List of General Courses for BS/M.Sc (4 years) Statistics

GC -101	Functional English – I
GC -102	Introductions to the Use of Computer
GC-104	Functional English – II
GC-106	Introduction to Economics
GC-107	Basics of Academic Writing
GC-108	Islamic Worldview and Civilization-I
GC-109	Psychology
GC-110	Understanding of Quran-I
GC-111	Understanding of Quran-II
GC-112	Islamic Worldview and Civilization-II
GC-113	Introduction to Law
GC-114	Introduction to Management
GC-115	Computer language-I
GC-116	Computer language-II
GC-117	Introduction to logic and Philosophy
GC-118	Software Tools
GC-119	Introduction to Finance
GC-120	Financial Accounting

List of Elective Courses for BS (4 years) Statistics

1.	ST-408	Population Analysis and Official Statistics	3
2.	ST-409	Decision Theory	3
3	ST-410	Time Series Analysis and Forecasting	3
4.	ST-411	Multivariate Statistics	3
5.	ST-412	Non-Parametric Statistics and Categorical Data	3
6	ST-413	Operation Research and Game	3
7.	ST-414	Stochastic Processes	3
9.	ST-415	Bayesian Statistics	3
10.	ST-416	Survival Analysis	3
11.	ST-417	Biostatistics	3
12.	ST-418	Quality Control and Quality Management	3
13.	ST-420	Thesis	

Note: In order to keep the courses updated Instructors will be provided the contents of the courses approved by the academic council. More courses will be added in the above list according to the availability of experts.

The meeting was held in a very cordial atmosphere and all members expressed their viewpoints efficiently. In the end, the Chairman thanked the members for their active participation.

Scheme of Studies for BS in Statistics (4-years)

1st Semester			2nd Semester		
GC-101	Functional English – I	3	GC-I04	Functional English – II	3
GC-I02	Introduction to the Use of Computer	3	GC-106	Introduction to Economics	3
GC-I01	Introductory Statistics	3	GC-102	Introduction to Probability & Distributions	3
MATH 101	Fundamentals of Mathematics	3	MATH 112	Calculus-II	3
MATH 111	Calculus-I	3	MATH 121	Introduction to Linear Algebra	3
		15			**15**
3rd Semester			**4th Semester**		
GC-107	Basics of Academic Writing	3	GC-111	Understanding of Quran –II	3
GC-108	Islamic Worldview and Civilization-I	3	GC-112	Islamic Worldview and Civilization-II	3
GC-109	Psychology	3	GC-113	Introduction to Law	3
GC-110	Understanding of Quran-I	3	GC-114	Introduction to Management	3
ST-201	Basic Statistical Inference	3	ST-202	Introduction to Regression Analysis and Experimental Design	3
MATH 213	Calculus-III	3	MATH 241	Elementary Differential Equations with Applications	3
18					**18**
5th Semester			**6th Semester**		
GC-115	Computer Language-I	3	GC-116	Computer Language-II	3
GC-119	Introduction to Finance	3	GC-117	Introduction to logic and Philosophy	3
ST-301	Probability and Probability Distribution-I	3	ST-306	Probability and Probability Distribution-II	3
ST-302	Statistical Methods	3	ST-307	Statistical Inference-I (Estimation)	3
ST-303	Sampling Techniques	3	ST-308	Regression Analysis-II	3
ST-304	Regression Analysis-I	3	ST-309	Experimental Designs-I	3
		18			**18**
7th Semester			**8th Semester**		
GC-120	Financial Accounting	3	GC-118	Software Tools	3
ST-401	Statistical Inference-II (Hypotheses Testing)	3	ST-406	Survey Sampling	3
ST-402	Numerical Techniques	3	ST-407	Optimization Theory	3
ST-403	Experimental Designs-II	3	ST-491	Project 1 or two electives **(IV & V)**	6
ST-404	Statistical Packages	3			**15**
		15			

Remarks:

<u>At present the codes allotted to the general courses (GC) are temporary. The exact codes will be given with an approval of concerned faculty or committee later on.</u>

Scheme of Study for M. Sc in Statistics

1st Semester			2nd Semester		
GC-110	Understanding of Quran-I	3	GC-111	Understanding of Quran-II	3
ST-301	Probability and Probability Distribution-I	3	ST-306	Probability and Probability Distribution-II	3
ST-302	Statistical Methods	3	ST-307	Statistical Inference-I (Estimation)	3
ST-303	Sampling Techniques	3	ST-308	Regression Analysis-II	3
ST-304	Regression Analysis-I	3	ST-309	Experimental Designs-I	3
ST-305	Advanced Calculus	3	ST-310	Linear Algebra	3
		18			**18**
3rd Semester			**4th Semester**		
GC-116	Computer Language-I	3	GC-116	Computer Language-II	3
ST-401	Statistical Inference-II (Hypotheses Testing)	3	GC-118	Software Tools	3
ST-402	Numerical Techniques	3	ST-406	Survey Sampling	3
ST-403	Experimental Designs-II	3	ST-407	Optimization Theory	3
ST-404	Statistical Packages	3	ST-420	Thesis or Two Electives **(II & III)**	6
	Elective-I	3			**18**
		18			

SCHEME OF STUDIES

1st Semester

Course Code	Course Title	Credit hrs
ST-511	Linear Models	3
ST-512	Statistical Inference	3
	Elective-I	3
	Elective-II	3
	Total	**12**

2nd Semester

Course Code	Course Title	Credit hrs
ST-521	Advance Econometrics	3
ST-522	Survey Sampling	3
	Elective-I	3
	Elective-II	3
	Total	**12**

3rd & 4th Semester

Course Code	Course Title	Credit hrs
ST-611	Research/Thesis	6

List of Elective Courses for MS/M.Phil Statistics Programme

	Course Code	Course Title	Credit hrs
1	ST-513	Advanced Probability	3
2	ST-514	Stochastic Processes	3
3	ST-515	Numerical Analysis	3
4	ST-516	Applied Econometrics	3
5	ST-517	Computational Statistics	3
6	ST-518	Multivariate Methods	3
7	ST-519	Survival Analysis & Biostatistics	3
8	ST-523	Multivariate Analysis	3
9	ST-524	Bayesian Inferential Statistics	3
10	ST-525	Measure Theory	3
11	ST-526	Advanced Experimental Designs	3
12	ST-527	Recent developments in Statistics	3
13	ST-528	Sampling and Sampling Distributions	3
14	ST-611	Thesis	6

Scheme of Studies for Ph.D. Statistics Programs

1st Semester			2nd Semester		
1.	Core Course	3	1.	Core Course	3
2.	Elective Course-I	3	2.	Elective Course-I	3
3.	Elective Course-II	3	3.	Elective Course-II	3
		9			**9**
3rd Semester			**4th Semester**		
ST-800	Ph.D. Thesis		ST-800	Ph.D. Thesis	
5th Semester			**6th Semester**		
ST- 800	Ph.D. Thesis		ST-800	Ph.D. Thesis	
Total Credit Hours for Ph.D. Thesis: 36					

ELIGIBILITY:

18 years of education in Statistics with minimum CGPA 3.00/4.00 or 65% marks in annual system. GRE/GAT (Subject) with minimum 60% score.

Details of Ph.D. program are given in Procedure for regulating post graduate studies in Department of Mathematics & Statistics.

List of Core Courses for Ph.D. Statistics Programme

S. No.	Course Code	Course Title	Credit Hrs
1	ST-701	Advanced Topics in Regression and Econometrics	3
2	ST-702	Advanced Topics in Statistical Inference	3

List of Elective Courses for Ph.D. Statistics Programme

S. No.	Course Code	Course Title	Credit Hrs
1	ST-703	Optimization Techniques	3
2	ST-704	Environmental Statistics	3
3	ST-705	Statistics for clinical Trials	3
4	ST-706	Financial Stochastic Models	3
5	ST-707	Statistical Genetics	3
6	ST-708	Classification& Regression Trees	3
7	ST-709	Actuarial Statistics	3
8	ST-710	Forensic Statistics	3
9	ST-711	Statistical Theory for Extreme Events	3
10	ST-712	Non-Parametric and Semiparametric Methods	3
11	ST-713	Mixture Distributions	3
12	ST-714	Applied Time Series Econometrics	3
13	ST-715	Spatial Data Analysis	3
14	ST-716	Bayesian Statistics	3
15	ST-717	Generalized Logistic Regression	3
16	ST-718	Advanced Survey Sampling	3
17	ST-719	Advanced Official Statistics	3
18	ST-720	Advanced Bayesian Theory	3
19	ST-721	Advanced Categorical Data Analysis	3
20	ST-722	Repeated Measure Analysis	3
21	ST-723	Multilevel Modeling	3
22	ST-724	Advanced Statistical Methods in Quality Control	3
23	ST-725	Bayesian Econometric Analysis	3
24	ST-726	Mathematical Demography	3
25	ST-800	PhD Thesis (36 credit hours)	