

**SCHEME OF STUDIES OF BS MATHEMATICS (SESSION-  
2018 AND ONWARDS)**

<b><u>YEAR 1</u></b>				
<b>S.NO</b>	<b>SEMESTER</b>	<b>COURSE TITLE</b>	<b>COURSE CODE</b>	<b>CREDIT HOURS</b>
1.	<b>1<sup>st</sup></b>	Calculus-I	MTH-321	4(4,0)
2.		Elements of Set theory and Mathematical logic	MTH-323	3(3,0)
3.		English-I (Functional English)	ENG-311	3(3,0)
4.		Islamic Studies/Ethics	ISL -320	2(2,0)
5.		Introduction to Information and Communication Technology	CSC-301	3(2,1)
6.		Mechanics-I (G-1)	PHY-301	3(2,1)
<b>Total Credit Hours</b>				<b>18</b>
<b>S.NO</b>	<b>SEMESTER</b>	<b>COURSE TITLE</b>	<b>COURSE CODE</b>	<b>CREDIT HOURS</b>
1.	<b>2<sup>nd</sup></b>	Calculus-II	MTH -322	4(4,0)
2.		Discrete Mathematics	MTH-324	3(3,0)
3.		Communication Skills	ENG-321	3(3,0)
4.		Arabic/ Persian/ French/German/Chinese (G-2)	AR-321	3(3,0)
5.		Pakistan Studies		2(2,0)
6.		Introductory Electricity & Magnetism (G-3)	PHY-305	3(2,1)
<b>Total Credit Hours</b>				<b>18</b>

<b><u>YEAR-2</u></b>				
<b>S.NO</b>	<b>SEMESTER</b>	<b>COURSE TITLE</b>	<b>COURSE CODE</b>	<b>CREDIT HOURS</b>
1.	<b>3<sup>rd</sup></b>	Calculus-III	MTH-411	4(4,0)
2.		Algebra-I	MTH-412	3(3,0)
3.		Introduction to Psychology		3(3,0)
4.		Technical Writing and Presentation Skills	ENG-431	3(3,0)
5.		Statistics-I (G-4)	STAT-301	3(3,0)
<b>Total Credit Hours</b>				<b>16</b>
<b>S.NO</b>	<b>SEMESTER</b>	<b>COURSE TITLE</b>	<b>COURSE CODE</b>	<b>CREDIT HOURS</b>
1.	<b>4<sup>th</sup></b>	Computing Tools	MTH-413	3(2,1)
2.		Linear Algebra	MTH-414	3(3,0)
3.		Number Theory	MTH-415	3(3,0)

4.		Probability Theory	MTH-416	3(3,0)
5.		Introduction to Accounting (G-5)	MS-407	3(3,0)
<b>Total Credit Hours</b>				<b>15</b>

<b><u>YEAR-3</u></b>				
S.NO	SEMESTER	COURSE TITLE	COURSE CODE	CREDIT HOURS
1.	<b>5<sup>th</sup></b>	Topology	MTH-511	3(3,0)
2.		Complex Analysis	MTH-512	3(3,0)
3.		Ordinary Differential Equations (ODEs)	MTH-513	3(3,0)
4.		Real Analysis-I	MTH-514	3(3,0)
5.		Rings and Fields	MTH-516	3(3,0)
6.		Numerical Analysis-I	MTH-517	3(3,0)
<b>Total Credit Hours</b>				<b>18</b>
S.NO	SEMESTER	COURSE TITLE	COURSE CODE	CREDIT HOURS
1.	<b>6<sup>th</sup></b>	Real Analysis-II	MTH-515	3(3,0)
2.		Affine and Euclidean Geometry	MTH-519	3(3,0)
3.		Partial Differential Equations (PDEs)	MTH-528	3(3,0)
4.		Algebra-II	MTH-520	3(3,0)
5.		Numerical Analysis-II	MTH-518	3(3,0)
6.		Classical Mechanics (G-6)	PHY-523	3(3,0)
<b>Total Credit Hours</b>				<b>18</b>

<b><u>YEAR-4</u></b>				
S.NO	SEMESTER	COURSE TITLE	COURSE CODE	CREDIT HOURS
1.	<b>7<sup>th</sup></b>	Integral Equations	MTH-613	3(3,0)
2.		Measure Theory-I	MTH-623	3(3,0)
3.		Mathematical Methods	MTH-616	3(3,0)
4.		Research Project / Optional Course	MTH-699/ MTH-	3(3,0)
5.		Graph Theory	MTH-617	3(3,0)
<b>Total Credit Hours</b>				<b>15</b>
S.NO	SEMESTER	COURSE TITLE	COURSE CODE	CREDIT HOURS
1.	<b>8<sup>th</sup></b>	Measure Theory-II	MTH-624	3(3,0)
2.		Mathematical Statistics	MTH-618	3(3,0)
3.		Functional Analysis	MTH-626	3(3,0)
4.		Fluid Mechanics	MTH-625	3(3,0)

5.		Research Project / Optional Course	MTH-699/ MTH-	3(3,0)
<b>Total Credit Hours</b>				<b>15</b>