

## 2 yr. MSc – Physics

2018

SEMESTER 1					SEMESTER 2					
18PHY501	Classical Mechanics	3 1 0	4		18PHY511	Quantum Mechanics II	3 1 0		4	
18PHY502	Quantum Mechanics I	3 1 0	4		18PHY512	Mathematical Physics II	3 1 0		4	
18PHY503	Mathematical Physics I	3 1 0	4		18PHY513	Statistical Mechanics	3 1 0		4	
18PHY504	Computational Physics	3 1 0	4		18PHY514	Advanced Electrodynamics	3 1 0		4	
18PHY581 / 18PHYXXX	Advanced Physics Lab / Physics Lab A	0 0 6	2		18PHY515/ 18PHYXXX	Experimental Techniques / Advanced Electronics	3 1 0		4	
18CUL501	Cultural Education	2 0 0	P/F		18PHY583/ 18PHYXXX	Advanced Electronics Lab / Physics Lab B	0 0 6		2	
18PHY582	Simulation Lab	0 0 3	1		18AVP501	Amrita Value Programme	1 0 0		1	
18PHY591	Mini Project	0 0 3	1		<b>TOTAL</b>				<b>23</b>	
<b>TOTAL</b>					<b>TOTAL</b>					<b>20</b>
SEMESTER 3					SEMESTER 4					
18PHY601/ 18PHY517	Atomic, Molecular and Optical Physics / Atomic and Molecular Spectroscopy	3 1 0	4		18PHY696	Dissertation			18	
18PHY602	Condensed Matter Physics	3 1 0	4		18PHY697/ 18PHYXXX	Viva voce / Seminar			2	
18PHY603	Nuclear and Particle Physics	3 1 0	4		<b>TOTAL</b>				<b>20</b>	
18PHY604	Elective I	3 0 0	3		<b>TOTAL 2 Yr MSc</b>					<b>86</b>
	Elective II	3 0 0	3							
18PHY681/ 18PHYXXX	Spectroscopy Lab / Advanced Electronics Lab	0 0 6	2							
18PHY690	Free/Open Elective / Live-in-Lab	3 0 0	3							
<b>TOTAL</b>					<b>TOTAL</b>					<b>23</b>

Code No	ELECTIVES	L T P	Cr	Code No	Open Electives	L T P	Cr
18PHY632	Astrophysics	3 0 0	3	18OEL631	Advanced Statistical Analysis for Research	2 0 0	2
18PHY633	Biophotonics	3 0 0	3	18OEL632	Basics of PC Software	2 0 0	2
18PHY634	Earth's Atmosphere	3 0 0	3	18OEL633	Computer Hardware and Networking	2 0 0	2
18PHY635	Earth's Structure and Evolution	3 0 0	3	18OEL634	Consumer Protection Act	2 0 0	2
18PHY636	Fibre-optic Sensors and Applications	3 0 0	3	18OEL635	Corporate Communication	2 0 0	2
18PHY637	Fibre Optics and Technology	3 0 0	3	18OEL636	Design Studies	2 0 0	2
18PHY638	Nanophotonics	3 0 0	3	18OEL637	Disaster Management	2 0 0	2
18PHY639	Nonlinear Dynamics	3 0 0	3	18OEL638	Essentials of Cultural Studies	2 0 0	2
18PHY640	Nuclear Physics	3 0 0	3	18OEL639	Foundations of Mathematics	2 0 0	2
18PHY641	Optoelectronic Devices	3 0 0	3	18OEL640	Foundations of Quantum Mechanics	2 0 0	2
18PHY642	Physics of Cold Atoms and Ions	3 0 0	3	18OEL641	Glimpses of Life through Literature	2 0 0	2
18PHY643	Quantum Electrodynamics	3 0 0	3	18OEL642	Information Technology in Banking	2 0 0	2
18PHY644	Quantum Optics	3 0 0	3	18OEL644	Knowledge Management	2 0 0	2
18PHY645	Thin Film Technology	3 0 0	3	18OEL645	Marketing Research	2 0 0	2
18PHY646	Fundamentals of Plasma Physics	3 0 0	3	18OEL646	Media for Social Change	2 0 0	2
18PHYXXX	Space Physics	3 0 0	3	18OEL647	Media Management	2 0 0	2
18PHY648	Ultrafast lasers and Applications	3 0 0	3	18OEL648	Object-Oriented Programming	2 0 0	2
18PHY649	Energy and Environment in the 21st century	3 0 0	3	18OEL649	Painting and Sculpture	2 0 0	2
18PHY650	Introduction to solar physics	3 0 0	3	18OEL650	Personal Finance	2 0 0	2
18PHY651	Micro and Nano Magnetism Materials and its Applications	3 0 0	3	18OEL651	Principles of Advertising	2 0 0	2
18PHY652	X-ray Diffraction and its Applications	3 0 0	3	18OEL652	Principles of Packaging	2 0 0	2
18PHY653	Solar energy conversion	3 0 0	3	18OEL653	Scripting for Rural Broadcasting	2 0 0	2
18PHY654	Fabrication of Advanced Solar cell	3 0 0	3	18OEL654	Social Media Website Awareness	2 0 0	2
18PHY655	Astrophysics and Cosmology	3 0 0	3	18OEL655	Theatre Studies	2 0 0	2
18PHY656	Special Theory of Relativity			18OEL656	Writing for Technical Purposes	2 0 0	2
		3 0 0	3	18OEL657	Yoga and Personal Development	2 0 0	2
				18OEL658	Fundamentals of Legal Awareness	2 0 0	2
				18OEL659	Solid Waste Management and Utilization	2 0 0	2
				18OEL660	Relativistic Quantum Mechanics	2 0 0	2
				18OEL661	Robotics and Biology	2 0 0	2
				18OEL662	Science of Well Being	2 0 0	2
				18OEL663	Operating Systems and Networks	2 0 0	2
				18EN600	Technical Writing		
				18OEL664	Bhagavat Geeta and Personality Development		
				18OEL665	Chemical Aspects of Forensic Science		

\* One Open Elective course has to be taken by each student, at 3rd semester, from the list of Open electives offered by the School.

@ Students undertaking and registering for a Live-in-Lab project can be exempted from registering for an Open Elective course in the fifth semester.