Semester-III

Course Name: Business Research Methods

Mode: Offline   Credits: 5 [BBA (BA)–301+BBA (BA)-391]

Subject Code: BBA (BA) – 301   60 Hours

Aim of the course: This course provides the outline and procedures for students to clearly define research questions, hypotheses, and objectives. It helps students identify the most appropriate research design, sampling technique, data collection and analysis methods. This in turn shall inculcate analytical and logical thinking process among students; a requisite for managers.

Course Objectives: The objective of this course is to impart students the basic concepts of Research coupled with various insights of Research Methods & that of Research Methodology. This course enlightens students with Research Types, Process and the various aspects innate in selecting a Research Problem progressing on to finding the appropriate solution to it. It addresses the processes of Literature Reviews and various Measurement tools used in research. This course intends to enrich students with an assortment of Sampling, Data collection & Analysis techniques, which in turn will facilitate students to originate, relate, appraise, diversify from the realms of Academics into Applied Business Management especially in the horizons of Contemporary Professional Sphere.

Sl No.	Graduate attributes	Mapped Modules
CO1	Students will acquire knowledge of Basic Concepts of Research along with different Applications of Research	M1, M3,M4
CO2	Students shall understand the Fundamentals of Research along with the different stages of Research Process with respect to various Research Designs	M1,M2, M3, M4
CO3	Students will understand the different Types of Research from various perspective and apply them in contemporary research work	M3, M5
CO4	Students will learn about Literature Review, application of Literature Review, coupled with fundamentals of research to identify Research Gap.	M3, M4, M5
CO5	Students shall understand various Measurement Tools used in Research, along with Sampling, Research Methods &Methodology and learn how to implement these in pertaining contexts.	M3, M4, M5
CO6	Students shall evaluate the Effectiveness of various analytical Tools & Techniques used in Research Methods & Methodology	M2, M3, M4,M5,M6
CO7	The students will create the knowledge base on various horizons of Business Research Academics, and develop the designs required for Practical Application.	M2, M3, M4,M5,M6
CO8	Students shall appraise from the perspective of Constructive Assessment and originate as per Contemporary Obligation pertaining to the Academics as well as in the Professional Field.	M1, M3, M4,M5,M6

Learning Outcome/Skills:
Through this course, students shall be able to fathom different approaches to research, different research techniques and apply them appropriately for effective managerial decision making. The skills learnt in this course shall enable students to apply both qualitative and quantitative research techniques to solve business problems. Through this course, students shall gather a thorough knowledge and understanding of data analysis and interpretation in relation to the research process. They shall be able to conceptualize the entire research process, develop critical thinking skills necessary to evaluate research processes. This in turn shall be helpful in managerial decision making in their careers. Students shall also gather skills in conducting practical research projects, conducting fieldwork and prepare Research Reports.

Module Number	Content	Total Hours	%age of questions	Bloom's Level (applicable)	Remarks Ifany
M 1	**Foundations of Research**	6	12	L1, L2	

M 2	Research Types and Process	6	12	L1, L2,L3	
M 3	Research Problem, Literature Survey and Measurement	12	15	L2, L3, L4	
M 4	Sampling in Research	10	14	L2, L3, L5	
M 5	Data collection, Data Analysis and Hypothesis Testing	18	35	L3, L4,L5, L6	
M 6	Presentation and Interpretation of Research	8	12	L3, L4,L5, L6	
Total		60	100		

Detailed Syllabus:

Module 1 : Foundations of Research

Concepts, Objectives, Importance, Basic steps of Research; criteria of a good research; Limitations of Research and Problems or hurdles in Research; Role of Research in Functional Areas: Finance, Marketing, HRD and other areas of Social sciences & Business Organisations; Applications of Research.

Total Hours: 6

Module 2 : Research Types and Process

Types of research from different perspectives-Pure &Applied; Exploratory, Explanatory, Descriptive, Causal, Experimental, Empirical; Longitudinal & Cross-sectional; Qualitative and Quantitative Research; Research Methods and Research Methodology;
Research Process; Research design- concept and types.

Total Hours: 6

Module 3: Research Problem, Literature Survey and Measurement Particulars

Problem Identification & Formulation, Various Aspects for locating the Research Gap; Survey of related Literature- concepts, necessity and sources- reviews, research databases, web etc.; Literature review-primary and secondary sources, Application &Importance of literature review in identifying research problems.

Measurement-- Logic in research: Positivism & Empiricism; Deductive and Inductive theory; Validity and Reliability; Levels of measurement – Nominal, Ordinal, Interval, Ratio; Constructs, Variables-Concepts and types, Data-types;

Total Hours: 12

Module 4: Sampling in Research

Concepts of Statistical Population, Sample, Sampling Frame, Sampling Error, Sample Size, Characteristics of a good sample;
Types and Applicability of Probability and Non-Probability Sampling : --Simple random, Systematic, Stratified, Cluster; Quota, Snowball, Judgmental, Purposive, Convenience; Multi-stage sampling; Determining size of the sample–Practical considerations in sampling and sample size.

Total Hours: 10

Module 5 : Data collection, Data Analysis and Hypothesis Testing

Data -Types and collection; Tools and techniques of data collection - questionnaire, schedule,

interview, observation, case study, survey etc.
Concept of Central Tendency—Mean, Median, Mode, Skewness, Kurtosis.
Concepts on Parameter & Statistics and Time Series
Concepts and Applicability of Univariate, Bivariate, Multivariate analysis ; frequency distribution, histogram, bar charts, pie charts; Regression Analysis, Introductory concepts on Discriminant Analysis, Factor Analysis &ANOVA;
Introductory concepts and Applicability of Parametric and Non-parametric Tests:
t-test, F-test, Z-test, Chi-square test;
Hypothesis – Qualities of a good Hypothesis –Null & Alternative Hypothesis; Hypothesis Testing – Confidence Limit & Interval; Type-I & Type-II errors;
Testing of Hypothesis of Association.

Total Hours: 18

Module 6 : Interpretation and Representation of Research

Applications of Research Methodology using statistical & software packages;
Research Report-Formulation; Paper Writing; Layout of a Research Report and Research Paper;
References and Bibliography; Ethical issues related to Research and publishing; Plagiarism and Self-Plagiarism

Total Hours: 8

Suggested Readings:

1. D.R. Cooper and P.S. Schindler: Business Research Methods, Tata McGraw –Hill
2. C.R. Kothari, and Gaurav Garg: Research Methodology – Methods and Techniques, New Age International
3. Dr Deepak Chawla & Dr Neena Sondhi : Research Methodology -Concepts and Cases, Vikas Publishing
4. R. Panneerselvam : Research Methodology ,PHI.
5. S N Murthy and U Bhojanna: Business Research Methods, Excel Books.
6. U. Sekharan and R Bougie: Research Methods for Business: John Wiley and Sons
7. P Mishra: Business Research Methods, Oxford University Press
8. Ram Ahuja : Research Methods, Rawat Publications

Name of the Course: BBA(BA)   **Subject: Business Research Methods Lab using R**   **Course Code: BBA(BA)-391**
Semester:3rd
Mode: Offline   **30 HOURS**

Module	Name of the Topic	Hours
1	**R Data Types:** Vectors, Lists, Matrices, Arrays, Factors, Decision Making: if statement, if – else statement, if – else if statement, switch statement. Loops: repeat loop, while loop, for loop, Loop control statement: break statement, next statement.	5P
2	**Working with Data Frames:** Create Data Frame, Data Frame Access, Understanding Data in Data Frames: dim(), nrow(), ncol(), str(), Summary(), names(), head(), tail(), edit() function, Extract Data from Data Frame, Expand Data Frame: Add Column, Add Row - Joining columns and rows in a Data frame rbind() and cbind() – Merging Data frames merge() – Melting and Casting data melt(), cast(). Loading and handling Data in R: Getting and Setting the Working Directory – getwd(), setwd(), dir(). File Handling in R language: CSV Files - Input as a CSV file, Reading a CSV File, Analyzing the CSV File: summary(), min(), max(), range(), mean(), median(), apply(), Writing into a CSV File.	10P
3	**Descriptive Statistics:** Data Range, Frequencies, Mode, Mean and Median: Mean Applying Trim Option, Applying NA Option. Standard Deviation, Variance, Correlation, Regression.	7P
4	**Spotting Problems in Data with Visualization:** Pie Charts: Pie Chart title and Colors – Slice Percentages and Chart Legend, 3D Pie Chart, Histograms – Density Plot, Bar Charts: Bar Chart Labels, Title and Colors. Line Chart, Scatter plot, Developing graphs, Box Plot. Introductory concepts and Applicability of Parametric and Non-parametric Tests: t-test, F-test, Z-test, Chi-square test. Factor Analysis and ANOVA.	8P

List of Books:

Name of Author	Title of the Book	Name of the Publisher
Jeeva Jose	Beginner's Guide for Data Analysis using R Programming	Khanna Books
Statistical Programming in R	K G Srinivasa	Oxford University Press

Name of the Course: BBA(BA)   Subject: Programming with Python   **Course Code: BBA(BA)-302**   **Semester:3rd**

Mode: Offline   **60 HOURS**

Module	Name of the Topic	Hours
1	**Introduction to Python:** Basic reasons for popularity of python, Data types, Conditional and Looping Statements, Working with Library and User-defined Functions.	10L
2	**Working with Sequence, Mapping Types and Handling Files:** Working with Strings, List, Tuples, Manipulating Dictionaries, Working with Sets, Regular Expressions, Handling of Text and Binary Files.	10L
3	**Solving Algebra and Calculus:** Working with Matrices, Solving Differentiation, Integration and Ordinary Differential Equations.	7L
4	**Working with Visualizations:** Graph Plotting using Matplotlib, Representing Histograms, Pie Charts, Box Plots.	5L
5	**Object Oriented Programming using Python:** Concept of class and object, Features of OOP, Access Specifiers in Python, Inheritance and Polymorphism Implementation.	8L
6	**GUI Programming using Tkinter:** Processing Events, The Widget Class, Displaying Shapes, Working with Dynamic and Interactive Button, Check Buttons, Images, Menus, Key Events and Bindings, Animation, Scrollbar, Standard Dialog Box.	20L

Name of the Course: BBA(BA)   Subject: Programming with Python Lab   Course Code: BBA(BA)-392
Semester:3rd   30 HOURS

Module	Name of the Topic	Hours
1	**Basic Python Programming:** Programs related to conditional statements, loops, string, lists, tuple, dictionary manipulation.	10L
2	**File Handling and Object Oriented Programming:** Manipulating Text and Binary Files, Implementing Inheritance and Polymorphism.	7L
3	**Working with Visualizations:** Basic Visualization using Matplotlib, Representing Histograms, Pie Charts, Box Plots.	3L
4	**Basic GUI Programming** Working with Widgets, Developing Menus, Building Simple GUI Applications.	10L

ListofBooks:

Name of Author	Title of the Book	Name of the Publisher
Satish Jain, Shashi Singh	Programming and Problem Solving through Python Language	BPB Publications
Reema Thareja	Python Programming using Problem Solving Approach	Oxford University Press
Martin C Brown	Python: The Complete Reference	Mc Graw Hill
Saurabh Chandrakar	Building Modern GUIs with tkinter and Python	BPB Publications
Zed A Shaw	Learn Python 3 The Hard Way	Pearson