

**HNBGU, Srinagar Garhwal  
(Uttarakhand)**



**SYLLABUS**

**Bachelor of Physical Education**

**(B.P.Ed.)**

**(Two Year Programme)**

**DEPARTMENT OF PHYSICAL EDUCATION  
SCHOOL OF EDUCATION**

### Semester-I

<b>Part- A Theoretical Course</b>						
Course Code	Title of the papers	Total Hours	Credits	Internal Marks	External marks	Total
<b>Core Course</b>						
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
<b>Elective course(Anyone)</b>						
SOE/PE/E-101	Olympic Movement	4	4	30	70	100
SOE/PE/E -102	Officiating and Coaching					
<b>Part – B Practical Course</b>						
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
	<b>Total</b>	40	32	240	560	800

### Semester-II

<b>Part- A Theoretical Course</b>						
Course Code	Title of the papers	Total Hours	Credits	Internal Marks	External marks	Total
<b>Core Course</b>						
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
<b>Elective course(Anyone)</b>						
SOE/PE/E- 201	Sports Nutrition and Weight Management	4	4	30	70	100
SOE/PE/E - 202	Theory of sports and game					
<b>Part – B Practical Course</b>						
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
<b>Part – C Teaching Practices</b>						
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
<b>Total</b>		40	32	240	560	800

### Semester-III

<b>Part- A Theoretical Course</b>						
Course Code	Title of the papers	Total Hours	Credits	Internal Marks	External marks	Total
<b>Core Course</b>						
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
<b>Elective Course (Anyone)</b>						
SOE/PE/E-301	Computer Application in Physical Education	4	4	30	70	100
SOE/PE/E-302	Education and Educational Technology					
<b>Part – B Practical Course</b>						
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
<b>Part – C Teaching Practices</b>						
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

<b>Part- A Theoretical Course</b>						
Course Code	Title of the papers	Total Hours	Credits	Internal Marks	External marks	Total
<b>Core Course</b>						
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
<b>Elective Course (Anyone)</b>						
SOE/PE/ E-401	Foundation and Principles of Physical Education	4	4	30	70	100
SOE/PE/ E-402	Yoga Education					
<b>Part – B Practical Course</b>						
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
<b>Part – C Teaching Practices (Coaching Lesson)</b>						
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.

## COURSE OUTCOME, PROGRAM OUTCOME & PROGRAM SPECIFIC OUTCOME

### Paper: History of Physical Education (SOE/PE/C-101)

#### Course Outcomes:

- Students will understand the meaning, aim and objectives of Physical Education.
- Students will be explained about the historical development of Physical Education in India.
- Students will be able to understand the role of European countries in development of Physical Education subject and discipline.
- Students will know the role of pioneer institutes in the field of Physical Education in India.
- Students will get knowledge about various Sports promotion schemes and sports awards.
- Students will get detail idea about Olympic movement; Ancient and Modern Olympic Games.

#### Program Specific Outcomes:

This course in the B.P.Ed. I<sup>st</sup> Semester provides the basic but very important knowledge about the origin, evolution and present state of Physical Education in India and at world stage. The content of this program enables the student to get acquaint with field of Education.

#### Program Outcomes:

The students will acquire knowledge about the Historical evolution of Physical Education discipline in India and at world stage.

## 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.



**COURSE OUTCOME, PROGRAM OUTCOME & PROGRAM SPECIFIC OUTCOME****Paper: Anatomy & Physiology-I (SOE/PE/C-102)****Course Outcomes:**

- Students will understand the significance of Anatomy & Physiology in the field of Physical Education.
- Students will be able to know about the structure of human body.
- Students will understand the functioning of Heart, Blood, Respiratory System, Digestive System, Sense organs, and various glands.
- Students will know about various body movements and role of different joints in it.

**Program Specific Outcomes:**

The course provides the students an understanding of Human body structure and its functions. The mechanics of various systems of the body will make the students aware the factors affecting its performance.

**Program Outcomes:**

The students will know about the structure and functioning of various body parts, organs and systems and how does body act as a whole unit.

## **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.

**COURSE OUTCOME, PROGRAM OUTCOME & PROGRAM SPECIFIC OUTCOME****Paper: Health Education & Environment Studies (SOE/PE/C-103)****Course Outcomes:**

- The students will learn about meaning, concept, dimensions and determinants of Health.
- The students will understand about the significance of Hygiene in human life and health.
- The students will be able to know about various communicable diseases prevalent in the society, their prevention and treatment.
- The students will understand the meaning and value of Environment Science in human life.
- The students will know about various types of Pollutions. Its hazards and pollution management's strategies.

**Program Specific Outcomes:**

The course provides the students valuable knowledge about the Health, related issues various communicable disease, its preventive measures, Environment Science and pollution related issues will enable the students to know about.

**Program Outcomes:**

The students will be able to understand the concept of health and related issues in detail. They will also learn about Environmental Science and relevant topics which affect human life and health.

## SOE/PE/E-101 OLYMPIC MOVEMENT

### Unit – I Origin of Olympic Movement

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

### 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

**COURSE OUTCOME, PROGRAM OUTCOME & PROGRAM SPECIFIC OUTCOME****Paper: Olympic Movement (SOE/PE/E-101)****Course Outcomes:**

- The students will learn about origin of Ancient Olympic Games.
- The students will understand about evolution of Modern Olympic Games.
- The students will understand the various ceremonies and important aspect of Modern Olympic Games.
- The students will get knowledge about structure and function of International Olympic Committee.

**Program Specific Outcomes:**

The course provides the detail knowledge to students about origin, evolution of Olympic movements. Present scenario of structure and expansion of Olympic Games in different variations like: Para Olympic Games, Winter Olympics, Youth Olympic Games etc.

**Program Outcomes:**

The students will get the inside out knowledge about the journey of Olympic Games- Ancient and Modern. They will get the idea of organisation of Olympic Games and various working bodies in this field.

## **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.

**COURSE OUTCOME, PROGRAM OUTCOME & PROGRAM SPECIFIC OUTCOME****Paper: Officiating and Coaching (SOE/PE/E-102)****Course Outcomes:**

- The students will be able to know about the meaning and concept of officiating and its principles in detail.
- The students will be able to understand about coaching; Principles and Philosophies, role of Coach on and off the field.
- The students will get knowledge about the duties and responsibilities of an official.
- The students will be able to get idea of qualities required to be a good coach & official.
- The students will be able to know about the role of Coach as Mentor.

**Program Specific Outcomes:**

The content of this program gives vital information about nuances of Officiating and Coaching, their principles, qualities and qualification of a Coach and Official.

**Program Outcomes:**

The program will enable the student to know about Officiating and Coaching; two vital parts of Physical Education disciplines in detail. It will help them to understand to Technique and qualities required to be a successful professional.

## 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.



**COURSE OUTCOME, PROGRAM OUTCOME & PROGRAM SPECIFIC OUTCOME****Paper: Anatomy & Physiology-II (SOE/PE/C-201)****Course Outcomes:**

- The students will be able to know about muscles in human body; its structures and functions.
- The students will understand the structure and functions of Nervous System, its types and Neuro muscular junction.
- The students will get knowledge of Excretory organs and their functions in the body.
- The students will know about the effects of various types of training on different systems of human body like: Muscular System, Cardiovascular System, and Respiratory System.

**Program Specific Outcomes:**

The program will enable the students to know about muscles and its types, mechanism of muscular contraction and Neuro-Muscular function. The students will be acquainted with the knowledge of Nervous System- structure, functions and its role in Human body. This course provides valuable information about the effect of different training programs on various systems which will allow them to design the training program as per the need and requirement of Human body.

**Program Outcomes:**

The students will acquire knowledge about the functioning of vital systems of human body and effects of training program on them.

## **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

**COURSE OUTCOME, PROGRAM OUTCOME & PROGRAM SPECIFIC OUTCOME****Paper: Methods of Teaching in Physical Education (SOE/PE/C-202)****Course Outcomes:**

- The students will learn about various types of teaching methods used in Physical Education, their principles and Merits/ Demerits.
- The students will be able to know about classification of students: Importance and methods of classification.
- The students will understand about various types of competitions: Intramural and Extramural. Their organisational setup, various committees and their functions.
- The students will be able to learn about methods of drawing fixtures.
- The students will know how to prepare a lesson plan and use of teaching aids for effective teaching in Physical Education class.

**Program Specific Outcomes:**

Program content provides opportunity to the students for learning about important methods used for teaching in Physical Education like: lecture, command, demonstration, imitation, project, mirror, whole part- whole method etc. It allows the students to get the idea of preparing a lesson plan as per the need of students and demand of situation by using effective teaching aids.

**Program Outcomes:**

The students will understand about the teaching methods, teaching aids, classification of students, and its significance in learning. They will also get idea of drawing fixtures for various types of tournaments.

## 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.
- Tirunarayanan, C. & Hariharan, S. (1969). *Methods in Physical Education*. Karaikudi: South India Press.

**COURSE OUTCOME, PROGRAM OUTCOME & PROGRAM SPECIFIC OUTCOME****Paper: Organisation and Administration (SOE/PE/C-203)****Course Outcomes:**

- The students will know about the meaning and concept of Organisation and Administration.
- The students will be able to learn about the role of administration for smooth functioning in Physical Education.
- The students will learnt about office management and related things like: Records, and Registers (various types)
- The students will get the idea of preparing budget and its importance in the field of Physical Education.
- The student will be able to know about Public relation and its significance in successful organisation of sports events.

**Program Specific Outcomes:**

This program will enable the student to understand the concept of organisation, administration, management (office and class) and Budgeting in Physical Education. It allows knowing about the need, purchase, care and maintenance of various facilities in the Physical Education department. The content on Public relation and Tournament planning will educate the students about successful functioning.

**Program Outcomes:**

The students will learn about intricacies of administration and organisation in the field of Physical Education and its significance for successful organisation of various Physical Education activities.

## **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 weigh
- 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 ClinEndocrinolMetab.* 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.

**COURSE OUTCOME, PROGRAM OUTCOME & PROGRAM SPECIFIC OUTCOME****Paper: Sports Nutrition and Weight Management (SOE/PE/E-201)****Course Outcomes:**

- The students will be able to know about the concept of Nutrition and Sports Nutrition.
- The students will understand the role of Macro and Micro Nutrients in energy liberation and their significance for Physical work.
- The students will get idea of weight management and related issues like obesity and Diabetes.
- The students will be able to learn about the weight management technique by using balance diet program.
- The student will know to prepare a balance diet chart as per individual's requirement.

**Program Specific Outcomes:**

The program content will make students aware about Nutrition, its role in weight management and healthy life. It will also help them to understand about obesity, its causes and overcoming measures through nutritional diet program.

**Program Outcomes:**

The students will know about the Nutrition and its importance for Physical Education teachers. The related issue like weight management, obesity, balance diet, etc will help them to get best out of an individual/ trainee.

## 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.

**COURSE OUTCOME, PROGRAM OUTCOME & PROGRAM SPECIFIC OUTCOME****Paper: Theory of Sports and Games (SOE/PE/E-202)****Course Outcomes:**

- The students will be able to understand about the basic rules and regulations and historical development of various games.
- The students will know about dimensions and measurements of the courts/grounds in various games.
- The students will learn about marking used in different games and sports.
- The students will know about conducting conditioning program and exercises used in it.
- The students will be able to know about application of Physics in sports world and its role in Sports Management.

**Program Specific Outcomes:**

The program content will make the students to get the detailed knowledge about games like Athletics, Badminton, Basketball, Cricket, football, Hockey, Handball and Volleyball. They will also understand the techniques and procedure of marking different playfields, important rules-regulations, officiating signals and infrastructural facilities required for organising any game. This course will allow the students to get the idea of science involved in sports through topics like Motion and its types, Force, Equilibrium, lever, and Training Load etc.

**Program Outcomes:**

The program will enable the student to get knowledge of History, officiating, rules-regulations, measurement, marking, equipments and kits of various popular games and prepare themselves as a professional Physical Educationist.

## 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

**COURSE OUTCOME, PROGRAM OUTCOME & PROGRAM SPECIFIC OUTCOME****Paper: Basic Principles of Sports Training (SOE/PE/C-301)****Course Outcomes:**

- The students will know about the meaning, aim and objective of Sports Training.
- The students will learn about basic principles of Sports Training.
- The students will understand the concept of Adaptation and Supercompensation in Sports Training.
- The students will be able to learn the methods of developing fitness components.
- The students will get idea of planning, its types and principles used in Sports Training and concept of Periodisation.

**Program Specific Outcomes:**

The program will enable the students to know about meaning and significance of Sports Training in Sports. The students will learn about important methods applied for development of fitness components like: Speed, Strength, Endurance, Flexibility and Co-ordinative abilities. It also provides opportunity to know about Load dynamics, overload, technique and tactics; their importance in Sports Training. Planning and Periodization will make the student aware about practical aspect of Sports Training.

**Program Outcomes:**

The students will be able to acquire knowledge of Sports Training, its principles and different methods of training to improve various Physical parameters and skill. They will also learn about Planning and Periodisation in Sports Training.

## 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.

**COURSE OUTCOME, PROGRAM OUTCOME & PROGRAM SPECIFIC OUTCOME****Paper: Athlete's Care and Rehabilitation (SOE/PE/C-302)****Course Outcomes:**

- The students will learn about Rehabilitation and its significance for a sports person.
- The students will be able to understand about the causes, prevention and treatment of Sports injuries.
- The students will know about First aid and various types of therapies used for treatment of injuries in Sports.
- The students will know the history and different types of massage their indications and contraindications.
- The students will be able to learn about various types of therapeutic exercises and their significance for Sports person.

**Program Specific Outcomes:**

The program provides opportunity to understand the concept of Rehabilitation and Athlete's Care and its importance in modern days of Sports performance. It allows the students to know about use of First aid, bandages, therapies like Electrotherapy, Short wave, Diathermy, Cryo therapy, Steam and Sauna bath etc. It makes the students to know about various therapeutic exercises and significance in their training program.

**Program Outcomes:**

The students will learn about Care and Rehabilitation of Sports person and causes, prevention & treatment of various Sports Injuries through different therapeutic modalities.

## 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.

### 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.

**COURSE OUTCOME, PROGRAM OUTCOME & PROGRAM SPECIFIC OUTCOME****Paper: Kinesiology (SOE/PE/C-303)****Course Outcomes:**

- The students will be able to learn the meaning and importance of Kinesiology of Physical Education teacher.
- The students will know about various types of joints and movements in Human body.
- The students will understand the application of Physics to the Sports setting.
- The students will learn about Newton's laws of Motion and its application in the field of Physical Education and Sports.
- The students will be able to know about kinematics and kinetics of Human movement.

**Program Specific Outcomes:**

The program will provide opportunities to the students to learn about the Kinesiology and its application in Sports. It will allow them to know about Physical principles and concept applied in Sports and role of Kinetics and Kinematics in Human movement.

**Program Outcomes:**

The students will know about Human motion/ movements and related issues like joints and their functions. They will also know about application of Physics in Human body movements.

## 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.



**COURSE OUTCOME, PROGRAM OUTCOME & PROGRAM SPECIFIC OUTCOME****Paper: Computer Application in Physical Education (SOE/PE/E-301)****Course Outcomes:**

- The students will know about meaning and importance of ICT to the Physical Education Teacher.
- The students will understand about the concept of MS Word and its functioning.
- The students will know about making MS Excel sheets and working on it.
- The students will learn to prepare Power point presentation by using various types of designs and combinations.

**Program Specific Outcomes:**

The program content will enable the students to learn about MS Word, MS Excel and Power point and make use of it for effective presentation and teaching purpose in Physical Education.

**Program Outcomes:**

The students will understand about the Computer application in the field of Physical Education teaching by use of MS Word, MS Excel, Power Point etc, for effective teaching.

## **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.

**COURSE OUTCOME, PROGRAM OUTCOME & PROGRAM SPECIFIC OUTCOME****Paper: Education and Educational Technology (SOE/PE/E-302)****Course Outcomes:**

- The students will be able to understand the meaning and importance of Education Technology in the field of Physical Education.
- The students will know about various commissions and their reports on Education reforms in the country.
- The students will be explained about Micro teaching and Simulation teaching- Steps and its types.

**Program Specific Outcomes:**

The program will provide the understanding of Education technology and various types of Education prevail in contemporary society. The students will learn about Policy framework in Education sector, various commissions in Pre and Post Independence period. The content of the program will also educate the students about meaning and significance of Micro and Simulation teaching in actual teaching.

**Program Outcomes:**

The students will get knowledge about Educational Technology, use of Micro and Simulation teaching and its significance in Physical Education classes and activities.

## 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 Willey and Sons.

**COURSE OUTCOME, PROGRAM OUTCOME & PROGRAM SPECIFIC OUTCOME****Paper: Test and Measurement in Physical Education (SOE/PE/C-401)****Course Outcomes:**

- The students will learn about concept of Test, Measurement and Evaluation and their significance in the Physical Education teaching and Research.
- The students will be able to know about test construction and various technical standards related to it.
- The students will understand the duties of a tester- pre, during and post test.
- The students will know about various fitness tests prevalent in the field of Physical Education.
- The students will also get idea of conducting skill test in various games.

**Program Specific Outcomes:**

The program provides opportunity to the students to understand the importance of Test, Measurement and Evaluation in Physical Education. It also enables the students to know about various tests, their construction procedure, administration and utilization in the field of Physical Education.

**Program Outcomes:**

The students will acquire the knowledge of Test and Measurement and its significance in the Field of Physical Education teaching and activities.

## 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 in physical 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.

**COURSE OUTCOME, PROGRAM OUTCOME & PROGRAM SPECIFIC OUTCOME****Paper: Sports Psychology and Sociology (SOE/PE/C-402)****Course Outcomes:**

- The students will know about meaning and importance of Sports Psychology for Physical Education Teacher.
- The students will be able to learn about various vital issues like Motivation, Personality, Learning, Anxiety and Stress.
- The students will be able to understand the concept of Socialisation and its significance in the field of Physical Education.
- The students will understand the impact of culture, custom and folkways on people life style.

**Program Specific Outcomes:**

The program content provides the understanding of Sports Psychology and its significance in the field of Physical Education. It will also educate the students about impact of various Psychological issues on Sports performance and methods of controlling them. The social aspect of human behaviour and its consequences will make students aware about inter personal relationship in Physical Education.

**Program Outcomes:**

The students will learn about Sports Psychology and Its significance in positive sports performance. They will also know to utilize the Psychological consideration for improving learning in Physical Education.

## **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 ungroup 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.



**COURSE OUTCOME, PROGRAM OUTCOME & PROGRAM SPECIFIC OUTCOME****Paper: Basic Statistics in Physical Education (SOE/PE/C-403)****Course Outcomes:**

- The students will be able to understand the meaning, need and importance of Statistics in Physical Education.
- The students will know about various statistical techniques and their use in the field of Physical Education.
- The students will be able to understand about normal curve.
- The students will know about the application of descriptive and inferential statistics and their use in Physical Education.

**Program Specific Outcomes:**

The program will provide the understanding of Statistics, its use and importance in Physical Education. Study of central tendencies and Measure of variability will allow the students to interpret and various graphs will make data presentation more effective and meaningful.

**Program Outcomes:**

The students will understand about Statistics and Statistical applications in Physical Education.

## 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.

### 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.

**COURSE OUTCOME, PROGRAM OUTCOME & PROGRAM SPECIFIC OUTCOME****Paper: Foundation and Principles of Physical Education (SOE/PE/E-401)****Course Outcomes:**

- The students will be able to understand the goal, aim and objectives of Education and Physical Education.
- The students will learn about the Growth and Development and various types of age and its consideration for sports activities.
- The students will be able to understand the concept of Posture- types and disadvantages of bad posture, remedial measures to overcome it.
- The students will know about various Education philosophies and their relevance in the field of Physical Education.
- The students will also understand about Psychological and Sociological issues related to human behaviour.

**Program Specific Outcomes:**

The students will be provided understanding of various aspects- Biological, Philosophical and Psychological foundations of Physical Education. The students will also learn about different Philosophies given by great Philosophers and its relevance and significance in modern Physical Education. They will also be explained about different biological aspects like age, sex, body types and their relationship to Physical Education activities.

**Program Outcomes:**

The students will understand about the various issues like Growth & Development posture, Postural Deformities and remedial measures. They will also get the knowledge of various Philosophies of Education used in the field of Physical Education.

## 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 relaxtive, 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: KhelSahitya Kendra.

**COURSE OUTCOME, PROGRAM OUTCOME & PROGRAM SPECIFIC OUTCOME****Paper: Yoga Education (SOE/PE/E-402)****Course Outcomes:**

- The students will be able to know about meaning, origin, aim and objectives of Yoga.
- The students will know about the importance of Yoga in Physical Education.
- The students will learn about the parts of Ashtanga Yoga.
- The students will also understand the difference between Yogic practices and Physical Exercises.

**Program Specific Outcomes:**

The program content will provide the understanding of Yoga- its origin, meaning and relevance to Physical Education field. It will also educate about the parts of Ashtanga Yoga, various types of Asanas, Meditative posture, Bandhas, Mudras, Kriyas, and its impact on human body.

**Program Outcomes:**

The students will know about the origin and Historical development and types of Yoga. They will be enabling to learn the use of Asthanga Yoga for better human performance in the field of Physical Education and Sports.

**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)

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