

Course Type	Course Code	Name of the Course	L	T	P	Credits
DC	NMSC595	Research Methodology and Statistics	3	0	0	3

Course Objective

The main objective of this course is to introduce the basic concepts of research methodology and statistics to the students.

Learning Outcomes

Students who complete this course will be able to understand and comprehend the basics of research methodology and statistics. They can apply them in their research/ project work. This course will help them to select appropriate statistical methods to arrive at a suitable conclusion.

Unit No.	Topics to be Covered	Lecture Hours	Learning Outcome
1	Introduction to business research; Defining the research problem and developing an approach. The designs of business research; Qualitative research tools, Concept of Secondary data, Surveys and observations; Causal research, experimental research concept.	9	Understand the concepts related to business research.
2	The sources and collection of data: Measurement concept; Measurement scales; Questionnaire and instruments; Sampling design; Data collection, and Data preparation.	9	Understand the concept of scales, sampling and data collection techniques.
3	Statistical data presentation, Measures of central tendency, dispersion, skewness, and kurtosis of distributions.	3	Understand the concept of data representation and basic statistical techniques.
4	Concepts, random variables; Probability Distributions: Binomial, Poisson, Normal distribution	9	Understand the concept of probability distributions
5	Statistical Estimation: Sampling distributions; Estimation: Point and Interval Estimates of mean and proportion.	6	To get familiar with statistical estimation.
6	Hypothesis Testing: Testing hypotheses of mean and proportion: one/two-sample tests; chi-square test; Analysis of variance (ANOVA) Correlation and Linear Regression: Simple regression and correlation: Making inferences about population parameters	6	Understand the concept of hypothesis and the methods to test it. Understand the relationship between two or more variables.
	Total	42	

Text Books:

1. Business research Methods (12e Edition), Zikmund , Babin, Carr, Griffin , Cengage
2. Statistics for Management, Levin & Rubin, Pearson Education Publication.

Reference books

1. Business research methods, Marks Saunders, Prentice Hall.
2. Applied Statistics and Probability for Engineers, D. C. Montgomery and G. C. Runger, John Wiley & Sons.
3. Business Research Methods, Naval Bajpai, Pearson
4. Applied Business Statistics, Ken Black, Wiley