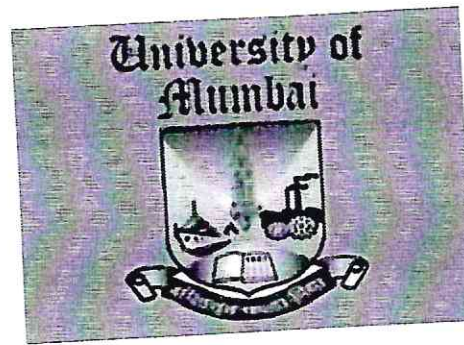


**UNIVERSITY OF MUMBAI**



**Syllabus for the  
Certificate Course in Data Analysis  
Using SPSS Software  
(Duration –Six Months)**

(To be started from the academic year 2019–2020)  
From December 2019



## **O. 6518 :- Certificate Course in Data Analysis using SPSS Software.**

### **The Course**

Department of Statistics, University of Mumbai, Mumbai has specially designed certificate course in Data Analysis using SPSS Software for those students who are pursuing their research degree in social sciences, medical sciences, Biological sciences, Management sciences etc. and industry professionals. In this course the candidates shall undergo hands on training in SPSS software. The course is of 60 hours duration and course will be taught on computer using SPSS software. Course will be conducted two times in a year.

### **Focus**

The main focus of the course will be on to solve their research question using SPSS software. As you know that, students are facing problem specially who are pursuing research in their subject that how to manage and analyze the data after collection of survey questionnaire. Course will be focus on how to analyze survey questionnaire using SPSS software. Also students should make aware to chose appropriate statistical technique and interpret results.

### **Faculty**

This course will be taught by highly qualified experienced teachers and who are expert in handling SPSS software's from industries.

**O. 6519 :- Eligibility**

Any graduate from Mumbai University or any other recognized university.

**Assessment**

The course coordinator will be in charge of the examinations. One internal test of 40 marks will be conducted after approximately 20 hours teaching. Course end examination will be conducted on SPSS software of 60 marks.

The following grading scheme will be adopted to issue the certificate.

Marks in percentage	Grade
70 and above	A
65-69	B <sup>+</sup>
60-65	B
55-59	C <sup>+</sup>
50-54	C
45-49	D
0-45	Attendance Certificate

Certificates will be issued by the university on the performance record of the students.

**R. 9263 :- Intake capacity**

30 students. Minimum number of students to be admitted should be 12 in order to conduct the course in that academic year. If more applications are received then admission will be based on their interview performance.

**R. 9264 :- Duration of Course**

60 Hours duration. Course will be conducted once in a week either Saturday or Sunday (10 am to 3pm) .

**R. 9265 :- Fee Structure of the course is as under**

Head	Amount in Rupees
Information brochure and application form fee	200.00
Tuition fee	10000.00
Examination fee	500.00
Certificate	100.00
Total	10800.00

**Remuneration to faculty:**

Rs.1200/- per clock hour

**Required Non Teaching Staff:**

Office assistant and peon is available in department for PGDASS course. Additional lump sum amount of Rs. 6000/- to be given to office assistant and 3000 to the peon after completion of the course.

**Following required infrastructure is available in Department:**

- 1) Computer lab with good internet facility.
- 2) SPSS software is available in department.
- 3) Printers, LCD projector, White board.
- 4) AC for computer laboratory.



Detailed syllabus for the course.

Sr.no.	Title	Content of Syllabus
1	Introduction	<p>Type of Scale of Measurements, Choosing appropriate scale and measurement to the data, Preparing codebook.</p> <p>Getting to Know SPSS: Starting SPSS, Working with data file, SPSS windows, Menus, Dialogue boxes.</p> <p>Preparing the Data file: Creating data file and entering data, Defining the variables, Entering data, modifying data file, import file.</p> <p>Screening and cleaning data, Manipulation of data.</p>
2	Preliminary Analysis	<p>Descriptive statistics: Categorical variables, continuous variables, checking normality, outliers checking.</p> <p>Choosing the right statistics: Overview of different statistical techniques, Decision making process.</p>
3	Statistical techniques: Explore relationship among variables	<p>Correlation: Pearson product moment correlation, Spearman rank correlation, Partial correlation, Simple linear regression,</p> <p>Multiple Linear Regression: Assumptions, overall significance, multicollinearity, Variable selection methods.</p>
4	Statistical techniques: Compare means	<p>One sample and two Independent sample t test, Paired sample t test, One way Analysis of variance, Two way ANOVA, Multivariate ANOVA, Analysis of Covariance, Repeated measures .</p>

5	Non-Parametric statistics	Independent Chi square Test, Mann- Whitney test , Wilcoxon signed rank test, Kruskal- Wallis test.
6	Advanced Models: Multivariate statistical techniques.	Logistic Regression and Discriminant Analysis, Factor Analysis, Cluster Analysis.