

BS- Mathematics-Semester-Wise Break Up (Fall-2022 Onwards)

- Credit hours are mentioned using the following notation (Theory credit hours, Lab credit hours) Total credit hours

Semester-I		
Course Code	Title	Credit hours
MTH-101	Calculus-I	3(3,0)
MTH-102	Elements of Set Theory and Mathematical Logic	3(3,0)
ENG-101	English-I (Reading & Writing Skills)	3(3,0)
IST/ETH-101	Islamic Studies/Ethics	2(2,0)
PHY-103	Fundamentals of Electricity and Magnetism	3(3,0)
CSC-101	Introduction to Information and Communication Technologies	3(2,1)
GEN-102	Quranic Education-I (Audit)	1(1,0)
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Semester-II		
Course Code	Title	Credit hours
MTH-103	Calculus II	3 (3,0)
CSC-102	Programing Fundamentals	3 (2,1)
STA-103	Introduction to Statistics	3 (3,0)
ENG-105	English II (Composition Writing)	3 (3,0)
GEN-101	Pakistan Studies	2 (2,0)
PHY-201	Heat and Thermodynamics	3 (3,0)
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Semester-III		
Course Code	Title	Credit hours
MTH-201	Discrete Mathematics	3 (3,0)
MTH-202	Calculus III	3 (3,0)
PSY-101	Introduction to Psychology	3 (3,0)
ENG-201	English III (Communication &	3 (3,0)

	Presentation Skills)	
MTH-203	Linear Algebra	3 (3,0)
GEN-201	Quranic Education-II (Audit)	1(1,0)
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Semester-IV		
Course Code	Title	Credit hours
MTH-204	Affine and Euclidean Geometry	3 (3,0)
MTH-205	Group Theory	3 (3,0)
SOC-204	Social Psychology	3 (3,0)
MTH-206	Ordinary Differential Equations	3 (3,0)
GEN-302	Foreign Language	3 (3,0)
MTH-207	Complex Analysis	3 (3,0)
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Semester-V		
Course Code	Title	Credit hours
MTH-301	Topology	3 (3,0)
MTH-302	Differential Geometry	3 (3,0)
MTH-303	Numerical Methods	3 (3,0)
MTH-304	Real Analysis	3 (3,0)
MTH-305	Classical Mechanics	3 (3,0)
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Semester-VI		
Course Code	Title	Credit hours
MTH-306	Rings & Fields	3 (3,0)
MTH-307	Partial Differential Equations	3 (3,0)
MTH-308	Optimization Theory	3 (3,0)
MTH-309	Functional Analysis	3 (3,0)
MTH-310	Software Packages	3 (3,0)
MTH-406	Mathematical Methods	3(3,0)
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Semester-VII		
Course Code	Title	Credit hours
MTH-401	Numerical Analysis & Computation	3 (3,0)
MTH-402	Number Theory	3 (3,0)
MTH-403	Research Project (Continued)	3 (3,0)
-----	Elective-I	3 (3,0)
-----	Elective-II	3 (3,0)
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Semester-VIII		
Course Code	Title	Credit hours
MTH-404	Probability Theory	3 (3,0)
MTH-405	Integral Equations	3(3,0)
MTH-403	Research Project	3 (3,0)
-----	Elective-III	3 (3,0)
-----	Elective-IV	3 (3,0)
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