

## 2 yr. MSc – Physics

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	Advanced Physics Lab	0	0	6	2	18PHY515	Experimental Techniques	3	1	0	4
18CUL501	Cultural Education	2	0	0	P/F	18PHY583	Advanced Electronics Lab	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>20</b>	SEMESTER 4					
18PHY601	Atomic, Molecular and Optical Physics	3	1	0	4	18PHY696	Dissertation				18
18PHY602	Condensed Matter Physics	3	1	0	4	18PHY697	Viva voce				2
18PHY603	Nuclear and Particle Physics	3	1	0	4	<b>TOTAL</b>					<b>20</b>
18PHY604	Optics	3	1	0	4	TOTAL 2 Yr MSc					<b>87</b>
	Elective	3	0	0	3						
18PHY681	Spectroscopy Lab	0	0	6	2						
18PHY690	Free/Open Elective / Live-in-Lab	3	0	0	3						
<b>TOTAL</b>					<b>24</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
18PHY336	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.