

# Ewing Christian College, Prayagraj

Physical Education (Revised Syllabus from 2021-22)

Semester I (Paper-I)

Principles of Physical Education

## Unit-I

- Meaning and definition of Physical Education
- **Misconceptions of physical education**
- Misnomer substitutes for Physical Education: Physical Training, Drill, Physical Culture, Play, Gymnastics, sports and games
- Aims and objectives of Physical Education
- Need and Importance of Physical Education
- Relationship of Physical Education with General Education
- Physical education as an Art or Science.

## Unit-II

- Philosophies of Physical Education: **Definition, Philosophy and science, components of philosophy, importance of philosophy in physical education.**
- General philosophies applied to physical education: Idealism, Naturalism, Realism, Pragmatism
- **Health and wellness- its importance, benefits and challenges, Development and maintenance of wellness**

## Unit-III

- Physical Education and Sports as a social institution and their influence on society, Importance of Sociology in Physical Education and Sports
- Socialization through Sports at Home, Institution and Community.
- Role of Physical Education and Sports in National Integration.
- **Culture: Meaning, features and importance**
- Physical activities and Sports as a men's cultural heritage.

Semester I (Paper-II)

History of Physical Education

## Unit-I

### Historical development of physical education:

- Greece: Homeric period, Spartan period, Early Athenian Period, Later Athenian period
- Rome: Early Roman period, Later Roman period
- **Germany:**
  - 18<sup>th</sup> century to the middle of 19<sup>th</sup> century- Johan Bernhard Basedow, John Christopher Guts Muths, Federik Ludwig John, Adolph Speiss
  - 19<sup>th</sup> century to Middle to Nazi Regime
  - Physical Education under the Nazi Regime
  - Period after the second World War
- Sweden, Denmark, Great Britain

## Unit-II

### History of physical Education in Indian Perspective before Independence:

- Vedic age
- Epic age
- Historical Age
- Nalanda Period
- Age of Chivalry/Rajput period
- Muslim Period
- British Period

## Unit-III

### History of physical Education in Indian Perspective after Independence:

- Central Advisory Board of Physical Education and Recreation
- All India Council of Sports
- Enquiry Committees, National Discipline

- National Physical Fitness Programme
- Netaji Subhas National Institute of Sports
- Sports Authority of India
- National Sports Policy, IOA
- National Sports Federation
- NCC and Auxilary Cadet Corps
- National Fitness Corps

1. Foundations of Gymnastic -Chakraborty Samiran(27), 2. Foundations of Physical Education- Kamlesh M. L.(84)
  3. Foundations of Physical Education-Howell Reet(85) 4. Foundation of Physical Education & Sports - Criet A. Debuah(86)
  5. History of Physical Education-Atwal & Kansal(87)
- Principles of Physical Education-Atwal & Kansal(88)

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## Physical Education (Revised Syllabus from 2021-22)

### Semester II (Paper-I)

#### Scientific Basis Of Physical Education

##### Unit-I

###### Biological Basis of Physical Education

- Growth and Development, Differences between growth and development.
- Factors affecting growth and development.
- Various stages of growth and development.
- Age and Sex differences in relation to Physical activities and Sports.
- Effect of Heredity and Environment on growth and development.
- Chronological Age, Anatomical Age and Physiological Age, Mental Age
- Body Classification: Sheldon's Classification- Endomorph, Mesomorph & Ectomorph
- Practical implications of Biological Principles

##### Unit-II

###### Psychological Basis of Physical Education

- Meaning of Psychology and Sports Psychology.
- Psychological factors effecting physical performance.
- Psychological characteristics of an adolescent, Problem of an adolescent.
- The role of Physical education and sports in solving the problems of an adolescent.
- Meaning , definition , need, types, role of motivation in physical education and sports
- Meaning, nature and types of emotion in physical education and sports.

##### Unit-III

###### Learning and Transfer of Training:

- Meaning of learning
- Nature of motor skill learning, Principles of motor skill learning
- Learning curve, Characteristics of learning curve, Types of learning curve
- Implication of learning curve in physical education and sports
- Transfer of Training : Meaning and definition, Types of transfer of training, Theories of transfer of training, Factors affecting transfer of training

### Semester II (Paper-II)

#### Major Sport events and Recreation

##### Unit-I

###### Olympic Games

- Importance of Olympic and Asian Games
- Aims of the Olympic Movement.

###### Ancient Olympic Games

- Brief History, Significance of the Ancient Games.
- Rules of eligibility for competition, Conduct of the games and awards.

###### Modern Olympic Games:

- The Revival of Modern Olympic Games.
- International Olympic Committee and its function.
- Organisation and Conduct of the Games.
- The Olympic Flag, Ceremonial Flag and Olympic Motto.
- Olympic Torch.
- Differences and Similarities in the Ancient and Modern Olympics.

##### Unit-II

- Asian Games.
- Olympic Council of Asia
- Afro-Asian Games.
- South Asian Federation Games.
- Common wealth Games.
- Various Awards in Sports and games: Arjuna Award, Dronacharya Award, R.G. Khel Ratna Award, **MAKA Trophy**

##### Unit-III

###### Recreation:

- Meaning and definition of recreation, Aim and objectives of recreation
- Types of recreation, Need and importance of recreation in modern society.
- Recreation providing agencies (Government agencies, Voluntary agencies, Private agencies & Commercial agencies), Nature and types of recreational activities

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## Physical Education (Revised Syllabus from 2021-22)

### Semester III (Paper-I)

#### Anatomy in Physical Education

<p><b>Unit-I</b></p> <ul style="list-style-type: none"> <li>• Meaning and definition of Anatomy.</li> <li>• <b>Subdivisions of anatomy</b></li> <li>• Need and importance Anatomy in Physical Education and Sports.</li> <li>• Definition, structure and functions of Cell.</li> <li>• Essential properties of living organism.</li> </ul>	<p><b>Unit-II</b></p> <ul style="list-style-type: none"> <li>• Definition of tissues.</li> <li>• Classification and structure of tissues.</li> <li>• Structure of Heart</li> <li>• Structure of Lungs</li> <li>• Structure of Digestive System &amp; Accessory organs</li> <li>• Structure of Urinary System</li> <li>• Structure of skeleton of the upper limb</li> <li>• Structure of Skeleton of the lower limb</li> </ul>
<p><b>Unit-III</b></p> <ul style="list-style-type: none"> <li>• Types of Bones and names of various bones of the body.</li> <li>• Structure of bone</li> <li>• Joints and its types.</li> <li>• Major movements around the joints.</li> <li>• Muscles and its types</li> <li>• Structure of skeletal Muscle</li> <li>• Name of various skeletal muscles.</li> </ul>	<p>Books:</p> <ol style="list-style-type: none"> <li>1. Anatomies and Physiology -Pearce Evelin. (59)</li> <li>2. Sharir aur Sharir Kriya Vigyan- Pierce Evelin (60)</li> <li>3. Sharirik Shiksha tatha Olympic Abyan -Singh Ajmer(96)</li> <li>4. Essentials of Physical Education- Singh Ajmer(101)</li> <li>5. Anatomies and Physiology- Dr. Susheel Lega et al.(128)</li> <li>6. sharirik Shiksha ka muladhar Dr. Shree Krishn Patel, Dr. Upendra Pandey ( A.P.1)</li> <li>7. Human Anatomy and Physiology Brinda Singh (A.P.2)</li> <li>8. Human Anatomy – Chaurasiya (A.P.3)</li> <li>9. Human Anatomy and Physiology V. Tatarinov(A.P.4)</li> <li>10. Manav Sharir avam Kriya Vigyan Charu Sapara (A.P.5)</li> </ol>

### Semester III (Paper-II)

#### Organisation and Management in Physical Education

<p><b>Unit-I</b></p> <ul style="list-style-type: none"> <li>• Management: Meaning, Definition, Importance, aims &amp; objectives and Principles of management.</li> <li>• Function of management: Planning, organizing, Directing, Controlling, Coordinating)</li> <li>• Scheme of Organization: School, college &amp; University.</li> <li>• Sports management in schools and colleges: Preparation of out-of-town games, Transportation, parents permits and risk certificates, finances for trip, equipments, game details, eligibility records, game contract, trip personnel's, participation record books, general management duties and policies, contracting officials.</li> </ul>	
<p><b>Unit-II</b></p> <ul style="list-style-type: none"> <li>• Supervision: Meaning, Definition, and Principles of supervision.</li> <li>• Evaluation: Meaning, Definition, need &amp; Importance.</li> <li>• Leadership: Meaning, Definition, Form of leadership, Traits of leadership, Qualities of a good leader in physical education and sports</li> <li>• Financial Management in physical education and sports in school, college and universities: Definition of financial management, objectives of financial management, scope of financial management, principles of financial management, Budget and its planning, Budget proposal model, accounting in management.</li> </ul>	
<p><b>Unit-III</b></p> <ul style="list-style-type: none"> <li>• Public relation: Definition, need, Importance, principles, Techniques.</li> <li>• Facilities &amp; Equipment: care&amp; maintenance.</li> <li>• Intramural &amp; Extramural Competitions: Meaning of Intramural and Extramural Competitions, Importance of Intramural and Extramural Competitions, Organization of Intramural and Extramural Competitions.</li> <li>• Play days, Sports for All, Sports Days and Exhibition.</li> </ul>	
<p>Books:</p> <ol style="list-style-type: none"> <li>1. Sharirik Shiksha tatha Olympic Abyan -Singh Ajmer(96)</li> <li>2. Essentials of Physical Education- Singh Ajmer(101)</li> <li>3. Administration of Physical Education and Athletics-Frost Reuben B. (76)</li> <li>4. Organization and Administration in Physical Education- Dr.Sahil K Borkar (77)</li> <li>5. Sharirik Shiksha me Sankadan tata Prashasan-Dr.Kailash Kumatikrao Pawar (78)</li> </ol>	<ol style="list-style-type: none"> <li>6. Administration of Physical Education and Sport Programmes- Horine Larry(80)</li> <li>7. Organisation and Administration of Physical Education- Dheer. S. (89)</li> <li>8. Sports Management (Hindi)(2018) Dr. Ravindra Kumar(94)-</li> <li>9. Sports Management(2017)- Pro.V.Satyanarayana(95)</li> <li>10. Organization of Physical Education (For School in India) P.M. Joseph(109)</li> <li>11. Sports Management-S.S.Roy (116)</li> </ol>

# Ewing Christian College, Prayagraj

## Physical Education(Revised Syllabus from 2021-22)

Semester IV (Paper-I)

### Physiology in Physical Education

<b>Unit-I</b> <ul style="list-style-type: none"><li>• <b>Meaning and definitions of Physiology</b></li><li>• <b>Subdivisions of physiology</b></li><li>• <b>Need and importance of physiology in physical education and sports</b></li><li>• Function of circulatory system(Coronary circulation, pulmonary circulation, Systemic circulation)</li><li>• Composition and function of Blood; maintenance of Blood supply.</li><li>• Function of Lymphatic system</li></ul>	<b>Unit-II</b> <ul style="list-style-type: none"><li>• Functions, processes, mechanism of Digestive System.</li><li>• Function of Liver, Gall Bladder and Pancreas</li><li>• Functions of Urinary system</li><li>• Function of respiratory system</li><li>• Mechanism of respiration</li></ul>
<b>Unit-III</b> <p>Meaning, main Organs and Parts of Nervous System: Brain, Spinal Cord, Nerves.</p> <ul style="list-style-type: none"><li>• Functional Classification of nervous System.</li><li>• The endocrine glands: Pituitary gland, Thyroid gland, Parathyroid glands, Thymus gland and Adrenal gland.</li></ul>	

Semester IV (Paper-II)

### Methods in Physical Education

<b>Unit-I</b> <ul style="list-style-type: none"><li>➤ Meaning and scope of teaching methods in physical education</li><li>➤ Comparing methods in physical education and general education</li><li>➤ Factors which influence methods of teaching in physical education</li><li>➤ Types of Teaching Methods: Lecture method, Command method, Project method, Discussion method, Group directed-practice method, Demonstration/imitation method</li><li>➤ Principles of Teaching Physical Education activities</li><li>➤ Steps in effective Teaching-Learning process in physical education.</li></ul>
<b>Unit-II</b> <ul style="list-style-type: none"><li>➤ <b>Teaching Aids: Criteria for Audio- Visual aids, Black Boards, Bulletin Boards, Magnetic Boards, Pictures, Graphic Devices, Illustrated Text Books, Models and specimens, Projectile Devices, Recording, Television, Slides, Posters, Charts</b></li><li>➤ Types of Tournaments –Elimination, League, Combination, Consolation, Challenges</li><li>➤ Methods of Promoting Physical Education – Demonstration, Sports Meet, Exhibition, Mass Display, Play day, Incentives.</li></ul>
<b>Unit-III</b> <p><b>Officiating:</b></p> <ul style="list-style-type: none"><li>• <b>Principles of officiating</b></li><li>• <b>Importance of officiating</b></li><li>• <b>Qualities of good Referee/Official</b></li><li>• <b>Duties of Referee/Official: Pre-game, During game and After game</b></li><li>• Marking of play fields : football, volleyball, basketball, Badminton, Kabaddi, Kho-kho, Track and field marking</li></ul>

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## Physical Education (Revised Syllabus from 2021-22)

### Semester V (Paper-I)

#### Health Education

<p><b>Unit-I</b> Health and Health Education</p> <ul style="list-style-type: none"> <li>• Meaning, definition.</li> <li>• Dimensions of health.</li> <li>• Objectives of health education.</li> <li>• Principles and importance of Health Education.</li> </ul>	<p><b>Unit-II</b></p> <ul style="list-style-type: none"> <li>• Personal Health and Hygiene, Effect of smoking and Alcohol on health.</li> <li>• School Health Program.</li> <li>• Communicable Diseases: Mode of transmission, methods of prevention.</li> <li>• Environmental problems and their effects on Health.</li> </ul>
<p><b>Unit-III</b></p> <ul style="list-style-type: none"> <li>• Classification of foods, proximate principles and role of various nutrients.</li> <li>• Balanced Diet, Elements &amp; functions of Balanced diet, Factors affecting diet.</li> <li>• Daily energy requirements</li> <li>• Diet before, pre and post competition</li> <li>• Understanding body height &amp; weight charts</li> </ul>	<p><b>Books:</b></p> <ol style="list-style-type: none"> <li>1.A Text Book of Nutrition-Vidya Chintapalli(105)</li> <li>2.Nutrition(R)-Chaney and Ross(106)</li> <li>3.Essentials of Physical Education - Singh Ajmer(101)</li> <li>4.Park's Textbook of Preventive and Social Medicine(R) Park K.(70)</li> <li>5.Preventive and social medicine-Yash Pal Vedi(P)</li> <li>6.Health Physical and Yoga Education S.S.Chahal (P)</li> <li>7.Sharirik Shiksha tatha Olympic Aryan (R) Singh Ajmer(96)</li> </ol>

### Semester V (Paper-II)

#### Athletic Injuries & Rehabilitation

<p><b>Unit-I</b> <b>Sports injuries:</b> Introduction to sports injuries.</p> <ul style="list-style-type: none"> <li>• Role of trained personnel in the management of the sports injuries.</li> <li>• Rehabilitation: Definition, objectives and scope.</li> </ul> <p><b>Prevention of Injuries:</b></p> <ul style="list-style-type: none"> <li>• Factors causing sports injuries.</li> <li>• Complications of incomplete treatment.</li> <li>• Common sports injuries and their immediate treatment: Sprain, Strain, Dislocation, Fracture, Contusion, Abrasion, Bruise etc.</li> <li>• Effects and uses of the therapeutic modalities: Cold therapy, Hot therapy, Infra-red lamp, Contrast Bath, Wax bath therapy</li> </ul>	<p><b>Unit-II</b> <b>Massage:</b></p> <ul style="list-style-type: none"> <li>• Meaning and Definitions of massage</li> <li>• Principles of massage</li> <li>• Guidelines for massage</li> <li>• Contradictions of massage</li> <li>• Effect of massage</li> </ul>
<p><b>Unit-III</b> <b>Common massage technique and their therapeutic uses:</b> <b>Classification of massage techniques:</b></p> <ol style="list-style-type: none"> <li>1. On the basis of depth of body tissue affected: Light massage &amp; Deep massage technique</li> <li>2. On the basis of body region massaged: General massage and Local Massage</li> <li>3. On the basis of Nature and Characteristics of techniques: <b>4 types of massage manipulation:–</b></li> </ol> <p>I. Stroking: (It has two types) a) Effleurage b) Stroking</p> <p>II. Pressure : (it has three types)</p> <ol style="list-style-type: none"> <li>a. Kneading(4 types) i) Squeezing ii) Stationary iii) Circular iv) Ironing</li> <li>b. Petrissage (3types): i) Picking up ii) Wringing iii) Rolling</li> <li>c. Friction (2 types): i) Transverse ii) Circular</li> </ol> <p>III. Percussion(Tapotement)(one type)</p> <ol style="list-style-type: none"> <li>a. Tapotement: i) Hacking ii) Clapping iii)Beating iv) Pounding</li> </ol> <p>IV. Vibratory Techniques (2 sub types)</p> <ol style="list-style-type: none"> <li>a. Vibration</li> <li>b. Shaking</li> </ol>	
<p><b>Books: 1. Corrective Physical Education -Dr. V D Bindal(130) 2. Therapeutic and Sports Massage-V D Bindal(129) 3. Complete Guide to Sports Injuries-Griffith H. W.(67)</b></p>	

# Ewing Christian College, Prayagraj

Physical Education (Revised Syllabus from 2021-22)

Semester V (Paper-III)

## Sports Training

### Unit-I

- Definition of Sports Training
- Aim of Sports Training
- Characteristics of Sports Training
- Principles of Sports Training and Conditioning
- Warming up and cooling down in sports and its significance in sports.
- General Guidelines for warming up and cooling down.

### Unit-II

#### Training of Strength and Endurance:

##### Strength Training–

- i. Factors determining strength
- ii. Types of strength
- iii. Development of strength(Forms of strength exercises, Types of muscular contraction- Isotonic, Isometric, Eccentric and Isokinetic contractions)
- iv. Methods of strength training(Simple method system, Combination method system, Super set method system, Pyramid method system, Plyometric or Reactive method, Circuit training)
- v. Strength training for children.
- vi. Strength training for women.
- vii. Suggestions for prevention of physical damage and injuries.

##### Endurance Training-

- i. Benefits of endurance
- ii. Forms of endurance/types of endurance
- iii. Factors determining endurance
- iv. Means and methods for endurance development((a)Duration of load method- Constant method, Slow constant method, Fast constant method, Varied pace method, Alternating Method, Fartlek, (b)Interval running method (c)Repetition training method (d) Competition and Test method)

### Unit-III

#### Training of Speed, Flexibility and Coordinative abilities

##### Speed Training:

- i. Factors determining speed
- ii. Forms of speed/types of speed
- iii. Means of speed development(Reaction speed, Speed of movement, Acceleration speed, Sprinting speed-Acceleration run, Ins and Outs, Differential races, Speed endurance- pace races, Repeated high intensity runs).
- iv. Speed Barrier- Delaying of speed Barrier, Tackling of Speed Barrier)

##### Flexibility-

- i. Importance of flexibility
- ii. Factors affecting flexibility
- iii. Form of flexibility
- iv. Methods of flexibility training

##### Coordinative abilities- types of coordinative abilities and development of coordinative abilities.

1. Science of Sports Training Singh- Hardayal (114) 2. Principles of Sports Training- Dr. A.K.Uppal(P)

# Ewing Christian College, Prayagraj

Physical Education(Revised Syllabus from 2021-22)

Semester VI (Paper-I)

## KINESIOLOGY

### Unit-I

- Introduction: Definition, Aims and Objectives of Kinesiology, Brief history of Kinesiology(Ancient Era, Renaissance, Nineteenth century onwards),
- Importance of kinesiology in the field of physical education and sports.
- Fundamental concepts of Axes & planes, Centre of gravity, line of gravity
- **Fundamental movements of the major segments of the body-** Flexion, Extension, Abduction, Adduction, Rotation, Inward rotation, Outward rotation, Circumduction, Pronation, Supination, Dorsiflexion, Planter flexion, Inversion, Eversion, Elevation

### Unit-II

- **Functional/kinesiological classification of muscles.**
  - a. Arrangement of muscle fibers and shape - Fusiform type , Parallel type, Pennate type, Triangular type, sphincter type
  - b. Classification of muscles according to the number of joints over which the muscle passes-one joint,two joint, multiple joint.
  - c. Classification of the muscles according to the type of muscle action or function-Agonist,Antagonist,Synergist
  - d. Classification of muscles according to myoglobin content-Red twitch,White twitch
  - e. Classification of muscles according to type of muscle contraction- Isotonic, Isometric,Isokinetic
  - f. Classification according to orientation of line of pull in relation to the joint-Flexors, Extensors, Abductors, Adductors
- **Role of muscles-Movers or agonist, Antagonist, Fixator or stabilizers, Synergists, Neutralizers.**
- **Terminology of muscular attachments/features-Size, Shape, Direction of fibers, location, number of origin, origin and insertion, action.**
- **Principal actions of the following muscles :** Gastrocnemius, thigh group, muscles of chest, abdominal muscles, trapezius, deltoid, triceps and biceps.

### Unit-III

- Definition and principles derive from :- Concept of Force, friction, mass, weight, acceleration, speed and velocity, pushing and pulling.
- Types of motion, Newton's laws of motion, Application of Newton's Laws of motion in sports **activities.**
- Types of Equilibrium, Principles of equilibrium and their application.
- Types of Levers, Mechanical advantage.
- Concept of Projectile.

## Semester VI (Paper-II)

### Modern concept of balanced posture.

#### Unit-I

Postural Concept: Definition, values of good posture, causes & drawbacks of bad posture.

-Muscles of abdomen , importance of strong abdominal wall.

Therapeutic Exercises:

- Definition and scope
- Classification, therapeutic effects and uses of the Following:
  - (a)Active exercises (Free, Assisted and Resisted exercises)
  - (b)Passive Exercises (Relaxed and Forced exercises).

#### Unit-II

First Aid: Meaning, definition and importance of first aid in Physical Education and Sports with special reference to drowning, dislocation of a joints, fracture of bones, sprain and strain.

- Contents of first aid box, Principles of first aid, Function of first aider.

#### Unit-III

Common postural deviations, their causes and remedial measures:

- Kyphosis, Scoliosis,Lordosis,Knock knees and Bow legs,.Flat Foot

**Semester VI (Paper-III)**

**Exercise Physiology**

<p><b>Unit-I</b></p> <ul style="list-style-type: none"><li>• <b>Meaning and definitions of exercise Physiology</b></li></ul> <p><b>General Physiological Concepts:</b></p> <ul style="list-style-type: none"><li>• <b>Introduction</b></li><li>• <b>Vital Capacity</b></li><li>• <b>Second Wind</b></li><li>• <b>Oxygen Debt</b></li><li>• <b>Fatigue</b></li><li>• <b>Blood Pressure</b></li><li>• <b>Stitch in the Side</b></li></ul>	<p><b>Unit-II</b></p> <p><b>Physical Fitness:</b></p> <ul style="list-style-type: none"><li>• <b>Meaning, definition and components of physical fitness</b></li><li>• <b>Benefits of physical fitness.</b></li><li>• <b>Factors influencing physical fitness.</b></li><li>• <b>Development of physical fitness.</b></li><li>• <b>Testing Physical fitness:- AAPHER Physical fitness Test</b></li></ul>
<p><b>Unit-III</b></p> <p><b>Effect of Training on body systems:</b></p> <ul style="list-style-type: none"><li>• <b>Effect of exercise on muscular system</b></li><li>• <b>Effect of exercise on skeletal system.</b></li><li>• <b>Effect of exercise on Respiratory system</b></li><li>• <b>Effect of exercise on Digestive System</b></li><li>• <b>Effect of exercise on Circulatory System.</b></li><li>• <b>Resistance exercises for major muscles of the body:</b> <b>Biceps, Triceps, Gastrocnemius, Thigh group group(anterior,Posterior, medial &amp; lateral),</b> <b>Abdomen, Back &amp; chest muscles.</b></li></ul>	