

**VEER BAHADUR SINGH PURVANCHAL
UNIVERSITY (U.P.)-222003**



National Education Policy-2020

Syllabus

For

Ph.D.COURSEWORK / Pre-Ph.D.

Physical Education

July 2022

CB Singh
27/06/2022

Couse Work for Ph.D. Physical Education Students based on CBCS

The course work for Ph.D. Physical Education will spread in one semester only.

Objectives

01. To impart teaching and develop critical thinking ability among students about various aspects of physical education.
02. To impart the knowledge of research work in existing and emerging fields in physical education and sports.
03. To develop students with skills and techniques for carrying out independent research work.

Subject Prerequisites

To study this course, work the student must have studied the subject(s) of Physical Education in post-graduation.

Program Outcomes (POs)

- PO1. Gaining the knowledge to carry out specialized research in various fields of Physical Education.
- PO2. Identification of challenging and unsolved relevant problems in the field of Physical Education.
- PO3. Generating innovation, ideas and strategies for solving research problem.
- PO4. Motivation to uptake original research work.
- PO5. Publication of research work and dissemination of knowledge through seminar presentations.

Program Specific Outcomes (PSOs)

- PSO1. To provide an in-depth knowledge of Research process in Physical Education and acquainting the student with different methods of Research in Physical Education.
- PSO2. Program is meant for enhancing the student's knowledge and understanding the detail about the specialized area he/she is interested in his/her research study.
- PSO3. Students would gain conceptual and theoretical knowledge of research methodology in the field of Physical Education and would apply them in research of Sports and Physical Education.
- PSO4. Student would understand the application of Sports Training, Sports Management, Yogic Practices and Sports Bio-Mechanics and would be able to apply them in their professional areas.
- PSO5. Student would become competent enough and would acquire the advance skill of Physical Education profession.

Department of Physical Education

VEER BAHADUR SINGH PURVANCHAL UNIVERSITY (U.P.)

Course Work for Ph.D. Physical Education Students

Every student admitted in Physical Education for the Ph.D. program will be required to pass a course work of minimum 16 credits. The division of this 16 credits course work is in three groups. Group-A (04 credits) course is compulsory for all Ph. D. students of Physical Education. Group-B (06-credits) courses are *discipline-specific courses*. Group-C (06 credits) courses are *research theme-specific courses*.

Note: The division of theory and internal marks of each course will be decided by the University.

| Course Nature | Course Code | Course Title | Credits |
|--|-------------|--|-------------------|
| Group – A / (Compulsory Course) | | | |
| Compulsory Course | E021101T | Research Methodology | 04 |
| | | | 04 Credits |
| Group – B / Elective Courses (opt only one) | | | |
| Discipline-Specific Courses | E021102T | Biomechanics of Exercise, Fitness and Sports skills | 06 |
| | E021103T | Yogic Practices | 06 |
| | | | 06 Credits |
| Group – C / Elective Courses (opt only one) | | | |
| Research Theme-Specific Courses | E021104T | Test, Measurement and Evaluation in Physical Education | 06 |
| | E021105T | Sports Training | 06 |
| | | | 06 Credits |
| Thesis | | | Non-Credit |
| Total | | | 16 Credits |

COURSE CONTENTS
Compulsory Course
Group-A/ Compulsory Course

| Course Code | Course Title | Total Credits |
|-------------|----------------------|---------------|
| E0211011 | Research Methodology | 04 |

Course Objectives:

1. To acquaint the student with Philosophy of Research in Physical Education
2. To make student understand need and importance of Research in Physical Education
3. To enable student with different data collection tools and the procedure of developing them
4. To enable the student to understand and apply different types and methods of research
5. To acquaint the student with need and importance of Research Statistics
6. To give student knowledge of fundamentals of Research Statistics
7. To enable student with different statistical tools and related procedures
8. To enable the student with writing interpretations and deriving conclusions from statistical analysis

Unit1: Introduction

- 1.1 Meaning, Definition, Scope of Research in Physical Education & Sports
- 1.2 Aim, Objective and Characteristics of Research
- 1.3 Research for generation of knowledge & formation of theory
- 1.4 Value based research, Plagiarism, Research Ethics

Unit2: Research Methods

- 2.1 Evaluation of Dissertation of any other researches
- 2.2 Quantitative Research
- 2.3 Qualitative Research
- 2.4 Review of related literature

Unit3: Research Data, Data Analysis & interpretation

- 3.1 Parametric & non-parametric data
- 3.2 Data collection tools

· Descriptive and Inferential Statistical tools

3.4 Interpretation of data & deriving conclusions

Unit 4: Sampling, Research Design and Computer Application

4.1 Meaning of Research Design, its types and importance

4.2 Concept of Population and Sample

4.3 Methods of Sampling

4.4 Role of computer for research in physical Education, Use of Computer based Statistical Tools.

Unit 5: Course Related Practical Work, Literature Review and Field Work

Suggested Readings:

1. Barrow, H.M. (1979). *Practical Approach to Measurement in Health & Physical Education*. (3rd ed.). Philadelphia: Lee & Febiger
2. Best, J.W. & Kahn, J.V. (2006). *Research in Education*. (10th ed.). New Delhi: PHI
3. Clark, D. H. & Clark, H. H. (1979). *Research process in Physical Education, recreation & health*. Englewood Cliffs: Prentice Hall.
4. Johnson, B. & Christensen, L. (2008). *Education Research, Quantitative, Qualitative and Mixed Approaches*. (3rd ed.). Sage Publication: England.
5. Miller, David. K. (2002). *Measurement by the Physical Educator*. New York: McGraw Hill companies.
6. John & Nelson (1998). *Practical Measurements for Evaluation in Physical Education*. Delhi: Surjit Publication.
7. Sprinthall, R.C. (1997). *Basic statistical Analysis*. (5th ed.). USA: Allyn & Bacon
8. Thomas, J. R. & Nelson, J. K. (2001). *Research Methods in Physical Education*, (4th ed.). USA: Human Kinetics.
9. Vincent, W.J. *Statistics in Kinesiology*. Campaign: Human Kinetics

Discipline - Specific Courses
Group-B/ Elective Course

| Course Code | Course Title | Total Credits |
|-------------|---|---------------|
| E021102T | Biomechanics of Exercise, Fitness and Sports skills | 06 |

Course Objectives:

1. To enable student to understand the science of Biomechanics and kinesiology in relation to human performance
2. To enable student to analyze various fundamental movements and understanding the relevance of movement analysis
3. To enable student to understand the body structure and apply the knowledge in analysis of movements
4. To enable student to apply the knowledge of biomechanics for the purpose of research

Unit 1: Introduction and Trends in Biomechanics

- 1.1 Meaning, Definition and Scope of Biomechanics
- 1.2 Importance of Biomechanics
- 1.3 Trends in Biomechanics

Unit 2: Analysis of Techniques and Training Movements

- 2.1 Analysis of fundamental Skills and Sports Skills
- 2.2 Video Film Analysis - Cinematography and Videography
- 2.3 Tools of Biomechanical Analysis
 - Kinetic Analysis
 - Kinematic Analysis
 - Force platforms and Pressure Sensors

Unit 3: Skill Analysis

- 3.1 Athletics - Field Events
- 3.2 Athletics - Track Events
- 3.3 Athletics - Jumping Events
- 3.4 Skill Analysis of Various Sports

Unit 4: Research Reviews Related to:

- 4.1 Analysis of Techniques and Skills
- 4.2 Analyzing Training Methods in Sports

1.4 New Trends in Yoga

Unit 2: Ashtanga Yoga

2.1 Asanas

2.2 Pranayama

2.3 Surya-Namaskar

2.4 Classification of Yoga

Unit 3: Yoga and Mental Health

3.1 Self-Study Learning Control Through learning yourself

3.2 Self-Control and Value education through Yoga

3.3 Meditation

3.4 Shat-Karma

Unit 4: Research Reviews Related to

4.5 Biological effects of practicing Asanas

4.6 Physiological effects of practicing Pranayama

4.7 Bio-chemical and Hygienic effects of practicing Shuddhi Kriya

4.8 Cognitive and spiritual effects of practicing Meditation

Unit 5: Course Related Practical Work, Literature Review and Field Work

Suggested Reading:

1. Iyengar, B.K.S. (1989). Light on yoga, Yoga Dipika. London: UNWIN paperbacks.
2. Kappmeir, K.L. & Ambrosi, D.M. (2006). Instructing hatha yoga. Champaign: Human Kinetics.
3. Alice, C. (2000). Yoga for sports. Chicago: CB.
4. Sawmi Kuvalayanand (1993). Asanas. Lonavla: Kaivalyadham.
5. Tiwari, O.P. (2002). Asanas why & how? Lonavla: Kaivalyadham.
6. Shivananda Yoga Vedanta Centre (1998). Yoga mind & body. London: D.K. paperbacks.

Research Theme – Specific
Courses
Group-C/ Elective Course

| Course Code | Course Title | Total Credits |
|-------------|--|---------------|
| E021104T | Test, Measurement and Evaluation in Physical Education | 06 |

- Pheasant, S. (1996). *Body space: anthropometry, ergonomics and design of work*. Taylor & Francis, New York.
- Phillips, D.A., & Hornak, J.E. (1979). *Measurement and evaluation in physical education*. New York: John Wiley and Sons.
- Sodhi, H.S., & Sidhu, L.S. (1984). *Physique and selection of sports-akin anthropometric study*. Patiala: Punjab Publishing House.

| Course Code | Course Title | Total Credits |
|-------------|-----------------|---------------|
| E021105T | Sports Training | 06 |

Course Objectives:

1. To understand the scientific sport training process & principles
2. To develop attitudes and skills in designing sport training programs
3. To be better prepared to be a good researcher
4. To enable student to understand principles of sport training, to develop and implement sport training program and other physical activity programs.

Unit 1: Introduction and Trends in Sports Training

- 1.1 Meaning, Definition, Scope of Sports Training
- 1.2 Aim and Characteristics of Sports Training
- 1.3 Latest Trends in Sports Training
- 1.4 Talent Identification

Unit 2: Training Methods

- 2.1 Principles of Sports Training
- 2.2 Load, Adaptation, and Recovery
- 2.3 Sports Fitness Training Methods
- 2.4 Periodization

Unit 3: Training Program

- 3.1 Long Term and Short-Term Training Plans
- 3.2 Technique, Skill, and Psychological Training
- 3.3 Designing of Training Program