

Scheme of Study

1st Semester

Course Code	Course Name	Cr. Hrs.
MATH-301	Calculus-I	4(4-0)
MATH-303	Elements of Set Theory and Mathematical Logic	3(3-0)
ELL-311	English I (Functional English)	3(3-0)
ISL-311	Islamic Studies/Ethics	2(2-0)
PHY-302	Electricity and Magnetism	3(3-0)
CSC-311	Introduction to Computers	3(3-0)
Total Cr. Hrs.		18

2nd Semester

Course Code	Course Name	Cr. Hrs.
MATH-302	Calculus II	3(3-0)
CSC-312	Computer Programing	3(2-1)
STAT-312	Statistics	3(3-0)
ELL-312	English II (Communication Skills)	3(3-0)
PST-311	Pakistan Studies	2(2-0)
PHY-304	Heat and Thermodynamics	3(3-0)
QE-301	Quranic Education (Audit)	1
Total Cr. Hrs.		17

3rd Semester

Course Code	Course Name	Cr. Hrs.
MATH-401	Algebra I(Group Theory)	3(3-0)
MATH-403	Calculus III	4(4-0)
PSY-301	Introduction to Psychology	3(3-0)
ELL-411	English III (Technical Writing and Presentation Skills)	3(3-0)
CSC-411	Software Packages	3(2-1)
Total Cr. Hrs.		16

4th Semester

Course Code	Course Name	Cr. Hrs.
MATH-402	Affine and Euclidean Geometry	3(3-0)
MATH-404	Discrete Mathematics	3(3-0)
MATH-406	Linear Algebra	4(4-0)
PSY-510	Social Psychology	3(3-0)
ARAB-411	Arabic	3(3-0)
QE-401	Quranic Education (Audit)	1
Total Cr. Hrs.		16

5th Semester

Course Code	Course Name	Cr. Hrs.
MATH-501	Algebra- II (Rings and Fields)	3(3-0)
MATH-503	Differential Geometry	3(3-0)
MATH-505	Ordinary Differential Equations	3(3-0)
MATH-507	Real Analysis- I	3(3-0)
MATH-509	Topology	3(3-0)
Total Cr. Hrs.		15

6th Semester

Course Code	Course Name	Cr. Hrs.
MATH-502	Classical Mechanics	3(3-0)
MATH-504	Complex Analysis	3(3-0)
MATH-506	Functional Analysis	3(3-0)
MATH-508	Partial Differential Equations	3(3-0)
MATH-510	Real Analysis-II	3(3-0)
QE-501	Quranic Education (Audit)	1
Total Cr. Hrs.		15

7th Semester

Course Code	Course Name	Cr. Hrs.
MATH-601	Mathematical Methods	3(3-0)
MATH-603	Number Theory	3(3-0)
MATH-605	Numerical Analysis	4(3-0)
	E-1	
	E-2	
Total Cr. Hrs.		16

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8th Semester

Course Code	Course Name	Cr. Hrs.
MATH-602	Integral Equations	3(3-0)
MATH-604	Probability Theory	3(3-0)
	E-3	
	E-4	
	Project/ E-5	3
QE-601	Quranic Education (Audit)	1
Total Cr. Hrs.		15

Elective subjects

MATH-606	Advance group theory
MATH-607	Advanced fluid mechanics
MATH-609	Category theory
MATH-610	Combinatorics
MATH-611	Electromagnetism
MATH-612	Fluid mathematics
MATH-613	Galios theory
MATH-614	General relativity
MATH-615	Graph theory
MATH-616	Theory
MATH-617	Operational Research
MATH-618	Optimization theory
MATH-619	Quantum mechanics
MATH-620	Ring and Modules
MATH-621	Statistical Inferences