

Physics Course book Odd Sem (July - Dec,) 2019-20

Integrated M.Sc (M/P) & M.Sc Physics Courses

S1 Int M.Sc Physics (2018 Curriculum)				
Code	Title	L-T-P	Cr	Exam slot
18ENG101	Communicative English	2 0 2	3	A
18CSA102	Introduction to Programming I	3 0 2	4	B
18PHY105	Introduction to Mechanics	3 1 0	4	C
18MAT107	Single Variable Calculus	3 1 0	4	D
18MAT108	Vectors and Geometry	3 1 0	4	E
18CHY103	Chemistry I	3 0 0	3	G
18CHY181	Chemistry Lab	0 0 2	1	L1
18CUL101	Cultural Education I	2 0 0	2	F
	Totals	28hrs	25	
S3 Int M.Sc Physics (2018 Curriculum)				
Code	Title	L-T-P	Cr	Exam slot
18MAT210	Transforms and PDE	3 1 0	4	A
18MAT220	Introduction to Linear Algebra	3 1 0	4	B
18PHY206	Intermediate Mechanics I	3 1 0	4	C
18PHY207	Introduction to Thermal & Modern Physics	3 1 0	4	D
18ENV300	Environmental Science & Sustainability	0 0 3	3	H
	Language I	1 0 2	2	J
18SSK201	Life Skills I	1 0 2	2	G
187AVP201	Amrita Value Programme		1	F
	Total	28 hrs	24	
S5 Int M.Sc (Physics/Maths) (2016 Curriculum)				
Code	Title	L-T-P	Cr	Exam slot
15MAT234	Numerical Methods	3-1-0	4	D
16MAT326	Introduction to Real Analysis	3-1-0	4	B
16PHY305	Intermediate Electrodynamics	3-1-0	4	C
16PHY306	Relativity and Modern Physics	3-1-0	4	E
16BUS306	Fundamentals of Management	2-0-0	2	A
16MAT380	MATLAB	0-0-2	1	L1
16PHY391	Physics Seminar	0-0-2	1	P1
16MPJ390/ 15OEL*** / 15OEL267	Liv-in-Lab / Open Elective B* / Perspectives in Astrophysics and Cosmology	3-0-0	3	j
15OEL245	Green Marketing		3	j
15OEL262	Micro Finance, Small Group Management and Cooperatives		3	j
15OEL274	Understanding Travel and Tourism		3	j
15OEL240	Film Theory		3	j
15OEL248	Indian Writing in English		3	j
15OEL250	Introduction to Ancient Indian Yogic and Vedic Wisdom		3	j
15OEL273	The Message of Bhagwad Gita		3	j
15SSK301	Life Skills III	1-0-2	2	G
	Total	28hrs	46	

S7 Int M.Sc (Physics Stream) (2016 Curriculum)				
Code	Title	L-T-P	Cr	Exam slot
15PHY501	Classical Mechanics	3 1 0	4	A
15PHY504	Quantum Mechanics I	3 1 0	4	C
15PHY503	Mathematical Physics	3 1 0	4	B
15PHY506	Computational Physics	3 1 0	4	D
15PHY547	Optics	3 1 0	4	E
15PHY582	Simulation Lab	0 0 3	1	L2
15PHY581	Physics Lab A	0 0 6	2	L1
	Total		29hrs	23
S9 Int M.Sc (Physics Stream) (2012 Curriculum)				
Code	Title	L-T-P	Cr	Exam slot
PHY520	Advanced Electronics	4-0-0	4	A
PHY543	Nuclear & Particle Physics	4-0-0	4	B
PHY544	Condensed Matter Physics	4-0-0	4	c
PHY581	Advanced Electronics Lab	0-0-3	1	L1
PHY596	Mini Project B		2	p
(Elective 1)*				
PHY553	Optoelectronics (Elective 1) (Max. 25)	3-0-0	3	D
PHY551	Space Physics (Elective 1) (Max. 25)			
15PHY546	Thin Film Technology (Elective 1) (Max. 25)			
15PHY551	Epistemological Foundations of Quantum Mechanics (Max 25)			
(Elective 2) *				
15PHY539	Nanophotonics (Elective 2) (Max. 25)	3 0 0	3	E
15PHY556	Python for Scientific Computing (Elective 2) (Max 25)			
PHY554	Introduction to Nanophysics and Applications (Elective 2) (Max 25)			
	Total		21hrs	21
Electives* Subject to availability				
MSc PHYSICS				
S1 M.Sc Physics (2015 Curriculum)				
Code	Title	L-T-P	Cr	Exam slot
15PHY501	Classical Mechanics	3 1 0	4	A
15PHY504	Quantum Mechanics I	3 1 0	4	C
15PHY503	Mathematical Physics	3 1 0	4	B
15PHY506	Computational Physics	3 1 0	4	D
15PHY547	Optics	3 1 0	4	E
15PHY582	Simulation Lab	0 0 3	1	L2
15PHY581	Physics Lab A	0 0 6	2	L1
15CUL501	Cultural Education	2 0 0	P/F	F
	Total		31hrs	23
S3 MSc physics (2015 Curriculum)				
Code	Title	L-T-P	Cr	Exam slot
15PHY602	Condensed Matter Physics	3 1 0	4	A
15PHY603	Nuclear and Particle Physics	3 1 0	4	B
15PHY604	Advanced Electronics	3 1 0	4	C
15PHY682	Advanced Electronics Lab.	0 0 6	2	L1
15PHY691	Seminar B	0 0 2	1	J

15PHY690	Live-in-Lab/ Open Elective	2 0 0	2	P1	Cap 40
15OEL657	Yoga and personal Development				
(Elective 1)*					
15PHY554	Optoelectronics (Elective 1) (Max. 25)	3 0 0	3	D	
15PHY549	Space Physics (Elective 1) (Max. 25)				
15PHY546	Thin Film Technology (Elective 1) (Max. 25)				
15PHY551	Epistemological Foundations of Quantum Mechanics (Max 25)				
(Elective 2) *					
15PHY539	Nanophotonics (Elective 2) (Max. 25)	3 0 0	3	E	
15PHY556	Python for Scientific Computing (Elective 2) (Max 25)				
15PHY553	Introduction to Nanophysics and Applications (Elective 2) (Max 25)				
TOTAL CREDITS		28hrs	23		

Electives* Subject to availability and Minimum registration

Students have to register for two electives from the list of 3/4 given above for each of them. Suggested minimum registration for both Int. MSc and MSc taken together is 5. Complete list of open electives are given in the course book. Only one open elective offered by physics department is included above.