CO 5								

Semester – IV   Theory Courses
BPD-C403 RESEARCH AND STATISTICS IN PHYSICAL EDUCATION

The Course learning outcomes (COs): On completion of the two years B.P.Ed., program, the students will be learning and able to do/perform the following…….
CO-1. Memorizing the fundamental concepts of research and statistics.
CO-2. Reviewing the survey of related literature.
CO-3. Estimatingthe statistical models in physical education and sports.
CO-4. Identifying the basics of statistical analysis.
CO-5. Establishing the statistical problems and preparing research report.

Unit-I Introduction to Research (10 Hrs.)
Definition of Research
Need and importance of Research in Physical Education and Sports.
Scope of Research in Physical Education & Sports.
Classification of Research
Research Problem, Meaning of the term, Location and criteria of Selection of Problem, Formulation of a Research Problem, Limitations and Delimitations.

Unit-II Survey of Related Literature (15 Hrs.)
Need for surveying related literature.
Literature Sources, Library Reading
Research Proposal, Meaning and Significance of Research Proposal.
Preparation of Research proposal / project.
Research Report: A group project is to be undertaken by a small batch of students under the supervision of a teacher, wherein it is expected to survey school facilities of physical education, health assessment programme evaluation, fitness status of the students, staff and other stakeholders etc. and submit the report to the institution.

Unit-III Basics of Statistical Analysis (15 Hrs.)
Statistics: Meaning, Definition, Nature and Importance
Class Intervals: Raw Score, Continuous and Discrete Series, Class Distribution, Construction of Tables
Graphical Presentation of Class Distribution: Histogram, Frequency Polygon, Frequency Curve.
Cumulative Frequency Polygon, Ogive, Pie Diagram

Unit- IV Statistical Models in Physical Education and Sports (15 Hrs.)
Measures of Central Tendency: Mean, Median and Mode-Meaning, Definition, Importance, Advantages, Disadvantages and Calculation from Group and Ungrouped data
Measures of Variability: Meaning, importance, computing from group and ungroup data
Percentiles and Quartiles: Meaning, importance, computing from group and ungroup data
References: Best, J.W. (1963). *Research in education*. U.S.A.: Prentice Hall.
Bompa, T. O. &Haff, G. G. (2009). *Periodization: theory and methodology of training, 5th ed.*Champaign, IL: Human Kinetics.
Brown, L. E., &Ferrigno, V. A. (2005). Training for speed, agility and quickness, 2nd ed. Champaign, IL: Human Kinetics.
Brown, L.E. & Miller, J., (2005). *How the training work*. In: Training Speed, Agility, and
Quickness. Brown, L.E. &Ferrigno, V.A &Ferrigno, V.A., eds. Champaign, IL: Human Kinetics.

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO 1								
CO 2								
CO 3								
CO 4								