

PhD Course work Syllabus for **Physical Education**, Research Process & Statistics

2024-25

Unit I

1. Meaning, Concept, Need and Scope of Research in Physical Education.
2. Approaches of Research.
3. Concepts of Variables and Different Scales and Measurements.
4. Types of Research and Different Methodologies.

Unit II

1. Population & Sampling, Probability and Non-Probability Sampling Techniques, sample size determination.
2. Research Designs, Control of Experimental factors.
3. External and Internal criticism.
4. Historical research, Philosophical research, Survey method and Case studies.

Unit III

1. Measures of Central Tendency, Measures of Variability, Skewness, Kurtosis.
2. Concept of the applications of different Statistical tools, analyze data.
3. Coefficient of correlation- Carl- Pearson method, Spearman's ranking method.
4. Regression-Simple and Multiple regressions.

Unit IV

1. Hypothesis- Meaning and Formulation, Type I and Type II error.
2. Normal distribution.
3. Testing of hypothesis.
4. Test of significance- 't' tests, One-way ANOVA, Post hoc test and Chi Square Test

Unit V

1. Bibliometrics and different data Basis.
2. Ethics in Research.
3. Introduction of Computer.
4. Use of different, Statistical Software In Research.



To,
Mr. A. K. J.
[Signature]
03/11/24

