

Post Graduate Department of Applied Physics
C. V. Raman College of Engineering
(Autonomous status under section 2(f) of UGC, ACT 1956)
Under Biju Patnaik University of Technology

Programme Objectives:

1. To develop strong student competencies in Physics and its applications in a technologyrich, interactive environment.
2. To train postgraduates with advanced knowledge and understanding of physics with higher order critical, analytical, problem solving and research skills; ability to think rigorously and independently to meet higher level expectations of academia and research with sufficient transferrable skills.
3. To prepare the students to successfully compete for employment in Manufacturing and Teaching industry.

Course Structure, M. Sc. (Applied Physics), C.V. Raman College of Engineering 2018 Admission Batch

1 st Year: First semester (Theory)				Second semester (Theory)			
Code	Subject	Minimum Contact Hours	Credit (L-T-P)	Code	Subject	Minimum Contact Hours	Credit (L-T-P)
PH51101	Classical Mechanics	50	4 (4-0-0)	PH51106	Condensed Matter Physics	50	4 (4-0-0)
PH51102	Mathematical Physics	50	4 (4-0-0)	PH51107	Quantum Mechanics - II	50	4 (4-0-0)
PH51103	Classical Electrodynamics	50	4 (4-0-0)	PH51108	Statistical Mechanics	50	4 (4-0-0)
PH51104	Quantum Mechanics -I	50	4 (4-0-0)	PH51109	Numerical methods and Computational Techniques	40	3 (3-0-0)
		Total Theory	16			Total Theory	15
Practical /Sessional				Practical /Sessional			
PH51205	Electromagnetics and Optics Lab	60	6 (0-0-6)	PH51210	Numerical methods and Computational Techniques Lab	30	3 (0-0-3)
PH51211	General Physics	40	4 (0-0-4)	PH51219	Modern Physics	60	6 (0-0-6)
		Total	26		Total		24
2 nd Year: Third semester (Theory)				Fourth semester (Theory)			
Code	Subject	Contact Hours	Credit (L-T-P)	Code	Subject	Contact Hours	Credit (L-T-P)
PH61133	Physics of Energy Resources	50	4 (4-0-0)	PH61123	Experimental Techniques	50	4 (4-0-0)
PH61113	Analog and Digital Electronics	50	4 (4-0-0)	PH61124	Nuclear and Particle Physics	50	4 (4-0-0)
PH61114	Atomic & Molecular Physics	50	4 (4-0-0)	PH62125	Core Elective Theory Subjects 1.Fiber Optics and Optoelectronics -II 2.Materials Science and Technology -II 3.Plasma Physics-II	50	4 (4-0-0)
PH62115	Core Elective Theory Subjects 1. Fiber Optics and Optoelectronics -I 2. Materials Science and Technology -I 3. Plasma Physics-I	50	4 (4-0-0)	PH62126			
PH62116				PH62127			
PH62117							
		Total Theory	16			Total Theory	12
Practical /Sessional				Practical /Sessional			
PH61219	Analog and Digital Electronics Lab	60	6 (0-0-6)	PH62220	Elective Lab Subjects 1.Fiber Optics and Optoelectronics Lab 2.Materials Science and Technology Lab 3.Plasma Physics Lab	50	6 (0-0-6)
				PH62221			
				PH62222			
PH63418	Project and Seminar		2	PH63428	Project		6
				PH63434	Comprehensive Viva		2
					Total		26

GRAND TOTAL:100