

DEPARTMENT OF PHYSICS

GOVERNMENT DEGREE COLLEGE RAMNAGAR

(NAAC Accredited)

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 7 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.

POS : 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 OBJECTIVE

- 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	http://www.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	http://www.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	http://www.jammuuniversity.ac.in/sites/default/files/inline-files/Physics-3-4-2017.pdf
	UPHPC—302 (Practical)	Physics (Practical)—III	2	25	25	50		
IV	UPHTC—4(1) (Theory)	Waves and Optics	4	80	20	100	6	http://www.jammuuniversity.ac.in/sites/default/files/inline-files/Physics-3-4-2017.pdf
	UPHPC—402 (Practical)	Physics (Practical)—IV	2	25	25	50		
V	UPYTE—501 (Theory) (Discipline Specific Elective)	Modern Physics	4	80	20	100	6	http://www.jammuuniversity.ac.in/sites/default/files/inline-files/Physics-5-6-2018.pdf
	UPHPC—502 (Practical)	Lab Course—V	2	25	25	50		
VI	UPYTE—6(1) (Theory) (Discipline Specific Elective)	Solid State Physics, Quantum Optics & Electronics	4	80	20	100	6	http://www.jammuuniversity.ac.in/sites/default/files/inline-files/Physics-5-6-2018.pdf
	UPHPC—602 (Practical)	Lab Course—VI	2	25	25	50		

HOD Physics
GDC Ramnagar