GUJARAT UNIVERSITY
Ahmedabad

Syllabus
(For the PG - M.P.E. Regular Programs)

(For the Candidates to be admitted from the academic year 2012-13 onwards)
UNIT - I
Introduction :
Definition, Aims and objectives of Physical Education, Health Education and Recreation - History of Physical Education in India - National Awards, SAI, IOA, AIU competitions.

UNIT - II
Philosophy of Physical Education:
Idealism, Pragmatism, Realism, Naturalism, Existentialism and Humanism - Components of Philosophy.

UNIT - III
Biological Principles of Physical Education:
Evaluation, Growth and Exercise, Exercise and Well-being - Sex and Age characteristics of adolescence, Body types (Sheldon's and Kretschmer's Classification) - Postural deformities.

UNIT - IV
Sociological Principles of Physical Education:

UNIT - V

REFERENCES
MPE502
Research Process in Physical Education

Unit - I

Introduction
Definition of Research.
Characteristics of Research.
Need and Importance of Research in Physical Education and Sports.
Classification of Research-Basic, Applied and Action Research.

UNIT-II

Research Problem
Meaning of the Research Problem.
Formulation of Research Problem.
Location and Criteria of Selection of Problem.
Limitations and Delimitations.

UNIT-III

Historical Research.
Meaning and Definitions of Historical Research.
Sources of Historical Data.
Evaluation of Historical Data.

Experimental Research.
Meaning of Experimental Research.
Sources of Inability in experimental research.
Types of Designs.

Unit - IV

Sampling
Meaning of Population and Sample.
Sampling Techniques.
Types of Errors in Sampling.
Factors affecting on reliability of sampling, size of sample, sampling cycle, Representativeness.

UNIT-V

Tools of Survey Research
Questionnaire
Interview
Observation
Case study
References

- Bose N.M., Research Methodology (Sher Niwas Publication, Jaipur (India), 2005).
- Malesh L.M., Methodology of Research in Physical Education & Sports, (Metropolitan, New Delhi, 1994).
- Fern F. Adward, Advanced focus group research,(Saye Publication, New Delhi, 2001).
- Silverman David, Doing qualitative research, (Saye Publications, New Delhi, 2000).
MPE503
Applied statistics in Physical Education

UNIT - I
Introduction
- Meaning & Definition of statistics
- Importance of statistics in physical education & sports
- Statistical process
- The frequency distribution

UNIT - II
Measure of central tendency (Group & ungrouped data)
- Mean, Median, Mode
- Quartile Decile, Percentile
- Graphical Methods

UNIT - III
Measure of variability (Group & ungrouped data)
- Range
- Quartile Deviation
- Mean Deviation
- Standard Deviation

UNIT - IV
Correlation
- Meaning of correlation
- Computing correlation using following methods
- Product Moment Method
- Rank difference method
- Sum of the squares method

UNIT - V
Normal Curve
- Meaning & Definition
- Condition for obtaining normal curve
- Critical region & acceptance region
  - “T” Test
  - “F” Test
  - “Z” Test

REFERENCES
- Wright E. Susan, Social Science Stastistics (Allyn and Bacom Inc. 1986)
MPE504EA
The Olympic Movement Education

UNIT-I
History of Olympics - Ancient and Modern Olympics - Sparta and Athens - Olympic Games Summer and Winter Olympics - Olympism and values-Olympic Family- Structure of Olympic family.

UNIT-II

UNIT-III
International Olympic Committee (IOC) - Legal Status - Members - Organisation (Session, Executive Board and President) - IOC Commissions and Ethics Commissions - Sanctions and Measures - International Federations (IFs) - Registration of IFs - Mission and role of IFs within Olympic Movement - National Olympic Committees (NOCs) - Mission and role of NOCs - Composition of NOCs - IOA and Its Activities.

UNIT-IV
Olympic Games - Celebrations - Election of the host city - Location, sites and venues Organising Committee - Olympic Games coordination commission - Olympic Village Eligibility Code - Programme of the Olympic Games - Protocol (Use of Flag and Flame, Opening and Closing ceremonies, Victory, Medal and Diploma ceremonies and Roll of honour) - Disputes.

UNIT-V

References
www.olympic.org
IOC Marketing Guide, Published by IOC.
The Olympic Charter, Published by IOC.
MPE504EB
Personality Development & Life Skills

UNIT I
• Personality : Concept & Importance of Personality Development Programme
  - Presenting one self-body language, Dress code
  - Leadership skills
• Time management
• Personal Hygiene & Grooming
• Development of positive attitude
• Boosting self-confidence

UNIT II
Communications Skills
• General English (spoken)
• Writing (Letters, Applications, Notice, Minutes, Poster, Resume)
• Voice Culture
• Telephone Manners
• Handling Group Discussions
• Mock Interviews
• Participation in Debate & Extempore

UNIT III
• Life skill-Introduction, need & Importance
• Self awareness and appropriate social interactions
• Decision making & problem solving.
• Functional reading & research

UNIT IV
• Self management and stress management skills
• Awareness of personal and community safely issues
• Nutritional concept
• Awareness of community service providers
• Basic home sanitation and manitenance

UNIT V
• Group interaction, competition & co-operation
• Behaviour characteristics, qualities & role of sports leaders
• Role of sports in Personality development

References
• UNESCO, Life skills in Non-formal Education, UNESCO & INC New Delhi.
• www.hs.sportsylvania.k12.va.us
• Shaffer, D. Social and Personality Development, Belmot, CA Wadsworth/Thomas learning.
• Shaver, P. Living styles May be Determined in Infancy, APA Monotor Washington
• Cartledge, G. Teachibng Social Skills to Children and Youth Innovative Approach, Boston MA : Allyn and Bacon.
MPE505PRA
Skill Proficiency - Games

Candidate has to select any one of the following games.
1. Kabbadi
2. Kho-Kho
3. Volley ball
4. Basketball
5. Hand ball
6. Foot ball
7. Hockey

MPE506PRA
Officiating Games

Candidate has to officiate chosen game in skill proficiency & Viva.
(A) - Practical
(B) - Viva (Rules, Regulations & Biomechanics etc.)
Introduction:
Meaning & Definition of Physical Education & Sports Psychology.
Importance of Physical Education & Sports Psychology for coaches, physical educators, sports administrators and sports persons.

Personality issues in sports
Meaning and theories of Personality
- Psycho dynamic.
- Social learning.
- Trait theories.

Causes of personality difference among sports groups.
Personality and sports performance.
Measurement of Personality.

Unit - II

Motivation in Sports
Meaning & theories of motivation.
Concept of Achievement motivation.
Techniques of motivation.
Importance of relationship between intrinsic and motivation.

Action Regulation in Sports
Meaning of Action regulation in Sports.
Psychological classification of action in sports.
Role of various cognitive function in action regulations.
Stage of Action Regulation Process.
Factors which affects action regulation in sports.

Unit - III

Anxiety arousal and Sport performance
Definition of anxiety, arousal and stress.
Trait and state anxiety and their relationship.
Arousal anxiety relationship-hypothesis and theories.
Anxiety arousal and peak performance.

Aggression in Sport
Concept of aggression.
Causes of aggression.
Theories of aggression.
Aggression and sport performance.
Methods of controlling aggression.

Unit - IV

Leadership in sport
Meaning of leadership.
Theories of leadership.
Leadership effectiveness.
How to increase the influence/power of the leader.
Spectators and sport performance
Types of spectators
Causes of spectators influence on performance
Management of spectators negative effect

Unit - V

Psychological preparation for competition
Definition of competition.
Long term Psychological preparation.
Short term Psychological preparation.

Reference

- Richard M. Sumin, “Psychology in Sports, Methods & Application”, Surjeet Publication, Kolhapur Road, Kamla Nagar, New Delhi-Q7
- But, Lusan Dorcas, Psychology lof Sports(Network:Van Nostrand Reinhold Company); Edn.2
- Rober S. Weinberg and Deanial Godd Foundation of Sports and exercise Psychology (Human kinetics, Division of sports distributors NZ Ltd., 2003)
UNIT - I

Introduction
- Meaning, Definition & Concept of Sports Medicine.
- Aim & Objectives of Sports Medicine.
- Importance of Sports Medicine.
- Brief history of sports medicine of modern times.

UNIT - II

Physical Fitness
- Meaning & Definition & Concept.
- Factor influencing physical fitness.
- Maintenance of physical fitness.
- Measurement of physical fitness.
- Advantages of physical fitness.

UNIT - III

Common Sports Injuries
- Soft tissues injuries - causes, symptoms & first aid
- Dislocation (Joint injuries - causes, symptoms & first aid)
- Fractures (kinds - causes, symptoms & first aid)
- Principles of injuries management.
- Other common injuries

UNIT - IV

- Sports Physiotheraphy
- Massage-Meaning, Definition & Importance
- Hydro therapy
- Electrotheraphy
- Criotheraphy
- Exercise theraphy

UNIT - V

(a) Dopping
- Meaning & Definition
- Advantages & Disadvantages
- Classification
- Blood Doping
(B)  Fatigue
    -  Meaning & Definition
    -  Characteristics
    -  Types, Causes & remedies

REFERENCES
MPE509
Yoga Science

Unit - I
Meaning & Definition of Yoga
- Concept & History of Yoga
- Anatomy & Physiology of Yogic exercises

Unit - II
- Yoga, Physical Education & Integration of Personality
- Aim & objectives of yoga & physical education on the basis of broad concept of education as a common ground
- Problem of integration of personality dealt with in yoga

Unit - III
Traditional Yoga
- Literature of Yoga (Yoga sutra. Gita. hathapradipika etc.)
- Vital points of the body & Panchikarana prakriya
- Limbs of Yoga
- Kumbhkas:- Meaning & types
- Asthang Yoga (awakening of the Kundalini, Nada. chakra. Pratyahara, Dharna, Dhyana, Samadhi)
- Mudras & Bandhas
- Satkarma & Siddhis

Unit - IV
Yoga & Mental Health
- Mental health & Hygiene: Yogic & Medical perspectives
- Yoga & Modern psychology, Concept of normality.
- Emotional Disorders, Conflicts, Frustration
- Personal & interpersonal adjustments through yoga
- Yamas, Niyamas, Asanas & Pranayams : its contribution to Physical & Mental health.
- Prayer- Its significance in yogic Practices

Unit - V
Yoga Health & Fitness
- Meaning, Yoga dimensions of health related fitness
- Role of Nostril dominance in Brain function & activity
- Scientific reasoning behind the Various Asanas.
- Mechanism of Yoga ,Diet for preventive & Curative aspects of health
- Resarches done in Yoga :- An overview

References :
• B. K. Aayenger, Yoga Deepika, Orient Longman Pvt. Ltd. Mumbai
• Swami S. S., Asana, Pranayam, Mudra Bandha, Bhargya Bhushan Press, Varanasi
• Gore M. M. Anatomy & Physiology of Yogic Practices, Kanchan Prakashan
• Ross K., The Mannual of Yoga, Rupa & Co.
• Swami Kuvalayananda, Yogic Therapy - Its basic Principles and Methods, CHEB New Delhi
UNIT- I
Guiding Principles of Health and Health Education - Factors influencing health - Health organizations - Careers in Health Education - School Health Programme and personal hygiene.

UNIT - II
Communicable and Non communicable diseases - symptoms and prevention- Effects of environment on health - Smoking cessation - Substance Abuse Control - Sexually Transmitted Diseases

UNIT - III
Factors affecting Safety at Home - Safety at Roads - Safety at Water and Fire - Safety at Playfield - Pollution control

UNIT-IV
Dietary Guidance for Good Health, Types of Nutrients - Balanced Diet - Non energy Nutrients Food pyramid - Nutrition and Aging - Malnutrition

UNIT- V

REFERENCES
• Chaube S.P and Chaube Akhilesh,
MPE510EB
FITNESS AND WELLNESS

UNIT-I
Components of Physical fitness (Health and Performance related fitness) - Health and Wellness - Prevalence of Physical activity - Barriers to a Physically active life style - Medical Evaluation - Fitness Appraisal - Stages of Program Development for Fitness Participants.

UNIT-II
Principles of Exercise: Ideal Exercise Program - Fitness Concepts - Exercise Guidelines for Children, Adolescence, Adults and Special Groups - Making the right exercise program Maintaining fitness program - Exercise under difficult conditions: Traveling, limited space, injury, busy and visitors.

UNIT-III
Fitness Activities: Aerobic dancing, step aerobics, water exercise, brain training, agility and balance training, isometric training, cycling, stair climbing, treadmill, walking - Health benefits of physical activity.

UNIT-IV
Designing a program for lifetime fitness: Identifying fitness goals - Health promotion and disease prevention - Home exercise equipment - Promoting lifetime physical fitness for disabled persons - Keeping fit as age - exercise for the elderly.

UNIT-V

REFERENCES
MPE511PRA

Skill - Proficiency - Athletics

Running:
- Short distance running
- Middle distance running
- Long distance running
- Relay Races
- Hurdles Races

Jumping:
- High Jump
- Long Jump
- Triple Jump
- Pole Vault

Throwing:
- Shotput
- Discuss Throw
- Javelin Throw
- Hammer Throw

MPE512PRA
Officiating - Athletics

Candidate has to officiate athletics events & viva of the officiating athletics
(A) Practical
(B) Viva (Rules, Regulations & Biomechanics etc.)
Introduction to Sports Training
- Meaning and definition of Sports Training and Coaching.
- Aims and Tasks of Sports Training.
- Characteristics of sports Training.
- Principles of Sports Training.
- Training Means.
- Factors of Training Load.

UNIT - II
Training Load
- Meaning.
- Over Load - Meaning, Causes, Symptoms and tackling of Over Load.
- Principles of Loading.
- Judgment of Training Load Objective and Subjective Means.
- Adaptation process, Factors affecting recovery, Means of faster recovery.

UNIT - III
Conditional Abilities
- Flexibility - Meaning and Forms of Flexibility. Factors determining. Flexibility, Methods for Flexibility Training.

UNIT-IV
Tactical Training
- Technique-Meaning of Technique, Skill and Style, Significance of Technique Training in different sports, Factors affecting Technique training phases of Technique Training and their training implications.
- Tactical training meaning of strategy and tactics, Difference between strategy and tactics significance of Tactics, Tactical training Means.
Unit - V

Periodisation, Planning & Competition:
- Periodisation-Meaning & types of periodisation, contents of training for different period.
- Planning-Meaning Principles of Planning types of training plans.
- Competitions-Importance of Competitions as methods of Training.

Reference:
MPE602
Professional Preparation & Curriculum Design

UNIT - I

Teaching styles and strategies:
Definition and importance of Teaching Styles. -
- Teaching Styles.
- Factors in Selection of a Teaching Styles.

Communication, Motivation of a Teaching Style.
- Importance of Communication
- Effective Presentation.
- Effective Demonstration
- Increasing Student Constitutions.
- Strategies to enhance student Motivation.
- Disciplinary Strategies in Physical Education.

UNIT - II

Developmental Characteristics of the Learner
- Psychomotor Development
- Cognitive Development.
- Affective Development.

Implications for Physical Education, Co-education in Physical Education
- Integrating Programmer’s for Boys and Girls.
- Activities suitable for Co-education.
- Levels at which co-education is Desirable.

Physical Education-Programme for Special Group.

UNIT - III

Definition, Meaning of term Curriculum
- Curriculum Organization
- Curriculum Models
- Role of Teachers in Curriculum Development

Curriculum Development Approaches to Curriculum Development, Curriculum Committee
- Models of Curriculum Development
- Steps in curriculum Construction
- Curriculum Implementation

UNIT - IV

Factors Affecting Learning - Learner, Community, Influence, Location, Facilities and Equipment, Scheduling Patterns, Faculty.

Principles of Planning
- Goal Setting
- Development of Instructional Objectives.
- Learning Domains

UNIT - V

Evaluation of Learning
- Role of Evaluation in Physical Education
- Types of Evaluation- Informal Evaluation, Objective Evaluation, Subjective Evaluation and Norm Reference Evaluation
References

• Synder Albert Raymond & Scott, Professional Preparation in Health, Physical Education & Recreation (Greenwood press publisher, 1954).


• Wessel A. Janet, Kelly Zuke Achievment Based Curriculum Development in Physical Edu-

cation (Leas Febiger, Philodelphia, 1986)

• Gupta Rakesh, Sharma Akhilesh and Sharma Santosh, Professional preparation and Cur-

riculum Designs in Physical Education & Sports, (Fiends Publications (India) 2004).

• Sandhu Kiran Professional Preparation & Lureer Development in Physical Education & Sports (Friends Publication (India) 2004
MPE603
Sports Management

Unit : I
Management Process
- Concept, definition, purpose and scope.
- Importance of sports management.
- Basic skills and functions of sports management.
- Different levels in sports management.

Unit : II
Planning
- Introduction, meaning and Definition of Planning,
- Characteristics of planning, types of Planning and steps in planning.
- Principles of Effective Planning, importance of planning in sports & physical Education programmes.

Unit : III
Personnel (Staffing)
- Meaning and definition of selection, Steps of Selection Procedure.
- Meaning and Definition of training and Development.
- Methods of training and Development, Importance of training and Development

Unit : IV
Budget management
- Definition and Purpose of Budget,
- principle of Effective Budgeting, types of Budget.
- steps in construction of Budget in Physical Education and Sports,
- Presentation of budget and financial management.

Unit : V
Directing and Controlling
- Introduction, Definition and Nature of Directing.
- Principle of directing.
- Importance of directing in physical education and Sports.
- Introduction, Definition, Characteristics and Steps of Controlling.
- Principles of Effective Control
- Significance of Controlling in Physical Education and Sports.
- Importance of Controlling in Physical Education and Sports.

Reference :
MPE604EA
Health and Fitness Management

Unit - I

Introduction to a Positive Health Lifestyle
- Understanding wellness
- Fitness concerns and needs in India

Principles of Physical Fitness
- Concept & Components of physical fitness (Health & Motor skill related)
- Personal physical fitness programs
- General principles of training

Unit - II

Cardiovascular Endurance and Fitness (aerobic exercise)
- Introduction to heart structure & Cardiac cycle
- Energy production and system
- Aerobic exercise prescription & programmes
- Benefit/risk factors

Muscular Strength/Endurance
- Principles and development of muscular strength and muscular endurance
- Weight training programs and alternatives

Unit - III

Flexibility
- Factors influencing flexibility
- Flexibility related to health and wellness
- Measurement & Development of flexibility

Body Composition:
- Concept and assessment

Unit - IV

Development of Individualized Fitness Program
- Exercise prescription
- Individualized workout

Nutrition
- Basic nutritional information
- Determining caloric intake and expenditure
- Meal planning and diets
Unit - V

Weight Management
- Weight loss/gain and body composition
- Weight management and lifestyle

Stress Management
- Stress related disease and disorders
- Stress and physical exercise

Reference:
- Werner V. K. Hoeger, *Fitness and Wellness*, Wadsworth, Thomas learning
- Gordon Edlin, *Health & Wellness*, Jones and Bartlett Pub. Massachusetts
UNIT - I

Introduction:
Nature, scope and method of sociology
Sports as a social phenomenon.
Sociological analysis of sport and sport sociology as an academic discipline.
Social factors (appearance, sociability, aspiration level and audience) and their influences on participation and performance in sports.

UNIT - II

Sport and Micro Social Systems
Study of Sport groups.
Group interaction, competition & co-operation.
Behavior characteristics, qualities and roll of sport leaders
Sports and Culture.

UNIT - III

Sport and Macro-social System
Relationship between sport and socializing institution (Family, School and educational System)
Inter-relationship between and regulating institution (Politics and economy).
Sport and cultural institutions (religion and art).
Socialization through games and sports.

UNIT - IV

Sports and Culture
Sport as a Social institution.
Sport as an element of Culture and a Cultural product.
Manipulative Socialization and coerced conformity.
Relationship between sport and culture.

UNIT - V

Social Factors Concerning Sport in Society
Social stratification in sport and Sports as a stratification system.
Discrimination and democratization in sport with special reference to socio-economic classes and women.
Sport and aggression, violence in sports.
Problem regarding professionalization and children in sports.

Reference
MPE605PRA
Coaching Lessons - Games

**Note**: Candidate has to select the game for coaching lesson which he/she select for skill proficiency in semester - I
- Internal Lesson - 5
- External Lesson - 1

**MPE606PRA**

**Athletics Performance**
- 100 mts. Run
- Long Jump,
- High Jump
- Shot Put,
- 200 mts. Run (Women)
- 800 mts. Run (Men)
Semester - IV
MPE607
Measurement & Evaluation in Physical Education

Unit - I

Introduction
- Meaning and definition of Measurement and Evaluation
- Nature and scope of evaluation programme.
- Need and importance of evaluation in the field of Physical Education.

UNIT-II

Selection and Construction of Tests
- Criteria of Test Selection.
- Factors affecting Scientific Authenticity.
- Procedure to establish Scientific Authenticity.
- Classification of tests - standardized and teacher made test (objective and subjective).
- Construction of Tests - knowledge test and skill tests. Administration of testing programme its procedure and follow up.

UNIT-III

Measurement of Physical Performance

Organic Functions:
- Cooper’s 12 minutes continuous run-walk test.
- Harvard step test and its modifications (High School and College level (Men and Women).

Motor Fitness:
- JCR Test
- Indiana Motor Fitness Test
- AAHPERD Youth Fitness Test.

Strength Test
- Kraus-Weber Muscular test.
- Roger’s Strength Test

General Motor Ability
- Mc Cloy’s General Motor Ability
- Larson Test
- Cozen Athletic Ability Test
- Barrow General Motor Ability Test

UNIT-IV

Sports Skill Test
- Lokhart & Macpharson Badminton skill test
- Miller Wall Volley Test
- Johnson Basketball Ability test
- Leilich Basketball Skill Test
- Mac Donald Soccer Test
- Kornish Handball Skill Test
- Diyer Tennis Test
- Harbansingh Hockey Test
- Bready Volleyball Test
- Russel Lunge Volley Ball Test
Unit - V
Measurement of Posture and Anthropometry
- Measures of Posture-IOWA Posture Test (Curelon’s)
- Anthropometric Measurement

Measurement of Social Efficiency :
- Socio metric Status Index.
- Adams Physical Education Attitude Scale.
- Neilson Sports Leadership Questionnaire.

References

• Mathews, Donald K. Measurement in Physical Education (London W.B. Saunders Co. 1973) Edn. 5
MPE608
Sports Biomechanics

UNIT-I

Introduction
- Meaning of Biomechanics
- Biomechanics in Physical Education, Sports and Research
- Fundamental Skills - Basic and I of Sports

Movement Analysis
- Kinesiological Analysis,
- Mechanical Analysis
- Biomechanical Analysis.

UNIT-II

Linear, Angular and General Motion
- Distance and Displacement (Linear and Angular)
- Speed and Velocity (Linear and Angular)
- Acceleration (Linear and Angular, Uniform Motion)
- Relationship of Linear and Angular Motion
- Centrifugal and Centripetal Forces
- Newton’s Laws of Motion as applicable to Linear and Angular motion.

UNIT-III

Force
- Meaning, Unit of force, effect of force, Source of force, Components and resultant of Force
- Friction
- Pressure
- Work, power and Energy
- Levers
  Moment of Inertia
  Moment of force

UNIT- IV

- Freely falling bodies, Projectiles, momentum and Impulse
- Stability (Static and Dynamic), Initiating Rotation in the Air
- Spin, Impact and Elasticity
- Fluid Mechanics, Air resistance and Water resistance

UNIT- V

Analysis of Following Fundamental Skills:
- Walking
- Running
- Throwing
- Lifting
- Pulling
- Pushing
- Catching
- Climbing

Analysis of Skills of the Following Games/Sports:
- Athletics
- Football
- Hockey
- Handball
- Basketball
- Cricket
- Volley Ball
- Kabbadi & Kho-Kho

Reference

• Hay, James G. and Ried J. Gavid , The Anatomical ad Mechanical Basis of Human Motion(Englewood Cliffs, N.J. Prentice Hall, Inc. 1982).
• M.C. Ginnis M. Peter, Biomechanics of Sports and Exercise, (Human Kinetics, 1999).
• Kreighbaum Ellen; and Barthels M. Kathareine, (Mac millan publishing company, Newyork,1990).
MPE609
Information Technology in Physical Education

Unit - I
Computer - Meaning and definition - Components of computer - input and output devices - Storage Devices - Software and Hardware - Languages - LAN and WAN - Application software used in Physical Education and Sports

Unit - II
Introduction to MS Word - Creating, saving and opening a document - Formatting and Editing features - Drawing table - page setup - paragraph alignment - spelling and grammar check - printing option - inserting page number, graph, footnote and end notes - mail merge - hyperlink.

Unit - III
Introduction to MS Excel - Creating, saving and opening a spreadsheet - Formatting and editing features - creating formulas - adjusting column width and row height - understanding charts - Introduction to MS Powerpoint - Creating, saving and opening a ppt file - Formatting and Editing features - slide show - design - inserting slide number, picture, graph and table - hyperlink.

Unit - IV
Web design using HTML - General Introduction - web browser & HTML programme - Preparing HTML, Pair, Tag document, Head & Body Tag - Heading line, Drawing line, Paragraph Break - Font Style (bold, italic, underline) - Type of list - order-unorder - Graphic image, Sound, Video - Tables, Headen, Data Rowa, Captain tag use of width, border, working sell specing column & raw, span alignment

Unit - V
Meaning and definition of Internet and Multimedia - Application of Internet and multimedia in Physical Education and Sports - Computer application in Physical education and Sports.

References:
MPE610EA
Exercise Physiology

Unit - I
a) Introduction & Importance of Exercise Physiology
b) Muscle :- Structure, Types and Function
c) Theories of Muscular Contraction
   • Sliding Filament Theory
   • Molecular Basis of Muscular Contraction
   • Chemical Composition of Muscle
   • Muscle Fiber Types

Unit - II
a) Bio Energetics & Recovery Process
b) Neuro- muscular Junction & Co-ordination of Muscular activity

Unit - III
a) Physiological Changes due to Exercise and Training on the following systems.
   • Circulatory System
   • Respiratory System
   • Muscular System
b) Oxygen Debt, VO₂ Max., Forced Expiratory Volume, Breathing capacity, Recovery rate
c) Blood Supply & Regulation of blood flow during exercise.
d) Physiological aspects of development of various Fitness components

Unit - IV
a) Sports & Nutrition
   • Balance diet
   • Diet before. during and After the athletic performance
   • Effect of Drugs. Alcohol and Smoking on performance

Unit - V
- Obesity & Weight Control
- Energy Cost :- Meaning & Methods of assessment
- Work Capacity under different Environment (hot, humid, cold & High Altitude)

Reference :
• Dr. Shivaramakrishann S. Anatomy and Physiology for Physical Education Friends Publication, 2006
• Brian J. Sharkey, Steven E.Gaskill Sports Physiology for Coaches Friends Publication, 2006
• Aurther Vander, James Shereman, Dorothy Luciano Human Physiology - The Mechanism of the Body Function WeB/Mc Graw-Hill, 7th edn. 1976
• George A. Brooks, Thomas D. Fahey, Timothy P.White, Exercise Physiology human Bioenergetics And its Applications Friends Publication, 2nd edn 1987
MPE610EB  
Recreation & Leisure Time Management

Unit - I
- Fundamentals of Recreation
  • Concept & Meaning of Recreation
  • Need & Importance
  • Principles & Theories of Recreation & Play

Unit - II
- Therapeutic Recreation (Theoretical and philosophical foundations of therapeutic recreation, behavioral, therapeutic use of activity; recreative interaction intervention techniques)
- Recreation for the life-span (role of recreation and leisure on human development and its impact on healthy fetal development from conception until death. Examination of the diverse, multicultural perspectives on recreation and leisure)

Unit - III
- Recreational Sports Programme and Administration
  (Organization and administration of intramural sports on elementary, secondary, college, and university levels. Programme planning, facilities, equipment and financing of intramural sports and Leisure activity programme.)

Unit - IV
- Programme for different Category
  • Men / Women
  • Child / Youth/ adult/ Old age
  • Physically/ mentally challenged
- Recreational Facilities and Area Design

Unit - V
- Current Issues in Recreation
  • Recent research and management developments in recreation
  • Latest trends in recreation and Leisure time management
  • Employment opportunities and procedures for employment.

References:
- Smith, R. And Austin, D. *Inclusive and special Recreation: Opportunities for persons with Disabilities*. Human Kinetics
**MPE611PRA**
Coaching Lessons - Athletics

**Note:** Candidate has to prepare coaching lesson from his/her choice of Running, Jumping & Throwing events.
- Internal Lesson - 5
- External Lesson - 1

**MPE612PRA**
Yoga

- Padmasan
- Siddhasan
- Vajrasan
- Tadasan
- Trikonasan
- Savasan
- Sarvangasan
- Matsyasan
- Halasan
- Paschimotanasan
- Bhujangasan
- Makrasan
- Salbhasan
- Dhanurasan
- Chakrasan
- Ardhmtyendrasan
- Kukutasan
- Tolasan
- Sinhasan
- Yogmudrasan
- Mayurasan
- Shirhasan
- Ushmasan
- Surya Namshkar
- Kapalbhati
- Shitli
- Uddiyanbandh
Syllabus for Project

Unit - I

History & Development
- In India
- In Asia
- In the world

Unit - II

Organisation
(A) National Level
- National Federation & its affiliated units
- National, State & Uni. Level Competitions
- Coaching Centres
(b) International Level
- International federation & its affiliated bodies
- Main international competitions
(Olympic Games, Commonwealth Game, Asian Games)

Unit - III

Officiating
- Rules & its interpretations
- Preparation & maintenance of Play field
- Duties & Power of officials
- Specifications of equipments & player’s kit
- Organisation of tournaments

Unit - IV

Technique
- Classification of techniques
- Physical characteristics & basis fundamentals
- Applied mechanical principles
- Specific training
- Training schedules

Unit - V

Tactics & Strategy
- Attacking tactics
- Defensive tactics