

**PHYSICAL EDUCATION**  
**(POST GRADUATE DEGREE STANDARD)**

**SUBJECT CODE: 356**

**UNIT-I : PRINCIPLES AND BIOLOGICAL BASIS OF PHYSICAL EDUCATION**

Definition, aim and objectives of physical education. Meaning of the terms Physical Training, Physical Culture. Philosophies of Education as applied to physical education- Idealism, Naturalism, Realism, Pragmatism, existentialism, Humanism. Biological basis of Physical activity-benefit of exercise, growth and exercise, exercise and well being sex and age characteristics of adolescent, body types, Hereditary traits, Muscle tone, athletic heart, Unsynchronized development, Reciprocal innovation, reflex arc, Vital capacity.

**UNIT-II : HISTORY AND PSYCHOLOGICAL BASIS OF PHYSICAL EDUCATION**

Physical Education in ancient Greece, Rome, and contemporary Germany, Sweden Denmark and Russia. Olympic movement-Historical development of ancient and modern Olympic Games. Physical education in India. Psychological basis of Physical education-Play and play theories, general principles of growth and development, Principles of Motor-Skill acquisitions transfer of training effects.

**UNIT-III: PHYSIOLOGY AND ATHLETIC INJURIES**

Physiology of Muscular activity, Neurotransmission and Movement mechanism. Physiology of respiration. Physiology of blood circulation. Factors influencing performance in sports, bioenergetics and recovery process. Athletic injuries-their management and rehabilitation. Therapeutic modalities. Ergogenic aids and doping. Massage manipulation and therapeutic exercises.

**UNIT- IV: BIOMECHANICAL ANALYSIS MOVEMENT AND SPORTS ACTIVITIES**

Biomechanics: Meaning and Definition. Joints ad their movement-planes and axes. Kinetics , Kinematics linear and angular levers. Laws of motion , principles of

equilibrium and force, spin and elasticity. Posture, postural deformation and their correction. Muscular analysis of Motor movement. Mechanical analysis of various sports activities. Mechanical analysis of fundamental movements-(running, jumping, throwing, pulling and pushing).

#### **UNIT-V : SPORTS PSYCHOLOGY AND SOCIOLOGY**

Learning process-theories and laws of learning. Motivation, theories and dynamic of motivation in sports. Psychological factors affecting sport performance: stress, anxiety, tension and aggression. Personality: Meaning, dimensions, theories , personality and performance. Group dynamics, team decision and leadership in sports. Sociometric. Media and Sports. Sociological basis of physical education-Socialization process, Social nature of men and physical activity, sports as cultural heritage of mankind, custom traditions and sport, competition and cooperation.

#### **UNIT-VI : MANAGEMENT AND CURRICULUM PLANNING IN PHYSICAL EDUCATION**

Development of teacher education in Physical education. Professional courses in Sports and Physical education in India. Professional Ethics. Qualities and Qualification of Physical Educational Personnel. Principles of Curriculum planning. Courses content for academic and professional courses. Age characteristics of pupils and selection of activities. Construction of class physical education time table. Types of Tournaments, Preparation of Fixtures for Knock out, League and Combination Tournaments.

#### **UNIT-VII : HEALTH EDUCATION AND RECREATION**

Health-Guiding principles of health and health education. Nutrition and dietary manipulation. Sports Nutrition. Health-related fitness- Components of Fitness , obesity and it's management. Environmental and occupational hazards and first aid. Communicable diseases-their preventive and therapeutic aspect. School health programmed and personnel hygiene. Theories and Principles of recreation. Recreation Programme for various categories of people.

### **UNIT-VIII : SPORTS TRAINING**

Characteristics and principles of sport training. Training and periodization. Training method and specific training programme for development of various qualities. Training Load Technical and tactic preparation for sports. Short-term and long term training plans. Sports talent identification -process and procedure. Preparing for competition- (build up competition, main competition, competition frequency , psychological preparation).

### **UNIT- IX: RESEARCH AND STATISTICS**

Nature , scope and types of research. Formulation and selection of research problems. Sampling-process and techniques. Methods of research. Data collection-tools and techniques. Statistical techniques of data analysis-measure of central tendency and variability, correlation, normal probability curve, t-test, and f-test, chi square, z-test. Hypothesis formulation,. Writing research report.

### **UNIT-X ; TESTS, MEASUREMENT AND RULES OF GAMES AND SPORTS**

Meaning of the terms : test, measurement and evaluation. Construction and classification of tests. Criteria of test evaluation. Assessment of physical fitness, motor fitness, motor ability and motor educability. Skill test for Badminton, Basketball, Hockey, Lawn Tennis, Soccer, Volleyball. Testing psychological variables-Competitive Anxiety, Aggression, Team Cohesion, Motivation, Self Concept. Rules, Officiating and Measurements in the following games: Track and field, Basketball, Ball Badminton, Badminton, Cricket, Football, Handball, Hockey, Kabaddi, Kho-Kho, Tennis, Table Tennis, Volleyball.

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