

Syllabus for Ph.D. Course Work in Education

Unit – I

Educational Research

- Educational Research as a scientific Process: Meaning, need and nature of educational research, steps of research process.
- Types of educational research: historical, experimental and descriptive
- Qualitative and Quantitative Research
- Research Process
- Criteria for good research

Planning of Research

- Selection of a problem for research.
- Formulation of the selected problems.
- Research Questions.

Unit – II

Related Literature and Hypothesis

- Role of related literature in educational Research.
- Literature search procedure.
- Sources of literature.
- Planning of review work

Hypothesis Formation

- Definition
- Characteristics
- Classification
- Statement of Hypothesis
- Testing of Hypothesis
- Concept of level of significance

- Degree of Freedom
- One tailed test and two tailed test.
- Types of Error – Type 1 and Type II

Unit – III

Sampling and Data Collection

Sampling

- Population and sample
- Definition and difference.
- Importance of sampling
- Sample size
- Sampling Error
- Preparing a questionnaire
- Test standardization

Data Collection

- Type of data
- Methods and techniques of data collection
- Primary and Secondary Data

Unit – IV

Data Analysis

- Parametric and Non Parametric Statistics
- Measures of Central Tendencies
- Percentile
- Correlation
- t – Test
- Chi – square
- Normal Probability and its applications

- Regression
- Multiple Regression
- Two way and Three way analysis of variance

Unit – V

Report writing and computer application

- Planning of Report writing
- Significance of report.
- Steps of report writing
- Concepts of Bibliography and References.

Computer Application

- Applications of Computer in research
- Generating charts / graph in Microsoft Excel
- Power Point Presentation
- Use of SPSS in Educational Research