

Ph.D: NEW framework & Syllabus

Department of Physical Education and Sport Science

Vinaya-Bhavana, Visva-Bharati

Syllabi for Ph.D Course Work 2023-24 onwards

Physical Education is a broad field of study. Its interdisciplinary approach is related to science, humanities and art. There are numerous established areas to focus through research studies out of which three sub-disciplines of Physical Education are hereby considered as specialized areas at present.

Name of the Subjects	Total Marks	Total Credits
1. Research Methodology and Techniques	100	4
2. Elective Course (Specialization Paper) (<u>Any ONE</u>)	100	4
i. Exercise and Sports Physiology		
ii. Exercise and Sports Psychology		
iii. Exercise and Sports Biomechanics		
<u>iv. Science of Sports Training</u>		
<u>v. Sociology of Sports</u>		
3. Review of Related Literature	100	4
4. Research Publication Ethics	100	4

Total Marks	Name of the Subjects	Paper	Marks	Distribution Of Marks	Credits
200	1. Research Methodology and Techniques	I	100	80 +20	04
	2. Elective Course Specialization (any one) i.Exercise and Sports Physiology ii.Exercise and Sports Psychology iii. Exercise and Sports Biomechanics <u>iv. Science of Sports Training</u> <u>v. Sociology of Sports</u>	II II(A) II(B) II(C) II(D) II(E)	100	80+20	04
100	Review of Related Literature	III	100	80+20	04
100	Research Publication Ethics	IV	100	80+20	04

PhD Course Work
Department of Physical Education and Sport Science
Vinaya Bhavana, Visva-Bharati – 2023-24 onwards

Subject: Research Methodology, Statistics and Computer Application

Course: I
Paper: I, Full Marks:100 (80+20), Credit Points:04

A. Research Methodology **(40 +10)**

Unit-I

- 1.1. Meaning of Research
- 1.2. Selecting a problem and preparing a Research Proposal
- 1.3. Ethics in Research

Unit-II

- 2.1. Research Methods: Historical Research; Descriptive Research
- 2.2. Assessment and Evaluation
- 2.3. Experimental Research
- 2.4. Qualitative Research

Unit-III

- 3.1. Tools and Techniques of Research
- 3.2. Research Report

B. Statistics **(20+5)**

Unit-IV

- 4.1. Descriptive and Inferential Data Analysis

C. Computer Application **(20 +5)**

Unit-V

- 5.1. Computer -an overview, Use of MS Office -Word, Excel, Power Point; Internet,
- 5.2. SPSS and other

Specialization: Exercise and Sports Physiology

Paper: II (A): I

Full Marks: 100 (80 + 20), Credit Points: 04

Unit-I

1. Exercise and Sports Physiology Musculoskeletal System

- 1.1 History and Development of Exercise and Sports Physiology
- 1.2 Exercise and training effect on Cellular and tissue level changes
- 1.3 Exercise and Physiological Implications of exercise related to Bone, Joint and Muscle Health
- 1.4 Research on musculoskeletal system

Unit-II

2. Digestive and excretory System

- 2.1. Concept Digestive and excretory System
- 2.2 Exercise and training impact on Digestive system
- 2.3 Exercise and training impact on excretory System
- 2.4 Research on Digestive and excretory System

Unit-III

3. Cardio-respiratory System

- 3.1 Concept of Cardio- Respiratory system
- 3.2 Cardiac Health and exercise
- 3.3 Pulmonary Health and exercise
- 3.4 Research on Cardio-respiratory system

Unit-IV

4. Bio-Energetic and Exercise Metabolism

- 4.1 Fuels to exercise and energy production
- 4.2 Diet and Metabolic responses to exercise and training
- 4.3 Research on Bio-energetic metabolism
- 4.4 Doping and Sports performance

Unit-V

5. Neuropsychology and Endocrinology

- 5.1 Concept and development of Neuropsychology
- 5.2 Immune system
- 5.3 Exercise and training effect on Nervous system and Hormonal system
- 5.4 Research on Neuropsychology & endocrinology

Specialization: Exercise and Sports Psychology

Paper: II (B)

Full Marks: 100 (80+20), Credit Points:04

Unit-I

Concepts of Sports Psychology in Global Perspectives

- i. Meaning and Scope of Sports Psychological Research.
- ii. Research studies of Sports Psychology in India and abroad
- iii. Worldwide Research studies in Sports Psychology

Unit-II

Applied Theories in Sports Psychological Research

- i. Domains: Cognitive, Effective, Psychomotor
- ii. Play Theories
Traditional Theories, Biological Theories, Psycho-Analytical Theories,
Behavioristic Theories, Cognitive Theories
- iii. Psychological Well Being

Unit-III

Research in Personality

- i. Different Personality traits of athletes and non-athletes
- ii. Inventories in personality
- iii. Different personality Questionnaires Cattel
16 personality Questionnaires, Eysenck
personality Questionnaires & Big Five
Personality Questionnaire

Unit-IV

Research in Sports Motivation

- i. Concept of Sports Motivation
- ii. Theories of Motivation
- iii. Types of Motivation
- iv. Factors influencing Motivation
- v. Testing criteria for Motivation

Unit-V

Psychological Parameters for improving Sports Performance

Anxiety, Aggression, Intelligence, Attitude, Imagery,
Concentration, Goalsetting, Attention, Emotion

Specialization: Exercise and Sports Biomechanics

Paper: II (C)

Full Marks: 100 (80 + 20), Credit Points: 04

Unit-I

Basics of Biomechanical Research

- i. Scope of Biomechanical research
- ii. Understanding of Basic Mathematical theorem applied in Biomechanical research.
- iii. Steps of Mechanical Analysis.
 - (a) Determination of objective
 - (b) Characteristics of the technique
 - (c) Study of top-flight performance of the technique
 - (d) Phases of the technique
 - (e) Division of phases into key elements
 - (f) Understanding of mechanical reasons each element is performed

Unit-II

Essential Mechanics and Movement Foundation

- i. Kinematics
- ii. Kinetics

Unit-III

Types of Analysis

- i. Qualitative analysis-Application, Sample analysis
- ii. Quantitative – Measurement issues, Laboratory data collection, Field data collection.

Unit-IV

Tools for Measuring Kinematics Variables

- i. Timing devices: Watches
- ii. Velocity measuring devices: Radar guns, Laser Devices (Power Time Tester)
- iii. Accelerometer
- iv. Optical imaging system–Imaging measurement technique Photo Instrumentation and Filming fundamental
- v. Methods of determination of CG in the Human Body
- vi. Electro goniometry

Unit-V

Tools for Measuring Kinetics Variables

- i. Force platform
- ii. Force transducers
- iii. Pressure Sensors
- iv. Electro myography

Specialization: Scientific Training of sports

Paper: II (D)

Full Marks: 100 (80 + 20), Credit Points: 04

Unit-I

1. Introduction

- 1.1 History Meaning/Definition of Sports Training, Conditioning, warming up, Cooling down
- 1.2 Aim Objectives, Characteristics of Sports Training
- 1.3 Principles of sports training
- 1.4 Research on Training

Unit-II

2. Load

- 2.1 Load & Adaptation-Meaning, Factors, Judgment, Super compensation
- 2.2 Overload – Meaning, Causes, Symptom and Remedies
- 2.3 Recovery -Meaning, Factors, Phases and Means
- 2.4 Research on Load-Adaptation-Overload-Recovery

Unit-III

3. Training Components

- 3.1 Endurance, Speed, Strength, Flexibility, Coordination -Meaning, Importance, Types, Factors and Means & Methods of Development
- 3.2 Flexibility and Coordination -Meaning, Importance, Types, Factors and Means & Methods of Development
- 3.3 SAQ Training, Plyometric training, Pilates Training
- 3.4 Research on Training Methods

Unit-IV

4. Training Program and Planning

- 4.1 Periodization- Meaning, Importance, Types and Contents
- 4.2 Planning- Meaning, Importance and Types
- 4.3 Talent Identification- Meaning, Importance and development
- 4.4 Technique, Skill, Style, Tactics, Strategy

Unit-V

5. Doping and Sports Performance

- 5.1 Drugs and Doping- Meaning, History, Side effects, Doping Control Process
- 5.2 Athletes Rights and Responsibilities, TUE, Whereabouts Information
- 5.3 WADA, NADA – History, Importance and Function
- 5.4 Research on Doping and Sports Performance

Specialization: Sociology of sports

Paper: II (E)

Full Marks: 100 (80 + 20), Credit Points: 04

Course Description

Being historically and culturally conditioned, Sport is integral to social life. Millions of people grow up playing sports and spend hours watching them. The world of sports has now deeply embedded in both local and global culture, and the meaning of sports has been socially constructed and reconstructed. In fact, sport reflects society through which we can understand more about our society's dynamics, values, and problems. This course will help students better understand how sport is related to broader sociological processes in society. Students will learn about the intersections between sports and gender, culture, inequality, social interaction, structures, politics, economics, ideology, power, social research, and more. These overarching themes help students understand the complex, interconnected relationship between sports and society.

Learning Outcomes of the course:

1. Students will be able to develop creative and critical thinking skills by introducing them to critical perspectives about the role of sports in society. The material covered in this course also helps students to improve their ability to think about, understand, and critically analyse sports.
2. Students will gain a better understanding of one's self in society by understanding the social processes, institutions, and forces that shape their lives and thereby help the students to understand their place in society—whether they are athletes, spectators, or are preparing to work in sports at different levels.
3. Students will have an opportunity to participate in class discussions and complete assignments that help them to build communication and literacy skills. The course material will help foster discussions on these topics, while the assignments will provide an opportunity to engage more in-depth with the course content.

Course Content

UNIT-I: Introduction to the Sociology of Sport:

- 1.1. Sociology and the study of sports in society.
- 1.2. concepts used in studying sports; Culture, Social Interaction & Social Structure
- 1.3. Meaning and definition of sports, and sociology of sports
- 1.4. Why study sports in society?

UNIT-II: Major sociological perspective in sports sociology

- 2.1. Functionalist theories of sport: Social order, Solidarities and System
- 2.2. Marxist reading of capitalism, Marxist and Neo-Marxist position on sports and mass culture
- 2.3. The feminist theories in sports

UNIT-III: Some Key Topics

Cultural studies to sport

- 3.1. Definition, types, Elements or Components and Characteristics of culture
- 3.2. Origin and characteristics of cultural studies
- 3.3. The Influence of Gramsci
- 3.4. The application of cultural studies to sport

Sports and Gender

- ☐ Concept of gender, Sex/Gender based division of labour
- ☐ Ideology and Power Issues
- ☐ Patriarchy's Influence on Female Sport Participation
- ☐ Barriers to gender equity in sports

UNIT-IV: Post-structuralist theorists and critical analysis of contemporary sports

- 4.1. Michel Foucault and the studies of power and sports
- 4.2. Jean Baudrillard and sociology of sports: the fate of hyper-reality
- 4.3. Pierre Bourdieu and sociology of sports: Habitus, Capital, and Field

UNIT-V: Research in the Sociology of sports

- 5.1. Research paradigms and strategies
- 5.2. Research designs: Quantitative, Qualitative and Mix-design
- 5.3. Methods of data collection in the sociology of sports

Reference:

1. Anthony Giddens and Philip W. Sutton. (2021). Sociology. Cambridge CB2 1UR, UK: Polity Press.
2. Coakley, J. (2009). Sports in Society. New York: Mc Graw Hill.
3. Craig, P. (2016). Sports Sociology. New Delhi: Sage Publications India Pvt Ltd.
4. Giulianotti, R. (2016). Sports: A Critical Sociology. Cambridge, UK: Polity Press.
5. Jarvie, G. (2006). Sports, Culture and Society. eBook: Routledge.
6. Jay Coakley & Eric Dunning. (2000). Handbook of Sports Studies. New Delhi: Sage publication Ltd.
7. Singh, B. (2004). Sports Sociology. New Delhi: Friends Publications.

Review of Related Literature

Paper: III

Full Marks:100

Credit Points:04

Unit-I

Review an Overview

- i. Importance of Literature Review in Research in Physical Education.
- ii. Concept of Historical and Traditional and Scientific Review.

Unit-II

Searching

- i. Print documents –Books, Journals, Thesis, Meta searching for print documents, online public access catalog (OPAC) Visva-Bharati
- ii. Non print documents-CD, DVD, Online, E-books, E journals, E-thesis, Data-base-Abstract: pubmed,/ medline, Indmed, IPL, DOAR, Psycholitetc, Fulltext-Jstore etc

Unit-III

Network

Developing library network (DELNET); UGC Library Information Network (INFLIBNET); E-journal/ E-books (subscribe, Free, Consortium)

Unit-IV

Indexing

Citation index, Index Journal, Referred Journal, Impact No etc.

Unit-V

Presentation and Publication

- i. IJMR guideline for paper publication
- ii. Preparation of a seminar abstract, synopsis and presentation
