

Scheme of Studies

Semester-I						
Sr. No.	Course Code	Course Title	Credit Hours			Page No.
			Theory	Lab	Total	
1	ENGL1114	Functional English	3	0	3	14
2	ISLA1111	Islamic Studies/Ethics	2	0	2	15
3	EDUC3111	Foundations of Education	3	0	3	17
4	MATH1111	Calculus-I	3	0	3	19
5	CHEM1112	Fundamentals of Physical Chemistry	3	1	4	20
6	PHYS1111	Mechanics-I	3	1	4	22
Total			19			
Semester-II						
Sr. No.	Course Code	Course Title	Credit Hours			Page No.
			Theory	Lab	Total	
1	ENGL1119	Communication Skills	3	0	3	24
2	PAKS1111	Pakistan Studies	2	0	2	25
3	EDUC1112	General Methods of Teaching	3	0	3	26
4	MATH1112	Calculus-II	3	0	3	28
5	PHYS1114	Mechanics-II	3	1	4	29
6	PHYS1115	Waves and Oscillations	3	0	3	31
Total			18			
Semester-III						
Sr. No.	Course Code	Course Title	Credit Hours			Page No.
			Theory	Lab	Total	
1	ENGL2115	Technical Writing and Presentation Skills	3	0	3	32

2	EDUC3143	Educational Assessment	3	0	3	34
3	MATH2111	Calculus-III	3	0	3	36
4	COMP1111	Introduction to Information Technology	3	0	3	37
5	PHYS2111	Electricity and Magnetism-I	3	1	4	38
6	PHYS2112	Heat and Thermodynamics	3	0	3	40
Total			19			
Semester-IV						
Sr. No.	Course Code	Course Title	Credit Hours			Page No.
			Theory	Lab	Total	
1	EDUC2118	Curriculum Design and Instruction	3	0	3	41
2	MATH2116	Analytic Geometry	3	0	3	43
3	MATH2117	Ordinary Differential Equations	3	0	3	44
4	COMP1113	Computing Tools for Mathematics	2	1	3	45
5	PHYS2114	Modern Physics and Electronics	3	1	4	46
6	PHYS2115	Electricity and Magnetism-II	3	0	3	48
Total			19			
Semester-V						
Sr. No.	Course Code	Course Title	Credit Hours			Page No.
			Theory	Lab	Total	
1	PHYS3111	Mathematical Methods of Physics-I	3	0	3	49
2	PHYS3112	Classical Mechanics	3	0	3	50
3	PHYS3113	Thermal and Statistical Physics	3	0	3	52
4	PHYS3114	Circuit Analysis	3	0	3	53

5	PHYS3115	Modern Physics Lab	0	3	3	54
Total			15			
Semester-VI						
Sr. No.	Course Code	Course Title	Credit Hours			Page No.
			Theory	Lab	Total	
1	PHYS3116	Mathematical Methods of Physics-II	3	0	3	56
2	PHYS3117	Electromagnetic Theory-I	3	0	3	57
3	PHYS3118	Introduction to Quantum Mechanics	3	0	3	59
4	PHYS3119	Solid State Physics	3	0	3	61
5	PHYS1113	Electronics	3	0	3	62
6	PHYS3121	Electronics Lab	0	3	3	64
Total			19			
Semester-VII						
Sr. No.	Course Code	Course Title	Credit Hours			Page No.
			Theory	Lab	Total	
1	PHYS4111	Nuclear Physics-I	3	0	3	66
2	PHYS4112	Advanced Quantum Mechanics	3	0	3	68
3	PHYS4113	Atomic and Molecular Physics	3	0	3	69
4	PHYSxxxx	Elective A (From Table A)	3	0	3	13
5	PHYSxxxx/ PHYS4114	Special Paper (from Table C) / Thesis	3	0	3	13
Total			15			
Semester-VIII						
Sr. No.	Course Code	Course Title	Credit Hours			Page No.
			Theory	Lab	Total	

1	PHYS4120	Electromagnetic Theory-II	3	0	3	70
2	PHYSxxxx	Elective B (From Table B)	3	0	3	11
3	PHYS4121	Nuclear Physics-II	3	0	3	71
4	PHYS4122	Computational Physics	3	1	4	72
5	PHYSxxxx/ PHYS4123 PHYS4114/	Special Paper (from Table C) / Thesis / Research Project	3	0	3	13
Total			16			

* Students opting research project in Semester VIII should have studied one Special Paper in Semester VII