

**HNBGU, Srinagar Garhwal
(Uttarakhand)**



SYLLABUS

Bachelor of Physical Education

(B.P.Ed.)

(Two Year Programme)

DEPARTMENT OF PHYSICAL EDUCATION

SCHOOL OF EDUCATION

Semester-I

Part- A Theoretical Course						
Course Code	Title of the papers	Total Hours	Credits	Internal Marks	External marks	Total
Core Course						
SOE/PE/C-101	History of Physical Education	4	4	30	70	100
SOE/PE/C -102	Anatomy and Physiology-I	4	4	30	70	100
SOE/PE/C -103	Health Education and Environmental Studies	4	4	30	70	100
Elective course (Anyone)						
SOE/PE/E-101	Olympic Movement	4	4	30	70	100
SOE/PE/E -102	Officiating and Coaching					
Part – B Practical Course						
SOE/PE/P -101	Football	6	4	30	70	100
SOE/PE/P -102	Hockey	6	4	30	70	100
SOE/PE/P -103	Volleyball	6	4	30	70	100
SOE/PE/PE-101-102	Handball / Basketball	6	4	30	70	100
	Total	40	32	240	560	800

Semester-II

Part- A Theoretical Course						
Course Code	Title of the papers	Total Hours	Credits	Internal Marks	External marks	Total
Core Course						
SOE/PE/C - 201	Anatomy and Physiology- II	4	4	30	70	100
SOE/PE/C - 202	Methods of Teaching in Physical Education	4	4	30	70	100
SOE/PE/C- 203	Organization and Administration	4	4	30	70	100
Elective course(Anyone)						
SOE/PE/E- 201	Sports Nutrition and Weight Management	4	4	30	70	100
SOE/PE/E - 202	Theory of sports and game					
Part – B Practical Course						
SOE/PE/P - 201	Track and Field	6	4	30	70	100
SOE/PE/P - 202	Cricket	6	4	30	70	100
SOE/PE/PE -201-202	Badminton /Table Tennis	6	4	30	70	100
Part – C Teaching Practices						
SOE/PE/T - 201	Teaching Practices: (05 lessons) in light apparatus activities and (05 lessons) of skill in different games)	6	4	30	70	100
Total		40	32	240	560	800

Semester-III

Part- A Theoretical Course						
Course Code	Title of the papers	Total Hours	Credits	Internal Marks	External marks	Total
Core Course						
SOE/PE/C-301	Basic principles of Sports Training	4	4	30	70	100
SOE/PE/C -302	Athlete's care and Rehabilitation	4	4	30	70	100
SOE/PE/C -303	Kinesiology	4	4	30	70	100
Elective Course (Anyone)						
SOE/PE/E-301	Computer Application in Physical Education	4	4	30	70	100
SOE/PE/E-302	Education and Educational Technology					
Part – B Practical Course						
SOE/PE/P -301	Yoga and Gymnastics	6	4	30	70	100
SOE/PE/P-302	Track and Field	6	4	30	70	100
SOE/PE/PE-301-302	Kabaddi / Kho-Kho	6	4	30	70	100
Part – C Teaching Practices						
SOE/PE/T -301	Teaching Practice: (10 Lesson) of Track and Field/ Team Games/ Yoga / Gymnastics / Indigenous sports	6	4	30	70	100
Total		40	32	240	560	800

Semester-IV

Part- A Theoretical Course						
Course Code	Title of the papers	Total Hours	Credits	Internal Marks	External marks	Total
Core Course						
SOE/PE/C-401	Test and Measurement in Physical Education	4	4	30	70	100
SOE/PE/C-402	Sports Psychology and Sociology	4	4	30	70	100
SOE/PE/C-403	Basics Statistics in Physical Education	4	4	30	70	100
Elective Course (Anyone)						
SOE/PE/E-401	Foundation and Principles of Physical Education	4	4	30	70	100
SOE/PE/E-402	Yoga Education					
Part – B Practical Course						
SOE/PE/P -401	Sports specialization: Skill and Game Proficiency (Any one Game & Sports)	6	4	30	70	100
SOE/PE/P -402	Sports specialization: Skill and Game Proficiency (Theory of any one Game & Sports)	6	4	30	70	100
Part – C Teaching Practices (Coaching Lesson)						
SOE/PE/T-401	Sports specialization: Skill (5 coaching lessons)	6	4	30	70	100
SOE/PE/T-402	Sports specialization: Tactics and Training (5 coaching lessons)	6	4	30	70	100
	Total	40	32	240	560	800

**B. P. Ed. – Outline of Syllabus
Theory Courses
Semester – I**

SOE/PE/C-101 History of physical education

Unit – 1: Introduction of Physical Education

- Meaning, Definition, Importance and Scope of Physical Education
- Aims and Objective of Physical Education
- Relationship of Physical Education with General Education.
- Physical Education as an Art and Science.

Unit- 2 – Historical Development of Physical Education in India (Ancient, Medieval and Modern Period)

Ancient Period

- Indus Valley Civilization Period. (3250 BC–2500 BC)
- Vedic Period (2500 BC–600 BC)

Medieval Period

- Hindu Period (600 BC–1000 AD)
- Medieval Period (1000 AD–1757 AD)

Modern Period

- British Period (Before 1947)
- Physical Education in India (After 1947)

Unit- 3- History of Ancient World & Olympic Games

- Physical Education in Ancient Greece, Spartan city state and Athens.
- Physical Education in Ancient Roman.
- Ancient Olympics Games: Origin, Development, Decline & termination.
- Modern Olympics Games: origin, opening & closing ceremony, Olympic Flag & torch.
- IOC, IOA & SAI

Unit-4- Physical Education in Modern World: Role of Pioneers in Globalization of Physical Education-

- **U.S.A.**
- **Denmark**
- **Sweden**
- **Germany**
- **Great Britain**
- **Pioneer Institutions in India**
 - Y.M.C.A., Madras
 - Lucknow Christian College, Lucknow
 - LCPE to LNIPE, Gwalior
 - HVPPM Amravati Maharashtra
 - NSNIS Patiala
- **Schemes & Awards**
 - Rajkumari Amrit Kaur coaching scheme
 - PYKKA to Khelo India
 - Arjuna & Dronacharya Awards
 - Rajiv Gandhi Khel Ratna Award & Maulana Azad Trophy
 - Dhyan Chand Award (Life time achievement award)

➤ Tilu Rauteli Sports Award & Uttarakhand Khel Ratna Awards

References:

- Singh, Ajmer (2014). *Essentials of Physical Education*: New Delhi:Kalyani Publishers.
 Deshpande, S. H. (2014). *Physical Education in Ancient India*. Amravati: Degree college of Physical education.
 Sharman, J. R. (1964). *Introduction to physical education*. New York: A.S. Barnes & Co.

SOE/PE/C-102 ANATOMY AND PHYSIOLOGY- I

Unit-I

- Brief Introduction of Anatomy and physiology and Role in the field of Physical Education.
- Introduction of Cell. Types and Functions of Cell.
- Cell Division-Mitosis and Meiosis.
- Tissue-Its various types and Functions.

Unit-II

- The arrangement of the skeleton – Functions of the skeleton – Ribs and Vertebral column and the extremities.
- Joints of the body, types and fundamental movements.
- The circulatory system: Structure of Human Heart, Circulation of blood, cardiac cycle, blood pressure, Lymph and Lymphatic circulation. Cardiac output.
- Blood: Constituents of blood and their function –Blood groups and blood transfusion, clotting of blood.

Unit-III

- The Respiratory system: The Respiratory passage – the lungs and their structure and exchange of gases in the lungs.
- Mechanism of Respiration (internal and external respiration) lung capacity, tidal volume.
- The Digestive system: structure and functions of the digestive system.
- Digestive organs-Salivary Glands, The Liver, Gall-bladder and Pancreas, Metabolism.

Unit-IV

- Sense organs: A brief account of the structure and functions of the Eye and Ear.
- Structure and functions of the Skin.
- Organs of Taste and Smell.

References:

- Gupta, A. P. (2010). *Anatomy and physiology*. Agra: SumitPrakashan.
 Guyton, A.C. (1996). *Textbook of Medical Physiology*, Philadelphia: W.B. Saunders.
 Karpovich, P. V. *Philosophy of muscular activity*. London: W.B. Saunders Co.
 Lamb, G. S. (1982). *Essentials of exercise physiology*. Delhi: Surjeet Publication.
 Morehouse, L. E. & Miller, J. (1967). *Physiology of exercise*. St. Louis: The C.V. Mosby Co.
 Pearce, E. C. (2004). *Anatomy and physiology for nurses*. London: Faber & Faber Ltd.
 Sharma, R. D. (1979). *Health and physical education*, Gupta Prakashan.

SOE/PE/C-103 HEALTH EDUCATION AND ENVIRONMENTAL STUDIES

Unit – I Health Education

- Concept, Dimensions, Spectrum and Determinants of Health
- Definition of Health, Health Education, Health Instruction, Health Supervision
- Aim, objective and Principles of Health Education
- Personal and Environmental Hygiene for schools

Unit – II Health Problems in India

- Communicable Diseases: (Dengue, Swine Flu, Bird Flu, Typhoid) Causes, Prevention & treatment
- Non Communicable Diseases: (Jaundice, Cancer) Causes, Prevention & treatment
- Life style Diseases: (Obesity, Diabetes and Hypertension)
- Malnutrition, Adulteration in food
- School health services: Objectives and Its Role
- Health Services – Care of skin, Nails, Eye health service, Nutritional service, Health appraisal, Health record, Healthful school environment, first- aid and emergency care etc.

Unit – III Environmental Science

- Definition, Scope, Need and Importance of environmental studies.
- Concept of environmental education, Historical background of environmental education,
- Celebration of various days in relation with environment.
- Plastic recycling & probation of plastic bag / cover.
- Role of school in environmental conservation and sustainable development.

Unit–IV Natural Resources and related environmental issues:

- Water resources, food resources and Land resources
- Definition, effects and control measures of: Air Pollution, Water Pollution, Soil Pollution
- Noise Pollution, Thermal Pollution
- Management of environment and Govt. policies, Role of pollution control board.

References:

- Agrawal, K.C. (2001). *Environmental biology*. Bikaner: Nidhi publishers Ltd.
- Frank, H. & Walter, H., (1976). *Turners school health education*. Saint Louis: The C.V. Mosby Company.
- Nemir, A. *The school health education*. New York: Harber and Brothers.
- Odum, E.P. (1971). *Fundamental of ecology*. U.S.A.: W.B. Saunders Co.

SOE/PE/E-101 OLYMPIC MOVEMENT

Unit – I Origin of Olympic Movement

- Philosophy of Olympic movement
- The early history of the Olympic movement
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- The significant stages in the development of the modern Olympic movement
- Educational and cultural values of Olympic movement

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Unit – II Modern Olympic Games

- Significance of Olympic Ideals, Olympic Rings, Olympic Flag
- Olympic Protocol for member countries
- Olympic code of Ethics
- Olympism in action
- Sports for All

Unit – III Different Olympic Games

- Para Olympic Games
- Summer Olympics
- Winter Olympics
- Youth Olympic Games

Unit – IV Committees of Olympic Games

- International Olympic Committee - Structure and Functions
- National Olympic committees and their role in Olympic movement
- Olympic commission and their functions
- Olympic medal winners of India

Reference:

- Osborne, M. P. (2004). *Magictree house fact tracker: ancient Greece and the Olympics: a nonfiction companion to magic tree house: hour of the Olympics*. New York: Random House Books for Young Readers.
- Burbank, J. M., Heying Boulder, C. H. (2001). *Olympic dreams: the impact of mega-events on local politics*: Lynne Rienner

SOE/PE/E-102 OFFICIATING AND COACHING

Unit- I: Introduction of Officiating and coaching

- Meaning, definition and concept of officiating and coaching
- Importance and principles of officiating
- Relation of official and coach with management, players and spectators
- Measures of improving the standards of officiating and coaching

Unit- II: Coach as a Mentor

- Duties of coach in general, pre, during and post-game.
- Philosophy of coaching
- Responsibilities of a coach on and off the field
- Psychology of competition and coaching

Unit- III: Duties of Official

- Duties of official in general, pre, during and post game.
- Philosophy of officiating
- Mechanics of officiating– position, signals and movement etc.
- Ethics of officiating

Unit- IV: Qualities and Qualifications of Coach and Official

- Qualities and qualification of coach and official
- Significance of rules and regulations of games and sports
- Eligibility rules of intercollegiate and inter-university tournaments, preparation of TA, DA bills
- Role of sports in development of Integrity and Ethical values

References:

- Bunn, J. W. (1968). *The art of officiating sports*. Englewood cliffs N.J. Prentice Hall.
- Dyson, G. H. (1963). *The mechanics of athletics*. London: University of London Press Ltd.
- Ltd. Lawther, J.D. (1965). *Psychology of coaching*. New York: Pre. Hall.
- Singer, R. N. (1972). *Coaching, athletic & psychology*. New York: M.C. Graw Hill.

Semester – II

SOE/PE/C-202 ANATOMY AND PHYSIOLOGY-II

Unit-I

- Muscular System: Types of muscles, Major Muscles in the human body.
- Structure, Composition, Properties and functions of skeletal muscles.
- Muscle Fibers: Types and its characteristics
- Sliding Filament Theory of Muscle contraction.

Unit-II

- Nervous systems: Structure and Function of Brain and Spinal cord.
- The Autonomic nervous system and Peripheral nervous system.
- Nerve control of muscular: activity: Reflex Action.
- Neuro-Muscular Junction Nerve Transmission across it.

Unit-III

- The Excretory system: Structure and functions of the kidneys and the skin.
- The Endocrine glands: Functions of Pituitary, Thyroid, Parathyroid, Adrenal, Pancreatic and the sex glands.
- The Lymphatic System. The Lymphatic Glands the Spleen.

Unit-IV

- Role of oxygen in physical training oxygen debt, second wind.
- Effect of exercise and training on Muscular system.
- Effect of exercise and training on Cardiovascular system.
- Effect of exercise and training on Respiratory system.

References:

- Guyton, A.C. (1996). Textbook of Medical Physiology, Philadelphia: W.B. Saunders.
- Karpovich, P. V. *Philosophy of muscular activity*. London: W.B. Saunders Co.
- Lamb, G. S. (1982). *Essentials of exercise physiology*. Delhi: Surjeet Publication.
- Morehouse, L. E. & Miller, J. (1967). *Physiology of exercise*. St. Louis: The C.V. Mosby Co.
- Pearce, E. C. (2004). *Anatomy and physiology for nurses*. London: Faber & Faber Ltd.
- Sharma, R. D. (1979). *Health and physical education*, Gupta Prakashan.

SOE/PE/C-202 METHODS OF TEACHING IN PHYSICAL EDUCATION

Unit – I Teaching Methods, teaching styles

- Teaching methods: Meaning, types & factor affecting it.
- Teaching style: Introduction, choosing & combination of appropriate style.
- Classification of student: Importance, Method and system of classification.

Unit – II Teaching Technique

- Teaching Technique – Lecture, Command, Demonstration, Imitation, project, mirror method.
- Teaching Procedure – Whole method, whole – part – whole method, part – whole method.
- Presentation Technique–Personal and technical preparation
- Command- Meaning, Types and its uses in different situations.

Unit – III Competitions, Tournaments & Athletic meet

- Intramural & Extramural: meaning, importance and conduct.
- Tournaments: meaning, types
- Knockout tournaments & League: Types, merits & demerits
- Athletic meet: Events, organization & importance

Unit – IV Lesson Planning and Teaching Aids

- Lesson Planning–Meaning, Type, parts and principles of lesson plan.
- General and specific lesson plan.
- Teaching Aids–Meaning, Importance and its criteria for selecting teaching aids.
- Teaching aids – Audio aids, Visual aids, Audio – Visual aids, Verbal, Black board, Charts, Model, Slide projector, Motion picture etc

SOE/PE/C-203 ORGANIZATION AND ADMINISTRATION

Unit – I: Organization and administration

- Meaning and importance of Organization and Administration in physical education
- Qualification and Responsibilities of Physical Education teacher and pupil leader
- Planning and their basic principles,
- Program planning: Meaning, Importance, Principles of program planning in physical education.
- Functions of Planning, organizing, staffing, directing, communicating, co-ordination, controlling, evaluating and innovating.

Unit- II: Office Management, Record, Register & Budget

- Office Management: Meaning, definition, functions and kinds of office management
- Records and Registers: Maintenance of attendance Register, stock register, cash register, physical efficiency record, Medical examination Record.
- Budget: Meaning, Importance of Budget making,
- Criteria of a good Budget, Sources of Income, Expenditure, Preparation of Budget.

Unit-III: Facilities, & Time-Table Management

- Facilities and equipment management: Types of facilities Infrastructure-indoor, out door.
- Care of school building, Gymnasium, swimming pool, Play fields, Play grounds

- Equipment: Need, importance, purchase, care and maintenance.
- Time Table Management: Meaning, Need, Importance and Factor affecting time table.

Unit-IV: Class Management & Public relation

- Class management: Meaning, importance.
- Factors affecting class management, Principles of class management.
- Public relation: Meaning, Importance, Public relation with Media.
- Public speaking: Purpose, Topic, Delivery, Practice, Evaluation of speech.
- Sports Event Intramurals & Extramural Tournament planning

References:

- Broyles, F. J. & Rober, H. D. (1979). *Administration of sports, Athletic programme: A Managerial Approach*. New York: Prentice hall Inc.
- Bucher, C. A. (1983). *Administration of Physical Education and Athletic programme*. St. Louis: The C.V. Mosby Co.
- Thomas, J. P. (1967). *Organization & administration of Physical Education*. Madras: Gyanodayal Press.
- Tirunaryanan, C. & Hariharan, S. (1969). *Methods in Physical Education*. Karaikudi: South India Press.

SOE/PE/E-201 SPORTS NUTRITION AND WEIGHT MANAGEMENT

Unit – I Introduction to Sports Nutrition

- Meaning and Definition of Sports Nutrition
- Basic Nutrition guidelines
- Role of nutrition in sports
- Factor to consider for developing nutrition plan

Unit – II Nutrients: Ingestion to Energy Metabolism

- Carbohydrates, Protein, Fat–Meaning, classification and its function
- Role of carbohydrates, Fat and protein during exercise
- Vitamins, Minerals, Water–Meaning, classification and its function
- Role of hydration during exercise, water balance, Nutrition – daily caloric requirement and expenditure.

Unit – III Nutrition and Weight Management

- Meaning of weight management Concept of weight management in modern era Factor affecting weight management and values of weight management
- Concept of BMI (Body mass index), Myth of Spot reduction, Dieting versus exercise for weight control, Common Myths about Weight Loss
- Obesity–Definition, meaning and types of obesity and its hazard
- Health Risks Associated with Obesity, Obesity - Causes and Solutions for Overcoming Obesity.

Unit – IV Steps of planning of Weight Management

- Nutrition–Daily calorie intake and expenditure, Determination of desirable body weight
- Balanced diet for Indian School Children, Maintaining a Healthy Lifestyle
- Weight management program for sporty child, Role of diet and exercise in weight management
- Design diet plan and exercise schedule for weight gain and loss

References:

- Bessesen, D. H. (2008). Update on obesity. *J Clin Endocrinol Metab.* 93(6), 2027-2034.
- DeMaria, E. J. (2007). Bariatric surgery for morbid obesity. *N Engl J Med*, 356(21), 2176-2183.
- Dixon, J.B., O'Brien, P.E., Playfair, J. Adjustable gastric banding and conventional therapy for type 2 diabetes: a randomized controlled trial. *JAMA.* 299(3), 316-323.

SOE/PE/E-202 THEORY OF SPORTS AND GAMES**Unit-I Introduction of games and sports**

- General Introduction of specialized games and sports–
 - Athletics,
 - Badminton,
 - Basketball
 - Cricket
 - Each game or sports to be dealt under the following heads
 - History and development of the Game and Sports
 - Ground preparation, dimensions and marking
 - Standard equipment and their specifications
 - Ethics of sports and sportsmanship

Unit-II -Games and sports

- General Introduction of specialized games and sports
- Football
- Hockey,
- Handball,
- Volleyball
- Each game or sports to be dealt under the following heads
- History and development of the Game and Sports
- Ground preparation, dimensions and marking
- Standard equipment and their specifications
- Ethics of sports and sportsmanship

Unit-III Scientific Principles of coaching: (particular sports and game specific)

- Motion – Types of motion and Displacement, Speed, Velocity, Acceleration, Distance and Newton's Law of motions.
- Force–Friction, Centripetal and Centrifugal force, Principles of force.
- Equilibrium and its types
- Lever and its types
- Training load–Components, Principles of load, Over Load (causes and symptoms).

Unit-IV Conditioning exercises and warming up.

- Concept of Conditioning and warming up.
- Role of weight training in games and sports.
- Teaching of fundamental skill & their mastery (technique, tactic and different phases of skill acquisition).
- Recreational and Lead up games
- Strategy–Offence and defense, Principles of offence and defense.

References:

- Bunn, J. W. (1968). *The art of officiating sports*. Englewood cliffs N.J. Prentice Hall.

- Bunn, J. W. (1972). *Scientific principles of coaching*. Englewood cliffs N. J. Prentice Hall.
 Dyson, G. H. (1963). *The mechanics of athletics*. London: University of London Press Ltd.
 Lawther, J.D. (1965). *Psychology of coaching*. New York: Pre. Hall.
 Singer, R. N. (1972). *Coaching, athletic & psychology*. New York: M.C. Graw Hill.

Semester – III

SOE/PE/C-301 BASIC PRINCIPLES OF SPORTS TRAINING

Unit – I Introduction to Sports Training

- Meaning and Definition of Sports Training
- Aim and Objective of Sports Training
- Principles of Sports Training
- Adaptation and Super compensation

Unit – II Training Components

- Strength–Means and Methods of Strength Development
- Speed–Means and Methods of Speed Development
- Endurance - Means and Methods of Endurance Development
- Flexibility- Means and Methods of Flexibility Development
- Coordinative abilities- Means and Methods of Development

Unit – III Training Process

- Training Load & Recovery- Definition and Types of Training Load
- Overload- Causes, Symptoms and Remedial Measures
- Technique- Meaning and Phases of Technique Training
- Tactics-Meaning, types and importance in sports performance

Unit – IV Training programming and planning

- Planning– Meaning, Need and Importance of Planning and its Principles
- Types of Training Plans- Macro, Meso, and Micro cycle Plans
- Periodization–Meaning and types of Periodization
- Aim and Content of Training Periods–Preparatory, Competition, Transitional etc.

References:

- Dick, W. F. (1980). *Sports training principles*. London: Lepus
 Harre, D.(1982).*Principles of sports training*. Berlin: Sporulated.
 Matvyew, L.P. (1981). *Fundamental of sports training*. Moscow: Progress Publishers.
 Singh, H. (1984). *Sports training, general theory and methods*. Patiala: NSNIS.
 Uppal, A.K., (1999). *Sports Training*. New Delhi: Friends Publication

SOE/PE/C-302 ATHLETE'S CARE AND REHABILITATION

Unit-I: - Sports Medicine:

- Athletes Care and Rehabilitation: Contribution of Physical Education Teachers and Coaches.
- Need and Importance of the study of sports injuries in the field of Physical Education
- Prevention of injuries in sports–Common sports injuries–Diagnosis–
- First Aid - Treatment - Laceration – Blisters – Contusion - Strain – Sprain – Fracture – Dislocation and Cramps – Bandages – Types of Bandages – trapping & supports
- PRICE.

Unit-II: Physiotherapy

- Definition – Guiding principles of physiotherapy,
- Importance of physiotherapy,
- Introduction and demonstration of treatments - Electrotherapy – infrared rays –
- Introduction and demonstration of treatments -Ultraviolet rays –short wave diathermy – ultrasonic rays.

Unit-III: Hydrotherapy

- Introduction and demonstration of treatments of Cryo therapy, Thermo therapy, Contrast Bath,
- Introduction and demonstration of treatments of Whirlpool Bath, Steam Bath, Sauna Bath, Hot Water Fomentation
- Massage: History of Massage – Classification of Manipulation (Swedish System)
- Physiological Effect of Massage.

Unit-IV: Therapeutic Exercise

- Definition and Scope – Principles of Therapeutic Exercise
- Classification, Effects and uses of Therapeutic exercise
- Passive Movements (Relaxed, Forced and passive - stretching) – active movements (concentric, Eccentric and static) application of the therapeutic exercise:
- Free Mobility Exercise – Shoulder, Elbow – Wrist and Finger Joints Hips, Knee, ankle and Foot joints – Trunk, head and neck exercises.

References:

- Christine, M. D., (1999). *Physiology of sports and exercise*. USA: Human Kinetics.
- David, R. M. (2005). *Drugs in sports*, (4th Ed). Routledge Taylor and Francis Group.
- Jayprakash, C. S., *Sports Medicine*, J.P. Brothers Pub., New Delhi, 2003.
- Pandey, P.K., (1987). *Outline of sports medicine*, New Delhi: J.P. Brothers
- Williams, J. G. P. (1962). *Sports medicine*. London: Edward Arnold Ltd.

SOE/PE/C-303 KINESIOLOGY

Unit – I Introduction to Kinesiology

- Meaning and Definition of Kinesiology.
- Importance of Kinesiology to Physical Education Teacher
- Terminology of Fundamental Movements
- Fundamental concepts of following terms – Axes and Planes, Centre of Gravity, Line of Gravity, Equilibrium, its types and principles of equilibrium

Unit – II Fundamental Concept of Anatomy basis

- Classification of Joints and Muscles
- Types of Muscle Contractions
- Posture–Meaning, Types and Importance of good posture.
- Fundamental concepts of following terms- Angle of Pull, All or None Law, Reciprocal Innovation

Unit – III Mechanical Concepts

- Force & Power- Meaning, definition, types and its application to sports activities
- Lever - Meaning, definition, types and its application to human body.
- Newton’s Laws of Motion–Meaning, definition and its application to sports activities.
- Projectile–Factors influencing projectile trajectory.

Unit – IV Kinematics and Kinetics of Human Movement

- Linear Kinematics–Distance and Displacement, speed and velocity, Acceleration
- Angular kinematics – Angular Distance and Displacement, Angular Speed and velocity, Angular Acceleration.
- Linear Kinetics–Inertia, Mass, Momentum, Friction.
- Angular Kinetics–Moment of inertia, Couple, Stability & factors affecting stability.

A

References:

- Hay, J. G. & Reid, J. G. (1982). *The anatomical and mechanical basis of human motion*. Englewood Cliffs, N.J.: prentice Hall Inc.
- Hay, J. G. & Reid, J. G. (1988). *Anatomy, mechanics and human motion*. Englewood Cliffs, N.J.: prentice Hall Inc.

SOE/PE/E-301 COMPUTER APPLICATIONS IN PHYSICAL EDUCATION

Unit – I: Introduction to Computer

- Meaning, need and importance of information and communication technology (ICT).
Application of Computers in Physical Education
- Components of computer, input and output device
- Application software used in Physical Education and sports

Unit – II: MS Word

- Introduction to MS Word
- Creating, saving and opening a document
- Formatting Editing features Drawing table

- page setup, paragraph alignment, spelling and grammar check printing option, inserting page number, graph, footnote and notes

Unit – III: MS Excel

- Introduction to MS Excel
- Creating, saving and opening spreadsheet
- creating formulas
- Format and editing features adjusting columns width and row height understanding charts.

Unit – IV: MS Power Point

- Introduction to MS Power Point
- Creating, saving and opening a ppt. file
- format and editing features slide show , design , inserting slide number
- picture ,graph ,table
- Preparation of Power point presentations

References:

Irtegov, D. (2004). *Operating system fundamentals*. Firewall Media.

Marilyn, M.& Roberta, B.(n.d.).*Computers in your future*. 2nd edition, India: Prentice Hall.

Milke, M.(2007). *Absolute beginner's guide to computer basics*. Pearson Education

Asia.Sinha, P. K. &Sinha, P. (n.d.).*Computer fundamentals*.4th edition, BPB Publication.

SOE/PE/E-302 EDUCATION AND EDUCATIONAL TECHNOLOGY

Unit – I Introduction

- Education and Education Technology- Meaning, Definitions and Origin
- Types of Education- Formal, Informal and Non- Formal education.
- Educative Process
- Importance of Devices and Methods of Teaching.

Unit – II Policy Framework

- Overview of Education reformation in the Pre-independence: Macaulay minutes, Wood & Despatch, Hunter commissions.
- Education in Post Independence: Mudaliar commission, Education commission, Right to education act, Knowledge commission
- Learning without burden-1993, Justice Verma commission-2012
- Pandit Madan Mohan Malaviya National Mission on Teachers & Training.

Unit – III Understanding the Learner

- Dimension of difference in psychological attributes: Cognitive abilities, interest, aptitude, creativity, personality & self esteem.
- Understanding learners from the perspective of multiple intelligence, Gardner's theory & Emotional intelligence
- Understanding differences based on range of cognitive abilities: learning difficulties, slow learner & dyslexics.

Unit – IV Understanding Teaching

- What is meant by teaching (teaching as a practice, activity & performance).
- Is teaching a profession (Basic characteristics of teaching qualifying it as a profession).

- Teacher Autonomy & Accountability.
- Micro Teaching–Meaning, Types and steps of micro teaching.
- Simulation Teaching - Meaning, Types and steps of simulation teaching.

References:

Bhardwaj, A. (2003). *New media of educational planning*. New Delhi: Sarup of Sons.
Sampath, K., Pannirselvam, A. & Santhanam, S. (1981). *Introduction to educational technology*. New Delhi: Sterling Publishers Pvt. Ltd.

Semester-IV

SOE/PE/C-401 TEST AND MEASUREMENT IN PHYSICAL EDUCATION

Unit- I Introduction to Test, Measurement & Evaluation

- Meaning of Test, Measurement & Evaluation in Physical Education
- Need & Importance of Test, Measurement & Evaluation in Physical Education
- Principles of Evaluation

Unit-II Criteria: Classification and Administration of test

- Criteria of good Test
- Criteria for selection of a tests, scientific authenticity (reliability, objectivity, validity and availability of norms), Economy of tests,
- Type and classification of Test
- Administration of test, advance preparation–Duties during testing–Duties after testing.

Unit- III Physical Fitness, Motor Fitness & General motor Educability Tests & Other Tests

- AAHPER youth fitness test,
- JCR test, Indiana Motor Fitness Test
- Kraus-Weber muscular test
- Methney & Johnson General motor Educability test.
- Stork Balance Test,
- Yo-Yo Test

Unit- IV Sports Skill Tests

- Lockhart & McPherson badminton test, Miller wall volley test
- Johnson basketball test, Knox test
- McDonald soccer test, Johnson soccer test
- Brady volleyball test, Russel Lange volleyball test
- Harbans Singh Hockey test, Henry Friedel Field Hockey test

References:

Barrow, H. M., & McGhee, R. (1997). *A practical approach to measurement in physical education*. Philadelphia: Lea and Febiger.
Kansal, D.K. (1996). *Test and measurement in sports and physical education*. New Delhi: D.V.S. Publications.
Mathews, D.K., (1973). *Measurement in physical education*, Philadelphia: W.B. Saunders Company.
Phillips, D. A., & Hornak, J. E. (1979). *Measurement and evaluation in physical education*. New York: John Wiley and Sons.

SOE/PE/C-402 SPORTS PSYCHOLOGY AND SOCIOLOGY

Unit -I: Introduction

- Meaning, Importance and scope of Educational and Sports Psychology
- General characteristics of Various Stages of growth and development
- Types and nature of individual differences: Factors responsible -Heredity and environment
- Psycho-sociological aspects of Human behavior in relation to physical education and sports

Unit-II: Sports Psychology

- Nature of learning, Plateau in Learning; & transfer of training
- Meaning and definition, characteristics of personality,
- Dimension of personality, Personality and Sports performance
- Nature of motivation: Factors influencing motivation; Motivation and techniques and its impact on sports performance.
- Meaning and nature of stress; Types of stress, Anxiety, Arousal and their effects on sports performance

Unit-III: Relation between Social Science and Physical Education.

- Orthodoxy, Tradition and Physical Education.
- Festivals and Physical Education.
- Socialization through Physical Education, Group dynamics
- Social Group life, Social conglomeration and Social group, Primary group and Remote group.

Unit-IV Society & Culture: Meaning and Importance

- Features of society, class, culture, Custom & folkways
- Importance of society, culture.
- Effects of culture on people life style, Gender & Gender bias.
- Social stratification: forms & function, caste & class

References:

- Ball, D. W. & Loy, J. W. (1975). *Sport and social order; Contribution to the sociology of sport*. London: Addison Wesley Publishing Co., Inc.
- Cratty, B. J.(1968). *Psychology and physical activity*. Eaglewood Cliffs. Prentice Hall.
- Kamlesh, M.L. (1998). *Psychology inphysical education and sport*. New Delhi: Metropolitan Book Co.
- Loy, J. W., Kenyon, G. S. & McPherson, B. D. (1981). *Sports culture and society*. Philadelphia: Lea & Febiger.
- William, F. O. & Meyer, F. N. (1979). *A handbook of sociology*. New Delhi: Eurasia Publishing House Pvt Ltd.

SOE/PE/C-403 BASICS STATISTICS IN PHYSICAL EDUCATION

Unit-I Introduction to Statistics

- Definition of Statistics
- Need and importance of Statistics in Physical Education and Sports.
- Scope of Statistics in Physical Education & Sports.
- Classification of Statistics
- Intervals: Raw Score, Continuous and Discrete Series, Class Distribution, Construction of frequency tables

Unit-II Basics of Statistical Analysis

- Graphical Presentation of Class Distribution: Histogram, Frequency Polygon, Frequency Curve. Cumulative Frequency Polygon, Ogive, Pie Diagram
- 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 ungrouped data
- Range, Standard deviation, Quartiles & Percentiles.

Unit- III The Normal Distribution & Correlation

- Introduction, probability of an event, Binomial distribution
- Normal curve: Introduction, characteristics, Skewness, Kurtosis.
- Correlation: Meaning, type, merits.
- Product-moment correlation, Rank order method

Unit- IV Significant of Test

- Small sample: Introduction, Student t distribution,
- student t-test (independent)
- Paired t-test (dependent)
- Large sample : Z- test

References:

- Garrett, H.E. (1981). *Statistics in psychology and education*. New York: Vakils Feffer and Simon Ltd.
- 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.

SOE/PE/E-401 FOUNDATION AND PRINCIPLES OF PHYSICAL EDUCATION

Unit – 1: Introduction to Physical Education

- concept basic to the nature & meaning of Physical education
- What is an Aim? What are objectives? What are Outcomes?
- Goal of Education, Aim & objectives of Education
- Aim, Objectives & Goal of Physical education
- The Physically educated person.

C

Unit- 2 –Biological Foundation

- Growth & Development: factors affecting, difference between boys and girls
Age & sex difference in relation to physical activities & sports
- Chronological, Anatomical & Physiological age.
- Posture: Meaning, type & disadvantages of bad posture.
- Body type, sheldon's classification of body type.
- Hypokinetic diseases

Unit- 3- Philosophical Foundation of Physical Education

- Idealism and Physical education.
- Pragmatism and Physical education.
- Naturalism and Physical education.
- Existentialism and Physical education.
- Sports for all and its role in the maintenance and promotion of fitness.

Unit-4- Psychosocial Foundation

- Learning
 - Introduction of learning
 - Theories of learning
 - Laws of learning
 - Motor learning
- Social bases
 - Social organisation
 - Socialization through sports
 - Social group, social change, social value

References:

- Bucher, C. A. *Foundation of physical education*. St. Louis: The C.V. Mosby Co.
- Deshpande, S. H. (2014). *Physical Education in Ancient India*. Amravati: Degree college of Physical education.
- Sharman, J. R. (1964). *Introduction to physical education*. New York: A.S. Barnes & Co.
- William, J. F. (1964). *The principles of physical education*. Philadelphia: W.B. Saunders Co.

SOE/PE/E-402 YOGA EDUCATION**Unit – I Introduction**

- Meaning and Definition of Yoga
- Aims and Objectives of Yoga
- Yoga in Early Upanisads
- The Yoga Sutra: General Consideration
- Need and Importance of Yoga in Physical Education and Sports

Unit - II Foundation of Yoga

- The Astanga Yoga: Yama, Niyama, Asana, Pranayama, Pratyahara, Dharana, Dhyana and Samadhi
- Yoga in the Bhagavadgita - Karma Yoga, Raja Yoga, Jnana Yoga and Bhakti Yoga

Unit - III Asanas

- Effect of Asanas and Pranayama on various system of the body
- Classification of asanas with special reference to physical education and sports
- Influences of relaxive, meditative posture on various system of the body
- Types of Bandhas and mudras
- Type of kriyas

Unit – IV Yoga Education

- Basic, applied and action research in Yoga
- Difference between yogic practices and physical exercises
- Yoga education centers in India and abroad
- Competitions in Yogasanas

References:

Brown, F. Y.(2000). *How to use yoga*. Delhi:Sports Publication.
 Shankar,G.(1998). *Holistic approach of yoga*. New Delhi:Aditya Publishers.
 Shekar,K. C. (2003). *Yoga for health*. Delhi: Khe!Sahitya Kendra.

Part – B Practical Courses

Semester – I SOE/PE/P– 101

Football: Fundamental Skills

- Kicks-Inside kick, Instep kick, Outer instep kick, lofted kick
- Trapping-trapping rolling the ball, trapping bouncing ball with sole
- Dribbling-With instep, inside and outer instep of the foot.
- Heading-From standing, running and jumping.
- Throw in
- Feinting-With the lower limb and upper part of the body.
- Tackling-Simple tackling, Slide tackling.
- Goal Keeping-Collection of balls, Ball clearance-kicking, throwing and deflecting.

SOE/PE/P-102

Hockey: Fundamental Skills

- Player stance & Grip, Rolling the ball, Dribbling, Push, Stopping, Hit, Flick & Scoop
- Passing-Forward pass, square pass, triangular pass, diagonal pass, return pass,
- Reverse hit
- Dodging
- Goal keeping-Hand defence, foot defence .
- Positional play in attack and defence.
- Rules and their interpretations and duties of officials.
- Rules and their interpretations and duties of officials.
- Ground Marking.

SOE/PE/P-103

Volleyball: Fundamental Skills

- Players Stance-Receiving the ball and passing to the team mates,
- The Volley (Over-head pass),

- The Dig (Under hand pass).
- Service-Under Arm Service, Side Arm Service, Tennis Service, Round Arm Service.
- Spiking & Blocking
- Rules and their interpretations and duties of officials.

SOE/PE/PE-101

Hand Ball:

- Fundamental Skills-Catching, Throwing, Ball Control, Goal Throws-Jump Shot, Centre Shot, Dive Shot, Reverse Shot, Dribbling-High and Low, Attack and Counter Attack, Simple Counter Attack, Counter Attack from two wings and centre, Blocking, Goal keeping, Defense.
- Rules and their interpretations and duties of officials.

SOE/PE/PE-102

Basketball:

- Fundamental Skills
- Player stance and ball handling
- Passing-Two Hand chest pass, two hands Bounce Pass, One Hand Baseball pass, Side Arm Pass, Over Head pass, Hook Pass.
- Receiving-Two Hand receiving, one hand receiving, receiving in stationary position, receiving while jumping, receiving while running.
- Dribbling-How to start dribble, how to drop dribble, High dribble, Low dribble, Reverse dribble, rolling dribble.
- Shooting-Layup shot and its variations, one hand set shot, one hand jump shot, Hook shot, and Free throw.
- Rebounding-Defensive rebound, Offensive rebound, Knock out, Rebound Organization.
- Individual Defensive-Guarding the man with the ball and without the ball.
- Pivoting.
- Rules and their interpretations and duties of the officials.

Semester-II

SOE/PE/P-201

Track and Field:

Running Event

- Starting techniques: Standing start, Crouch start and its variations, Proper use of blocks.
- Finishing Techniques: Run, Through, Forward lunging, Shoulder Shrug
- Ground Marking, Rules and Officiating
 - Hurdles:
 - Fundamental Skills- Starting, Clearance and Landing Techniques.
 - Types of Hurdles
 - Ground Marking and Officiating.

Relays: Fundamental Skills

- Various patterns of Baton Exchange
- Understanding of Relay Zones

- Ground Marking
- Interpretation of Rules and Officiating.

Jumping Events

Long Jump- Approach Run, Take-off, Action in the air and Landing

Triple Jump-Approach Run, Hop, Step, Jump and Landing

High Jump- Approach Run, Take-off, Bar Clearance and landing

SOE/PE/P- 202

Cricket: Fundamental Skills

- Batting-Forward and backward defensive stroke
- Bowling-Simple bowling techniques
- Fielding-Defensive and offensive fielding
- Catching-High catching and Slip catching
- Stopping and throwing techniques
- Wicket keeping techniques

SOE/PE/PE-201

Badminton: Fundamental Skills

- Racket parts, Racket grips, Shuttle Grips.
- The basic stances.
- The basic strokes-Serves, Forehand-overhead and underarm, Backhand-overhead and underarm
- Drills and lead up games
- Types of games-Singles, doubles, including mixed doubles.
- Rules and their interpretations and duties of officials.

SOE/PE/PE-202

Table Tennis: Fundamental Skills

- The Grip-The Tennis Grip, Pen Holder Grip.
- Service-Forehand, Backhand, Side Spin, High Toss.
- Strokes-Push, Chop, Drive, Half Volley, Smash, Drop-shot, Balloon, Flick Shot, Loop Drive.
- Stance and Ready position and foot work.
- Rules and their interpretations and duties of officials.

SOE/PE/T – 201

Teaching practices: 10 teaching practice lessons out of which 5 lessons in Mass Demonstration activities.5 Skill lessons on team games, Racket sports and Indigenous Sports.

Mass Demonstration activities

Dumbbells, Wands, Hoop, Umbrella, Flag, Lezium, Pom-Pom and March Past

- Apparatus and Light apparatus Grip
- Attention with apparatus and Light apparatus
- Stand-at-ease with apparatus and light apparatus
- Exercise with verbal command, whistle and drum,
- Whistle and music – Two count, four count, eight count and sixteen count.
- Standing Exercise
- Jumping Exercise

- Moving Exercise
- Combination of above all

Semester-III **SOE/PE/P-301**

Yoga:

- Surya Namaskara,
- Pranayams
- Corrective Asanas
- Kriyas
- Asanas-Sitting, Standing, Laying Prone Position and Laying Spine Position

Gymnastics: Floor Exercise

- Forward Roll, Backward Roll, Sideward Roll, different kinds of scales, Leg Split, Bridge, Dancing steps, Head stand, Jumps-leap, scissors leap.
- Approach Run, Take off from the beat board, Cat Vault, Squat Vault.

Parallel Bar:

- Mount from one bar
- Straddle walking on parallel bars.
- Single and double step walk
- Perfect swing
- Shoulder stand on one bar and roll forward.
- Roll side
- Shoulder stand
- Front on back vault to the side(dismount)

SOE/PE/P-302

Track and Fields (Throwing Events)

Discus Throw, Javelin, Hammer throw, shot-put

- Basic Skills and techniques of the Throwing events
- Grip
- Stance
- Release
- Reserve/ (Follow through action)
- Ground Marking / Sector Marking
- Interpretation of Rules and Officiating.
Rules and their interpretations and duties of officials

SOE/PE/PE-301

Kabaddi: Fundamental Skills

- Skills in Raiding-Touching with hand, various kicks, crossing of baulk line, Crossing of Bonus line, luring the opponent to catch, Pursuing.
- Skills of Holding the Raider-Variou formations, Catching from particular position, Different catches, Luring the raider to take particular position so as to facilitate catching,
- Catching formations and techniques.
- Additional skills in raiding-Bringing the antis in to particular position, escaping from

various hold, Techniques of escaping from chain formation, Combined formations in offence and defense.

- Ground Marking, Rules and Officiating

SOE/PE/PE-302

KhoKho:

- General skills of the game-Running, chasing, Dodging, Faking etc.
- Skills in chasing-Correct Kho, Moving on the lanes, Pursuing the runner, Tapping the inactive runner, Tapping the runner on heels, Tapping on the pole, Diving, Judgment in giving Kho, Rectification of Foul.
- Skills in Running-Zigzag running, Single and double chain, Ring play, Rolling in the sides, Dodging while facing and on the back, fakes on the pole, fake legs, body arm etc, Combination of different skills.
- Ground Marking
- Rules and their interpretations and duties of officials.

SOE/PE/T – 301

Teaching practices: 10 lessons of Track and Field, Team games, Yoga and Gymnastics.

Semester-IV

SOE/PE/P-401

Sports Specialization: Skill proficiency (any one games& Sports)

Note: - Games specialization will be given in following Games and sports: Athletics, badminton, basketball, cricket, football, handball, hockey, kabaddi, kho-kho, table-tennis, volleyball and yoga. Student will select one Game specialization.

SOE/PE/P-402

Sports Specialization: Tactics and training (any one games & Sports)

SOE/PE/T-401

Sports Specialization: Skill (5 Lessons)

SOE/PE/T-402

Sports Specialization: Tactics and training (5 Lessons)