

M. Sc. (Applied Physics) Course structure(First year)							
First semester (Theory)				Second semester (Theory)			
Code	Subject	Contact Hours	Credit	Code	Subject	Contact Hours	Credit
MPHY-101	Classical Mechanics	50	4	MPHY-201	Condensed Matter Physics	50	4
MPHY-102	Mathematical Physics	50	4	MPHY-202	Quantum Mechanics -II	50	4
MPHY-103	Classical Electrodynamics	50	4	MPHY-203	Statistical Mechanics	50	4
MPHY-104	Quantum Mechanics -I	50	4	MPHY-204	Numerical methods and Computational Techniques	40	3
		Total	16			Total	15
Practical /Sessional				Practical /Sessional			
MPHY-105	Electromagnetism and Optics Lab		6	MPHY-205	Numerical methods and Computational Techniques Lab		3
				MPHY-206	General Physics		6
		Grand Total	22		Grand Total		24

(Second year)							
Third semester (Theory)				Fourth semester (Theory)			
Code	Subject	Contact Hours	Credit	Code	Subject	Contact Hours	Credit
MPHY-301	Advanced Quantum Mechanics and Field theory	50	4	MPHY-401	Instrumental techniques for Materials Characterization	50	4
MPHY-302	Basic and Digital Electronics	50	4	MPHY-402	Nuclear and Particle Physics	50	4
MPHY-303	Atomic & Molecular Spectroscopy	50	4	MPHY-403	Core Elective –II	50	4
MPHY-304	Core Elective –I	50	4	MPHY-404	Project	60	6
MPHY-305	Seminar	24	2				
		Total	18			Total	18
Practical /Sessional				Practical /Sessional			
MPHY-306	Basic and Digital Electronics Lab		6	MPHY-405	Modern Physics Lab	50	6
MPHY-307	Core Elective –I Lab		6	MPHY-406	Core Elective –II Lab	50	6
		Grand Total	30		Grand Total		30

Total Credits: 106

Core Electives –

- (1) Plasma Physics (I & II)**
- (2) Materials Science (I & II)**
- (3) Fiber Optics and Optoelectronics (I & II)**