

**Amrita School of Arts & Sciences**  
**Course Book Jan - May 2019 Even Sem**

**Department of Physics**

**SEMESTER 2**

Course Code	Course Title	L T P	Cr	ES
18MAT116	Multivariate Calculus	3 1 0	4	
18MAT117	Introduction to Differential Equations	3 1 0	4	
18PHY114	Electricity and Magnetism	3 1 0	4	
18CHY114	Chemistry II	3 0 0	3	
18CSA112	Introduction to Programming II	3 0 2	4	
18ENG121	Professional Communication	1 0 2	2	
18PHY181	Physics Lab I	0 0 2	1	
18CUL111	Cultural Education II	2 0 0	2	
	TOTAL		<b>24</b>	

**Semester 4**

Code	Title	L-T-P	Cr	ES
15MAT201	Discrete Mathematics	3-1-0	4	B
15MAT224	Probability and Statistics	3-1-0	4	A
16MAT238	Introduction to Modern Algebra	3-1-0	4	D
16PHY215	Oscillations, Waves and Optics	3-1-0	4	E
15PHY312	Intermediate Mechanics	3-1-0	4	C
16PHY286	Physics Lab. I11	0-0-2	1	L1
	Open Elective A*	3-0-0	3	J
15SSK211	Life Skills 11	1-0-2	2	G
15AVP211	Amrita Values Programme 11		1	F

**Semester 6**

Code	Title	L-T-P	Cr	ES
16MAT327	Introduction to Complex Analysis	3-1-0	4	C
15MAT328	Introduction to Number Theory	3-1-0	4	D
16PHY315	Atomic, Molecular and Nuclear Physics	3-1-0	4	A
16PHY316	Solid State Physics and Devices	3-1-0	4	B
	Elective A	3-0-0	3	E
16MAT391	Mathematics Seminar	0-0-2	1	P1
	Total		20	
16MPJ399	Project (for Exit-Option students)		6	P

**Electives**

16PHY343	Physics of Semiconductors	3 0 0	3
16PHY344	Lasers and Applications	3 0 0	3

**Semester 8**

Code	Title	L-T-P	Cr	ES
12PHY 420	Advanced Electrodynamics	4-0-0	4	D
12PHY 438	Advanced Mathematical Physics	4-0-0	4	B
12PHY 431	Quantum Mechanics II	4-0-0	4	A
12PHY 437	Experimental Techniques	4-0-0	4	E
12PHY 510	Statistical Mechanics	4-0-0	4	C
12PHY 482	Physics Lab B	0-0-3	1	L1
12PHY 499	Mini project	0-0-2	2	
<b>TOTAL</b>			<b>23</b>	

**Semester 10**

Code	Title	L-T-P	Cr	ES
12PHY 599	Project		10	P

**MSc Physics****S2 - Msc Physics**

Code	Title	L-T-P	Cr	ES
15PHY514	Advanced Electrodynamics	3 1 0	4	D
15PHY515	Experimental Techniques	3 1 0	4	E
15PHY511	Quantum Mechanics II	3 1 0	4	A
15PHY512	Mathematical Physics II	3 1 0	4	B
15PHY513	Statistical Mechanics	3 1 0	4	C
15PHY585	Physics Lab. B	0 0 6	2	L1
15PHY591	Seminar A	0 0 2	1	P1
15AVP501	Amrita Values Programme	1 0 0	1	F
<b>TOTAL</b>			<b>24</b>	

**S4- MSc Physics**

Code	Title	L-T-P	Cr	ES
15PHY696	Project		10	P

TOTAL 10