

**Semester – I****Theory Courses****CC-101 HISTORY, PRINCIPLES AND FOUNDATION OF PHYSICAL EDUCATION****Unit – 1: Introduction**

- Meaning, Definition and Scope of Physical Education
- Aims and Objective of Physical Education
- Importance of Physical Education in present era.
- Misconceptions about 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**

- Indus Valley Civilization Period. (3250 BC – 2500 BC)
- Vedic Period (2500 BC – 600 BC)
- Early Hindu Period (600 BC – 320 AD) and Later Hindu Period (320 AD – 1000 AD)
- Medieval Period (1000 AD – 1757 AD)
- British Period (Before 1947)
- Physical Education in India (After 1947)
- Contribution of Akhadas and Vyayamshals
- Y.M.C.A. and its contributions.

**Unit-3- Foundation of Physical Education**

- Philosophical foundation:
- Idealism, Pragmatism, Naturalism, Realism, Humanism, Existentialism and Indian Philosophy and Culture.
- Fitness and wellness movement in the contemporary perspectives
- Sports for all and its role in the maintenance and promotion of fitness.

**Unit-4- Principles of Physical Education**

- Biological
  - Growth and development
  - Age and gender characteristics
  - Body Types
  - Anthropometric differences
- Psychological
  - Learning types, learning curve
  - Laws and principles of learning
  - Attitude, interest, cognition, emotions and sentiments

- Sociological
  - Society and culture
  - Social acceptance and recognition
  - Leadership
  - Social integration and cohesiveness

**References:**

Bucher, C. A. (n.d.) *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.

Mohan, V. M. (1969). *Principles of physical education*. Delhi: Metropolitan Book Dep. Nixon, E. E. & Cozen, F.W. (1969). *An introduction to physical education*. Philadelphia: W.B. Saunders Co.

Obertuffer, (1970). *Delbert physical education*. New York: Harper & Brothers Publisher. 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.

## Semester I Theory Courses

### CC-102 ANATOMY AND PHYSIOLOGY

#### UNIT-I

- Brief Introduction of Anatomy and physiology in the field of Physical Education.
- Introduction of Cell and Tissue.
- The arrangement of the skeleton – Function - of the skeleton – Ribs and Vertebral column and the extremities – joints of the body and their types
- Gender differences in the skeleton.
- Types of muscles.

#### UNIT-II

- **Blood and circulatory system:** Constituents of blood and their function –Blood groups and blood transfusion, clotting of blood, the structure of the heart-properties of the heart muscle, circulation of blood, cardiac cycle, blood pressure, Lymph and Lymphatic circulation. Cardiac output.
- **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, Metabolism,
- **The Excretory system:** Structure and functions of the kidneys and the skin.
- **The Endocrine glands:** Functions of glands pituitary, Thyroid, Parathyroid. Adrenal, Pancreatic and the sex glands.
- **Nervous systems:** Function of the Autonomic nervous system and Central nervous system. Reflex Action,
- **Sense organs:** A brief account of the structure and functions of the Eye and Ear.

#### UNIT-III

- Definition of physiology and its importance in the field of physical education and sports.
- Structure, Composition, Properties and functions of skeletal muscles.
- Nerve control of muscular activity:
- Neuromuscular junction
- Transmission of nerve impulse across it.
- Fuel for muscular activity
- Role of oxygen- physical training, oxygen debt, second wind, vital capacity.

#### UNIT-IV

- Effect of exercise and training on cardiovascular system.
- Effect of exercise and training on respiratory system.
- Effect of exercise and training on muscular system
- Physiological concept of physical fitness, warming up, conditioning and fatigue.
- Basic concept of balanced diet – Diet before, during and after competition.

**References:**

- Gupta, A. P. (2010). *Anatomy and physiology*. Agra: SumitPrakashan.
- Gupta, M. and Gupta, M. C. (1980). *Body and anatomical science*. Delhi: Swaran Printing Press.
- Guyton, A.C. (1996). *Textbook of Medical Physiology*, 9th edition. Philadelphia: W.B. Saunders.
- Karpovich, P. V. (n.d.). *Philosophy of muscular activity*. London: W.B. Saunders Co.
- Lamb, G. S. (1982). *Essentials of exercise physiology*. Delhi: Surjeet Publication.
- Moorthy, A. M. (2014). *Anatomy physiology and health education*. Karaikudi: Madalayam Publications.
- Morehouse, L. E. & Miller, J. (1967). *Physiology of exercise*. St. Louis: The C.V. Mosby Co.
- Pearce, E. C. (1962). *Anatomy and physiology for nurses*. London: Faber & Faber Ltd.
- Sharma, R. D. (1979). *Health and physical education*, Gupta Prakashan.
- Singh, S. (1979). *Anatomy of physiology and health education*. Ropar: Jeet Publications.

## Semester I

### Theory courses

#### CC-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
- Health Service and guidance instruction in personal hygiene

##### Unit – II Health Problems in India

- Communicable and Non Communicable Diseases
- o Obesity, Malnutrition, Adulteration in food, Environmental sanitation, Explosive
- Population,
- Personal and Environmental Hygiene for schools
- Objective of school health service, Role of health education in schools
- 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 & prohibition 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. (n.d.). *The school health education*. New York: Harber and Brothers. Odum, E.P. (1971). *Fundamental of ecology*. U.S.A.: W.B. Saunders Co.

**Semester – I Theory courses**  
**EC-101 OLYMPIC MOVEMENT (ELECTIVE)**

**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., Andranovich, G. D. & Heying Boulder, C. H. (2001). *Olympic dreams: the impact of mega-events on local politics*: Lynne Rienner

**Semester – I Theory courses**  
**EC-102 OFFICIATING AND COACHING (Elective)**

**Unit- I: Introduction of Officiating and coaching**

- 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, singles and movement etc.
- Ethics of officiating

**Unit- IV: Qualities and Qualifications of Coach and Official**

- Qualities and qualification of coach and official
- General rules of games and sports
- Eligibility rules of intercollegiate and inter-university tournaments, preparation of TA, DA bills
- Integrity and values of sports

**Reference Books:**

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. 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 – II

### Theory Courses

#### CC-201 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 relaxative, 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.
- Gharote, M. L. &Ganguly, H. (1988). *Teaching methods for yogic practices*.Lonawala: Kaixydahmoe.
- Rajjan, S. M. (1985). *Yoga strenthening ofrelexation for sports man*. New Delhi:Allied Publishers.
- Shankar,G.(1998). *Holistic approach of yoga*. New Delhi:Aditya Publishers.
- Shekar,K. C. (2003). *Yoga for health*. Delhi: Khel Sahitya Kendra.



## Semester – II

### Theory Courses

#### CC-202 EDUCATIONAL TECHNOLOGY AND METHODS OF TEACHING IN PHYSICAL EDUCATION

##### Unit – I Introduction

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

##### Unit – II Teaching Technique

- Teaching Technique – Lecture method, Command method, Demonstration method, Imitation method, project method etc.
- 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 Teaching Aids

- Teaching Aids – Meaning, Importance and its criteria for selecting teaching aids.
- Teaching aids – Audio aids, Visual aids, Audio – visual aids, Verbal, Chalk board, Charts, Model, Slide projector, Motion picture etc
- Team Teaching – Meaning, Principles and advantage of team teaching.
- Difference between Teaching Methods and Teaching Aid.

##### Unit – IV Lesson Planning and Teaching Innovations

- Lesson Planning – Meaning, Type and principles of lesson plan.
- General and specific lesson plan.
- Micro Teaching – Meaning, Types and steps of micro teaching.
- Simulation Teaching - Meaning, Types and steps of simulation teaching.

##### Reference:

- Bhardwaj, A. (2003). *New media of educational planning*. New Delhi: Sarup of Sons. Bhatia, & Bhatia, (1959). *The principles and methods of teaching*. New Delhi: Doaba House. Kochar, S.K. (1982). *Methods and techniques of teaching*. New Delhi: Sterling Publishers Pvt. Ltd.
- Sampath, K., Pannirselvam, A. & Santhanam, S. (1981). *Introduction to educational technology*. New Delhi: Sterling Publishers Pvt. Ltd.
- Walia, J.S. (1999). *Principles and methods of education*. Jullandhar: Paul Publishers.

## Semester – II Theory Courses

### CC-203 ORGANIZATION AND ADMINISTRATION IN PHYSICAL EDUCATION

#### 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: Competition Organization

- Importance of Tournament,
- Types of Tournament and its organization structure - Knock-out Tournaments, League or Round Robin Tournaments, Combination Tournament and challenge Tournament.
- Organization structure of Athletic Meet
- 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.
- Kozman, H.C. Cassidy, R. & Jackson, C. (1960). *Methods in Physical Education*. London: W.B. Saunders Co.
- Pandy, L.K. (1977). *Methods in Physical Education*. Delhi: Metropolitan Book Depo.

Sharma, V.M. & Tiwari, R.H.: (1979). *Teaching Methods in Physical Education*. Amaravati: Shakti Publication.

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.

Voltmer, E. F. & Esslinger, A. A. (1979). *The organization and administration of Physical Education*. New York: Prentice Hall Inc.

**Semester – II Theory Courses**  
**EC-201 CONTEMPORARY ISSUES IN PHYSICAL EDUCATION, FITNESS AND WELLNESS**  
**(ELECTIVE)**

**Unit – I Concept of Physical Education and Fitness**

- Definition, Aims and Objectives of Physical Education, fitness and Wellness
- Importance and Scope of fitness and wellness
- Modern concept of Physical fitness and Wellness
- Physical Education and its Relevance in Inter Disciplinary Context.

**Unit – II Fitness, Wellness and Lifestyle**

- Fitness – Types of Fitness and Components of Fitness
- Understanding of Wellness
- Modern Lifestyle and Hypo kinetic Diseases – Prevention and Management
- Physical Activity and Health Benefits

**Unit – III Principles of Exercise Program**

- Means of Fitness development – aerobic and anaerobic exercises
- Exercises and Heart rate Zones for various aerobic exercise intensities
- Concept of free weight Vs Machine, Sets and Repetition etc
- Concept of designing different fitness training program for different age group.

**Unit – IV Safety Education and Fitness Promotion**

- Health and Safety in Daily Life
- First Aid and Emergency Care
- Common Injuries and their Management
- Modern Life Style and Hypo-kinetic Disease –Prevention and Management

**References:**

- Difiore, J.(1998). *Complete guide to postnatal fitness*. London: A & C Black,.
- Giam, C.K & The, K.C. (1994). *Sport medicine exercise and fitness*. Singapore: P.G. Medical Book.
- Mcglynn, G., (1993). *Dynamics of fitness*. Madison: W.C.B Brown.
- Sharkey, B. J.(1990). *Physiology of fitness*, Human Kinetics Book.

**Semester II Theory courses**  
**EC-202 SPORTS NUTRITION AND WEIGHT MANAGEMENT (ELECTIVE)**

**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), Obesity and its hazard, Myth of Spot reduction, Dieting versus exercise for weight control, Common Myths about Weight Loss
- Obesity – Definition, meaning and types of obesity,
- 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 ClinEndocrinolMetab.*93(6), 2027-2034.
- Butryn, M.L., Phelan, S., & Hill, J. O. (2007). Consistent self-monitoring of weight: a key component of successful weight loss maintenance. *Obesity(Silver Spring)*. 15(12), 3091-3096.
- Chu, S.Y. & Kim, L. J. (2007). Maternal obesity and risk of stillbirth: a metaanalysis. *Am J ObstetGynecol*, 197(3), 223-228.
- 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. (n.d.). Adjustable gastric banding and conventional therapy for type 2 diabetes: a randomized controlled trial. *JAMA*. 299(3), 316-323.

**Semester – III Theory Courses**  
**CC-301 SPORTS TRAINING**

**Unit – I Introduction to Sports Training**

- Meaning and Definition of Sports Training
- Aim and Objective of Sports Training
- Principles of Sports Training
- System of Sports Training – Basic Performance, Good Performance and High Performance Training

**Unit – II Training Components**

- Strength – Mean and Methods of Strength Development
- Speed – Mean and Methods of Speed Development
- Endurance - Mean and Methods of Endurance Development
- Coordination – Mean and Methods of coordination Development
- Flexibility – Mean and Methods of Flexibility Development

**Unit – III Training Process**

- Training Load- Definition and Types of Training Load
- Principles of Intensity and Volume of stimulus
- Technical Training – Meaning and Methods of Technique Training
- Tactical Training – Meaning and Methods of Tactical Training

**Unit – IV Training programming and planning**

- Periodization – Meaning and types of Periodization
- Aim and Content of Periods – Preparatory, Competition, Transitional etc.
- Planning – Training session
- Talent Identification and Development

**Reference:**

Dick, W. F. (1980). *Sports training principles*. London: Lepus Books. Harre, D.(1982). *Principles of sports training*. Berlin: Sporulated.

Jensen, R. C.& Fisher, A.G. (1979). *Scientific basis of athletic conditioning*. Philadelphia: Lea and Fibiger, 2<sup>nd</sup>Edn.

Matvyew, L.P. (1981). *Fundamental of sports training*. Moscow: Progress Publishers. Singh, H. (1984). *Sports training, general theory and methods*. Patials: NSNIS.

Uppal, A.K., (1999). *Sports Training*. New Delhi: Friends Publication.

**Semester III Theory Courses**  
**CC-302 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.

**Semester – III Theory Courses**  
**CC-303 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, theories of learning, Laws of learning,
- Plateau in Learning; & transfer of training
- Meaning and definition of personality, 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.
- Mental Preparation Strategies: Attention focus, Self- talk, Relaxation, Imaginary.
- Aggression and Sports, Meaning and nature of anxiety, Kinds of anxiety
- Meaning and nature of stress; Types of stress, Anxiety, Stress, Arousal and their effects on sports performance

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

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

**Unit-4 Culture : Meaning and Importance.**

- Features of culture,
- Importance of culture.
- Effects of culture on people life style.
- Different methods of studying Observation/ Inspection method, Questionnaire method, Interview method

**References:**

- Ball, D. W. & Loy, J. W. (1975). *Sport and social order; Contribution to the sociology of sport*. London: Addison Wesley Publishing Co., Inc.
- Blair, J.& Simpson, R.(1962). *Educational psychology*, New York:McMillan Co.
- 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. (1978). *Sport and social system*. London: Addison Wesley Publishing Company Inc.
- Loy, J. W., Kenyon, G. S. & McPherson, B. D. (1981). *Sports culture and society*. Philadelphia: Lea &Febiger.
- Mathur, S.S., (1962). *Educational psychology*. Agra.VinodPustakMandir.
- Skinner, C. E., (1984.). *Education psychology*. New Delhi: Prentice Hall of India.
- William, F. O.&Meyer, F. N. (1979). *A handbook of sociology*. New Delhi: Eurasia Publishing





**Semester – III Theory Courses**  
**EC-301 SPORTS MEDICINE, PHYSIOTHERAPY AND REHANLITATION**  
**(ELECTIVE)**

**Unit-I: - Sports Medicine:**

- Sports Medicine: Meaning, Definition, Aims, Objectives, Modern Concepts and Importance.
- 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 and supports.

**Unit-II: Physiotherapy**

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

**Unit-III: Hydrotherapy:**

- Introduction and demonstration of treatments of Cry therapy, Thermo therapy, Contrast Bath, 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.
- Conley, M. (2000). *Bioenergetics of exercise training*. In T.R. Baechle, & R.W. Earle, (Eds.), *Essentials of Strength Training and Conditioning* (pp. 73-90). Champaign, IL: Human Kinetics.
- David, R. M. (2005). *Drugs in sports*, (4th Ed). Routledge Taylor and Francis Group.
- Hunter, M. D. (1979). *A dictionary for physical educators*. In H. M. Borrow & R. McGee, (Eds.), *A Practical approach to measurement in Physical Education* (pp. 573-74). Philadelphia: Lea &Febiger
- Jeyaprakash, C. S., *Sports Medicine*, J.P. Brothers Pub., New Delhi, 2003.
- Khanna, G.L., (1990). *Exercise physiology & sports medicine*. Delhi:Lucky Enterprises.
- Mathew, D.K. & Fox, E.L, (1971). *Physiological basis of physical education and athletics*. Philadelphia:W.B. Saunders Co.
- Pandey, P.K., (1987). *Outline of sports medicine*, New Delhi: J.P. Brothers Pub. Williams, J. G. P. (1962). *Sports medicine*. London: Edward Arnold Ltd.

**Semester – III Theory Courses**  
**EC-302 CURRICULUM DESIGN (Elective)**

**UNIT-I Modern concept of the curriculum**

- Need and importance of curriculum, Need and importance of curriculum development, the role of the teacher in curriculum development.
- Factors affecting curriculum - Social factors - Personnel qualifications - Climatic consideration - Equipment and facilities -Time suitability of hours.
- National and Professional policies, Research finding

**UNIT-II Basic Guide line for curriculum construction; contest (selection and expansion).**

- Focalization
- Socialization
- Individualization
- Sequence and operation
- Steps in curriculum construction.

**UNIT-III Curriculum-Old and new concepts, Mechanics of curriculum planning.**

- Basic principles of curriculum construction.
- Curriculum Design, Meaning, Importance and factors affecting curriculum design.
- Principles of Curriculum design according to the needs of the students and state and national level policies.
- Role of Teachers

**UNIT-IV Under-graduate preparation of professional preparation.**

- Areas of Health education, Physical education and Recreation.
- Curriculum design-Experience of Education, Field and Laboratory.
- Teaching practice.
- Professional Competencies to be developed-Facilities and special resources for library, laboratory and other facilities.

**Reference:**

Barrow, H. M. (1983). *Man and movement: principles of physical education*. Philadelphia: Lea and Febiger.

Bucher, C. A. (1986). *Foundation of physical education*: St. Louis: The C. V. Mosby & Company.

Cassidy, R. (1986). *Curriculum development in physical education*. New York: Harper & Company.

Cowell, C.C. & Hazelton, H.W. (1965). *Curriculum designs in physical education*. Englewood Cliffs: N.J. prentice Hall Inc.

Larson, L.A. (n.d.). *Curriculum foundation in physical education*. Englewood Cliffs: N.J. Prentice Hall Inc.

Underwood, G. L. (1983). *The physical education curriculum in secondary school: planning and implementation*. England: Taylor and Francis Ltd.

Willgoose, C.E. (1979). *Curriculum in physical education*. 3<sup>rd</sup> Ed. Englewood Cliffs.: N.J. Prentice Hall, Inc.

**Semester – IV Theory Courses**  
**CC-401 MEASUREMENT AND EVALUATION 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 of tests, scientific authenticity (reliability, objectivity, validity and availability of norms)
- Type and classification of Test
- Administration of test, advance preparation – Duties during testing – Duties after testing.

**Unit- III Physical Fitness Tests**

- AAHPER youth fitness test
- National physical Fitness Test
- Indiana Motor Fitness Test
- JCR test
- U.S Army Physical Fitness Test

**Unit- IV Sports Skill Tests**

- Lockhart and McPherson badminton test
- Johnson basketball test
- McDonald soccer test
- S.A.I volleyball test
- S.A.I Hockey test

**References:**

- Bangsbo, J. (1994). *Fitness training in football: A scientific approach*. Bagsvaerd, Denmark: Ho+Storm.
- Barron, H. M., & Mchee, R. (1997). *A practical approach to measurement in physical education*. Philadelphia: Lea and Febiger.
- Barron, H.M. & Mchee, 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.SoundersCompnay.
- Pheasant, S. (1996). *Body space: anthropometry, ergonomics and design of work*. Taylor & Francis, New York.
- Phillips, D. A., & Hornak, J. E. (1979). *Measurement and evaluation in physical education*. New York: John Willey and Sons.
- Sodhi, H.S., & Sidhu, L.S. (1984). *Physique and selection of sports- a kinanthropometric study*. Patiala: Punjab Publishing House.

## Semester – IV Theory Courses

### CC-402 KINESIOLOGY AND BIOMECHANICS

#### Unit – I Introduction to Kinesiology and Sports Biomechanics

- Meaning and Definition of Kinesiology and Sports Biomechanics
- Importance of Kinesiology and Sports Biomechanics to Physical Education Teacher, Athletes and Sports Coaches.
- Terminology of Fundamental Movements
- Fundamental concepts of following terms – Axes and Planes, Centre of Gravity, Equilibrium, Line of Gravity

#### Unit – II Fundamental Concept of Anatomy and Physiology

- 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 - 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.

#### Reference:

Bunn, J. W. (1972). *Scientific principles of coaching*. Englewood Cliffs, N.J.: Prentice Hall Inc.

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.

Hay, J. G. (1970). *The biomechanics of sports techniques*. Englewood Cliffs, N.J.: Prentice Hall, Inc.

Simonian, C.(1911). *Fundamentals of sport biomechanics*. Englewood Cliffs, N.J.: Prentice Hall Inc.

## Semester – IV Theory Courses

### CC-403 RESEARCH AND STATISTICS IN PHYSICAL EDUCATION Unit-I

#### Introduction to Research

- Definition of Research
- Need and importance of Research in Physical Education and Sports.
- Scope of Research in Physical Education & Sports.
- Classification of Research
- Research Problem, Meaning of the term, Location and criteria of Selection of Problem, Formulation of a Research Problem, Limitations and Delimitations.

#### Unit-II Survey of Related Literature

- Need for surveying related literature.
- Literature Sources, Library Reading
- Research Proposal, Meaning and Significance of Research Proposal.
- Preparation of Research proposal / project.
- Research Report: A group project is to be undertaken by a small batch of students under the supervision of a teacher, wherein it is expected to survey school facilities of physical education, health assessment programme evaluation, fitness status of the students, staff and other stakeholders etc. and submit the report to the institution.

#### Unit-III Basics of Statistical Analysis

- Statistics: Meaning, Definition, Nature and Importance
- Class Intervals: Raw Score, Continuous and Discrete Series, Class Distribution, Construction of Tables
- Graphical Presentation of Class Distribution: Histogram, Frequency Polygon, Frequency Curve. Cumulative Frequency Polygon, Ogive, Pie Diagram

#### Unit- IV Statistical Models in Physical Education and Sports

- 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
- Percentiles and Quartiles: Meaning, importance, computing from group and ungroup data

#### References:

Best, J.W. (1963). *Research in education*. U.S.A.: Prentice Hall.

Bompa, T. O. &Haff, G. G. (2009). *Periodization: theory and methodology of training*, 5<sup>th</sup> ed. Champaign, IL: Human Kinetics.

Brown, L. E., &Ferrigno, V. A. (2005). *Training for speed, agility and quickness*, 2<sup>nd</sup> ed. Champaign, IL: Human Kinetics.

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Carl, E. K., & Daniel, D. A. (1969). *Modern principles of athletes training*. St. Louis: St. Louis's Mosby Company.

Clark, H. H., & Clark, D. H. (1975). *Research process in physical education*. Englewood cliffs, New Jersey: Prentice Hall, Inc.

Garrett, H.E. (1981). *Statistics in psychology and education*. New York: VakilsFeffer and Simon

- Oyster, C. K., Hanten, W. P., & Llorens, L. A. (1987). *Introduction to research: A guide for the health science professional*. Landon: J.B. Lippincott Company.
- Thomas, J.R., & Nelson J.K. (2005). *Research method in physical activity*. U.S.A: Champaign, IL: Human Kinetics Books.
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- Uppal, A. K. (1990). *Physical fitness: how to develop*. New Delhi: Friends Publication.
- Verma, J. P. (2000). *A text book on sports statistics*. Gwalior: Venus Publications.

## Semester – IV Theory Courses

### EC-401 THEORY OF SPORTS AND GAMES (ELECTIVE)

#### UNIT-I INTRODUCTION

##### General Introduction of specialized games and sports–

- Athletics,
- Basketball,
- Cricket,
- Football,
- Hockey,
- Handball,
- Kabaddi,
- Kho-Kho,
- 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-II 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
- Sports Training – Aims, Principles and characteristics.
- Training load – Components, Principles of load, Over Load (causes and symptoms).

##### UNIT-III Physical fitness components: (particular sports and game specific)

- Speed and its types
- Strength and its types
- Endurance and its types
- Flexibility and its types
- Coordinative ability and its types.



- Training methods: - Development of components of physical fitness and motor fitness through following training methods (continuous method, interval method, circuit method, fartlek /speed play and weight training)

#### **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 – IV

### Theory Courses EC-402 SPORTS MANAGEMENT (ELECTIVE)

#### Unit-I

- Nature and Concept of Sports Management.
- Progressive concept of Sports management.
- The purpose and scope of Sports Management.
- Essential skills of Sports Management.
- Qualities and competencies required for the Sports Manager.
- Event Management in physical education and sports.

#### Unit-II

- Meaning and Definition of leadership
- Leadership style and method.
- Elements of leadership.
- Forms of Leadership.
  - Autocratic
  - Laissez-faire
  - Democratic
  - Benevolent Dictator
- Qualities of administrative leader.
- Preparation of administrative leader.
- Leadership and Organizational performance.

#### Unit-III

- Sports Management in Schools, colleges and Universities.
- Factors affecting planning
- Planning a school or college sports programme.
- Directing of school or college sports programme.
- Controlling a school, college and university sports programme.
  - Developing performance standard
  - Establishing a reporting system
  - Evaluation
  - The reward/punishment system

#### Unit-IV

- Financial management in Physical Education & sports in schools, Colleges and Universities.
- Budget – Importance, Criteria of good budget,
- Steps of Budget making
- Principles of budgeting

**REFERENCES:**

Ashton, D. (1968). *Administration of physical education for women*. New York: The Ronald Press Co.

Bucher, C.A. *Administration of physical education and athletic programme*. 7<sup>th</sup> Edition, St. Louis: The C.V. Mosby Co.

Daughtrey, G. & Woods, J.B. (1976). *Physical education and intramural programmes, organisation and administration*. Philadelphia U.S.A. : W.B. Saunders Co.

Earl, F. Z, & Gary, W. B. (1963). *Management competency development in sports and physical education*. Philadelphia: W. Lea and Febiger.

## Part – B Practical Courses

### Semester – I

#### PC - 101

##### Track and Field:

##### Running Events

- 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.

#### PC 102

##### Swimming:

##### Fundamental Skills

- Entry into the pool.
- Developing water balance and confidence
- Water fear removing drills.
- Floating-Mushroom and Jelly fish etc.
- Gliding with and without kickboard.
- Introduction of various strokes
- Body Position, Leg, Kick, Arm pull, Breathing and Co ordination.
- Start and turns of the concerned strokes.
- Introduction of Various Strokes.
- Water Treading and Simple Jumping.
- Starts and turns of concerned strokes.
- Rules of Competitive swimming-officials and their duties, pool specifications, seeding heats and finals, Rules of the races.

#### PC – 103

##### Games:

##### 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-Variations, 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 holds, Techniques of escaping from chain formation, Combined formations in offence and defense.
- Ground Marking, Rules and Officiating

### **PC – 103**

#### **Handball:**

- 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.

### **PC – 103**

#### **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.

### **PC – 103**

#### **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.

**PC – 104**

**Lezium**

- GhatiLezuim-AathAawaaz, Bethakawaaz, AagePaon, Aagekadam, Do pherawaaz, Chau pherawaaz, Kadamtaal, Pavitra, Uchhakpavitra, Kadampavitra.
- Hindustani Lezuim-Char Awaaz, EkJagah, AantiLagaav, Pavitra, Do Rukh, Chau Rukh, Chau rukhbethak, Momiya.

**PC – 104**

**Drill and Marching**

**PC – 104**

**Dumbbells/ Wands/ Hoops:**

- Apparatus/ Light apparatus Grip
- Attention with apparatus/ Light apparatus
- Stand – at – ease with apparatus/ light apparatus
- Exercise with verbal command, drum, whistle and music – Two count, Four count, Eight count and Sixteen count.
- Standing Exercise o Jumping Exercise o Moving Exercise
- Combination of above all

**PC – 104**

**Mass PT**

Standing Series (8 exercises), Turning series (4 exercises) and sitting series (5 exercises).

## Part – B Practical Courses

### Semester – II

#### PC – 201

##### Track and Field

##### **Athletics: Jumping Events**

- High Jump, Long Jump, Triple Jump
- Approach Run,
- Take off
- Clearance over the bar/flight in the air
- Landing
- Ground Marking / Sector Marking
- Interpretation of Rules and Officiating.
- Rules and their interpretations and duties of officials

#### PC – 202

##### **Yoga:**

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

#### PC – 202

##### **Aerobics:** Introduction of Aerobics

- Rhythmic Aerobics - dance
- Low impact aerobics o High impact aerobics o Aerobics kick boxing
- Postures – Warm up and cool down
- THR Zone – Being successful in exercise and adaptation to aerobic workout.

#### PC - 203

##### **Tennis:**

##### Fundamental Skills.

- Grips- Eastern Forehand grip and Backhand grip, Western grip, Continental grip, Chopper grip.
- Stance and Footwork.
- Basic Ground strokes-Forehand drive, Backhand drive.
- Basic service.
- Basic Volley.
- Over-head Volley.
- Chop

- Tactics – Defensive, attacking in game
- Rules and their interpretations and duties of officials.

**PC - 203****Kho Kho:**

- 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, Judgement in giving Kho, Rectification of Foul.
- Skills in Running-Zig zag 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.

**PC - 203****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.
- Rules and their interpretations and duties of officials.

**PC - 203****Cricket:**

## Fundamental Skills

- Batting-Forward and backward defensive stroke
- Batting-Drives – straight drive, Off drive, On drive, Pulls
- Bowling-Basic pace bowling and spin bowling technique
- Fielding-Defensive and offensive fielding
- Catching-High catching and Slip catching
- Stopping and throwing techniques
- Wicket keeping techniques



## Part – B Practical Courses

### Semester – III

#### PC – 301

##### Track and field (Throwing Events)

- Discus Throw, Javelin throw, Hammer throw, Shot-put
- Basic Skills and techniques of the Throwing events
- Ground Marking / Sector Marking
- Interpretation of Rules and Officiating.
- Grip
- Stance
- Release
- Reserve/ (Follow through action)
- Rules and their interpretations and duties of officials

#### PC – 302

##### Martial Arts/Karate: Fundamental Skills

- Player Stances – walking, hand positions, front-leaning, side-fighting.
- Hand Techniques - Punches (form of a punch, straight punch, and reverse punch), Blocks (eight basic).
- Leg Techniques - Snap kicks, stretching straight leg, thrust kicks, sidekicks, round house.
- Forms - The first cause Katas.
- Self Defense - against punches, grabs and strikes, against basic weapons (knife, club sticks).
- Sparring - One step for middle punch, high punch and groin punch. (Defended by appropriate block from eight basic blocks).
- Rules and their interpretations and duties of officials.

#### PC – 302

##### Wrestling: Fundamental Skills

- Take downs, Leg tackles, Arm drag.
- Counters for take downs, Cross face, Whizzer series.
- Escapes from under-sit-out turn in tripped.
- Counters for escapes from under-Basic control back drop, Counters for stand up.
- Pinning combination-Nelson series(Half Nelson, Half Nelson and Bar arm), Leg lift series, Leg cradle series, Reverse double bar arm, chicken wing and half Nelson.
- Escapes from pinning: Wing lock series, Doppable arm lock roll, Cridge.
- Standing Wrestling-Head under arm series, whizzer series
- Referees positions.

**PC 303 Games****Netball:**

## Fundamental Skills

- Catching: one handed, two handed, with feet grounded, in flight.
- Throwing (different passes and their uses): one handed passes (shoulder, high shoulder, underarm, bounce, lob); two handed passes (push, overhead, bounce).
- Footwork: landing on one foot; landing on two feet; pivot; running pass.
- Shooting: one hand; two hands; forward step shot; backward step shot.
- Techniques of getting free: dodge and sprint; sudden sprint; sprint and stop; sprinting with change of speed.
- Defending: marking the player; marking the ball; blocking; inside the circle; outside the circle (that is, defending the circle edge against the pass in).
- Intercepting: pass; shot.
- The toss-up.
- Role of individual players
- Rules and their interpretations and duties of officials.

**PC 303****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 defense.
- Rules and their interpretations and duties of officials. o Rules and their interpretations and duties of officials. o Ground Marking.

**PC – 303****Softball**

## Fundamental Skills

- Catching: one handed, two handed, with feet grounded, in flight.
- Throwing (different passes and their uses): one handed passes (shoulder, high shoulder, underarm, bounce, lob); two handed passes (push, overhead, bounce).
- Footwork: landing on one foot; landing on two feet; pivot; running pass.
- Shooting: one hand; two hands; forward step shot; backward step shot.

- Techniques of getting free: dodge and sprint; sudden sprint; sprint and stop; sprinting with change of speed.
- Defending: marking the player; marking the ball; blocking; inside the circle; outside the circle (that is, defending the circle edge against the pass in).
- Intercepting: pass; shot.
- The toss-up.
- Role of individual players
- Rules and their interpretations and duties of officials.

### **PC – 303**

#### **Basket ball:**

##### Fundamental Skills

- Player stance and ball handling
- Passing-Two Hand chest pass, Two hand Bounce Pass, One Hand Base ball 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, 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.

## **TEACHING PRACTICES**

### **TP – 201 :**

10 teaching practice lessons out of which 5 lessons in class-room situation and 5 lessons for out-door activities within premises on the students of B.P.Ed course.

### **TP – 301:**

10 teaching lesson plans for games out of which 5 lessons internal and 5 lessons external at school.

### **TP – 401 Sports Specialization: Track and field (any event within syllabus)**

(4 internal lesson at practicing school and 1 final external lesson on the students of practicing school as a sports specialization of any discipline mentioned above.)

### **TP- 402 Games Specialization: Kabaddi, Kho Kho, Volleyball, Cricket, Football, Basketball, Hockey and Handball.**

(4 internal lessons at practicing school and 1 final external lesson on the students of practicing school as a games specialization of any discipline mentioned above.)