UNIVERSITY OF DELHI
DELHI SCHOOL OF ECONOMICS
DEPARTMENT OF ECONOMICS

Minutes of Meeting

Subject: B.A. (Hons) Economics, Third Semester (CBCS)
Course: Statistical Methods for Economics (HC33), Core Course - (CC) Credit: 6
Date: 11th August, 2020
Venue: Online
Convener: Prof. Rohini Somanathan

Attended by:

S. No.	Name of Teacher	College
1	Pooja Sharma	Daulat Ram College
2	Dr. Apra Sinha	ARSD College
3	Anita Balani	HRC
4	Poonam Kalra	St. Stephens
5	Chandan Singha	Hindu College
6	Deepika Goel	Aryabhatta College
7	Sanjay Singh	Dyal Singh College (M)
8	Ankur	Satyawati (D)
9	Sonia Goel	Ramjas College
10	Priyanka Bhatia	SRCC
11	Paramjeet Kaur	SGGSCC
12	Jasneet Wadhwa	SGTB Khalsa College
13	Archana Jain	DCAC
14	Deepak Manchanda	JDMC
15	Jasmine Gambhir	Shivaji College
16	Harish Dhawan	Aryabhatta College
17	Rakesh Kumar	Dyal Singh (M)
18	Garima Agarwal	SRCC
19	Manavi Jain	Indraprastha College for Women
20	Pallavi Manchanda	SPM
21	Ashish Taru Deb	CVS
22	Isha	Lakshmi Bai College
23	Ajay Kumar	KNC
24	Gaurav Bhattacharya	Gargi College
25	Iti Tomar	SPM
26	Juhi Lohani	Deshbandhu
27	Leema Mohan	St Stephen's
28	Akshara Awasthi	JMC
29	Anita	Kalindi
30	Neha Verma	KMC
31	Nupur Kataria	Maitreyi College

32	Sanjay Kumar	Dayal Singh
33	Surabhi Gupta	LSR College
34	Yogita Yadav	Sri Venkateswara College
35	Abhinav Parashar	Sri Aurobindo College (Evening)
36	Neetu	Miranda

Below is a summary of the discussion at the meeting and the decisions made. Required readings follow this. Material that may be excluded from the textbook chapters is listed along with each topic.

1. It was decided that while certain topics are useful readings, they will not be explicitly tested in examinations. These are (i) Simulations (Chapter 5), Bootstrapping and Score Intervals (Chapter 7)
2. Students would not be asked to compute complicated double integrals and the exam would generally avoid cumbersome computational problems.
3. The following weights for different units in the exam were agreed upon:
   Units 1 and 2 – 10 marks, with one 5 mark question from each unit, and no choice.
   Units 3 and 4- 25 marks, with one compulsory 5 mark question and a choice of 2 out of 3 10 mark questions.
   Units 5 and 6: These are critical parts of the course and would each carry a weight of 20 marks. For each of these units students would be asked to do 2 out of 3 questions of 10 marks each.

Course Description

The course teaches students the basics of probability theory and statistical inference. It sets a necessary foundation for the econometrics courses within the Honours programme. The familiarity with probability theory will also be valuable for courses in advanced microeconomic theory.

Unit 1

Introduction and overview, The distinction between populations and samples and between population parameters and sample statistics

Devore: Ch 1.1

Unit 2

Elementary probability theory Sample spaces and events; probability axioms and properties; counting techniques; conditional probability and Bayes' rule; independence

Devore: Ch 2

Unit 3

Random variables and probability distributions Defining random variables; probability distributions; expected values and functions of random variables; properties of commonly used discrete and continuous distributions (uniform, binomial, exponential, Poisson, hypergeometric and Normal random variables)

Devore: Ch3 (except Negative Binomial Distribution), Ch 4.1-4.3 and pgs. 165-166

Unit 4

Random sampling and jointly distributed random variables Density and distribution functions for jointly distributed random variables; computing expected values of jointly distributed random variables; covariance and correlation coefficients

Devore: Ch 5.1-5.3 (except pgs 200-202)

Unit 5

Point and interval estimation, estimation of population parameters using methods of moments and maximum likelihood procedures; properties of estimators; confidence intervals for population parameters

Devore: Ch 6 (except pages 249-250), Ch7 (till page 289)

Unit 6

Hypothesis testing Defining statistical hypotheses; distributions of test statistics; testing hypotheses related to population parameters; Type I and Type II errors; power of a test; tests for comparing parameters from two samples

Devore: Ch8 (except β and sample size determination in each case)

References

1. Devore, J. (2012). Probability and statistics for engineers, 8th ed. Cengage Learning.
2. Larsen, R., Marx, M. (2011). An introduction to mathematical statistics and its applications. Prentice Hall.
3. Miller, I., Miller, M. (2017). J. Freund's mathematical statistics with applications, 8th ed. Pearson.

Assessment:

This course carries 100 marks of which the end semester examination is 75 marks and internal assessment is worth 25 marks as per the following norms: Two class tests/assignment of 10 marks each and 5 marks for attendance.