School of Basic Sciences :BSc(H)in Statistics & Data Science

Year 1						
Semester-I						
S. No.	**Category**	**Name of the Course**	**L**	**T**	**P**	**C**
1	Core	Fundamental of Statistics	3	0	1	4
2	Core	Calculus	3	0	1	4
3	AEC	English Proficiency I	0	0	2	2
4	VAC	IT Tools and Data Analytics	0	0	2	2
5	MDC-1	Foundation of Programming	2	0	2	4
6	GE	Generic Elective/Minor-1	-	-	-	4
Total Credits						**20**
Semester-II						
S. No.	**Category**	**Name of the Course**	**L**	**T**	**P**	**C**
1	Core	Probability Theory	3	1	0	4
2	Core	Linear Algebra I	3	0	1	4
3	Core	Multivariable Calculus	3	1	0	4
4	AEC	English Proficiency II	-	-	-	2
5	VAC	Choose From the Basket	-	-	-	2
6	GE	Minor / Interdisciplinary Elective II	-	-	-	4
Total Credits						**20**
Year 2						
Semester-III						
S. No.	**Category**	**Name of the Course**	**L**	**T**	**P**	**C**
1	Core	Linear Model	3	1	0	4
2	Core	Optimization Techniques	3	1	0	4
3	Core	Data Structure and Algorithm	3	1	0	4
4	AEC	Today's Science, Tomorrow's World I	-	-	-	2
5	Internship	Statistical Computing with R	1	0	2	3
6	SEC	Social Internship	-	-	-	2
7	GE	Minor / Interdisciplinary Elective III	-	-	-	4
Total Credits						**23**
Semester-IV						

S. No.	Category	Name of the Course	L	T	P	C
1	Core	Database Management System	3	0	1	4
2	Core	Sampling Techniques	3	0	1	4
3	Core	Statistical Inference	3	1	0	4
4	AEC	Today's Science, Tomorrow's World II	2	0	0	2
5	SEC	Choose From the Basket	-	-	-	3
6	MDC-2	Choose From the Basket	-	-	-	2
7	GE	Minor / Interdisciplinary Elective IV	-	-	-	4
Total Credits						**23**

Year 3

Semester-V

S. No.	Category	Name of the Course	L	T	P	C
1	Core	Fundamentals of Machine Learning	3	1	0	4
2	Core	Design of Experiments (Lab)	3	0	1	4
3	Elective	Specialised Elective-1	-	-	-	4
4	GE	Choose From the Basket	-	-	-	3
5	SEC	Choose From the Basket	-	-	-	2
6	VAC	Academic/Research/Industry	-	-	-	2
7	Internship	Minor / Interdisciplinary Elective V	-	-	-	4
Total Credits						**23**

Semester-VI

S. No.	Category	Name of the Course	L	T	P	C
1	Elective	Time Series Analysis	3	0	1	4
2	Elective	Big Data and Hadoop	3	1	0	4
3	Elective	Specialised Elective-2	-	-	-	4
4	Elective	Specialised Elective-3	-	-	-	4
5	Minor	Generic Elective/Minor-6	-	-	-	4

S. No.	Category	Name of the Course	L	T	P	C
6	**MDC-3**	Choose From the Basket	-	-	-	3
Total Credits						**23**
Electives						

S. No.	Category	Name of the Course	L	T	P	C
1	**Elective 1**	Cloud Computing	-	-	-	4
2		Graph Theory	-	-	-	4
3		Numerical Linear Algebra	-	-	-	4
4		Stochastic Process	-	-	-	4
5	**Elective 2**	Bayesian Statistical modelling	-	-	-	4
6			-	-	-	
7		Modelling and Simulation	-	-	-	4
8		Data Mining and Warehouse	-	-	-	4
9	**Elective 3**	Biostatistics	-	-	-	4
10		Deep Learning	-	-	-	4
11	**Elective 4**	Econometrics	-	-	-	4
12		Block Chain Technology	-	-	-	4
13	**Elective 5**	Statistical Quality Control	-	-	-	4
14		Statistical Machine Learning	-	-	-	4
15		Design and Analysis of Algorithms	-	-	-	4