

COURSE TITLE	RESEARCH METHODOLOGY
COURSE CODE	04BB0419
COURSE CREDITS	4

Course Outcomes: After completion of this course, student will be able to:

- 1 Apply fundamental concepts of research, research types, the research process, and its ethical considerations in academic and business contexts.
- 2 Design the basic framework of the research process, research designs, its techniques as well as sampling methods.
- 3 Integrate and Apply knowledge on measurement & scaling techniques associated with framing of questionnaire.
- 4 Formulate different hypotheses and practice its testing methods in the business decision making process.
- 5 Appraise various sources of information for writing reports and formulate nonparametric categorical hypothesis tests.

Pre-requisite of course:None

Teaching and Examination Scheme

Theory Hours	Tutorial Hours	Practical Hours	ESE	IA	CSE	Viva	Term Work
4	0	0	50	30	20	0	0

Contents : Unit	Topics	Contact Hours
1	Research Methodology: An Introduction Meaning of Research, Objectives of Research, Types of Research, Research Methods versus Methodology, Importance of Knowing How Research is Done, Research Process, Criteria of Good Research, Problems Encountered by Researchers in India, Defining the Research Problem, Selecting the Problem, Technique Involved in Defining a Problem	12
2	Research Design and Sampling Design Meaning of Research Design, Need for Research Design, Features of a Good Design, Important Concepts Relating to Research Design, Different Research Designs, Basic Principles of Experimental Designs, Sampling Design, Census and Sample Survey, Implications of a Sample Design, Steps in Sampling Design, Criteria of Selecting a Sampling Procedure, Characteristics of a Good Sample Design, Different Types of Sample Designs, How to Select a Random Sample?, Random Sample from an Infinite Universe, Complex Random Sampling Designs.	12

Contents : Unit	Topics	Contact Hours
3	Scaling Techniques and Methods of Data Collection Measurement in Research, Measurement Scales, Sources of Error in Measurement, Technique of Developing Measurement tools, Scaling, Meaning of Scaling, Scale Classification Bases, , Important Scaling Techniques, Scale Construction Techniques, Collection of Primary Data, Observation Method, Interview Method, Questionnaires, Schedules, Other Methods, Collection of Secondary Data, Selection of Appropriate Method for Data Collection, Case Study Method, Sample Size and its Determination, Determination of Sample Size through the Approach, Based on Precision Rate and Confidence Level, Determination of Sample Size through the Approach, Based on Bayesian Statistics	12
4	Testing of Hypotheses-I (Parametric Tests of Hypotheses) What is a Hypothesis?, Basic Concepts Concerning Testing of Hypotheses, Procedure for Hypothesis Testing, Flow Diagram for Hypothesis Testing, Measuring the Power of a Hypothesis Test, Tests of Hypotheses, Important Parametric Tests, Hypothesis Testing of Means, Hypothesis Testing for Differences between Means, Hypothesis Testing for Comparing Two Related Samples, Hypothesis Testing of Proportions, Hypothesis Testing for Difference between Proportions, Hypothesis Testing for Comparing a Variance to Some Hypothesized Population Variance, Limitations of the Tests of Hypotheses	12
5	Chi-square Test and Report Writing Chi-square as a Test for Comparing Variance, Chi-square as a Non-parametric Test, Conditions for the Application of Chi Square Test, Steps Involved in Applying Chi-square Test, Important Characteristics of Chi-square Test, Caution in Using Chi-square Test, Layout of Research Report, Precaution for writing Research Report	12
Total Hours		60

Textbook :

- 1 Research Methodology: Methods And Techniques, C.R.Kothari And Gaurav Garg, New Age International, 2014
- 2 Business Research Methods , Naval Bajpai, Pearson, 2017

References:

- 1 Research Methodology, Concepts And Cases, Research Methodology, Concepts And Cases, Deepak Chawla & Neena Sodhi, Vikas Publication, 2016
- 2 Business Research Methods, Business Research Methods, Cooper And Schindler, Mcgraw-Hill Publication, 2014
- 3 Research Methodology, Research Methodology, D.K. Bhattacharya , Excel Books, 2006

Suggested Theory Distribution:

The suggested theory distribution as per Bloom's taxonomy is as follows. This distribution serves as guidelines for teachers and students to achieve effective teaching-learning process

Distribution of Theory for course delivery and evaluation					
Remember / Knowledge	Understand	Apply	Analyze	Evaluate	Higher order Thinking / Creative
0.00	0.00	35.00	35.00	30.00	0.00

Instructional Method:

- 1 theory

Supplementary Resources:

- 1 <https://www.qualtrics.com/au/experience-management/research/determine-sample-size/>
- 2 <https://www.kenpro.org/sample-size-determination-using-krejcie-and-morgan-table/>