



**Indian Institute of Technology Kanpur**  
**DEPARTMENT OF PHYSICS**  
**2024-25 - I Semester**  
**List of Courses**

S. No.	Course No	Course Name	Instructor	Email
1.	PHY 111	Physics Laboratory	Manas Khan	mkhan
2.	PHY 112	Classical Dynamics	Arijit Kundu	kundua
3.	PHY 113	Introduction to Electromagnetism	Supratik Banerjee	sbanerjee
4.	PHY 114	Introduction to Quantum Physics	Anand Kumar Jha	akjha
5.	PHY 115	Oscillations and Waves	Sivasurender Chandran	schandran
6.	PHY 224	Optics	V. Jayasurya Y	jayasurya
7.	PHY 303	Principles of laser and their applications	Harshawardhan Wanare	hwanare
8.	PHY 307	Modern Optics	S.A.Ramakrishna	sar
9.	PHY 315	Modern Physics Laboratory	Rajeev Gupta	guptaraj
10.	PHY 404	Order and Chaos	Sagar Chakraborty	sagarc
11.	PHY 407/ <b>SE315</b>	Special & General Relativity	Kaushik Bhattacharya	kaushikb
12.	PHY 421	Mathematical Methods	Tarun Kanti Ghosh	tkghosh
13.	PHY 431	Quantum Mechanics – I	Joydeep Chakraborty	joydeep
14.	PHY441	Electronics	Rohit Medwal	rmedwal
15.	PHY 461/462	Experimental Physics I & II	Jayita Nayak	jnyak
16.	PHY 501/502	M.Sc. Review Project	Nilay Kundu	nilayhep
17.	PHY 555/556	BS Project	Soumik Mukhopadhyay	soumikm
18.	PHY 563/565	M.Sc. Project I & M.Sc. Project II	Aditya H Kelkar	akelkar
19.	PHY 596,598, 696,698	M.Sc. Research Project	Manoj K Harbola	mkh
20.	IDC606	High Performance Computing with applications	Mahendra Kumar Verma	mkv
21.	PHY613	Advanced statistical mechanics	Adhip Agarwala	adhip
22.	PHY614	Classical electrodynamics – II	Gautam Sengupta	sengupta
23.	PHY621	Electronic structure of materials	Koushik Pal	Koushik
24.	PHY623	Condensed matter physics	Sudeep Ghosh	skghosh
25.	PHY624	Magnetism in Materials	Zakir Hossain	zakir
26.	PHY628	Physics of soft matter and fluids	Jayanta Bhattacharya	Jayanta
27.	PHY631	Physics of semiconductors and nanostructures	Sudipta Dubey	sudiptad
28.	PHY652	Introduction to conformal field theory	Apratim Kaviraj	akaviraj
29.	PHY654	Machine learning in particle physics	Swagata Mukherjee	swagata
30.	PHY681	Quantum field theory	Arjun Bagchi	abagchi
31.	PHY682	Concepts of plasma physics	Sudeep Bhattacharjee	sudeepb
32.	PHY683	Techniques in experimental high energy physics	Navneeth P.	navaneeth
33.	PHY690B	Physics at LHC	Sanmay Ganguly	sanmay
34.	PHY690C	Fundamentals of Astrophysics	Gopal Hazra	hazra
35.	PHY690V	Photonic Devices	R. Vijaya	rvijaya
36.	PHY701/702	Seminar course	Amit Agarwal	amitag
37.	PHY 799	Research	Sagar Chakraborty	dpgc_phy
38.	PHY888	Introduction to profession and communication skills for physicists	S. Anantha Ramakrishna	sar
39.	ETH111	Ethics	Y.N.Mohaptra	ynm

**Head, Physics**  
**March 2024**