BS Computational Physics

Course Title	Course Code	Course Type	Credit Hour
Semester 1			
GEN(NS)		General	3
Functional English	GENG-101	General	3
Civics and Community Engagement	GCCE-101	General	2
Islamic Studies / Ethics (for Non-Muslims)	GISL-101 / GETH-101	General	2
Calculus I	CPHY-101	Major	3
Mechanics	CPHY-111	Major	3
Tarjuma-e-Quran	HQ-001	Compulsory	0
			Total Credit Hours 16
Semester 2			
GEN(AH)		General	2
Quantitative Reasoning (I)	GQR-101	General	3
Entrepreneurship	GENT-101	General	2
Ideology and Constitution of Pakistan	GICP-101	General	2
Calculus II	CPHY-102	Major	3
Waves and Oscillations	CPHY-112	Major	3
Tarjuma-e-Quran	HQ-002	Compulsory	1
Physics Lab I	CPHY-113	Major	1
			Total Credit Hours 17
Semester 3			
Applications of Information and Communication Technologies	GICT-201	General	3
Expository Writing	GENG-201	General	3
Thermal Physics	CPHY-241	Major	3
Linear Algebra	CPHY-203	Major	3
Electricity and Magnetism	CPHY-221	Major	3
Tarjuma-e-Quran	HQ-003	Compulsory	0
Pakistan Studies.	GPST-201	General	2
			Total Credit Hours 17
Semester 4			
GEN(SS)		General	2
Quantitative Reasoning (II)	GQR-201	General	3
Physics Lab II	CPHY-214	Major	1
Differential Equations	CPHY-204	Major	3
Modern Physics	CPHY-231	Major	3
Tarjuma-e-Quran	HQ-004	Compulsory	1
Introduction to Scientific Computation	CPHY-281	Major	3
			Total Credit Hours 16
Semester 5			
Numerical Computing	ACS-302	Interdisciplinary	3
Computer Programming	ACS-301	Interdisciplinary	3
Mathematical Methods for Physics I	CPHY-371	Major	3
Electromagnetic Theory I	CPHY-322	Major	3
Classical Mechanics	CPHY-315	Major	3
Tarjuma-e-Quran	HQ-005	Compulsory	0
Electronics	CPHY-342	Major	3
			Total Credit Hours 18
Semester 6			
Modern Physics Lab	CPHY-333	Major	1
Data Science	ACS-303	Interdisciplinary	3
Mathematical Methods for Physics II	CPHY-372	Major	3
Quantum Mechanics I	CPHY-332	Major	3
Electromagnetic Theory II	CPHY-323	Major	3
Tarjuma-e-Quran	HQ-006	Compulsory	1
Digital Electronics	CPHY-343	Major	2
			Total Credit Hours 16
Semester 7			
Fieldwork / Intership		Major	3
Elective I	XXX-4xx	Major	3
Computational Physics Simulation I	CPHY-482	Major	3
Statistical Physics	CPHY-444	Major	3
Quantum Mechanics II	CPHY-434	Major	3
Tarjuma-e-Quran	HQ-007	Compulsory	0
Artificial Intelligence	ACS-405	Interdisciplinary	3
			Total Credit Hours 18
Semester 8			
Capstone Project		Major	3
Elective II	XXX-4xxx	Major	3
Computational Physics Simulation II	CPHY-483	Major	3
Solid State Physics	CPHY-445	Major	3
Nuclear Physics	CPHY-451	Major	3
Tarjuma-e-Quran	HQ-008	Compulsory	1
Quantum Computing	ACS-404	Interdisciplinary	3
			Total Credit Hours 19

Signature