

PRE-PH. D. COURSE WORK

The course aims, developing the following skills:

- Investigation
- Evaluation
- Reasoning
- Comprehension
- Analysis
- Writing
- Editing, proof reading and designing

Programme Structure

The Pre-Ph.D. course work shall comprise of one Semesters (i.e. Six Months) in which there shall be three compulsory papers:

Semester	Name of Paper	Theory	Internal Assessment (Assignments, Attendance & Seminar)	Max Marks	Time
Semester-I	Paper-I Research Methodology	70	30	100	3Hrs.
Semester-I	Paper-II Computer Applications in Research	70	30	100	3 Hrs.
Semester-I	Paper III (in Concerned area of research), Research Training	70	30	100	3Hrs.


PAPER -1: RESEARCH METHODOLOGY

Unit 1: Concept of Research: Why, What and How? Types and approaches, Ethics in Research and Plagiarism

Unit 2: Research Designs

Purpose of research design, Criteria of good research design; simple randomized and factorial design; Correlated groups design, Sample size, illustration and practice of designing of research, Types of Research: Field study research, Survey research, Laboratory Experiments, Field Experiments.

Unit 3: Methods of Data Collection



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Qualitative approach; Observation method, Interview; Sociometry; Animal behavior observation techniques; Use of inventories and objective tests; Use of instruments and software; Recording electrophysiological signals; Brain imaging techniques.

Unit 4: Data Analysis: ANOVA

Theoretical foundation, Breaking variance, Factorial Analysis of Variance, Repeated Measure ANOVAs, Mixed models; ANCOVA, Nonparametric alternatives.

Data Analysis: Multivariate Analysis

MANOVA, Multiple regression analysis, Factor analysis; Discriminant Analysis

Unit 5: SPSS and Communication of research findings

Use of SPSS for data analysis and interpretation; APA style of reporting; writing research papers; thesis preparation; writing grant proposals (for UGC, ICMR, DST, ICCSSR, etc.)

Paper II : COMPUTER APPLICATIONS IN RESEARCH

Unit 1: Basic Knowledge of Computer, use of Computer in Research, use of technology and other equipment's in Research

Unit 2: Data Analysis Software's and Analysis Techniques, use of multimedia tools

Unit 3: Use of MS Office, Preparation of Power Point Presentations, use of Internet for Research Purpose

Unit 4: Introduction to UGC infonet, INFLIBNET and ERNET, MOOC etc., Practical Work (as required under the above units)

PAPER -3: RESEARCH TRAINING

Unit I: Writing a Research Paper, Choosing a Topic, Preparing a Working Bibliography, Outlining and need to write a Research Paper

Unit II: Investigation and Training in the Research area

Medium of instruction: English except Paper- III where the student can choice between English and an Indian language, taught in the department, on which he/she plans to work and write thesis.

The respective supervisors during Semester I will conduct the course in the concerned area of research. The supervisor will submit a detailed plan and evaluation scheme to the DRC for approval.

The respective faculty, teaching the Pre-Ph. D. Course and the concerned supervisor, will provide the reading list that will vary as per the topic of research.

It is mandatory that each research scholar will do a paper presentation pertaining to his/her research



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