

List of Courses having focus on Local, National, Regional and Global Developmental Needs offered by the M.Sc. Physics

M.Sc.						
Programme: M.Sc. Physics					Year: 2020-2022 Batch	
Course Code	Course Title	Need				Rationale
		Local	National	Regional	Global	
20PPS101	Classical Mechanics		✓			To compete CSIR, SLET, NET exams
20PPS102	Quantum Mechanics				✓	Apply critical thinking skills to formulate and solve quantitative problems in Applied Physics, Compleitive Exams like NET, SET, GATE & CSIR.
20PPS103	Mathematical Physics				✓	Necessary skills developed to compete in various competitive exams like CSIR, NET, SET, GATE etc.
20PPS1E1	Applied Electronics				✓	Design Electronic industries
20PPS204	Statistical Mechanics			✓		To impart the knowledge about classical & quantum statistics
20PPS205	Advanced Quantum Mechanics			✓	✓	Develop skills to face complexity for inter-disciplinary and multi-disciplinary research and to arouse critical thinking skills to formulate and solve problems in Applied Physics
20PPS206	Electromagnetic theory & Electrodynamics				✓	To enhance the skill in solving problems by applying electromagnetic field.
20PPS207	Electronic Communications and Cyber security			✓	✓	Work in IT and Electronic sectors

20PPS2N1	Non Conventional Energy Sources				✓	Awareness on available sources of energy and to fetch opportunities in energy sectors
20PPS2N2	Biomedical Instrumentation				✓	Employment in medical laboratories and related fields
20PPS208	General Physics Lab I		✓			To impart knowledge in experimental techniques and correlate with theory
20PPS209	Electronics Lab I				✓	To train the students to develop the knowledge about design of circuits and utilization of electronic components
19PPS310	Molecular Spectroscopy				✓	To impart knowledge in group theory and understand different spectroscopic techniques
19PPS311	Condensed Matter Physics		✓	✓	✓	Job opportunities in leading premier scientific institutes and in Research lab
19PPS3E2	Thin film & Nano science				✓	To promote and higher education and participate in interdisciplinary research
19PPS412	Lasers & Non-Linear Optics				✓	To impart knowledge in the principle and working of laser and origin of nonlinear phenomenon
19PPS413	Nuclear & Particle Physics		✓		✓	Placements at various Atomic and research centers like IGCAR,BARC and across the globe
19PPS414	General Physics Lab II			✓		To gain the knowledge about experimental methods and measurements
19PPS415	Electronics Lab II		✓		✓	Practical skills to cater to the needs of Teaching, IT and Electronic industry
19PPS416	Computer Lab in C++				✓	Impart basic skills for employability in IT sector
19PPS417	Project		✓		✓	Planning, executing and reporting theoretical and experimental skills to work effectively in diverse teams
19PPS4E3	Microprocessor & Object-				✓	To impart the knowledge about computation, multimedia display and

	Oriented Programming With C++					operating sysem
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BoS Chairman