Title: (PEM-3001) SCIENTIFIC PRINCIPLES OF SPORTS TRAINING

Objectives: To Provide Understanding of scientific Approach and Theoretical Framework of Research and Development of Scientific Skill to Deal with Ethical Issues and Complexity of Problems.

Credits: 04
Max. Marks: 100
Sessional Marks: 10
Mid Term Exam: 30
Examination Marks: 60
Paper Code: PEM-3001
Duration: 2 hours

UNIT -I
Introduction
1.1 Sports training- Definition, Aim and Characteristics,
1.2 Scientific principles of sports training
1.3 Over Load: Definition Causes of Over Load, Symptoms of Overload, Remedial Measures of over load.
1.4 Super Compensation – Altitude Training – Cross Training

UNIT -II
Components of Physical Fitness
2.1 Strength: Factor effecting strength, Type of training used to develop strength, role of strength in game and sports
2.2 Speed: Factor effecting speed, Type of training used to develop speed role of speed in game and sports
2.3 Endurance: Factor effecting Endurance, Type of training used to develop endurance and role of endurance in game and sports
2.4 Flexibility: Factor effecting Flexibility, Type of training used to develop Flexibility and role of Flexibility in game and sports
2.5 Coordination: Factor effecting Coordination, Type of training used to develop coordination and role of coordination in game and sports

UNIT –III
Technique & Tactics
3.1 Meaning of technique, skill and style, and aim of technique training.
3.2 Various phases of technique training.
3.3 Methods of technique training, causes of technical faults and their corrections.
3.4 Meaning, aim and Principles of tactics.
3.5 Tactical action and training of tactics.
UNIT -IV

Doping
4.1 Doping: meaning, definition and classification of doping.
4.2 History of doping, health risks and side effects of doping.
4.3 Blood doping: meaning, method, effects and side effects of blood doping.
4.4 Doping control: anti doping organizations, IOC prohibited list of doping drugs and methods.

REFERENCES :

- David R. Mottram (1996) Drugs in Sport, School of Pharmacy, Liverpool: John Moore University.
Title: (PEM-3002) SPORTS MEDICINE

Objectives: To Provide Understanding of sports medicine Approach and Theoretical Framework of Research and Development of Scientific Skill to Deal with Ethical Issues and Complexity of Problems.

Credits: 04
Max. Marks: 100
Sessional Marks: 10
Mid Term Exam: 30
Examination Marks: 60
Paper Code: PEM-3002
Duration: 2 hours

UNIT I

Introduction
1.1 Meaning, definition and importance of Sports Medicine, Definition and Principles of Therapeutic exercises.
1.2 Coordination exercise, Balance training exercise, Strengthening exercise, Mobilization exercise, Gait training,
1.3 Gym ball exercise Injuries: acute, sub-acute, and chronic.
1.4 Advantages and Disadvantages of PRICE, PRINCE therapy, Aquatic therapy.

UNIT II

Basic Rehabilitation
2.1 Basic Rehabilitation: Strapping/Tapping: Definition, Principles Precautions Contraindications.
2.2 Proprioceptive neuromuscular facilitation: Definition hold, relax, repeated contractions.
2.3 Show reversal technique exercises. Isotonic, Isokinetic, isometric stretching.
2.4 Definition. Types of stretching, Advantages, dangers of stretching, Manual muscle grading.

UNIT III

Spine Injuries and Exercise
3.1 Head, Neck and Spine injuries: Causes, Presentational of Spinal anomalies, Flexion, Compression, Hyperextension.
3.2 Rotation injuries.
3.3 Spinal range of motion.
3.4 Free hand exercises, stretching and strengthening exercise for head neck, spine.
UNIT IV

Upper Extremity Injuries and Exercise
4.2 Breathing exercises, Relaxation techniques, Free hand exercise, Stretching and strengthening exercise for shoulder, Elbow, Wrist and Hand.

Lower Extremity Injuries and Exercise

REFERENCES:
Title: (PEM-3003) HEALTH EDUCATION AND SPORTS NURTITION

Credits: 04
Max. Marks: 100
Sessional Marks: 10
Mid Term Exam: 30
Examination Marks: 60
Paper Code: PEM-3003
Duration: 2:00 Hours

Unit-I
Health Education

1.1 Concept, Dimensions, Spectrum and Determinants of Health.
1.2 Definition of Health, Health Education, Health Instruction, Health Supervision.
1.3 Aim, objective and Principles of Health Education.
1.4 Health Service and guidance instruction in personal hygiene.

Unit-II
Health Problems in India

2.1 Communicable and Non Communicable Diseases
2.2 Obesity, Malnutrition, Environmental sanitation.
2.3 Personal and Environmental Hygiene for schools
2.4 Objective of school health service, Role of health education in schools
2.5 Health Services - Health appraisal, Health record, Healthful school environment, first-aid and emergency care etc.

Unit-III
Introduction to Sports Nutrition

3.1 Meaning and Definition of Sports Nutrition.
3.2 Role of nutrition in sports, Basic Nutrition guidelines.
3.3 Nutrients: Ingestion to energy metabolism (Carbohydrate, Protein and Fat), Role of carbohydrates, Fat and protein during exercise.
Unit–IV

Nutrition and Weight Management

4.1 Concept of BMI (Body mass index).
4.2 Obesity and its hazard, dieting versus exercise for weight control.
4.3 Maintaining a Healthy Lifestyle, Weight management program for sporty child.
4.4 Role of diet and exercise in weight management.
4.5 Design diet plan and exercise schedule for weight gain and loss.

References:

- Bucher, Charles A."Administration of Health and Physical Education Programme". Delbert, Oberteuffer, et.al."The School Health Education".
- Ghosh, B. N. "Treaties of Hygiene and Public Health".
- Nutrition Encyclopedia, edited by Delores C.S. James, the Gale Group, Inc.
Title: (PEM-3012) PHYSICAL FITNESS AND WELLNESS (Elective)

Objectives: Students will understand, monitor, and be able to explain how physical fitness and nutrition influence their health and wellness.

Credits: 04
Max. Marks: 100
Sessional Marks: 10
Mid Term Exam: 30
Examination Marks: 60
Paper Code: PEM-3012
Duration: 2:00 Hours

Unit I

Introduction
1.1 Meaning, Definition and component of physical fitness
1.2 Concept and Techniques of Physical fitness
1.3 Principles of physical fitness
1.4 Current trends in fitness and conditioning
1.5 Components of total health fitness and the relationship between physical activity and lifelong wellness.

Unit II

Nutrition
2.1 Introduction of Nutrition Science
   2.1.1 Food groups – a guide in menu planning
   2.1.2 Functions of food
   2.1.3 Food pyramid
2.2 Food technology – genetically modified foods
   2.2.1 Organic food
   2.2.2 Inorganic food
2.3 Units of energy – calorie
   2.3.1 Energy value of foods
   2.3.2 Basal metabolism
   2.3.3 Factors affecting basal metabolic rate (BMR)
2.4 Weight management

Unit III

Aerobic Exercise
3.1 Meaning, determinants and definition of Aerobic exercises
3.2 Mode of aerobic training programme
   3.2.1 Large muscles
   3.2.2 Rhythmic
   3.2.3 Long duration
   3.2.4 Lower extremity versus Upper extremity exercise
3.3 Exercise programs
   3.3.1 Warm-up
   3.3.2 Aerobic exercise period
   3.3.3 Cool-down
3.4 Aerobic Exercise programs
   3.4.1 Continuous
   3.4.2 Interval
3.4.3 Circuit
3.4.4 Circuit-interval

3.5 Assessment of cardio respiratory fitness

Unit IV

Anaerobic Exercise
4.1 Meaning and definition of an aerobic exercises
4.2 Principles of resistance training
4.3 Resistance Training for Muscular Strength and Endurance
4.4 Weight training principles and concepts: basic resistance exercises (including free hand exercise, free weight exercise and tubing, medicine balls, fit balls)

Reference:
7. Robert Malt. 90 day fitness plan, D.K. publishing, Inc. 95, Madison Avenue, New York 2001
DEPARTMENT OF PHYSICAL EDUCATION
SYLLABUS (SESSION: 2017-2018)
MASTER OF PHYSICAL EDUCATION (M.P.ED.)

Semester-IIIrd

Title: (PEM-3071) Track and Field III: Throwing Events + introduction of Heptathlon event & Gymnastics

Objective:  

Credits: 04  
Max. Marks: 100  
Internal Assessment: 40  
Examination Marks: 60  
Paper Code: PEM-3071

THROWING AND INTRODUCTION OF HEPTATHLON

UNIT-I

Throwing Events:
1.1 Dimensions for Athletics throwing Events- Shot put, Discus, hammer and Javelin.
1.2 Fundamental skills, technique & rules:
   1.2.1 Shot Put  
   1.2.2 Discus  
   1.2.3 Hammer  
   1.2.4 Javelin

UNIT-II

Heptathlon:
2.1 History of Heptathlon  
2.2 Introduction and events in Heptathlon  
2.3 Training for Heptathlon

Gymnastics:

UNIT-III

Specific Exercises for Vault:
3.1 Split Vault: Run-up, Take-off, Placing hand on the vault, Push, Split legs & Dismount.

UNIT-IV

41. Roll over the Vault, Run-up, Take-off, Placing hands, Rolling Movement, Dismount.

Suggested Readings:

  http://www.brianmac.co.uk/hepth/index.htm [Accessed 14/6/2016]
- IAAF (2016) Heptathlon [WWW] Available from:  
  http://www.iaaf.org/disciplines/combined-event/heptathlon
Title: (PEM-3074) Games Specialization- III: Boxing & Judo

Credits: 04
Max. Marks: 100
Internal Assessment: 40
Exam. Marks: 60
Paper Code: PEM-3074

UNIT-I

BOXING:

1.1 Footwork: Attack and Defense.
1.2 Punches: Hook, Upper cut & Combination.
1.3 Defense: Cover up & Counter Attack.

UNIT-II

2.1 Tactics: Fighting in close, Feinting / Ducking.
2.2 Rules & their interpretations.

UNIT-III

JUDO:

3.1 Salutation/ Rei
3.2 Ukemis
3.3 Tai Sabaki & Kuzushi

UNIT-IV

4.1 O goshi, I ppon Sionage
4.2 Rules & their interpretations.
Title: (PEM-3081) Coaching Lesson of Track & Field

Objective: To provide practical approach to understand and application of basic skills and rules

Credits: 04
Max. Marks: 100
Internal Assessment: 40
Exam. Marks: 60
Paper Code: PEM-3081

UNIT-I

1. Fundamental of Track & Field
   1.1 Concept & principles of teaching in Track & Field event.
   1.2 Sprints and Middle distance run
   1.3 Throws and Jumps.

UNIT-II

2. Teaching & Coaching Advance Skill
   2.1 Running
   2.2 Jumping
   2.3 Throws

UNIT-III

3. Rules and Interpretation:
   3.1 Sprints
   3.2 Distance Running or Long Distance
   3.3 Steeple Chase
   3.4 Field Events

UNIT-IV

4. Layout and Standard and Non-Standard Track
   4.1 Tracks Marking
   4.2 Field Marking
   4.3 Marathons

Books Recommended:

2) Thani V.: Encyclopaedia of Track & Filed (with Latest Rules), Khel Sahitya Kendra-4264/3, Ansari Road, Darya Ganj, New Delhi (2003).
Title: (PEM-3082) Coaching Lesson- Gymnastics

Credits: 04
Max. Marks: 100
Sessional Marks: 40
Exam. Marks: 60
Paper Code: PEM-3082

UNIT-I
Floor Exercises:
1.1 Front Roll
1.2 Back Roll
1.3 Hand Stand to Roll
1.4 Back Roll to Hand Stand
1.5 Cartwheel
1.6 Hand Spring
1.7 Camel Roll

UNIT-II
Parallel Bars:
2.1 Swing
2.2 Single Shoulder Stand
2.3 Double Shoulder Stand
2.4 Side Roll
2.5 Hand Stand
2.6 up-Starts

UNIT-III
Vaulting Table:
3.1 Split Vault:
  3.1.1 Approach Run
  3.1.2 Take off
  3.1.3 Placing Hands on the Vault
  3.1.4 Push
  3.1.5 Split Legs
  3.1.6 Dismount
3.2 Roll over the Vault:
  3.2.1 Approach
  3.2.2 Take off
  3.2.3 Placing Hands
  3.2.4 Rolling movement
  3.2.5 Dismount

UNIT-IV
Balance Beam
4.1 Walking
4.2 Walking with jump
4.3 Balance
4.4 Jump & Leap
4.5 Roll
4.6 Turn
4.7 Dismount
Title: (PEM-3084) Coaching Lesson of Games Specialization: Judo

Credits: 04
Max. Marks: 100
Internal Assessment: 40
Exam. Marks: 60

Paper Code: PEM-3084

Unit-I

1. Ukemi (receiving techniques or breakfall techniques)
   a. Mae Ukemi (forward fall)
   b. Ushiro Ukemi (backward fall)
   c. Yoko Ukemi (side fall)
   d. Zenpo Kaiten (forward judo roll)

Unit-II

2. Nage-waza (throwing techniques)
   a. Te-waza (hand throwing techniques) - One
   b. Koshi-waza (hip throwing techniques) – One
   c. Ashi-waza (foot throwing techniques) – One
   d. Sutemi-waza(sacrifice techniques) - One

Unit-III

3. Katame-waza: grappling techniques
   Osaekomi-waza (matholds)
   a. Kami-shiho-gatame (Upper four quarter hold down)
   b. Kata-gatame (Shoulder hold)
   c. Kesa-gatame (Scarf hold)
   d. Kuzure-kami-shiho-gatame (Broken upper four quarter hold down)

Unit-IV

4. Shime-waza (chokes or strangles)
   a. Kata-ha-jime (Single wing strangle)
   b. Okuri-eri-jime (Sliding lapel strangle)
Title: (PEM-3085) Coaching Lesson of Games Specialization: Boxing

Credits: 04
Max. Marks: 100
Internal Assessment: 40
Exam. Marks: 60
Paper Code: PEM-3085

UNIT-I

Foot Work:
1.1 Advance Foot Work
1.2 Backward Foot Work
1.3 Left and Right Foot Work
1.4 Circling to the Left, Circling to the Right

UNIT-II

Straight Punches:
2.1 Straight left to Head
2.2 Straight Right to Body
2.3 Straight Left to Head
2.4 Straight Right to Head

UNIT-III

Upper Cut:
3.1 Left uppercut to Head
3.2 Left uppercut to Body
3.3 Right uppercut to Head
3.4 Right uppercut to Body

UNIT-IV

Hooks and Combinations:
4.1 Left & Right hook to Head
4.2 Left & Right hook to Body
4.3 Feinting
4.4 Various combinations of Boxing

Updated on 24.08.2016