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Ph.D. Course Work Syllabus

HOME SCIENCE

Session 2020-21

COURSE WORK FOR Ph. D.

SUBJECT HOME SCIENCE

PAPER –I

Max marks-100

Research methodology, quantitative methods and computer applications.

PAPER-II

- Review of the literature in relevant subject Max marks-50
 - Seminar-Board on the review of literature Max marks-20
 - Project Report-Board on the review of literature Max marks-30
- Total – 200**

Paper-I

RESEARCH METHODOLOGY, QUANTITATIVE METHODS AND COMPUTER APPLICATIONS

Max marks -100

Unit –I Research Methodology

- Science, Scientific methods.
- Role of statistics and research in Home Science discipline. Objective of research explanation, control and prediction.
- Types of research: Historical, descriptive experimental, case study, social research.
- Definition and identification of a research problem:
 1. Selection of research problem.
 2. Hypothesis, basic assumptions, limitation and delimitations of the problems.
- Types of variables.
- Theory of probability:
 1. Population and sample.
 2. Probability sampling random, systematic random sampling, two stages and multi stage sampling, cluster sampling.
 3. Non-Probability sampling; purposive quota and volunteer sampling snowball sampling.
- Research Ethics
- IPR
- Cyber Law
- Copy Right

Unit- II Research Design

- Skewers and kurtosis
- Basic principal research design:
 1. Purpose of research design: fundamental, applied and action, explanatory and descriptive, experimental, survey and case study.
 2. Longitudinal and cross sectional, co-relational.

- Data gathering instrument.
- Observation, questionnaire, interview, scaling methods. Case study home visits, reliability and validity of measuring instruments.
- Writing a research proposal.
- Analysis of data and research report.

Unit-III Quantitative Analysis of Data

- Conceptual understanding of statistical measures of variation.
- Frequency distribution- use of normal probability tables.
- Binomial distribution.
- Normal distribution- use of normal probability tables.
- Parametric and non-parametric tests.
- Testing of hypothesis, type 1 and 2 errors, levels of significance.
- Chi square test Goodness of fit, independence of attributes 2*2 and r*c contingency tables.

Unit-IV Statistical Analysis

- Application of students 't' test for small samples. Difference in proportion for means and difference in means.
- Correlations, coefficient of correlation, rank correlation.
- Regression and prediction.
- Analysis of variance-one way and two-way classification.
- Experimental designs
 1. Completely randomized design
 2. Randomized block design
 3. Latin square design
 4. Factorial design
 5. Trend analysis

Unit-VI Computer Fundamentals

- Introduction
 1. The computer and computer technology
 2. The computer system
 3. Important characteristic
 4. The binary numbers system

5. Computer applications
- **Windows-98/XP/2000**
 1. **Window**-concepts features structure desktop, start menu, my computer, recycle bin.
 2. **Accessories**-calculator, notepad, paint, word pad, character map.
 3. **Explorer**- creating folder and other explorer facilities.
 4. Object linking and embedded/linked using object.
 5. **Communication**- dialup networking phone dialer office s/w word processing spread sheet, power point and outlook express.
 - **M.S. Office**
 1. **MS Word**- creating, editing and previewing documents, formatting advanced features using thesaurus mail merge table and charts handling graphics. Converting word documents in to other formats.
 2. **MS Excel** – Data finding and statistical. Calculation-S.D., mean, median, mode, average sum, ANOVA, ‘t’ value correlation. Worksheet basics, creating opening and moving in worksheet working with formula and cell referencing. Absolute and relative addressing working with ranges. Formatting of work sheet, graphs and chart marks.
 3. **Power point**-creating, presenting and modifying visual elements., adding objects, applying transitions, linking, Preparing handing, presenting slide shows with different slide layouts, color schemes.
 - **Introduction of internet**- searching of documents and pictures and references. Researching, saving of PDF files, conversion of PDF into HTML files.
 - S.P.S.S

Paper-II

REVIEW OF THE SUBJECT-HOME SCIENCE

Max arks – 50

Writing and submission of review of literature in area of proposed Ph.D work;
under the supervision of supervisor

**Seminar-will be given by the student in the subject of
specialization/in the proposed subject of the Ph.D**

20 marks

**Project report- will be prepared and submitted by the student in
the field of the subject of research**

30 marks

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