

Subject Code: 1SC2030421	Subject Title: Research Methodology
COURSE TYPE: CORE COURSE	

Course Objective: The purpose of this lesson is for students to learn Research Methodology. what is research? what is its problem? Research design, sample design, methods of data collection and its analysis. of data, How to write the report of research and role of computer.

Teaching scheme (hours) per week		Credit		Theory Marks		Practical Marks		Total
Theory	Practical	Theory	Practical	University Assessment	Cont. Assessment	University Assessment	Cont. Assessment	
4	-	4	-	60	40	-	-	100

UNIT	DISCRIPTION IN DETAIL	WEIGHTAGE
I	<u>Introduction:</u> Objective of research, motivation in research, types of research, interdisciplinary research, scientific methods of research, criteria of good research, and characteristics of a good researcher.	25%
II	<u>Defining Research Problem:</u> Art of literature review, user of ICT in effective literature review, formulation of problem, formulation of hypothesis, developing research plan, meaning of research design, types of research design, basic principles of experimental design, selection of relevant variables, validity of experiments.	25%
III	<u>Computer Application:</u> Role of computer in research, data organization, software selection and its applications, solving problems by using scientific software & tools, sample programmes for analysis of data.	25%
IV	<u>Thesis Writing and Presentation:</u> Significance of writing thesis, different types of research writing; conference paper, journal paper, patents, thesis etc., different steps in writing thesis, layout of thesis, guidelines for writing good thesis, precautions in writing thesis, presentations skills, defending the thesis.	25%

LEARNING OUTCOMES

- Students will Defining the Research Problem.
- Students will design Research problem.
- The students will investigate basic Principles of Experimental Designs, , Measurment and Scaling technique, Methods of Data Collection & Processing and analysis of data collection.

- Students will learn how to write the research report with the help computer.

REFERENCE BOOKS:

1. Research Methodology by C.R. Kothari
2. Research Methodology by Dr. Debashis Chakraborty
3. Lecture Note on Research Methodology by V.P Saxena
4. Research Methods by Ram Ahuja
5. Research Methodology by C.R. Kothari & Gaurav Garg.
6. Research Methodology: A Step-by- Step Guide for Beginners.