

PLAN OF COURSE WORK FOR DOCTORAL CANDIDATES

Prepared by at the DRC (Home Science) on 14 December, 2009

The candidate is required to complete the following course work under the supervision of the Supervisor and the Advisory Committee members.

Course 1. **Research Methods, Statistics and Computer Applications**

Course 2. **Literature review to consist of the following components:**

- a) Critical evaluation of **two** original papers in the relevant field
- b) Preparation of **two** papers as part of literature review in the area of study, approximately 5000 words each. The candidate should follow the publication guidelines of any recognised national / international journal.

~~Course 3~~ a) **Research report** of the work accomplished so far, including pilot study and time plan for future work

d) **Project proposal** for funding using guidelines of national level organizations such as UGC, DST, ICSSR, ICMR and so on.

- Note:
- i) The mode of all course work will be **self-study**.
 - ii) Candidates may take **one/two semesters** to complete their course work
 - iii) Candidates from **outside Delhi University** are required to undertake two more courses being offered at the masters' level in the relevant department, and will be evaluated by their Supervisor and AC members.
 - iv) Each course carries 150 marks

Statistics, Research Methods and Computer Applications

Objectives:

1. To understand scientific procedures in research
2. To learn statistical procedures and their application
3. To learn about advanced research methods
4. To learn to use computers for data entry, processing and analysis
5. To learn about interpretation, referencing, presentation and writing up of research

CONTENTS

Statistics:

1. Basic concepts in quantitative research: Statistics, Measurement, Descriptive and Inferential Statistics, Parametric and Non-Parametric Statistics
2. Descriptive Statistics
3. Inferential Statistics: Statistical tests of association and difference
4. Probability theory and application
5. Hypothesis testing, levels of significance and errors in estimation
6. Standard scores
7. Normal curve: Theory and application
8. Regression and Prediction
9. Analysis and Interpretation of Statistical findings

Research Methods:

1. Scientific procedures and research
2. Types of Research: Qualitative, quantitative and mixed methods
3. Steps of conducting Research: Research Design
4. Topic, statement of problem and review of research
5. Sampling: Theory and method
6. Tool construction: Reliability, Validity and Standardisation
7. Qualitative procedures in data collection
8. Data collection
9. Management of data, analysis and interpretation
10. Writing up your research: Academic convention styles for publication
11. Presentations and writing scientific papers based on research
12. Research proposal: Planning, budgeting
13. Critical evaluation of research
14. Review of publication

Computer applications:

1. Introduction to use of computers in research: Word processing, Data analysis, Presentation
2. Use of software: Excel, SPSSX, Atlas.ti, Power point