

PANJAB UNIVERSITY CHANDIGARH

Outlines of Text, Syllabi and Courses of Reading in the Subject of Statistics for M.Sc. (Statistics) I-IV semester for the session 2020-21 i.e., 1st and 3rd Semesters November/December 2021 and 2nd & 4th Semesters April/May 2022 Examinations, respectively.

<u>Course No.</u>	<u>Title</u>	<u>Credits</u>
Semester-I		
Stat-101	Linear Algebra	4
Stat-102	Distribution Theory (Theory 3/4, Practical 1/4)	4
Stat-103	Statistical Methods with Packages (Theory 3/4, Practical 1/4)	4
Stat-104	Real Analysis	3
Stat-105	Course selected from module	4
Semester- II		
Stat-201	Numerical Techniques using C (Theory 1/2 Practical 1/2)	4
Stat-202	Estimation and Testing of Hypotheses (Theory 3/4, Practical 1/4)	4
Stat-203	Sampling Theory and Official Statistics (Theory 3/4, Practical 1/4)	4
Stat-204	Complex Analysis	3
Stat-205	Course selected from module	4
Semester- III		
Stat-301	Nonparametric Inference (Theory 3/4, Practical 1/4)	4
Stat-302	Statistical Process and Quality Control (Theory 3/4, Practical 1/4)	4
Stat-303	Linear Inference (Theory 3/4, Practical 1/4)	4
Stat-304	Course selected from module / *Course selected from the sister Dept. under CBCS system.	4
Semester- IV		
Stat-401	Multivariate Analysis (Theory 3/4,, Practical 1/4)	4
Stat-402	Design and Analysis of Experiments (Theory 3/4,, Practical 1/4)	4
Stat-403	Course selected from module/ *Course selected from the sister Dept. under CBCS system	4
Stat-404	Course selected from module/ *Course selected from the sister Dept. under CBCS system	4
Stat-405	Project (It will start from Sem.-III and will end in Sem.-IV w.e.f. session 2020-21))	2 (50 Marks)

***Mathematics, Physics and Computer Science are the sister departments for M.Sc. (Statistics) students under the CBCS system.**

MODULE

M 1	Actuarial Statistics	4
M 2	Categorical Data Analysis	4
M 3	Econometrics (Theory 3/4, Practical 1/4)	4
M 4	Economic Statistics	4
M 5	Advanced Inference (Theory 3/4, Practical 1/4)	4
M 6	Measure and Probability Theory	4
M 7	Operations Research (Theory 3/4, Practical 1/4)	4
M 8	Reliability	4
M 9	Simultaneous Inference	4
M 10	Statistical Simulation and Computation using R (Theory 1/2, Practical 1/2)	4
M 11	Stochastic Processes	4
M 12	Survival Analysis	4

ANY OTHER COURSE WHICH THE BOARD OF CONTROL MAY DECIDE TO OFFER.