONICS)	S	40	60	2	VI	MJC	Physics	2022-2023
39	PHBSMO6003	Quantum Computation	S	70	30	4	VI	MJO	Physics	2022-2023
40	PHBSMO6004	Physics of Materials	S	40	60	4	VI	MJO	Physics	2022-2023
41	PHBSXO6005	Group Theory	S	70	30	2	VI	MNO	Physics	2022-2023
42	PHBSXO6006	Lasers and Applications	S	70	30	2	VI	MNO	Physics	2022-2023
43	PHBSMJ7101	Electrodynamics	S	70	30	4	VII (H)	MJC	Physics	2022-2023
44	PHBSMJ7102	Atomic Molecular and Condensed Matter Physics	S	70	30	4	VII (H)	MJC	Physics	2022-2023

45	PHBSMJ7P09	LAB-IX (ADVANCED PHYSICS)	S	40	60	4	VII (H)	MJC	Physics	2022-2023
46	PHBSMJ7103	Basics of Modern Physics	S	70	30	4	VII (H)	GNE	Physics	2022-2023
47	PHBSMJ7104	Instrumentation and Analytical Methods	S	70	30	4	VII (H)	GNE	Physics	2022-2023
48	PHBSMJ7105	Research Methodology	S	70	30	2	VII (H)	VOC	Physics	2022-2023
49	PHBSMJ7S01	Seminar	S	40	60	4	VII (H)	SEM	Physics	2022-2023
50	PHBSMJ8101	Advanced Quantum Mechanics	S	70	30	4	VIII (H)	MJC	Physics	2022-2023
51	PHBSMJ8102	Digital Electronics	S	70	30	2	VIII (H)	MJC	Physics	2022-2023
52	PHBSMJ8103	Nuclear and Particle Physics	S	70	30	2	VIII (H)	MJC	Physics	2022-2023
53	PHBSMJ8P10	LAB-X (ADVANCED PHYSICS)	S	40	60	4	VIII (H)	MJC	Physics	2022-2023
54	PHBSMJ8104	Fundamentals of Astrophysics	S	70	30	4	VIII (H)	GNE	Physics	2022-2023
55	PHBSMJ8105	Applications of Quantum Mechanics	S	70	30	4	VIII (H)	GNE	Physics	2022-2023
56	PHBSMJ8D01	Project/Dissertation	S	40	60	6	VIII (H)	DISS	Physics	2022-2023
57	PHBSMJ7106	Classical Electrodynamics	S	70	30	4	VII (R)	MJC	Physics	2022-2023
58	PHBSMJ7107	Quantum Mechanics	S	70	30	2	VII (R)	MJC	Physics	2022-2023
59	PHBSMJ7P11	LAB-XI (ADVANCED PHYSICS)	S	40	60	4	VII (R)	MJC	Physics	2022-2023
60	PHBSMJ7108	Foundation of Modern Physics	S	70	30	4	VII (R)	GNE	Physics	2022-2023

61	PHBSMJ7109	Materials Characterization Techniques	S	70	30	4	VII (R)	GNE	Physics	2022-2023
62	PHBSMJ7110	Research and Methods	S	70	30	4	VII (R)	VOC	Physics	2022-2023
63	PHBSMJ7D01	Dissertation	S	40	60	4	VII (R)	DISS	Physics	2022-2023
64	PHBSMJ8106	Spectroscopy and Materials Science	S	70	30	4	VIII (R)	MJC	Physics	2022-2023
65	PHBSMJ8107	Aspects of Nuclear and Particle Physics	S	70	30	2	VIII (R)	MJC	Physics	2022-2023
66	PHBSMJ8P12	LAB-XII (ADVANCED PHYSICS)	S	40	60	4	VIII (R)	MJC	Physics	2022-2023
67	PHBSMJ8108	Basics of Astrophysics	S	70	30	4	VIII (R)	GNE	Physics	2022-2023
68	PHBSMJ8109	Quantum Mechanics: Applications	S	70	30	4	VIII (R)	GNE	Physics	2022-2023
69	PHBSMJ8D02	Dissertation	S	40	60	8	VIII (R)	DISS	Physics	2022-2023

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