

## POOL OF DISCIPLINE SPECIFIC ELECTIVE (DSE) PAPERS FOR THE EVEN SEMESTER

### FOOD AND NUTRITION

**Bachelors in Arts with Community Science**  
*Category-V*

#### DISCIPLINE SPECIFIC ELECTIVE COURSE – DSE-FN 2-HSC: RESEARCH METHODS IN HOME SCIENCE

#### CREDIT DISTRIBUTION, ELIGIBILITY, PRE-REQUISITES OF THE COURSE

| Course Title<br>& Code                 | Credits | Credit distribution of the course |          |           | Eligibility<br>Criteria | Prerequisite<br>of the<br>course |
|----------------------------------------|---------|-----------------------------------|----------|-----------|-------------------------|----------------------------------|
|                                        |         | Lecture                           | Tutorial | Practical |                         |                                  |
| Research<br>Methods in<br>Home Science | 4       | 3                                 | 0        | 1         | Class XII               | NIL                              |

#### Learning Objectives

- To provide students understandings about the basic concepts, approaches and methods in conducting Home Science research.
- To enable learners to appreciate and critique the nuances of designing a research study well.
- To sensitize students towards ethical concerns while conducting Home Science research.

#### Learning Outcomes

The students would be able to:

- Demonstrate knowledge of the scientific method, purpose and approaches to research in Home Science
- Compare and contrast quantitative and qualitative research approaches
- Explain different types of research design and their applicability in Home Science research
- Understand the key elements of a research process
- Explain ethical principles, issues and procedures

### THEORY (Credits 3; Hours 45)

#### UNIT I: Research Purpose and Design

**10 Hours**

This unit will deal with the meaning and importance of research in various areas of Home Science. Exposure to different types of research designs and measurement in Home Science research would also be given.

- Meaning, purpose and significance of research
- Research as a scientific method

- Types of research
- Quantitative, Qualitative and mixed method approaches
- Research Designs –Experimental and Non-Experimental; Descriptive and Observational; Participatory research
- Internal and external validity of research design
- Variables, concepts and measurement in research
- Levels of measurement
- Units of analysis

## **UNIT II: Sampling and Research tools & techniques**

**15 Hours**

This unit will introduce the student to the concept of sampling and methods used to draw sample from population using examples from With Community Science. Students would also learn about types of data, its collection and reliability and validity concerns.

- Role of sampling in research
- Sampling techniques and their applicability, Sample size and sampling error
- Types of data: Primary and Secondary
- Tools of data collection; types, construction and administration- Interview, Questionnaire, Observation, Focus group discussion and other methods
- Validity and reliability of data collection tools

## **UNIT III: The Research Process**

**15 Hours**

This unit will elaborate upon the various steps involved in conducting and reporting researches in Home Science.

- Defining the problem, research questions, objectives, hypotheses
- Review of related literature and originality in writing
- Systematic research: concept and methodology
- Planning the research
- Identifying variables and constructing hypothesis
- Selecting appropriate research methodology and tools
- Data analysis: coding and tabulation
- Writing a research report: styles and formats
- Citation formats: in medical sciences, social sciences

## **UNIT IV: Values, Social Responsibility and Ethics in Research**

**5 Hours**

This unit will apprise the students about ethical concerns while conducting and reporting research.

- Ethical principles guiding research: from inception to completion and publication of research
- Plagiarism and Academic integrity in research: plagiarism tools and software
- Ethical issues relating to research participants and the researcher
  - Rights, dignity, privacy and safety of participants
  - Informed consent, confidentiality, anonymity of respondents, voluntary participation, harm avoidance

## **PRACTICAL (Credits 1; Hours 30)**

1. Data visualization
2. Levels of Measurement
3. Types of research designs
  - a. Experimental and non-experimental; Descriptive and observational
  - b. Qualitative, Quantitative and mixed method
4. Sampling techniques and sample size calculation
5. Probability sampling method
6. Non-Probability sampling methods
7. Tools of data collection- Interview schedule, questionnaire and FGD
8. Designing/ Construction
9. Preparation of tools for ethical review
10. Pilot testing/ validity and reliability of the tool\
11. Data collection and analysis process: conducting interviews, administering questionnaire
12. Coding and tabulation of data for analysis
13. Citation formats and Plagiarism
14. Reviewing a research paper from a specific area of specialization in Home Science

### Essential Readings

- **Kerlinger, F. N., & Lee, H. B.** (2017). *Foundations of Behavioral Research (4th ed.)*. Harcourt College Publishers.
- **Kothari, C. R.** (2019). *Research Methodology Methods and Techniques*. New Age International Pvt. Ltd.
- **Kothari, C. R.** (2022). *Shodh Padhati (1st ed.)*. New Age International Pvt. Ltd.
- **Kumar, R.** (2019). *Research Methodology A Step by Step Guide for Beginners (5th ed.)*. Sage Publications.

### Suggested Readings

- **Bernard, H. R.** (2000). *Social research methods Qualitative and quantitative approaches*. Sage Publications.
- **Creswell, J. W.** (2009). *Research design Qualitative quantitative and mixed methods approaches*. Sage Publications.
- **Davis, A. M., & Treadwell, D.** (2019). *Introducing Communication Research Paths of Inquiry*. SAGE Publications.
- **Flynn, J. Z., & Foster, I. M.** (2009). *Research Methods for the Fashion Industry*. Fairchild Books, Bloomsbury Publishing.
- **Indian National Science Academy.** (2019). *Ethics in Science Education Research and Governance*. <http://www.insaindia.res.in/pdf/EthicsBook.pdf>
- **Jacobsen, K. H.** (2020). *Introduction to health research methods A practical guide*. Jones & Bartlett Publishers.
- **University Grants Commission.** (2021). *Academic Integrity and Research Quality*. [https://www.ugc.ac.in/e-book/Academic%20and%20Research%20Book\\_WEB.pdf](https://www.ugc.ac.in/e-book/Academic%20and%20Research%20Book_WEB.pdf)

**Note: Examination scheme and mode shall be as prescribed by the Examination branch, University of Delhi, from time to time**