



DEPARTMENT OF PHYSICS GOVERNMENT DEGREE COLLEGE MENDHAR

(NAAC Accredited 'B' Grade)

SUBJECT: PHYSICS

Programme Learning Outcomes in B.Sc (PCM), B.Sc (PMG), B. Sc (PMC)

PO1: To enhance the student's academic abilities, personal qualities and transferable skills which will give them opportunity to develop as responsible citizens.

PO2: To develop the student's fundamental & systematic understanding of different learning areas and applications in Physics like Mechanics, Thermodynamics, Optics, Nuclear and Particle Physics, Modern Physics, its linkages with related disciplinary areas / subjects like Chemistry, Mathematics, Computer science, Information Technology.

PO3: Demonstrate the ability to use skills in Physics and its related areas of technology for formulating and tackling Physics-related problems and identifying and applying appropriate physical principles and methodologies to solve a wide range of problems associated with Physics.

PO4 : To carry out experiments to understand the laws and concepts of Physics.

PO5 : To apply the theories learnt and the skills acquired to solve real time problems.

PO6 : To acquire a wide range of problem solving skills, both analytical and computational and to apply them.

PROGRAMME OBJECTIVES

- To produce graduates who excel in the competencies and values required for leadership to serve a rapidly evolving global community*
- To consolidate the knowledge acquired at +2 level and to motivate and inspire the students to create deep interest in Physics, to develop broad and balanced knowledge and understanding of physical concepts, principles and theories of Physics.*
- Learn, design and perform experiments in the labs to demonstrate the concepts, principles and theories learned in the classrooms.*
- To expose the student to the vast scope of Physics as a theoretical and experimental science*
- develop the ability to apply the knowledge acquired in the classroom and laboratories to specific problems in theoretical and experimental Physics*
- To motivate the students to pursue PG courses in reputed institutes*
- To kindle the interest for research in students*
- To acquire placement in educational institutions, engineering and industrial firms.*
- To endow the students with creative and analytical skills; this will equip them to become entrepreneurs.*



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Scheme of Examination

(Applicable to Students admitted during the Academic Session 2018-2019 and onwards)

Semester	Subject Code	Title of the Paper	Ins. Hours/ week	Maximum Marks			Credits	Syllabus Link
				External/ Final Exams	Internal Exam	Total		
I	UPHTC-101 (Theory)	Mechanics, Oscillations & Relativity	4	80	20	100	6	https://jammuuniversity.ac.in/sites/default/files/inline-files/Physics-2016.pdf
	UPHPC-102 (Practical)	Physics (Practical)-I	2	25	25	50		
II	UPHTC-201 (Theory)	Vector Calculus, Electrostatics and Electromagnetic Waves	4	80	20	100	6	https://jammuuniversity.ac.in/sites/default/files/inline-files/Physics-2016.pdf
	UPHPC-202 (Practical)	Physics (Practical)-II	2	25	25	50		
III	UPHTC-301 (Theory)	Electronics, Thermodynamics and Statistical Mechanics	4	80	20	100	6	https://jammuuniversity.ac.in/sites/default/files/inline-files/Physics-3-4-2017.pdf
	UPHPC-302 (Practical)	Physics (Practical)-III	2	25	25	50		
	UPHSE-303 (Skill Enhancement Course)	Physics Workshop Skill	4	70	30	100	4	
IV	UPHTC-401 (Theory)	Waves and Optics	4	80	20	100	6	https://jammuuniversity.ac.in/sites/default/files/inline-files/Physics-3-4-2017.pdf
	UPHPC-402 (Practical)	Physics (Practical)-IV	2	25	25	50		
	UPHSE-403 (Skill Enhancement Course)	Renewable Energy and Energy Harvesting	4	70	30	100	4	
V	UPYTE-501 (Theory)	Modern Physics	4	80	20	100	6	https://jammuuniversity.ac.in/sites/default/files/inline-files/Physics-5-6-2018.pdf
	(Discipline Specific Elective)							
	UPHPC-502 (Practical)	Lab Course-V	2	25	25	50		
	UPYTS-503 (Skill Enhancement Course)	Basic Instrumentation Skill	4	70	30	100	4	
VI	UPYTE-601 (Theory)	Solid State Physics, Quantum Optics & Electronics	4	80	20	100	6	https://jammuuniversity.ac.in/sites/default/files/inline-files/Physics-5-6-2018.pdf
	(Discipline Specific Elective)	Lab Course-VI						
	UPHPC-602 (Practical)		2	25	25	50		
	UPHSE-603 (Skill Enhancement Course)	Weather Forecasting	4	70	30	100	4	

HOD Physics
GDC Mendhar