

Objectives

To introduce the concept of Scientific research and the methods of conducting scientific enquiry and to introduce the Statistical tools of data analysis and report writing

Unit-I

Research — Nature and scope of Research in Ecology and Social Sciences, Research Purpose, Various Steps In Scientific Research: Problem identification and selection, Review of literature, Research Design, Developing a research plan; Framing and testing of hypothesis, Survey Research, Case Study Research.

Unit-II

Data Collection – Sources of Data – Primary Data – Secondary Data- Procedure of data collection, Sampling Methods – Sampling in quantitative and qualitative research, Questionnaire surveys, transect methods, Participatory Rural Appraisal, Focused Group Discussion,

Unit-III

Analysis of data, Statistical Analysis – Introduction To Statistics, Standard Deviation – Co-efficient of Variation, Correlation and Regression Analysis, Analysis of Variance. Introduction to SPSS (practical).

Unit-V

Research Reports – Structure and Components of Research Report – Types of Report, Characteristics of Good Research Report, Pictures and Graphs, Paper publications in Scopus Index journals.

Unit VI

Application of Remote Sensing and GIS in ecological and social sciences (Practical)

TEXT BOOKS/REFERENCES:

1. Panneerselvam, R., Research Methodology Prentice hall of India, New Delhi, 2004.
2. Kothari CR, Research Methodology-Methods and Techniques, New Wiley Eastern ltd., Delhi, 2009.
3. Doing Social Research, Mc Graw Hill, Wilkinson & Bhanderkar- Research methodology in social sciences. Rummel & Ballaine: Business Research Methods.
4. Dr. Amarchand Research Methods.