

## ENS 602 RESEARCH METHODOLOGY FOR ENVIRONMENTAL STUDIES

(Credits: 04)

### OBJECTIVES

To familiarize learners with the important dimensions relating to research, research methodology, experimental designs and statistical methods, and interpretation and communication of results to enable them in identifying a research problem, developing the most appropriate methodology for research study and to make them familiar with the art of using different research methods and techniques.

### SYLLABUS

Introduction to research methodology; Defining a research problem; Designing research and surveys; Measurement and scaling; Data collection and data interpretation; Descriptive statistics; Sampling and statistical inference; Testing of hypothesis; Chi-square test, analysis of variance, correlation and regression analysis, factor analysis, discriminate analysis, ordination, cluster analysis; Data interpretation; Writing research report and research paper

### SUGGESTED READINGS

*Research Methodology: Methods and Techniques* – C.R. Kothari and Gaurav Garg, New Age International Publishers P. Ltd., New Delhi.

*Biostatistics* – Alvin E. Levis, Affiliated East – West Press P.Ltd., New Delhi.

*Statistical Methods* – Allen Edwards; Holt, Rinehart and Winston, New York.

*Statistical Methods* – G.W. Snedecor and W.C. Cochran, Oxford and IBH Pub.Co. P. Ltd., New York.