

SEMESTER-VI

BSc-PE-DSE-4(4)-402: RESEARCH METHODS IN PHYSICAL EDUCATION AND SPORTS

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
BSc-PE-DSE-4(4)-402: RESEARCH METHODS IN PHYSICAL EDUCATION AND SPORTS	4	3	1	0	Class XII pass	NIL

Learning Objective: The student will gain knowledge about Research Methods of sampling, writing of Research Reports and analysis of the data through statistical techniques.

Learning Outcome:

1. The student will be able to use the knowledge of Research for analysis of data and leading to logical conclusion on any field of investigation.
2. The student will learn the Research: Nature, Unscientific vs. scientific methods of problem-solving, Ethical Issues in Research, Identification and criteria in selecting a Research Problem, defining and delimiting problem, and Literature review: Purpose, Literature search methods, steps of literature review, major literature sources.
3. The student will develop an understanding of Sampling (Random, cluster, stratified), Survey:- Survey by Questionnaire and survey by Interview, Experimental Methods:- Relationship studies, Comparative Studies and Control of experimental factors and Instrumentation.
4. The student will gain knowledge of the Research proposal, Organization of the Thesis report, Research article, oral and poster presentation, Table, figure, and bibliography.
5. The student will learn about the Types of data, Measures of central tendency (mean, median, and mode), Measures of variability (range and standard deviation), numerical problems to be solved from raw data, Tests for measuring correlation (Product moment

correlation) and differences (Independent T-test), numerical problems to be solved from raw data, plotting of graphs and chart.

THEORY SYLLABUS (45 HOURS)

UNIT 1 Introduction to Research in Physical Education (10HOURS)

1.1 Research: Nature, Unscientific vs. scientific methods of problem-solving, Ethical Issues in Research.

1.2 Identification and criteria in selecting a Research Problem, defining and delimiting the problem.

1.3 Literature review: Purpose, Literature search methods, steps of literature review, major literature sources.

1. 4 Statistical concepts: Importance of statistics in Physical Education, ways to select a sample.

UNIT 2 Research Methods (10HOURS)

2.1 Sampling (Random, cluster, stratified)

2.2 Survey:- Survey by Questionnaire and Survey by Interview

2.3 Experimental Methods: - Relationship studies, Comparative Studies and Control of experimental factors.

2.4 Instrumentation

UNIT 3 Writing the Research Report (12 HOURS)

3.1 Research proposal

3.2 Organization of the Thesis Report

3.3 Research article, oral and poster presentation

3.4 Table, figure, bibliography.

UNIT 4 Statistical Concepts in Research (13 HOURS)

4.1 Types of data

4.2 Measures of central tendency (mean, median and mode), Measures of variability (range and standard deviation), numerical problems to be solved from raw data.

4.3 Tests for measuring correlation (Product moment correlation) and differences (Independent T-test),numerical problems to be solved from raw data, and plotting of graphs and charts.

SUGGESTED READINGS:

- Koul, L. (2002). Methodology of Educational Research, Vikas Publishing House, New Delhi.
- Thomas, J.R., & Nelson J.K. (2005). Research method in physical activity. U.S.A: Champaign, IL: Human Kinetics Books.
- Thomas, J.R., Nelson, J.K. & Silverman, S.J. (2011). Research method in physical activity. U.S.A: Champaign, IL: Human Kinetics Books.
- Verma, J. P. (2000). A text book on sports statistics. Gwalior: Venus Publications
- Silverman, S.J. & Nelson, K.J. & Thomas, R.J. (2011), Research Methods in Physical Activity, Human Kinetics, Champaign.
- Sharma, L. & Nayar, K (2015), Dictionary of Terms in Research Methodology, The Readers Paradise, New Delhi.
- Kumar, S (2018). Research Methodology : A Step By Step Guide for Beginners, Yking Books, Jaipur.

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