

**School of Physics**  
**Tentative course list-Vasanth 2023**

SI No	Course Code	Course Name	Faculty Assigned
<b>First and Second Year Courses</b>			
1	PHY121	Electromagnetism	Dr. Rajeev Kini & Dr. Nitin Yadav
2	PHY221	Thermal and Statistical Physics	Dr. Shabnam Iyyani
3	PHY122	Experiments in Optics, Electricity and Magnetism	Dr. Manoj Namboothiry
4	PHY222	Experiments in Heat and Thermodynamics	Dr. Deepshikha J Nagar
5	IDC212	Data Analysis and Visualisation	Dr. Pramitha M
6	IDC222	Scientific Computing	Dr. Amal Medhi
<b>Major Level BS-MS and M.Sc./IPh. D. /Ph. D. Courses</b>			
7	PHY/MSP321/PHY3210	Statistical Mechanics (Minor)	Dr. Joy Mitra
	PHY321ab	Introduction to Statistical Mechanics (2 credits) (Minor)	
8	PHY/MSP322/PHY3220	Condensed Matter Physics I (Minor)	Dr. Madhu Thalakulam
9	PHY/MSP323/PHY3240	Electrodynamics and Special Theory of Relativity	Dr. Bindusar Sahoo
10	PHY/MSP325/PHY3250	Advanced Physics Experiments II (Elective for i2P 3 <sup>rd</sup> yr students)	Dr. Bikas C Das
11	I2P321/PHY4219	Electrochemical Energy Systems (Core for i2P, Elective 8 <sup>th</sup> /6 <sup>th</sup> sem)	Dr. M M Shaijumon
12	MSP326	Seminar IPhD/MSc (For 2 <sup>nd</sup> semester) (1 credit)	Dr. Bikas C Das
13	PHY421/4210/6210/I2P421	Numerical Methods	Dr. Soumen Basak
14	PHY422/4220/6220	Atomic and Molecular Physics	Dr. S Kumaragurubaran
15	MSP420	Seminar IPhD (For 4 <sup>th</sup> semester) (1 credit)	Dr. Deepshikha J Nagar
16	PHY4204/6204	Nonlinear Optics and Photonics (Elective 8 <sup>th</sup> /6 <sup>th</sup> sem)	Dr. Ravi Pant
17	PHY4218/6218	Nonlinear Dynamics (Elective 6 <sup>th</sup> sem)	Prof. Ambika
18	PHY4217/PHY6217	Quantum Information Theory (Elective 6 <sup>th</sup> sem)	Dr. Debashis Saha

19	PHY5212/6212	Theory of open quantum systems (Elective 8 <sup>th</sup> sem)	Prof. Anil Shaji
20	PHY5213/6213	Quantum Field Theory-I (Elective 8 <sup>th</sup> sem)	Dr. Mathew Arun Thomas
21	PHY/AOE4222	Introduction to Atmospheric Science (Elective 8 <sup>th</sup> sem/OE)	Dr. Anand Narayana Sharma
22	PHY5127/6127	Fluid Dynamics (Elective 8 <sup>th</sup> sem)	Dr. Sreedhar B Dutta
23	PHY5101/6101/i2P5101	Digital Image Processing (Elective 8 <sup>th</sup> sem)	Dr. Suhesh Kumar Singh
24	PHY/AOE4211/PHY6211	Materials Growth and Processing Techniques (Elective 8 <sup>th</sup> sem/ OE)	Dr. Tuhin Maity
25	PHY5209/6209	Particle Physics (Elective 8 <sup>th</sup> sem)	Dr. Tanumoy Mandal
26	PHY5214/6214	Probes in Condensed Matter Physics (Elective 8 <sup>th</sup> sem)	Dr. Vinayak B Kamble
27	PHY620	Research methodology (For PhD students)	Dr. Manoj Namboothiry
28	PHY5230/6230	Complex Systems (Elective 8 <sup>th</sup> sem)	Dr. Senthil Kumar

#I2C 421(course of SoC) - Core course for i2P students