

STRUCTURE OF THE SYLLABUS FOR 2 YEAR PG PROGRAMME

SCHOOL NAME - ROYAL SCHOOL OF APPLIED AND PURE SCIENCES

DEPARTMENT NAME - PHYSICS

PROGRAMME NAME - M.Sc. in PHYSICS

1 st SEMESTER				
COURSE CODE	COURSE TITLE	LEVEL	CREDIT	L-T-P
PHY014C101	Classical Mechanics & Theory of Relativity	400	4	4-0-0
PHY014C102	Quantum Mechanics – I	400	4	4-0-0
PHY014C103	Mathematical Physics	400	4	4-0-0
PHY014C104	Nuclear & Particle Physics	400	4	4-0-0
PHY014C115	Physics Lab-I	400	4	0-0-8
SWAYAM CODE 1	Swayam 1	400	3/4/5	
TOTAL CREDIT FOR 1st SEMESTER			20 + 3/4/5	
2 nd SEMESTER				
COURSE CODE	COURSE TITLE	LEVEL	CREDIT	L-T-P
PHY014C201	Condensed Matter Physics	400	4	4-0-0
PHY014C202	Electrodynamics	400	4	4-0-0
PHY014C203	Quantum Mechanics – II	400	4	4-0-0
PHY014C204	Plasma and Space Physics	400	4	4-0-0
PHY014C215	Physics Lab - II	400	4	0-0-8
SWAYAM CODE 2	Swayam 2	400	3/4/5	
TOTAL CREDIT FOR 2nd SEMESTER			20 + 3/4/5	
TOTAL CREDIT FOR 1st YEAR = 40 + 6/8/10				
3 rd SEMESTER				
COURSE CODE	COURSE TITLE	LEVEL	CREDIT	L-T-P
PHY014C301	Atomic and Molecular Physics	500	4	4-0-0
PHY014C302	Statistical Mechanics	500	4	4-0-0
PHY014C303	Physics of Nanomaterials	500	4	4-0-0
PHY014C304	Advanced Condensed Matter Physics	500	4	4-0-0
PHY014C331	Project- I	500	8	0-0-0
SWAYAM CODE 3	Swayam 3	500	3/4/5	
TOTAL CREDIT FOR 3rd SEMESTER			24 + 3/4/5	
OR 3rd SEMESTER (For students with 3rd and 4th Semester Research)				
	RESEARCH PROJECT – PHASE I	500	24 + 3/4/5	0-0-0
4 th SEMESTER				
COURSE CODE	COURSE TITLE	LEVEL	CREDIT	L-T-P
	Dissertation (students with research in 4th Sem)			
<i>(for 'Coursework only' in lieu of Research)</i>				
PHY014C401	Laser and Raman Spectroscopy	500	4	4-0-0
PHY014C402	Semiconductor Devices	500	4	4-0-0
PHY014C403	Nonlinear Optics and photonics	500	4	4-0-0
PHY014C404	Astrophysics	500	4	4-0-0
PHY014C431	Project- II	500	12	0-0-0
SWAYAM CODE 4	Swayam 4	500	3/4/5	
OR 4th SEMESTER (For students with 3rd and 4th Semester Research)				
	RESEARCH PROJECT – PHASE 2	500	28 + 3/4/5	0-0-0
TOTAL CREDIT FOR 2nd YEAR = 52+ 6/8/10				

