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SREE SANKARACHARYA UNIVERSITY

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1.0. PREFACE

The Master's Degree in Physical Education started in the Department since 2013. The main objectives of the Department is to prepare highly competent and skilled teachers in the field of Physical Education and Sports. This program also aims at inculcating a positive attitude towards fitness, sports and games among the public.

OBTLE Abbreviations	
OBTLE	Outcome Based Teaching, Learning and Evaluation
CL	Cognitive Level
Re	Remember
Un	Understand
Ap	Apply
Ana	Analyse
Eva	Evaluate
Cr	Create
KC	Knowledge Category
Fa	Factual
Conc	Conceptual
Proc	Procedural
Me	Meta Cognitive

1.01. Programs Offered

The Department offers the following Programs

- i. M.P.E.S (Master of Physical Education) 2 years (4 semesters)
- ii. Ph.D

1.02. Prospects of the course

On the successful completion of M.P.E.S Programme, the post graduates will be competent for appointment as Assistant Professors/assistant Directors of Physical Education in colleges and Universities. Also they will find ample avenues to act as Supervisors, Administrators, Recreation/ Fitness/ Wellness leaders in Industries, Commercial Establishments, Mass media and other agencies.

1.03. Approved Programme Outcomes of the University

1. PO –1**CRITICAL THINKING**– Take Informed Actions after identifying the Assumptions that frame one’s Thinking and Actions, Checking out the Degree to which these Assumptions are Accurate and Valid, and Looking at one’s Ideas and Decisions (Intellectual, Organizational and Personal)from Different Perspectives.
2. PO –2 **COMMUNICATION**.- Listen, Read, Comprehend, Speak and Write Clearly and Effectively in Person and Through Electronic Media and in English / Regional Language / Language Of The Discipline and Exhibit Sound Domain Knowledge Including Academic Concepts and Terminologies
3. PO –3 **SELF –DIRECTED &LIFE –LONG LEARNING** – Engage in Independent and Lifelong Learning in the Broadest Context of Socio – Technological Changes.
4. PO–4 **ETHICS** – Understand Different Value Systems including one’s own, as also the Moral Dimensions of one’s actions and accept Responsibility for the same

1.04. General Structure of the MPES Programme.

Duration	:	4 Semesters
Minimum credits required	:	88 Credits
Number of core courses		
Theory (11)	:	44 Credits
Practical (06)	:	24 Credits
Single Credit Elective courses within the department(8)	:	08 Credits
Multi-disciplinary electives (2)	:	08 Credits
Dissertation	:	04 Credits

1.05. Specific Outcomes of the MPES Programme

1. **PSO1**- Critically analyze the modern trends in Physical Education and develop own training philosophies for the promotion of health, fitness and life style for a healthy nation.
2. **PSO2** – Develop insights to understand and analyse modern sports through the experiences gained from the opportunities.
3. **PSO3**- Develop competencies in verbal and written communication skills with special reference to Physical Education terms and leadership qualities for the social wellbeing.
4. **PSO 4** –Understand the scientific basis of human body and bio –mechanical,kinesiological principles of human movement
5. **PSO 5**- Understand the ethics, values and traditional practices of indigenous Physical Activity of ancient India.
6. **PSO 6** – Understands the significance of stages of growth and development, self- directed and life - long values of health, fitness and wellness
7. **PSO7** – Able to Organize and officiate various levels of sports and games, events, championships and wellness programs
8. **PSO 8**– Acquire advanced skills and techniques of sports events.
9. **PSO 9**– Understand preventive measures of sports injuries, management and rehabilitation.

1.06. Proposed Division of Core Courses Based on PSO'S

1. **Theoretical foundations** - Ancient and Modern Theories And Concepts of Physical Education
2. **Methodological foundations**– Teaching Methods, Coaching Methods, Research Methods and Statistical and Computer Applications in Physical Education, Sports and Games.
3. **Contemporary**– Changing Trends and Applications in the Field of Sports and Physical Education
4. **Psychomotor**– Scientific Knowledge of Fundamental Human Movement Pattern

1.07.PROPOSED COURSE CONTENT

The course of study for the M.P.E.S Programme will have four parts

- 1 Part – A –Theory
2. Part – B – Practical(General Conditioning, Track & Field, Yoga, (Major Games)
3. Part – C – Sports Specialization
4. Part – D – Dissertation

Proposed Semester wise distribution of Courses

Semester I- Core Courses

Part A : Theoretical Core Courses				
Course Code	Course Name	Credit	Internal Evaluation	External Evaluation
PPEM 12101	Research Methodology and Statistics in Physical Education	4	Assignment, Seminar , Mid Sem Exam.	End Sem Exam
PPEM 12102	Tests, Measurement and Evaluation in Physical Education	4	Assignment, Seminar , Mid Sem Exam.	End Sem Exam
PPEM 12103	Sports Psychology	4	Assignment, Seminar , Mid Sem Exam.	End Sem Exam
	Total	12		
Part B Core course - Practicum				
PPEM 12104	General conditioning and Track and Field	4	Practical Test, Viva voce.	
Elective courses (Practicum)				
PPEM 12138 To PPEM 12143	Major Game I	1	Practical Test, Viva voce, Record	
	Major Game II	1	Practical Test, Viva voce. Record	
	Major Game III	1	Practical Test, Viva voce. Record	
	Major Game IV	1	Practical Test, Viva voce, Record	
	Total	8		
	Grand Total (A+B)	20		

Semester II

Part A : Theoretical Core Courses				
Course Code	Course Name	Credit	Internal Evaluation	External Evaluation
PPES 12105	Physiology of Exercise	4	Assignment, Seminar , Mid Sem Exam.	End Sem Exam
PPES 12106	Scientific principles of Sports coaching	4	Assignment, Seminar , Mid Sem Exam.	End Sem Exam
PPES 12107	Management in Physical Education and Sports	4	Assignment, Seminar , Mid Sem Exam.	End Sem Exam
	Total			
Multi-disciplinary Elective course Students from any discipline				
PPES 12136	Basic Exercise Physiology and Sports Medicine	4	Assignment, Seminar , Mid Sem Exam.	End Sem Exam
	Total	16		
Part B Core course –(Practicum)				
PPES 12108	General conditioning and Track and Field	4	Practical Test, Viva voce, Record	
Elective courses (Practicum)				
PPES 12144 To PPES 12150	Major Game V	1	Practical Test, Viva voce, Record	
	Major Game VI	1	Practical Test, Viva voce, Record	
	Major Game VII	1	Practical Test, Viva voce, Record	
	Major Game VIII	1	Practical Test, Viva voce, Record	
	Total	8		
	Grand Total(A+B)	24		

Semester III

Part A : Theoretical Core Courses				
Course Code	Course Name	Credit	Internal Evaluation	External Evaluation
PPEM 12109	Kinesiology and Sports Biomechanics	4	Assignment, Seminar , Mid Sem Exam.	End Sem Exam
PPEM 12110	Introduction to Yoga and Yoga therapy : Theoretical approach	4	Assignment, Seminar , Mid Sem Exam.	End Sem Exam
	Total	8		
Multi-disciplinary Elective course Students from any discipline				
PPEM 12137	Health and wellness Education.	4	Assignment, Seminar , Mid Sem Exam.	End Sem Exam
	Total (Part A)	12		
Part B - Core course –(Practicum)				
PPEM 12111	Practical of Yoga and Yoga Therapy	4	Practical Test on Teaching Ability,Demonstration of Asanas	Teaching Ability,Demonstration of Asanas
Part C – Specialization (Practicum)				
PPEM 12112	(A)Sports specialization (Rules and Officiating)	2	Practical Test, Viva voce.	
To PPEM 12121	(B)Sports specialization(skills, Teaching Practice)	2	Practical Test, Viva voce. Teaching/ Coaching practice	Teaching /Coaching practice
	Total Part C	4		
	Grand Total (A+B+C)	20		

Semester IV

Part A : Theoretical Core Courses				
Course Code	Course Name	Credit	Internal evaluation	External evaluation
PPES 12122	Sports Medicine	4	Assignment, Seminar , Mid Sem Exam.	End Sem Exam
PPES 12123	Health, Fitness and Wellness Education	4	Assignment, Seminar , Mid Sem Exam.	End Sem Exam
PPES 12124	Sports specialization (anyone game/sports)	4	Assignment, Seminar , Mid Sem Exam.	End Sem Exam
	Total (Part A)	12		
Part C – Specialization (Practicum)				
PPES 12125 To PPES 12134	(A)Sports specialization (Rules and Officiating)	2	Practical Test, Viva voce.	
	(B)Sports specialization (Skills)	2	Practical Test	
	(C)Sports specialization (Coaching Ability)	3	Practical Test on Coaching Ability	Practical Test on Coaching Ability
	(D)Sports specialization (Record book)	1	Contents, Legibility in writing	
	Total (Part C)	8		
Part D- Dissertation				
PPES 12135	Dissertation	4	Field Work. Data Collection. Presentations	Viva voce/ evaluation of dissertation
	Grand Total (A+C+D)	24		

Courses of Sports Specialization(Practicum)Any One

Course Code	Course Name	Credits	Internal Evaluation	External Evaluation
PPEM 12112	Track and Field I	4	Practical Test and Viva voce.	Practical Test on Coaching Ability
PPES 12125	Track and Field II	8		
PPEM 12113	Basketball I	4	Practical Test and Viva voce.	Practical Test on Coaching Ability
PPES 12126	Basketball II	8		
PPEM 12114	Cricket I	4	Practical Test and Viva voce.	Practical Test on Coaching Ability
PPES 12127	Cricket II	8		
PPEM 12115	Volleyball I	4	Practical Test and Viva voce.	Practical Test on Coaching Ability
PPES 12128	Volleyball II	8		
PPEM 12116	Football I	4	Practical Test and Viva voce.	Practical Test on Coaching Ability
PPES 12129	Football II	8		
PPEM 12117	Handball I	4	Practical Test and Viva voce.	Practical Test on Coaching Ability
PPES 12130	Handball II	8		
PPEM 12118	Badminton I	4	Practical Test and Viva voce.	Practical Test on Coaching Ability
PPES 12131	Badminton II	8		
PPEM 12119	Judo I	4	Practical Test and Viva voce.	Practical Test on Coaching Ability
PPES 12132	Judo II	8		
PPEM 12120	Kabaddi and Kho-Kho I	4	Practical Test and Viva voce.	Practical Test on Coaching Ability
PPES 12133	Kabaddi and Kho-Kho II	8		
PPEM 12121	Tennis I	4	Practical Test and Viva voce	Practical Test on Coaching Ability
PPES 12134	Tennis II	8		

Multi-disciplinary Elective Courses				
Course Code	Course Name	Credits	Internal Evaluation	External Evaluation
PPEM 12136	Basic Exercise Physiology and Sports Medicine	4	Assignment, Seminar , Mid Sem Exam	End Sem Exam
PPES 12137	Health and Wellness Education	4	Assignment, Seminar, Mid Sem Exam	End Sem Exam

First Semester Elective Courses within the Department (Practicum) Any Four			
CourseCode	Course Name	Credits	Internal Evaluation
PPEM 12138	Badminton	1	Practical Test,Viva voce.
PPEM 12139	Basketball	1	Practical Test,Viva voce.
PPEM 12140	Cricket	1	Practical Test,Viva voce.
PPEM 12141	Judo	1	Practical Test,Viva voce.
PPEM 12142	Swimming	1	Practical Test,Viva voce.
PPEM 12143	Wrestling	1	Practical Test,Viva voce.
Second Semester Elective Courses within the Department (Practicum) Any Four			
PPES 12144	Football	1	Practical Test,Viva voce.
PPES 12145	Volleyball	1	Practical Test,Viva voce.
PPES 12146	Softball	1	Practical Test,Viva voce.
PPES 12147	Kabaddi	1	Practical Test,Viva voce.
PPES 12148	Kho-Kho	1	Practical Test,Viva voce.
PPES 12149	Tennis	1	Practical Test,Viva voce.

Semester wise Course Details

Course Outcomes, Content, Tagging and Reading the List of Core Courses

Semester I

Core Course PPEM 12101: Research Methods & Statistics in Physical education

Course Learning Outcomes

CO 1 Analyze critically the research methods used in Physical Education
CO 2 Understand the need of Research in Physical Education
CO 3 Understand the experimental designs in Physical Education and sports
CO 4 Understand the importance of inter disciplinary research in Physical Education
CO 5 Understand the types of Statistics applied in Research in Physical Education
CO 6 Understand the computer applications in Physical Education

Course content

Module 1 Introduction

- 1.1 Meaning & Definition of research
- 1.2 Need and importance of research in Physical Education
- 1.3 Scope of Research in Physical Education
- 1.4 Types of research- analytical, descriptive, experimental, and qualitative.
- 1.5 Inter –disciplinary approach.

Module 2

- 2.1 Research Problem : Formulation and Location of the research problem
- 2.2 Criteria in selecting the research problem
- 2.3 Defining and delimiting problem
- 2.4 Preparation of a Research Proposal
- 2.5 Formulation of hypothesis
- 2.6 Library search, Library sources
- 2.7 Preparation of Research report, Writing styles, format and technical standards, Bibliography and Abstracts.

Module 3

- 3.1 Descriptive Research : Survey, its importance
- 3.2 Tools of Surveys such as questionnaire, interviews etc.
- 3.3 Case studies, definition, importance, characteristics, data collection
- 3.4 Historical Research Method; Scope of Physical Education, Historical Data, Historical Criticism.

Module 4 Experimental Research

- 4.1 Experimental Research Meaning, Nature & Scope
- 4.2 Experimental & Control groups.
- 4.3 Experimental designs.

A. One Group Design

- 1. Single Group
- 2. Reverse group
- 3. Repeated measures

B. More than one group design

- 1. Static group comparison
- 2. Random group
- 3. Related group.

Module 5

- 5.1 Statistics, definition, Types of statistics and their uses in Physical Education
- 5.2 Quantitative Data, Frequency distribution, Measures of Central Tendency, Measures of Variability and Percentiles.
- 5.3 Normal Curve, Definition, Properties and principles, uses and application
- 5.4 Divergence from normality, Skewness and Kurtosis
- 5.5 Scoring Scales Z, T, 6 Sigma and Hull Scale.

Module 6

- 6.1 Statistical inference, Meaning of Reliability, factors affecting reliability
- 6.2 Differences between Statistical and Null Hypothesis
- 6.3 Standard Error, Type –I and Type II errors, One tail and Two tail tests
- 6.4 Sampling – Simple, Stratified and Random samples, Coefficient of variation and sampling error
- 6.5 Testing of Hypothesis, level of significance, Degrees of freedom, standard procedure of systematizing Hypothesis

Module 7

- 7.1 T ratio, independent group and dependent group.
- 7.2 Analysis of Variance: with equal and unequal groups, post hoc tests
- 7.3 Correlation ;its uses and interpretation – Pearson's Product Moment correlation, Spearman Rank Difference Correlation

Module 8 Computer Applications

- 8.1 Computer Application in Physical Education & Sports
- 8.2 Word Processing Concept
- 8.3 Introduction to MS Office, Drawing of Graphs
- 8.4 SPSS and its applications.

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- 9 Rothstein, Anne L. *Research Design and Statistics for Physical Education*, Englewood Cliffs, N. J : Prentice Hall Inc,1985.
- 10 Thomas, Jerry R. and Jack, Nelson. *Research methods in Physical Activity*, Champaign, Illinois: Human Kinetics Publishers Inc., 1990.
- 11 Daniel L ,Slotnick . *Computer Applications*.
- 12 Haggery T. *The administrative use of computers in professional sports organizations*.
- 13 Walnut H. *Computers in college and university athletic departments*.
- 14 Verma, J. P. *Sports Statistics*.

Core Course PPEM 12101: Research Methods & Statistics in Physical education**Credits:04**

Co	CO statement	PO/PSO	CL	KC	Class Hrs	Lab HRS	Assessment
1	Analyze critically the research methods used in Physical Education	PO1 PSO1	Ana	Conc	15	0	Assignment Presentation and Class Test
2	Understand the need of Research in Physical Education	PO1 PSO5	Un	Fa	15	0	Assignment Presentation and Class Test
3	Understand the experimental designs in Physical Education and sports	PO1 PSO1	Un	Proc	15	0	Assignment Presentation and Class Test
4	Understand the importance of inter disciplinary research in Physical Education	PO1 PSO1	Un	Fa	15	0	Assignment Presentation And Class Test
5	Understand the types of statistics applied in Research in Physical Education	PO1 PSO1	Un	Fa	15	0	Assignment Presentation and Class Test
6	Understand the Computer applications in Physical Education	PO1 PSO1	Un	Proc	15	0	Assignment Presentation and Class Test

Core Course: PPEM 12102-Tests, Measurement and Evaluation in Physical Education

Course Learning Outcomes:

- | | |
|-----|--|
| CO1 | Understand the history and basic concepts of measurement and evaluation in the field of physical education and sports. |
| CO2 | Create new tests for measurement and evaluation based on the criterion measures of the construction of a new test. |
| CO3 | Analyse student's knowledge of a given discipline and plan the programme accordingly. |
| CO4 | Create evaluation programmes based on appropriate assessment and evaluation tools to address skill development in varied situations. |
| CO5 | Execute appropriate evaluation procedure to grade and motivate the participants for a better performance. |
| CO6 | Understand measurement and evaluation techniques to collect data for research programmes as well as biomechanical experimentations. |
| CO7 | Understand new measurement tools and test corresponding to sedentary and active people |

Course Content:

Module 1: Introduction

Meaning of the terms-test, measurement and evaluation. Brief history of test, measurement and evaluation. Need and importance of measurement and evaluation in the fields of physical Education.

Module 2: Test Evaluation

1. Criteria for test selection:

- a. Scientific authenticity
- b. Administrative feasibility c.
- Educational Application

2. Test Construction

3. Construction Sports skills tests

Steps in developing a sports skill test

Development of a battery of skill test

Development of rating scales

Research steps in constructing and validating physical performance. Construction of sports Knowledge tests.

- a. Table of specification
- b. Test administration
- c. Types of test terms
- d. Weighing test components
- e. Administration of test
- f. Advance preparation –duties during testing-duties after testing

Module 3: Measurement of fitness for health and skill

- a. Definition of health related physical fitness and skill related physical fitness.
- b. AAHPERD health related physical fitness test
- c. AAHPERD physical assessment programme
- d. Fit youth today
- e. AAHPERD youth fitness test
- f. YMCA physical fitness test
- g. JCR test
- h. Barrow Motor ability test
- i. Johnson test Motor Educability

Module 4

A. Posture tests

- a. New York State Posture rating test
- b. Wodruff alignment Posture test
- c. Cureton Posture measurement
- d. Footprint angle

B. Cardio –Vascular tests

- a. The Harvard step test and its modified version; long and short form.
- b. Queens college step tests
- c. Coopers 12 minutes walk/run test

Module 5: Test of specific sports skills

Badminton: a) The French Short Serve Test. b) GSC Badminton clear test.

Basketball: a) Leilich Basketball test. b) Knox Basketball test.

Hockey : a) Henry- Friedal Hockey Test. b) Chapman ball control test.

Soccer : a) Yeagley soccer battery. b) McDonald soccer skill test.

Tennis : a) Sherman centimad consecutive roll test
b) Hewitt service placement test

Volleyball : a) Helman Volleyball test. b) Modified Brady volleyball test.

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3. Bosco, James S and Gustafson, William F ***Measurement and Evaluation in physical Education fitness and sports***, Englewood Cliffs, New Jersey, Prentice Hall inc.1983
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CO	CO Statement	PO/PSO	CL	KC	Class Hrs	Lab Hrs	Assessment
CO1	Understand the history and basic concepts of measurement and evaluation in the field of physical education and sports.	PO1 PSO1	Un	Conc	10	-	Assignment, Presentation and Practical Test and ClassTests
CO2	Create new tests for measurement and evaluation based on the criterion measures of the construction of a new test.	PO1 PSO6	Cr	Proc	15	-	Assignment, Presentation and Practical Test and ClassTests
CO3	Analyse student's knowledge of a given discipline and plan the programme accordingly.	PO1 PSO6	Ana	Proc	10	-	Assignment, Presentation and Practical Test and ClassTests
CO4	Create evaluation programmes based on appropriate assessment and evaluation tools to address skill development in varied situations.	PO1 PSO1	Cr	Proc	15	-	Assignment, Presentation and Practical Test and ClassTests
CO5	Execute appropriate evaluation procedure to grade and motivate the participants for a better performance.	PO1 PSO2	Eva	Proc	11	4	Assignment, Presentation and Practical Test and ClassTests
CO6	Understand measurement and evaluation techniques to collect data for research programmes as well as biomechanical experimentations.	PO1 PSO6	Un	Fa	11	4	Assignment, Presentation and Practical Test and ClassTests
CO7	Understand new measurement tools and test corresponding to sedentary and active people	PO1 PSO2	Un	Fa	8	2	Assignment, Presentation and Practical Test and ClassTests

Core Course: PPEM12103 : Sports Psychology

Course Learning Outcomes:

- CO1 understand the history and importance of Psychology in the field of Sports
- CO2 Able to analyze and understand the personality of individuals through the personality measures
- CO3 Understand the Motor learning stages of skill acquisition
- CO4 Understand the perceptive and cognitive process of physical education and sports performance
- CO5 Analyze the performance standard and suggest motivational modalities for the enhancement of performance
- CO6 To develop active and passive mental plans to overcome the psychological barriers of the participants during competitive periods

Course Content :

Module 1-Introduction

- a. Definition, meaning and History of Sports psychology, Need and Importance of sports psychology.
- b. Present status of sports psychology in India.

Module 2-Motor Learning.

- a. Basic considerations in Motor learning, Motor Perception
- b. The definition and measurement of attitude, attitude towards sport.
- c. Definition and composition of personality, measuring personality
- d. Effect of sports on personality and its implications.
- e. Psycho tonic and autogenic training
- f. Group cohesion, developing team cohesion
- g. Spectator influence in sports

Module 3 -Perception and Cognitive process

- a. Definition and Theories of perception – description
- b. Factors affecting perception
- c. Perception and motor learning
- d. Definition of intelligence, relationship of intelligence to motor ability and performance.

Module 4-Motivation

- a. Meaning and Definition of motivation, types of Motivation
- b. Meaning and definition of Anxiety, Anxiety and Sports performance
- c. Meaning and definition of Stress, Stress and Sports performance
- d. Meaning and definition of Aggression, Aggression and Sports performance
- e. Types of aggression in athletic competitions. Sex difference in aggression

Module 5-Mental Plans

- a. Developing the mental plan, self-assessment,
- b. Pre-competition plan, event focus, pre-competition refocusing, refocusing within the Competition, post competition evaluation, enhancing self-confidence.
Practical examples: application of psychology in sport, imagery in the field, reversal theory, counseling athletes.

References

1. Weinberg, Robert, S and Gould, Daniel. *Foundation of sports and Exercise Psychology*, Champaign, Human Kinetics, Illinois. 1995.
2. Anderson, Mark B. *Doing Sport Psychology*, Champaign, Human Kinetics Inc. Illinois, 2001.
3. Kerr John H, *Counseling athletes*, London and New York, Routledge Publisher Inc. 1999.
4. Jerivs Matt, *Sport Psychology*, London and New York, Routledge Publisher Inc., 1999.
5. Singer, Robert N, *Myths and Truths in Sports Psychology*, New York, Library of Congress cataloguing, 1975.
6. Silva III, John M and Stevens, Diane, E. *Psychology*, Tata McGraw Hill, New York, 1999.
7. Feldman, Robert. S, *Understanding Psychology*, Tata McGraw Hill, New York, 1997.
8. Gill, Diane L. *Psychological Dynamics of Sport*, Human Kinetics, Champaign Illinois, 1986.
9. Suresh Kutty K., *Sports and Exercise Psychology*, Sports publications, New Delhi. 2003.

Core Course: PPEM12103 :Sports Psychology**Credits:04**

CO	Co Statement	PO/PSO	CL	KC	Class Hrs	Lab Hrs	Assessment
CO1	understand the history and importance of Psychology in the field of Sports	PO 1 &pso 2	Un	Fa	15	-	Assignment ,Presentation and Test papers
CO2	Able to analyze and understand the personality of individuals through the personality measures	PO 1 &pso 2	An Un	Fa	15	20	Assignment ,Presentation and Test papers
CO3	Understand the Motor learning stages of skill acquisition	PO 1 &pso 2	Un	Fa	15	20	Assignment ,Presentation and Test papers
CO4	Understand the perceptive and cognitive process of physical education and sports performance	PO 1 &PSO 2	Un	Fa	15	20	Assignment ,Presentation and Test papers
CO5	Analyze the performance standard and suggest motivational modalities for the enhancement of performance	PO 1 &PSO 2	An	Proc	15	20	Assignment ,Presentation and Test papers
CO6	To develop active and passive mental plans to overcome the psychological barriers of the participants during competitive periods	PO 1 &PSO 2	Un Ap	Cr	15	10	Assignment ,Presentation and Test papers

Core Course PPEM 12104: General Conditioning and Track and Field (Practicum)

Course Learning Outcomes

Co 1 Understand the history & development of track & field.

Co 2 Understand the fundamental techniques of track & field events

Co 3 Able to design track & field layout.

Co 4 Understand the rules and officiating in track & field.

Co 5 Understand common injuries in track & field and the rehabilitative exercises.

Co 6 Understand different training plans.

Course content :

Module 1

- a. Introduction: History and Development of Track and field events
- b. Organizational setup of Track and Field Athletics
- c. Major competitions at National and International levels.

Module 2

- a. Rules and officiating in Track and field; Principles of officiating
- b. Track and Field lay out and marking

Module 3

- a. Pedagogic Principles of Track and Field Training:
 - (i) Periodization of training – preparatory training – build up training – high performance training.
 - (ii) Training plans – Long term plan, yearly plan, monthly and weekly schedule, day's programme – physical qualities.

Module 4

- a. Common Injuries in Track and Field during training and competitions
- b. Prevention, treatment and rehabilitation of athletic injuries.
- c. Doping and its control

Module 5

PRACTICALS - FUNDAMENTAL SKILLS

- a) Conditioning.
 - a. Warming up – general and specific
 - b. Development of Physical fitness and motor qualities.
 - c. Starting technique – Standing start crouch start and its variations, props use of blocks.
 - d. Finishing techniques – Run, through forward lunging shoulder shrug.
 - e. Relays – Various patterns of Baton exchange and understanding to relay zones.
 - f. Hurdles – Approach, clearance over the Hurdle lead leg action, Trail leg action and recovery middle and long distance running.
 - g. Steeple chase – Approach clearance recovery walking technique
 - h. Long Jump (hang style and running in the air style) Approach run, take off, flight in the air and landing.
 - i. High Jump (Straddle technique and Fosbury flop) – Approach run take off clearance over the bar and landing.
 - j. Triple Jump – Approach run, take off hop step and Jun phase (action in the air) and landing.
 - k. Pole vault – Hand grip and pole carry. The run and pole plant, take off, bar clearance and landing.
 - l. Shot-put grip, stance glide, release and reverse (o' Brain style)
 - m. Discus Throw – Grip, stance preliminary swing. Turns release and reverse.
 - n. Javelin Throw – Grip, curry approach run release and reverse.
 - o. Hammer Throw – Grip, preliminary swing turns, release and reverse.
 - p. Combined Events: Decathlon and Heptathlon.

References

1. Carr, Gerry R. *Fundamentals of Track and Field, Mumbai: The Marine Sports. 1995.*
2. Ekta. *Teaching and Coaching Athletics, New Delhi: Sports Publication. 2003.*
3. Emmanuel, George. *Athletic meet – Marking, Rules, Directions, Cicily George: Kottayam. 2001*
4. Lawson, Gerald. *World Record Breakers in Track and Field Athletics, New York: Human Kinetics. 2000*
5. Thani V. *Encyclopedia of Track and Field, New Delhi: Sports Publication. 2003.*
6. Dybon Geoffrey, G.H. *The mechanics of Athletics London: University of London Press Ltd. 1961.*
7. Deberly J. Menneth *Modern track and field Englewood Cliffs, N.J. Prentice Hall Inc.*
8. Hooks Gene *Application of Weight Training to Athletics, Englewood Cliffs N.J. Prentice Hall Inc. 1962.*
9. Malhotra Ashok Kumar *A guide to be an athletic. Krishna Publications, New Delhi 1980.*
10. Mohan V.M. – *Athletics for Beginners Metropolitan Books, New Delhi.*
11. Robinson Johnson James and Hirschi. *Modern technique of track and field. London Henry Kimpton Publishers 1974.*
11. Ken O Bosen – *Track and Field fundamental technique NIS publications Patiala.*
12. Parachiwala J. *Athletics.*

Core Course PPEM 12104: General Conditioning and Track and Field (Practicum)**Credits:04**

Co	CO Statement	PO/PSO	CL	KC	Class Hrs	Lab HRS	Assessment
1	Understand the history & development of track & field.	PO1 PSO1	Un	Conc	15	30	Practical Test And Viva voce
2	Understand the fundamental techniques of track & field events	PO1 PSO9	Un	Conc,Proc	15	30	Practical Test And Viva voce
3	Able to design track & field layout.	PO3 PSO8	d	Proc	15	30	Practical Test And Viva voce
4	Understand the rules and officiating in track & field.	PO1 PSO1	Un	Conc	15	30	Practical Test And Viva voce
5	Understand common injuries in track & field and the rehabilitative exercises.	PO1 PSO10	Un	Conc	15	30	Practical Test And Viva voce
6	Understand different training plans.	PO1 PSO1	Un	Conc	15	30	Practical Test And Viva voce

ELECTIVE COURSE: PPEM 12138- BADMINTON

Course Learning Outcomes

CO-1 : Demonstrate basic skills of fore court , mid court and rear court and also the execution of service .
CO-2 : Understand the rules and regulation of the game ultimately lead to the development of officiating competency .

Course Content:

Module I

Compenents of badminton movements :

- Split step , Runnig step , Chasse , Cross behind , Hop/Pivot , Lunge , Jump , Landing .

Grips :

- Basic grip or ‘ v’ grip
- Thumb grip
- Corner grip
- Panhandle grip

Introduction of hitting techniques :

- Children/Beginners

Biomechanical principles :

- Catching and Throwing with lead up activities , Developing Striking Skills .

Introduction of serving :

- Back hand Flick serve , Back hand Low serve , Fore hand Flick serve , Fore hand Low serve

Module II

BASIC STROKES

Fore -court Strokes

- Back hand Net Shot , Fore hand Net Shot , Back hand Net lift , Fore hand Net lift , Back hand Net kill , Fore hand Net kill .

Mid-court Strokes

- block off the body , Back hand Drive , Fore hand

Drive. Rear-court Strokes

- Fore hand Clear , Fore hand Smash , Fore hand Drop shot , Back hand Clear , Back hand Drop shot . Badminton Game & Officiating
- Singles , Doubles and Mixed doubles

ELECTIVE COURSE: PPEM 12138- Badminton

Credit:01

CO	CO Statement	PO/PSO	CL	KC	Class Hrs	Practicum /Lab Hrs	Assessment
CO1	Demonstrate basic skills of fore court mid court and rear court and also the execution of service	PO1 PSO9	Ap	F	-	35	Assignment, and Practical Test
CO2	Understand the rules and regulation of the game ultimately lead to the development of officiating competency	PO1 PSO9	Un	C	-	10	Assignment, and Practical Test

Elective Course: PPEM 12139- Basketball

Course Learning Outcomes

CO-1 : Demonstrate basic skills associated with Basketball including passing , Dribbling , Shooting, Pivot and Ball handling during training session .

CO-2 : Perform Individual Offensive and Defensive Skills and Strategies .

CO-3 : Understand the Rules and Regulations of the game which helps to develop Officiating Competency .

Course Content:

Module 1

- a. Historical development of game in India. Asia and world
- b. Rules and officiating the Game – duties of officials
- c. The Court-Dimensions and Markings

Module 2

- a. Fundamental Skills – Dribbling-Basic and reverse dribbling, Dribbling, start and stop of a dribble, high, low and combinations of dribbles Ball Handling – Grip, Pivoting, Stride stop, Jump Stop & fake and drive
- b. Passing – Chest pass, over head pass, Bounce Pass - static and dynamic receiving.
- c. Shooting – The Set Shot, The Jump Shot, The Lay-Up Shot and its variations, The Hook shot and the Slam Dunk.
- d. The Rebound-Boxing out, Tipping-in, Defensive Catching, Offensive Catching
- e. Defending-Stance, Defense against a dribbler, Marking a passer, Preventing pass reception.

References

1. Drewett, Jim. *Basketball Internet Linked*, London: TicktockPublising Ltd. 2001.
2. Jain, Naveen. *Play and Learn Basketball*, New Delhi: Sports Publications, 2005.
3. Sharma, *Basketball Skills and Rules*, New Delhi: Sports Publications. 2005.
4. Abbas Mootasir, *Principles of basketball*. Skunda Publications, Bombay.
5. Ebert Cheatum. *Basketball* W.B. Saunders Company.

Elective Course: PPEM 12139- Basketball**Credit:01**

Co	CO Statement	PO/PSO	CL	KC	Class Hrs	Practicum/ Lab Hrs	Assessment
Co 1	Demonstrate basic skills associated with Basketball including passing, Dribbling, Shooting, Pivot and Ball handling during training session.	PO1 PSO9	Ap	F	-	25	Assignment, and Practical Test
Co 2	Perform Individual Offensive and Defensive Skills and Strategies	PO1 PSO9	Ap	C	-	10	Assignment, and Practical Test
Co 3	Understand the Rules and Regulations of the game which helps to develop Officiating Competency.	PO1 PSO9	Un	F	-	10	Assignment, and Practical Test

Elective Course: PPEM 12140- Cricket**Course Learning Outcomes**

CO-1 : Demonstrate basic skills associated with Cricket including Batting , Bowling , Fielding, and Wicket keeping during training session .

CO-2 : Perform Individual Offensive and Defensive Skills and Strategies .

CO-3 : Understand the Rules and Regulations of the game which helps to develop Officiating Competency .

Module 1

- a. The laws of cricket with interpretations.
- b. Officials in Cricket.
- c. Umpires and their duties.
 - (i) Duties before the match
 - (ii) Duties during the interval.
 - (iii) Duties after the match.
- d. Signals, Unofficial and additional signals.

Module 2

- Fundamental skills-batting-basics. Defensive strokes, Attacking strokes, Modern improvised strokes. Funning between the wickets and Drills to improve the batting skills.
- Bowling-Basics. Out swinger. In swinger, Reverse Swing, Off spin and its variations, Leg spin and its variations and Drills to improve the bowling skills.
- Fielding-Ground fielding. (Stationary, on the run and Slide stop) Catching. (High, Low, Flat and Feflex Catching)
- Wicket Keeping-Drills to improve the wicket keeping skills.

References

1. *A handbook of Practical Training in Cricket, Mumbai: Jaico Publishing House. 1998.*
2. *Bose, Mihir. A History of Indian Cricket, New Delhi: Rupa & Co. 1990*
3. *Bradman, Donald. The Art of Cricket, London: Robson Books. 1998.*
4. *Coaching Youth Cricket. Australian Cricket Board, New York: Human Kinetics. 2000.*
5. *Elliot, Bruce et. Al. The Science of Fast Bowling, Mumbai: Marine Sports, 2001.*
6. *Rundell, Michael. The Dictionary of Cricket, London: George Allen & Unwin. 1985.*

Elective Course: PPEM 12140- Cricket

Credit:01

Co	CO Statement	PO/P SO	CL	KC	Clas s Hrs	Practicu m/Lab Hrs	Assessment
Co 1	Demonstrate basic skills associated with Cricket including Batting, Bowling, Fielding, and Wicket keeping during training session ..	PO1 PSO9	Ap	F	-	25	Assignment, and Practical Test
Co 2	Perform Individual Offensive and Defensive Skills and Strategies	PO1 PSO9	Ap	C	-	10	Assignment, and Practical Test
Co 3	Understand the Rules and Regulations of the game which helps to develop Officiating Competency.	PO1 PSO9	Un	F	-	10	Assignment, and Practical Test

Elective Course: PPEM 12141: Judo Course Learning Outcomes

CO 1 Understands advanced Skills and Techniques of Judo

CO2 Able to demonstrate the Skills and Techniques

CO 3 Understands the rules and regulations of the Judo

Module 1

- a. Origin, History and growth of Judo in India and in the world.
- b. World, Olympic and National competitions. World championships and regional championships.

Module 2

- a. Rules and Regulations of Judo competition.
- b. Planning the Layout, construction and marking & Maintenance of the competition arena.
- c. Officiating & Officials signals.

Module 3

Fundamentals of Judo: Salutation, How to wear a Judogi, Kumi Katha, Ukemi, Posture, Kuzushi, Tskuri and Kake, Sluntai, Tai Sabaki using strength.

Module 4

Techniques and tactics of Judo.

Module 5

Training for Judo competition. Long term and short term plans, preparations for competitions.

	CO Statement	PO/PSO	CL	KC	Class Hrs	Lab Hrs	Assessment
CO1	Understands advanced Skills and Techniques of Judo	PO1 PSO2 PSO10	Un	C onc	-	25	Assignment, and Practical Test
CO2	Able to demonstrate the Skills and Techniques.	PO1 PSO2	Ap	Proc	-	10	Assignment, and Practical Test
CO5	Understands the rules and regulations of the Judo Skills.	PO1 PSO10	Un	Fa	-	10	Assignment, and Practical Test

Elective Course: PPEM 12142: Swimming

Course Learning Outcomes

- Co – 1 Develop stroke competencies and techniques in swimming.
- Co - 3 Understand the rules of specific strokes in swimming
- Co – 4 Acquire basic knowledge of Water safety, personal survival and lifesaving techniques.

Module -1 – Introduction - Adaptation

Basic Swimming Skills – Entry to Water – Exit from Water – feet first entry –head first entry -Submerge and hold Breath

Floatation - ventral floatation – dorsal floatation - kicking –leg action - pulling – arm action

Module -2- Safety – Basic Personal Survival and Life Saving Techniques

The danger of drains – recognize emergency-call for help – reach or throw

Shallow dive – tuck surface dive –pike surface dive – start - turn-finish

Module -2- Skills- strokes

Front crawl – back stroke –breast stroke –butterfly stroke – underwater swimming – warm up- cool down -
- Organizing Swimming / Water Sports Events – rules of strokes

References

Colwin, C. M. (1992).Swimming into the 21st century. Champaign, IL: Human Kinetics.

Maglischo, E. W. (1993). Swimming even faster. Palo Alto, CA: Mayfield Publishing Company.

YMCA (1999).The youth and adult aquatic program manual. Champaign, IL: Human Kinetics.

Singapore Swimming Association (2007). Swimming coaching course level 1: Technical. Singapore Swimming Association, Singapore

Elective Course: PPEM 12142:Swimming**Credit:01**

CO	CO Statement	PO/PSO	CL	KC	Class Hrs	Lab Hrs	Assessment
CO1	Develop stroke competencies and techniques in swimming.	PSO 4	Ap	Conc	-	25	Assignment, and Practical Test
CO2	Understand the rules of specific strokes in swimming	PSO 7	Un	Fa	-	10	Assignment, and Practical Test
CO3	Acquire basic knowledge of Water safety, personal survival and lifesaving techniques.	PSO 6	Un	Proc	-	10	Assignment, and Practical Test

Elective Course: PPEM 12143: Wrestling.**Course Learning Outcomes**

CO -1 Understands history and development of wrestling CO-2

Understands the basic skills and techniques of wrestling CO – 3

Demonstrate skills of wrestling and Officiating.

Course Content:

Module-1-Introduction

History –Safety –equipment- uniform – category – coopetition system - Wrestling Maneuvers-. Head & Arm –warm up and cool down exercises –strengthening exercises for neck – arm – shoulder and thighs

Module- 2-Skills and Techniques

Grab opponents' arm and pull them in (using opposite arm)- wrap arm around opponents' neck and under the opposite arm pit - Squeeze - Rotate your hips and take opponent down -- Hold arm, cover and look to the ceiling while keeping pressure on opponent

Module – 3

Half Nelson- Far Arm - Put weight on opponents back - Pus head down --Apply Half Nelson - Reach under opponents' body and grab opponents far arm - Pull arm, drive and cover

Elective Course: PPEM 12143: Wrestling.

Credit:01

Co	CO Statement	PO/PSO	CL	KC	Class Hrs	Practicum/ Lab Hrs	Assessment
Co 1	Understand history and development of wrestling	PO1 PSO7 PSO8	Un	Conc	-	25	Assignment, and Practical Test
Co 2	Understands the basic skills and techniques of wrestling	PO1 PSO7 PSO8	Un	Fa	-	10	Assignment, and Practical Test
Co 3	Demonstrate basic Tactics of wrestling and Officiating	PO1 PSO7 PSO8	Proc	Fa	-	10	Assignment, and Practical Test

SEMESTER II

Core Course: PPES12105: Exercise Physiology

Course Learning Outcomes

- Co 1 Understand the structure and functions of different organs in the body
- Co 2 Understand the basic factors that affect sports performance
- Co 3 Understand the physiological adaptations to different environments
- Co 4 Understand and evaluate the physical performance of sports persons
- Co 5 Understand the energy sources during exercise and rest
- Co 6 Understand broadly the role of exercise physiology in preventing sports injuries

Module 1 : Introduction

Definition of Physiology and exercise Physiology, Areas of exercise Physiology, Importance and role of exercise physiology in the field of Physical Education and Sports

Module 2: Muscular Physiology

- A. Skeletal muscle structure and function: Gross structure, electron microscopic structure, muscle fiber types, fiber distribution and performance, sliding filament theory of muscular contraction types of muscular contraction, energy for muscular contraction, acute and delayed muscular soreness, effect of exercise on muscular system.
- B. Respiratory system: Respiratory muscles, mechanism of respiration, pulmonary ventilation, dead space, lung volumes and capacities, effect of exercise on pulmonary ventilation, second wind, stitch in the side, Oxygen Debt.

Module 3: Cardio Respiratory Physiology

- A. Circulatory System : Cardiac cycle, heart rate, stroke volume, systemic and pulmonary circulation, cardiac output during rest and exercise, measurement of cardiac output, factors influencing heart rate and blood pressure, circulatory adjustments during rest and exercise, effect of exercise on circulatory system.
- B. Nervous system. General nervous system and functions, organization of nervous, system, structure of Neuron, electrical, activity in Neurons, voluntary control of muscular movements, involuntary control of muscular movements proprioceptors.

Module 4: Bioenergetics

- A. Energy sources; adenosine triphosphate, aerobic and anaerobic metabolism (Carbohydrate, fat and protein metabolism) – Energy metabolism during rest, exercise and recovery)

- B. Exercise and environment: Exercise and temperature regulations in hot climates. Exercise and temperature regulations in cold climates, effects of high altitude on physical performance, physiological adaptations to altitude.

Module 5: Physiology of performance

- A. Factors affecting performance, fatigue, general and chronic symptoms and sites of fatigue, prevention, factors limiting anaerobic performance and aerobic performance.
- B. Work tests to evaluate performance, laboratory assessment of physical performance, components of effective physiological testing, direct and indirect methods.

References

1. Astrand, P.O. and K. Rodahl. *Text Book of work Physiology: Physiological Basis of Exercise*, New York: McGraw Hill Book Company, 1986.
2. Fox, Edward Richard Bowers and Merle Foss. *Physiological Basis for Exercise and Sport*, Dubuque, Iowa : WMC Brown and Benchmark, 1988.
3. Sandhya, Tiwari, *Exercise Physiology: Sports Publications*. Delhi, 1999.
4. Clarke, David H, *Exercise Physiology*, Prentice Hall. London, 1975.
5. Robergs, Robert A and Roberts, Scott, O. *Exercise Physiology*, CV Mosby London, 1997.

Co	CO Statement	PO/PSO	CL	KC	Class Hrs	Lab HRS	Assessment
1	Understand the structure and functions of different organs in the body	PO1 PSO4	Un	Conc	10	5	Assignment Presentation Class Test And Practical Test
2	Understand the basic factors that affect sports performance	PO1 PSO1	Un	Conc	10	5	Assignment Presentation Class Test And Practical Test
3	Understand the physiological adaptations to different environments	PO1 PSO2	Un	Conc	10	5	Assignment Presentation Class Test And Practical Test
4	Understand and evaluate the physical performance of sports persons	PO1 PSO6	Un Eva	Conc	10	5	Assignment Presentation Class Test And Practical Test
5	Understand the energy sources during exercise and rest	PO1 PSO2	Un	Conc	10	5	Assignment Presentation Class Test And Practical Test
6	Understand broadly the role of exercise physiology in preventing sports injuries	PO1 PSO1	Un	Conc	10	5	Assignment Presentation Class Test And Practical Test

Core Course: PPES12106: Scientific Principles of Sports Training

Course Learning Outcomes

- CO 1 Understand the need and importance of Sports Training based on the Scientific Principle
- CO 2 Understand the Training Load and Adaptation and also the symptoms and causes of Overload
- CO 3 Able to interact professionally and educate clients, patients, peers, colleagues and medical/athletic personnel
- CO 4 Demonstrate latest training strategies during training session.
- CO 5 Understand Technical and tactical preparation.
- CO 6 Understand and execute periodical Training plan during coaching session.

Module I– Introduction

1. Meaning and Definition of sports training
2. Meaning of terms of coaching, teaching, conditioning and training
3. Aim and objectives of sports training
4. Principles of sports training
5. Massed and distributed practice

Module II– Training load

1. Training Load and Adaptation
2. Types of training Load – definition, internal and external load
3. Components of load: intensity of load, density of load, duration and extent of load
4. Load and adaptation
5. Progressive and fluctuation method of load
6. Over load – symptoms, causes and remedies

Module III Bio-motor variables

1. Definition of Physical fitness, importance and classification of physical fitness
2. Definition of strength; types of strength, factors determining strength and methods of strength training
3. Definition of Speed; Determining factors of speed, methods to develop speed
4. Definition of flexibility; types of flexibility, factors determining flexibility and methods of flexibility training
5. Definition of coordinative abilities; Importance of coordinative abilities, types of coordinative abilities and methods to develop coordinative abilities
6. Fitness and training:- basic types of training, resistance training, circuit training, interval training, fartlek training and Plyometric training
7. Means and methods of developing the physical fitness components

Module IV – Technical training

1. Definition of Technique; Importance of technique, process of technique training
2. Methods of Technique training

Tactical training

3. Classification of Technique
4. Concepts of Tactics and Strategy
5. Methods of Tactical Training

Module V– Planning

1. Definition of Planning
2. Principles of Planning
3. Types of Training Plans(Macro, Meso and Micro cycles)

Periodization

4. Definition of Periodization , Importance of Periodization, Types of Periodization(Single, Double, Multiple and Triple)
5. Training Session – structure
6. Competition, Training and Competition, Principles of competition frequency and competition preparation

References

1. Uppal ,A.K.Principles Sports Training, Friends Publications: Delhi, 2001.
2. Sing Hardayal, Science of Sports training, New Delhi: D.V.S Publications, 1994.
3. Dick, Frank, Science of Sports training, London: Henry Kempton Publisher Ltd, 1980.
4. Fox, Edward, Richar, Boners and Merie Foss. The Physiological basis for exercise and sport, U.S.A; WCB, Brown and BenchamarkPublihser; 1993.
5. Bompa, Tudor, Periodisation for Strength, Veritas Publication, Canada: 1996.
6. Paish, Wilf. Complete Mannual of Sports Science, London: A and C Black Publisher Ltd., 1998.
7. Bompa, Tudor, O. Periodisation: Theory and Methodology of Training. Champaign Human Kinetics., 1990

Core Course: PPES12106: Scientific Principles of Sports Training.**Credits:04**

CO	CO Statement	PO/PSO	CL	KC	CLASS SESSION- HRS	LAB/ FIELD	ASSESSMENT
CO 1	Understand the need and importance Sports Training based on the Scientific Principle	PO 3/PSO6	Un	Fa	10		Assignment Presentation Class Test and Practical Test
CO 2	Understand the Training Load and Adaptation and also the symptoms and causes of Overload	PO2 /PSO3	Un	Fa	10		Assignment Presentation Class Test and Practical Test
CO 3	Able to interact professionally and educate clients, patients, peers, colleagues and medical/athletic personnel	PO 1/PSO4	Ap		10		Assignment Presentation Class Test and Practical Test
CO 4	Demonstrate latest training strategies during training session.	PO1 PSO8	Ap	Proc	10		Assignment Presentation Class Test and Practical Test
CO 5	Understand Technical and tactical preparation.	PO1/PSO1	Un	Conc	15	10	Assignment Presentation Class Test and Practical Test
CO 6	Understand and execute periodical Training plan during coaching session.	PO1 PSO1	Un	Proc	15	10	Assignment Presentation Class Test and Practical Test

Core Course: PPES 12107:Management in Physical Education and Sport.

Course Learning Outcomes

- CO1 Understand the basic principles of sports management, management skill, management role and scheme of management in Physical Education
- CO2 Understand management in planning facilities and construction and maintenance of facilities
- CO3 Prepare a physical education budget for the school and college level
- CO4 Supervise and administrate physical education programmes in educational institutions
- CO5 Understand and apply market strategies for the promotion of physical education and sports
- CO6 Develop managerial competency and organizational efficiency

Module 1-Introduction

- a. Definition and guiding principles of sports management an evaluation in sports management, Sports management setting-
- b. The foundation of sports management for sport managers, Managerial Skills, managerial roles – management functions contingency views of management
- c. schemes of management of Physical Education at higher secondary school, College, Facility and state.

Module 2-Facility Management

- a. Planning the facility – location and layout of play area and track, suggestions for planning and layout of playing areas, care and maintenance of playing areas.
- b. Purchase care and supplies of equipment determining supply and equipment needs, guidelines for selecting supplies and equipment, guidelines for the equipment room, guidelines for checking, storing, issuing and maintaining supplies and equipment.
- c. Gymnasium and swimming Pool: Construction and maintenance of gymnasium, types of swimming pools, construction of a multipurpose swimming pool, regulations to be served by participants in the swimming pool.

Module 3-Budget and Records

- a. Finance and Budget: Model Physical Education budget for a year in a school and college, source of income and items of expenditure, Rules for the utilization of games fund in a school.
- b. Records and Registers – Stock Register of games articles, Attendance Register, Physical efficiency test Register and skill test Register.

Module 4-Supervision

- a. Qualities and qualifications of a supervision in Physical Education,
- b. duties of a supervisor pertaining to administration, instructions, facilities and professional growth,
- c. Techniques of Supervision, visitation, conference, demonstration and bulletins.

Module 5-Sports Marketing

- a. Meaning, Historical background of marketing management in sports
- b. Factors in sports marketing product, strategic planning, price, promotion, place, package, positioning and perception.
- c. Promotional Licensing and sponsorship- Definition, growth of sponsorship, sponsorships place within the market mix, coordination and control of the market mix.

References

1. *Bucher, Charles, A., and March, l Kortee, Management of Physical Education and sport, St. Louis : Mosby year Book, 1993.*
2. *Barkhouse, Bonnie L, The Management of sport. It's foundation and application, St. Louis : Mosby year Book, 1991.*
3. *Bernard. J. Mullin, Sport Marketing, Human Kinetics, P.O. Box. 5076, Champaign, USA.*
4. *Perks Janet B. ZangerBeverly R. K. Sports & Fitness Management : Human Kinetics, Campaign, Illinois, U.S.A*
5. *Parkhouse Bonnie L, The Management Sports, Mosby Year Book. St. Louis No. 63146.*
6. *Watt C. David, Sports Management and Administration, Publisher E & FN Spon II New Fetter Lane, London*
7. *Kamlesh/M.L. Management concepts Physical Education and Sport: Metropolitan Book Co., New Delhi.*
8. *Chelladurai, packianathan, Human Resource Management in sport and Recreation, Human Kinetics, Champaign, Illinois, 1999.*

Core Course: PPES 12107: Management in Physical Education and Sport.**Credits:04**

CO	Co Statement	PO/PSO	CL	KC	Class Hrs	Lab Hrs	Assessment
CO1	Understand the basic principles of sports management , management skill ,management role and scheme of management in physical education	PO1 PSO2 & 8	Un	Conc	15	-	Assignment ,Presentation and Test papers
CO2	Understand management in planning facilities and construction and maintenance of facilities	PO1 PSO2 & 8	Un	Proc	15		Assignment ,Presentation and Test papers
CO3	Prepare a physical education budget for the school and college level	PO1 PSO2 & 8	Ap	Proc	15		Assignment ,Presentation and Test papers
CO4	Supervise and administrate physical education programmes in educational institutions	PO1 PSO2 & 8	Un Ap	Conc	15		Assignment ,Presentation and Test papers
CO5	Understand and apply market strategies for the promotion of physical education and sports	PO1 PSO2 & 8	Un Ap	Conc	15		Assignment ,Presentation and Test papers
CO6	Develop managerial competency and organizational efficiency	PO1 PSO2 & 8	Un	Conc	15		Assignment ,Presentation and Test papers

Elective course: PPES 12136: Basic Exercise Physiology and Sports Medicine

Course Learning Outcomes

- CO1 Understand the structure and the functions of different organs in the body
- CO2 Understand the basic factors that affect sports performance
- CO3 Understand the physiological adaptations to different environments
- CO4 Understand and evaluate the physical performance of sports persons
- CO5 Understand the energy sources and rest
- CO6 Understand the role of exercise physiology in preventing sports injuries

Module 1-Muscular Physiology

- a.Skeletal muscle structure and function: Gross structure ,electron microscopic structure, types of muscular contraction, acute and delayed muscular soreness, effect of exercise on muscular system.
- b.Respiratory system: Respiratory muscles, mechanism of respiration, pulmonary ventilation, dead space, lung volumes and capacities, effect of exercise on pulmonary ventilation, second wind, stitch in the side, oxygen debt.

Module 2-Cardio Respiratory Physiology

- a.Circulatory System: Cardiac cycle, heart rate, stroke volume, systemic and pulmonary circulation, cardiac output during rest and exercise, measurement of cardiac output, influencing heart rate and blood pressure ,effect of exercise on circulatory system
- nervous system: General nervous system and function ,organization of nervous system, structure of Neurone, electrical activity in neurons, voluntary control of muscular movements, involuntary control of muscular movements, involuntary control of muscular movements, proprioceptors.

Module 3 Common sports injuries

Principles of first aid, Abrasion, laceration, Blisters, Muscle injuries, Muscular hematoma-Muscle cramp, Stitch, Ligament injuries, Skeletal injuries, Periotic, Dislocation, Tender injuries, its treatment and prevention, Prevention of sports injuries, Important factors in preventing sports injuries, RICE

Module 4- Nutritional balance

Carbohydrate, fat, protein, vitamin, minerals

Module 5- Posture

Postural deformities and its corrective measures

Reference:

1. Astrant, P.O. and K. Rodhal. *Text book of work Physiology: Physiological Basis of Exercise*, New York: McGraw Hill book company, 1986.
2. Fox, Edward Richard Bowers and Merle Foss. *Physiolgical Basis for Exercise and sport*, Dubuque, Iowa: WMC Brown and Benchmark, 1988.
3. Sandhya, Tiwari, *Exercise Physiology: Sports Publications. Delhi*, 1999.
4. Clarke, David H, *Exercise Physiology*, Prentice Hall . London, 1975
5. Robergs, Robert A and Roberts, Scott, O. *Exercise physiology*, CV Mosby London, 1997.
6. Barrow, Harold M, McGee, Rosemary and Kathleen, A. Tristchchler, *Practical Measurments in Physical Education and Sports (4th Edn)* Philaladelphia: Lea and Febiger, 1989
7. Baumgartner, ted A and Jackson, Andrew. S. *Measurement and Evaluation in Physical Education and Exercise science (4th Edn)* Dubuque, LOAWMC Brown publisher 1991
8. Roy Steven and Richer Irvin. *Sports Medicine*, prentice Hall, 1983
9. Kulund Daniel N. *The injured Athlete*, Philadelphia: J.B. Lippincott Co. 1988
10. Booher James M and Thibodeau Gary-A. *Athletic injury Assessment*, Toronto: Mosby College Publishing, 1985.
11. Hutson M.A *Sports Injuries*, Oxford: Oxford University Press, 1996

Elective course: PPES 12136: Basic Exercise Physiology and Sports Medicine.**Credits:04**

CO	CO Statement	PO/PSO	CL	KC	Class Hrs	Practicum\ Lab Hrs	Assessment
CO1	Understand the structure and the functions of different organs in the body	PO1 PSO4	Un	Conc	10	-	Assignment , Presentation and Test papers
CO2	Understand the basic factors that affect sports performance	PO1 PSO1	Un	Conc	10	-	Assignment , Presentation and Test papers
CO3	Understand the physiological adaptations to different environments	PO1 PSO2	Un	Conc	10	-	Assignment , Presentation and Test papers
CO4	Understand and evaluate the physical performance of sports persons	PO1 PSO6	Un	Conc	10	-	Assignment , Presentation and Test papers
CO5	Understand the energy sources and rest	PO1 PSO2	Un	Fa	10	-	Assignment , Presentation and Test papers
CO6	Understand the role of exercise physiology in preventing sports injuries	PO1 PSO10	Un	Proc	10	-	Assignment , Presentation and Test papers

Core Course (Practicum) PPES 12108: General Conditioning and Track and Field

Course learning Outcomes

CO1 Understand the history & development of track & field.

CO2 Understand the fundamental techniques of track & field

events CO3 Able to design track & field layout.

CO4 Understand the rules and officiating in track & field.

CO5 Understand common injuries in track & field and the rehabilitative exercises.

CO6 Understand different training plans.

Module 1

- d. Introduction: History and Development of Track and field events
- e. Organizational setup of Track and Field Athletics
- f. Major competitions at National and International levels.

Module 2

- c. Rules and officiating in Track and field; Principles of officiating
- d. Track and Field lay out and marking

Module 3

- b. Pedagogic Principles of Track and Field Training:
 - (i) Periodization of training – preparatory training – build up training – high performance training.
 - (ii) Training plans – Long term plan, yearly plan, monthly and weekly schedule, day's programme – physical qualities.

Module 4

- d. Common Injuries in Track and Field during training and competitions
- e. Prevention, treatment and rehabilitation of athletic injuries.
- f. Doping and its control

Module 5

PRACTICALS - FUNDAMENTAL SKILLS

- b) Conditioning.
- q. Warming up – general and specific
- r. Development of Physical fitness and motor qualities.
- s. Starting technique – Standing start crouch start and its variations, props use of blocks.
- t. Finishing techniques – Run, through forward lunging shoulder shrug.
- u. Relays – Various patterns of Baton exchange and understanding to relay zones.
- v. Hurdles – Approach, clearance over the Hurdle lead leg action, Trail leg action and recovery middle and long distance running.
- w. Steeple chase – Approach clearance recovery walking technique
- x. Long Jump (hang style and running in the air style) Approach run, take off, flight in the air and landing.
- y. High Jump (Straddle technique and Fosbury flop) – Approach run take off clearance over the bar and landing.
- z. Triple Jump – Approach run, take off hop step and Jun phase (action in the air) and landing.
- aa. Pole vault – Hand grip and pole carry. The run and pole plant, take off, bar clearance and landing.
- bb. Shot-put grip, stance glide, release and reverse (o' Brain style)
- cc. Discuss Throw – Grip, stance preliminary swing. Turns release and reverse.
- dd. Javelin Throw – Grip, curry approach run release and reverse.
- ee. Hammer Throw – Grip, preliminary swing turns, release and reverse.
- ff. Combined Events: Decathlon and Heptathlon.

References

1. Carr, Gerry R. *Fundamentals of Track and Field*, Mumbai: The Marine Sports. 1995.
2. Ekta. *Teaching and Coaching Athletics*, New Delhi: Sports Publication. 2003.
3. Emmanuel, George. *Athletic meet – Marking, Rules, Directions*, Cicily George: Kottayam. 2001
4. Lawson, Gerald. *World Record Breakers in Track and Field Athletics*, New York: Human Kinetics. 2000
5. Thani V. *Encyclopedia of Track and Field*, New Delhi: Sports Publication. 2003.
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7. Deberly J. Menneth *Modern track and field* Englewood Cliffs, N.J. Prentice Hall Inc.
8. Hooks Gene *Application of Weight Training to Athletics*, Englewood Cliffs N.J. Prentice Hall Inc. 1962.
9. Malhotra Ashok Kumar *A guide to be an athletic*. Krishna Publications, New Delhi 1980.
10. Mohan V.M. – *Athletics for Beginners* Metropolitan Books, New Delhi.
11. Robinson Johnson James and Hirschi. *Modern technique of track and field*. London Henry Kimpton Publishers 1974.
11. Ken O Bosen – *Track and Field fundamental technique* NIS publications Patiala.
12. Parachiwala J. *Athletics*.

Core Course PPES 12108: General Conditioning and Track and Field (Practicum)**Credits:04**

	CO	PO/PSO	CL	KC	Class Hrs	Lab HRS	Assessment
1	Understand the history & development of track & field.	PO1 PSO1	Un	Conc	15	30	Practical Test And Viva voce
2	Understand the fundamental techniques of track & field events	PO1 PSO9	Un	Conc, Proc	15	30	Practical Test And Viva voce
3	Able to design track & field layout.	PO3 PSO8	Cr	Proc	15	30	Practical Test And Viva voce
4	Understand the rules and officiating in track & field.	PO1 PSO1	Un	Conc	15	30	Practical Test And Viva voce
5	Understand common injuries in track & field and the rehabilitative exercises.	PO1 PSO10	Un	Conc	15	30	Practical Test And Viva voce
6	Understand different training plans.	PO1 PSO1	Un	Conc	15	30	Practical Test And Viva voce

Electives Course: PPES: 12144- Football (Practicum)

Course Learning Outcomes

CO 1 Understands advanced Skills and Techniques in the game Football.

CO 2 Understands the History and Development of game

CO3 Understands concepts of scientific aspects of Footballcoaching

Course Content:

Module – 1 – Skills and Techniques

- History and Development of the Game
- Small sided game
- Goal keeping
- Reception – Passing – Dribbling and Shooting
- Set pieces

Module - 2 – Tactics

- Individual tactics – Team tactics
- Advanced skills and techniques of football
- Attacking tactics and Defensive tactics
- Principles of game

Co	CO Statement	PO/PSO	CL	KC	Class Hrs	Lab HRS	Assessment
Co 1	Understands advanced Skills and Techniques in the game Football.	PSO 2	Un	Fa		25	Practical Test And Viva voce
Co 2	Understands the History and Development of game	PSO 6	Con	Fa		5	Practical Test And Viva voce
Co 3	Understands concepts of scientific aspects of Football coaching	PSO 2	Un	Conc		15	Practical Test And Viva voce

Elective Course: PPES 12145 -Volleyball

Course Learning Outcomes

CO-1 : Demonstrate basic skills associated with volleyball including passing , setting , serving , attacking (spike) and blocking during training session .

CO-2 : Perform Individual Offensive and Defensive Skills and Strategies .

CO-3 : Understand the Rules and Regulations of the game which helps to develop Officiating Competency .

Course Content:

Module I

warming up :

- Principles of warming up and cool down
- Means , method and structure of warming up and cooling down
- Procedure , methods and drills for pre-competition warm up
- Lead up and recreational games
- Development of specific conditional abilities through suitable means and methods
 - a) Explosive strength
 - b) Anaerobic endurance
 - c) Special speed and agility
 - d) Specific co-ordination

Module II

Teaching and training of the techniques / skills with analysis :

- Over head Pass , Under hand Pass (Dig pass) , Under hand Serve , Floating serve , Straight Smash , Smash with body turn , Wrist outward / inward smash , Back court Attack , Block-Single and Group block , Set up training , Forward Dive and Pass , Pan cake .
- Rules and Regulations of the game and Officiating procedure

Elective Course: PPES 12145–Volleyball.**Credit:01**

CO	CO Statement	PO/PSO	CL	KC	Class Hrs	Practicum/Lab Hrs	Assessment
CO1	Demonstrate basic skills associated with volleyball including passing , setting , serving , attacking (spike) and blocking during training session .	PO1 PSO9	Ap	Fa	-	25	Practical Test and Viva-voce
CO2	Perform Individual Offensive and Defensive Skills and Strategies	PO1 PSO9	Ap	Co nc	-	10	Practical Test and Viva-voce
CO3	Understand the Rules and Regulations of the game which helps to develop Officiating Competency .	PO1 PSO9	Un	Fa	-	10	Practical Test and Viva-voce

Elective Course: PPES 12146 - Softball

CO 1 Understand the history and development of the Game Softball

CO 2 Able to perform Softball

CO 3 Understand scientific basis of skills and techniques of Softball

CO 4 Plan and conduct training and coaching sessions to school and college level participants.

CO 5 Understand the rules and officiating in softball.

Course content :

Module -1 Introduction

History – Origin and Development of Softball – Equipment – protective and safety measures

Module – 2 Techniques

Skills and Techniques – fielding –hitting - pitching - base running – catching

Module -3 Officiating

Officials – officiating and umpiring procedures –umpires signals and calls

Module -4 Rules of the Games

Coaches, Players and Substitutes – Pitching regulations – Batting – Batter Runner and Runner – Dead Ball and Ball in play – Scoring

Module – 5 Official markings and Dimensions for Softball field.

Bases – Plates – Batter’s Box – Catcher’s Box

References

1. Judi Garman , Michelle Gromacki “Softball Skills & Drills Second Edition” Human Kinetics , United State of America
2. Gayle Rogers, Sue Cormack, Bruce Knights, Les Bee “Softball Companion Book” Australian Sports Commission – Australian Government, 2017
3. Eva-Rose Hunter “ The History of Softball”

Elective Course: PPES 12146– Softball**Credit :01**

CO	CO Statement	PO/PS O	CL	KC	Class Hrs	Practicum/ Lab Hrs	Assessment
CO 1	Understand the history and development of the Game Softball	PSO6	Un	Con c		5	Practical Test and Viva Voice
CO 2	Able to perform Softball	PSO8	P	P		10	Practical Test and Viva Voice
CO 3	Understand scientific basis of skills and techniques of Softball	PO3 PSO4	Un	P		10	Practical Test and Viva Voice
CO 4	Plan and conduct training and coaching sessions to school and college level participants.	PO2 PSO6	Pln	P		10	Practical Test and Viva Voice
CO 5	Understand the rules and officiating in Softball.	PSO7	Un	P		10	Practical Test and Viva Voice

Course Learning Outcomes

- CO1 Understand and interpret the rules and regulation and also the preparation and maintenance of Kabaddi court.
- CO2 Demonstrate and mimic technical and tactical skills with high caliber of precision and accuracy during coaching sessions.
- CO3 Understand the Rules and Regulations of the game which helps to develop Officiating Competency .

Course Content:

Module 1

- a. Origin-History and development of Kabaddi.
- b. Rules and regulations of the game.
- c. Planning the Layout, construction and marking & Maintenance of play field.
- d. Officiating & Officials signals.

Module 2–Techniques

- a. Raid-pre consideration of Raid-Caut-Entry-Retreat.
- b. Defence: Pre-requisites of a defensive player-right Zone-Centre Zone-Left Zone, Ankle-hold, Thigh hold, Knee hold, Waist, Wrist hold and Blocking.
- c. Chain system, Corner chain, Center Overchain.

Module 3

- a. Offensive Skills: Hand though, Toe though, plunging though the chain, jumping over the chain, escaping from the holds.

Elective Course:PPES 12147:Kabaddi**Credit :01**

CO	CO Statement	PO/PSO	CL	KC	Class Hrs	Practicum\ Lab Hrs	Assessment
CO1	Understand and interpret the regulation preparation and maintenance o Kabaddi court	PO1 PSO7	Un	Conc		05	Practical Test and Viva-voce
CO2	Demonstrate and mimic technical and tactical skills with high caliber of precision and accuracy during coaching sessions.	PO1 PSO8	Un	Fa		20	Practical Test and Viva-voce
CO3	Understand the Rules and Regulations of the game which helps to develop Officiating Competency.	PO1 PSO7	U An An	Fa	10	20	Practical Test and Viva-voce

Elective Course : PPES 12148:Kho-Kho**Course Learning Outcomes**

- CO1 Understand and interpret the rules and regulation and also the preparation and maintenance of Kho-Kho court.
- CO2 Demonstrate and mimic technical and tactical skills with high caliber of precision and accuracy during coaching sessions.
- CO3 Understand the Rules and Regulations of the game which helps to develop Officiating Competency.

CourseContent:

Module 1

- Origin, History and Development of Kho-Kho.
- Rules and regulations of the Game.
- Planning the Layout, construction and marking & Maintenance of play field.
- Officiating & Officials signals.

Module 2

- Defensive skills: Sitting in the square, giving Kho-Kho, advance Kho, pole turn moving out of square taking direction pole dive, flat dive, tapping, covering, third attack, Correction of fouls.
- Offensive skills: Initial position of the runner, single chain, double chain, three six up, sixth attack, seventh attack, eighth attack, ring game, avoiding, entry during the game.
- Tactics and strategies in offence and defense.

Module 3

- Training: Long term and short term plans.
- Preparation for competitions.

Elective Course: PPES 12148:Kho-Kho

Credit :01

CO	CO Statement	PO/PSO	CL	KC	Class Hrs	Practicum\ Lab Hrs	Assessment
CO1	Understand the preparation and maintenance of Kho-Kho court	PO1 PSO7	Un	Con c	10	05	Practical Test and Viva-voce
CO2	Demonstrate and mimic technical and tactical skills with high caliber of precision and accuracy during coaching sessions.	PO1 PSO8	Un	Fa	20	20	Practical Test and Viva-voce
CO3	Understand the Rules and Regulations of the game which helps to develop Officiating Competency.	PO1 PSO7	Un	Fa	10	20	Practical Test and Viva-voce

Elective Course: PPES 12149: Tennis.

Course Learning Outcomes

CO1 Understand and interpret the rules and regulation and also the preparation and maintenance of Tennis court.

CO2 Demonstrate and mimic technical and tactical skills with high caliber of precision and accuracy during coaching sessions.

CO3 Understand the Rules and Regulations of the game which helps to develop Officiating Competency.

Course Content:

Module 1

- a. Origin, History and Development of Tennis.
- b. Competitions at National and International level.

Module 2

- a. Basic Skills of Tennis.
- b. Grips -Eastern forehand
 - Eastern backhand
 - Continental
 - Western
- a. Basic Stroke
 - Forehand
 - Backhand
 - Service
 - Volley
 - Smash

Module 3

- a. Rules of the game and their interpretations.
- b. Planning the Layout, construction and marking & Maintenance of play field.
- c. Officiating and Official signals.

Elective Course: PPES 12149: Tennis.**Credit :01**

CO	CO Statement	PO/PSO	CL	KC	Class Hrs	Practicum\ Lab Hrs	Assessment
CO1	Understand and interpret the rules and regulation and also the preparation and maintenance of Tennis court.	PO1 PSO7	Un	Conc	10	05	Practical Test and Viva-voce
CO2	Demonstrate and mimic technical and tactical skills with high caliber of precision and accuracy during coaching sessions.	PO1 PSO8	Un	Fa	20	20	Practical Test and Viva-voce
CO3	Understand the Rules and Regulations of the game which helps to develop Officiating Competency .	PO1 PSO7	Un	Fa	10	20	Practical Test and Viva-voce

Elective Course PPES 12150 - Hockey

Course Outcomes

CO 1 Understands the history and Rules of Hockey.

CO 2 Understands the basic skills of hockey.

Co 3 Apply and Analyze the Scientific basis of Skills

Module – 1 Introduction

1.1 History – Development of the Game – Rules of Hockey.

1.2 The Technique of Hockey – Basic Skills – Hitting – Pushing – Flicking – Scooping – Dribbling.

Module – 2 Passing

1.3 Passing – The Direct Pass – The Indirect Pass or Through Pass – Quickness – Speed of the Ball.

1.4 The Players Positions – Forwards – Half Backs – Full Backs –The Goal Keeper.

1.5 Starting and Restarting the Game – Bully – The Roll In.

Module – 2 General Tactics.

2.1 Attack – Types of attack – Defense – Coaching – General Considerations.

2.2 Fundamental Skills – Hitting – Stopping – The Grip – The Position of the Head – Feet and Body.

2.3 Practice Games- ABC Game – Pig in the Middle – Moving Circle.

Module – 3 Advanced Skills.

3.1 Passing – Exchange of Positions (Scissors movement) – triangular Pass – Through Pass – Inner to Inner Pass – Reverse Pass – Square Pass – Cross Pass.

3.2 Centering – The Roll In – Corner – Penalty Corner – Penalty Stroke – Position Play.

Elective Course PPES 12150 - Hockey

Credits - 1

CO	CO Statement	PO/PSO	CL	KC	Class Hrs	Practicum / Lab Hrs	Assessment
CO1	Understands the history and Rules of Hockey.	PO1 PSO9	Un	F	-	15	Assignment, Record and Practical Test
CO2	Understands the basic skills of hockey.	PO1 PSO9	Un	Proc	-	20	Assignment, Record and Practical Test
CO 3	Apply and Analyze the Scientific basis of Skills		Ap	Me		10	Assignment, Record and Practical Test

Core Course: PPEM 12109 -Kinesiology and Sports Biomechanics

Course Learning Outcomes:

- CO1 Describe human movement using appropriate terms and concepts.
- CO2 Apply biomechanical principles to human locomotion, activities of daily living and dynamic sporting skills.
- CO3 Analyse and interpret correctness of movements of the human body during sport and exercise activities.
- CO4 Apply biomechanics to establish the equipment requirements in high performance sport, rehabilitation and sport technology applications.
- CO5 Use the knowledge of Biomechanics to prevent sports related injuries and also to enhance performance in exercise and sports activities.
- CO6 Comprehend and apply advanced theory based understanding of bio engineering fundamentals and specialist bodies of knowledge to enhance the performance in sports.
- CO7 Disseminate the findings of bio mechanical experiments ethically, clearly and succinctly.

Course Content:

Module 1: Introduction

- a. Introduction, Meaning of Biomechanics
- b. Biomechanics in Physical Education
- c. Sports and Research.
- d. Movement analysis , mechanical analysis and biomechanical analysis

Module 2:Kinesiology

- a. The concept of structural kinesiology-structure and function of human articulations (Shoulder,Elbow,Knee,Angle,Wrist and Hip joints)
- b. The role of kinesiology in Physical Education and Sports
- c. Kinesiology of important muscles of the joints
- d. The fundamental movement of joints and their terminology
- e. The axis and planes involved in joint movements.

Module 3: Linear Kinematics

- a. Distance and displacement.
- b. Speed and velocity.
- c. Acceleration.
- d. Uniform motion.
- e. Projectile motion and its application in sports.
- f. Application of principles of linear kinematics in sports.

Module 4 : Linear Kinetics

- a. Force : Internal and external force, Eccentric force , Torque, Centripetal and Centrifugal force.
- b. Newton's Laws of motion and its application in sports.
- c. Friction and its application in sports, static friction , kinetic friction
- d. Momentum.
- e. Impact and elasticity.
- f. Work, Power and Energy, Definition, Types of energy, Conservation of mechanical energy, principles of work and energy.
- g. Application of linear kinetics in sports.

Module 5: Angular Kinetics

- a. Center of gravity.
- b. Equilibrium – Types of equilibrium , Factors influencing equilibrium
- c. Levers, its types and characteristics
- d. Application of principles of angular kinetics in sports.

Module 6: Fluid Mechanics

Fluid properties: Density, Specific Weight, Viscosity, Buoyancy, Floatation

Module 7 : Biomechanical Analysis of fundamental Human Movements

Walking,Running, Jumping, Throwing, Lifting, Pulling, Pushing, Catching , Hitting and Climbing.

Module 8: Biomechanical Analysis of Sports & Games

Video analysis of sports - Athletics, Basketball, Cricket, Handball, Football, Hockey, Tennis, Badminton and Volleyball.

References:

1. Hay, James. *Biomechanics of Sports Technique*, Prentice Hall Inc. USA, 1993
2. Hall; Susan, *Basic Biomechanics*, Mosby Year Book Inc., St Louis, 1991.
3. Dhananjay Shaw. *Biomechanics and Kinesiology of Human motion*: The Sahityakendra- Delhi, 1998.
4. Hay, James G T and Gavin Reid.J, *Anatomy mechanics and Human Motion*, ed.2; Prentice Hall – New Jersey, 1998.
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6. Luttgens, Kathryn, Helga Deutsch and Nancy Hamilton, *Kinesiology Scientific Basis of Human Motion*, Dubuque: IA; WMC. Brown Communication Inc., 1992.
7. Thimson, W and R.T.Floyal, *Manual of Structural Kinesiology*. St Louis: Mosby 1994.
8. Dhananjayshaw, *Pedagogic kinesiology* : Sports publications- Delhi, 1998.
9. Glady Scott, M. *Kinesiology*: Sports Publications- Delhi, 1998.
10. Thompson and Floy. *Manual of structure kinesiology*: Mosby- London, 1994
11. Littgens, Karthryn, *kinesiology :Scientific basis of Human motion*, Ed. 8: Brown & Benchmark- London, 1992.
12. Hoffruan, Shirl, J and Harris, Janet, C. *Introduction to kinesiology: Studying Physical activity, Human Kinetics* , Champaign, Illinois, 2002.

CO	CO Statement	PO/PSO	CL	KC	Class Hrs	Lab Hrs	Assessment
CO1	Describe human movement using appropriate terms and concepts.	PO1 PSO4 PSO6	Un	Con	10	-	Assignment, Presentation and ClassTests
CO2	Apply biomechanical principles to human locomotion, activities of daily living and dynamic sporting skills.	PO1 PSO4 PSO6	Ap An	P	08	02	Assignment, Presentation and Practical Test and ClassTests
CO3	Analyse and interpret correctness of movements of the human body during sport and exercise activities.	PO1 PSO4	Ap An	P	08	02	Assignment, Presentation and Practical Test and ClassTests
CO4	Apply biomechanics to establish the equipment requirements in high performances sport, rehabilitation and sport technology applications.	PO1 PSO4	Ap	P	07	03	Assignment, Presentation and Practical Test and ClassTests
CO5	Use the knowledge of Biomechanics to prevent sports related injuries and also to enhance performance in exercise and sports activities.	PO1 PSO6	Ap	c	10	05	Assignment, Presentation and Practical Test and ClassTests
CO6	Comprehend and apply advanced theory based understanding of bio- engineering fundamentals and specialist bodies of knowledge to enhance the performance in sports.	PO1 PSO6	Un Ap	C	15	-	Assignment, Presentation and Practical Test and ClassTests
CO8	Disseminate the findings of biomechanical experiments ethically, clearly and succinctly.	PO1,5 PSO6	Un	C	10	-	Assignment, Presentation and ClassTests

CoreCourse: PPEM 12110:Introduction to Yoga and YogaTherapy : Theoretical approach

Course Learning Outcomes

CO 1. Understand classical and theoretical foundations of Yoga Therapy

CO 2 .Apply yoga as a therapeutic modality through the integration of diverse approaches to this field

CO 3 .Understands the interconnections between the body, the breath, the mind, and the emotions in the context of maintaining resilience and well-being

CO 4. Critical thinking skills and science-based literacy to advance the evolution of Yoga Therapy as an integrative health practice

Co 5. Able to communicate effectively, to establish healthy therapeutic and professional relationships,

Co 6. Understands philosophy of the yoga tradition, with diverse yogic perspectives on the Structure, states, functions, and conditions of the body and the mind in balance

Course Content:

Module – 1 – Introduction

- History - Origin of Yoga - Meaning, Concept and Definition of Yoga.— Aim and objectives of Yoga. Yoga as a Science and Art.

Module – 2 - Streams of Yoga

- Karma Yoga – Bhakthi Yoga – Njana Yoga – Raja Yoga
- Ashtanga yoga – Yama - Niyama – Asana – Pranayama – Prathyahara – Dharana – Dhyana – Samadhi.
- Hatha Yoga – Concept of Yogic Practices.

Module – 3 - General Hints of Yoga

- Principles of Yoga - Awareness – Age – time – Place – Sex – Food – Cloths – Bathing - – Sequence of Yogic Practices –
- Traditional Prayers – Santi mantra- Om chanting – Pranava mantra – Vidyaramba

Module – 3 – Asana and Pranayama

- Asana - classification of Asana – Cultural – Meditative – Relaxative – Asana
- Physiological benefits of Yoga – Asanas – Surya Namaskar –
- . Pranayama – Types – Methods – benefits – Nadis and Chakras.

Module – 4 - Kriyas

- Shat – Kriyas – meaning – Techniques and benefits of Neti – Dhauti –Kapalapatti – Tradaka-Nauli – Basthi.
- Bandhas and Mudras – meaning and benefits.

Module – 5- Role of Yoga in Disease management.

- Yogic concept of human Body and Mind –Mind – the concept and nature and control of Mind- Effect of Meditation –
- Role of Yoga in various disease management – Diabetics - Hypertension - Coronary Heart Diseases – Asthma – Arthritis – Obesity – Back pain – Pregnancy and child birth

Module – 6 – Traditional Methods of Yoga Instruction

- Misconceptions about Yoga – Meaning and Scope of Teaching Methods
- Yoga and Sports. – Yoga and Education – Possibilities of Yoga
- Physiological effect of Yoga on human body

Core Course: PPEM 12110:Introduction to Yoga and YogaTherapy : Theoretical approach**Credits :4**

CO	CO Statement	PO/PSO	CL	KC	Class Hrs	Lab Hrs	Assessment
CO1	Understand classical and theoretical foundations of Yoga Therapy	PSO 6	Un	Fa	10	5	Assignment, Presentation and Practical Test and ClassTests
CO2	Apply yoga as a therapeutic modality through the integration of diverse approaches to this field	PSO 8	Ap	Proc	15	10	Assignment, Presentation and Practical Test and Class Tests
CO3	Understands the interconnections between the body, the breath, the mind, and the emotions in the context of maintaining resilience and well-being	PSO 4	An	Me	15		Assignment, Presentation and Practical Test and Class Tests
CO4	Critical thinking skills and science-based literacy to advance the evolution of Yoga Therapy as an integrative health practice	PO 1/PSO 1	Ana	Proc	10		Assignment, Presentation and Practical Test and Class Tests
CO5	Able to communicate effectively, to establish healthy therapeutic and professional relationships,	PO 2/ PSO3	Ap	Me	10		Assignment, Presentation and Practical Test and Class Tests
CO 6	Understands philosophy of the yoga tradition, with diverse yogic perspectives on the structure, states, functions, and conditions of the body and the mind in balance	PO 4/ PSO 5	Un	Fa	15		Assignment, Presentation and Practical Test and ClassTests

Multi-disciplinary Elective Course: PPEM 12137: Health and Wellness Education

- CO1 Understand the conceptual and diagnostic aspects of health, fitness and wellness
- CO2 Understand the biological considerations in training
- CO3 Execute appropriate training programmes for the development of the fitness level of individual
- CO4 Understand the concept of Aerobics
- CO5 Understand the concept of Yoga
- CO6 Understand the various test batteries for evaluating the physical fitness

Course content :

Module I

1. Principles of Physical Fitness and wellness
2. Categories of Physical Fitness
3. Components of Health related Physical Fitness and Skill related Physical Fitness
4. System related to Physical Fitness
5. Factors affecting Physical Fitness
6. The concept of wellness
7. Components of wellness
8. Importance of wellness
9. Development and maintenance of physical fitness and wellness

Module II

1. Conditioning exercises
2. Biological consideration of training
3. Physiological principles of physical conditioning and training
4. Methods in physical training and conditioning
5. Plyometric training
6. Exercise programmes
7. Designing resistance training programmes
8. Supplementary exercise for specific needs

Module III

1. **Aerobics** – Types of Aerobics – Low, Medium and High Impact
2. **Yoga** – Streams of Yoga – Karma Yoga – Bhakthi Yoga – Jnana Yoga – Raja Yoga – (Ashtanga Yoga) – Yamas, Niyamas, Asanas, Pranayama, Prathyahara, Dharana, Dhyana, Samadhi, Hatha Yoga.

Module. IV

1. Evaluation of physical fitness (Practicals)
 - a. Physical fitness battery.
 - b. 50m dash
 - c. Vertical jump
 - d. Sit ups (Bent Knee)
 - e. Modified push - ups
 - f. 8 minute Run/Walk
 - g. Squat thrust
 - h. Push – ups.

Suggested Readings

1. Dr.A.K.Uppal (2015) *Physical Fitness and Wellness*, Friends Publications (India), New Delhi, 2015.
2. BernarrMacfadden (2007) *Encyclopedia of Physical Education and Health Sciences*, Sports Educational Technologies, New Delhi, 2007.
3. Charless Harold Mccloy (2004) *Tests and Measurements in Health and Physical Education*, Friends Publications (India), New Delhi, 2004.
4. D.A Sargent (2014) *Health Strength and Power*, Sports Educational Technologies, New Delhi, 2014.
5. AbhayBuchha, Dabir R. Qureshi (2012) *Mechanical Analysis of Motor Skills Development*, Sports Educational Technologies, New Delhi, 2012.
6. Jay Hoffman (2002) *Physiological Aspects of Sport Training and Performance*, Human Kinetics, U.S.A, 2002.
7. Sri. Ananda. *The Complete Book of Yoga Harmony of Body and Mind*, Orient Paper Backs: Vision Book Pvt. Ltd., 1982.

Multi-disciplinary Elective Course: PPEM 12137: Health and Wellness Education

Credits :4

HEALTH FITNESS AND WELNESS EDUCATION							
CO	Co Statement	PO/PSO	CL	KC	Class Hrs	Lab Hrs	Assessment
CO1	Understand the conceptual and diagnostic aspects of health and Fitness	PO1 PSO2 & 8	Un	Conc	15		Assignment ,Presentation and Test papers
CO2	Understand the biological considerations in training	PO1 PSO2 & 8	Un	F	15	20	Assignment ,Presentation and Test papers
CO3	Execute appropriate training programmes for the development of the fitness level of individual	PO1 PSO2 & 8	Ap	Conc	15	20	Assignment ,Presentation and Test papers
CO4	Understand the concept of Aerobics	PO1 PSO2 & 8	C	Conc	15	20	Assignment ,Presentation and Test papers
CO5	Understand the concept of Yoga	PO1 PSO2 & 8	Un	Conc	15	20	Assignment ,Presentation and Test papers
CO6	Understand the various test batteries for evaluating the physical fitness	PO1 PSO2 & 8	Un	Conc	15	10	Practical Test Viva voce

Core Course: PPEM 12111: Introduction to Yoga and Yoga Therapy(Practicum)**Course Learning Outcomes**

CO – 1 understand traditional methods of Yoga

CO - 2 understand the science and art of Yoga

CO – 3 able to demonstrate and analyze limbs of yoga

CO – 4 able to design relaxation methods

CO – 5 able to prescribe therapeutic measures

CO – 6 Able to teach Yogic sessions

Course Content:

Module – 1- Traditional Methods

- Traditional prayers – Santi mantra – Om chanting - meaning and benefits
- Warming up - Asanas - Cultural – Meditative – Relaxative – Yoga nidra
- Shat Kriyas – Bandhas- Mudras –
- Pranayama – Meditation –
- Surya Namaskar

Module – 2 - Methods of Teaching Yoga

- Lecture Method – Response to Instruction Method – Individualized Instructional Method – Direct Practice Method – Project Method – Demonstration Method
- Factors Influencing the Method
- Yogic Principles – Psychological Principles – Anatomical – Physiological Principles – Educational and Sociological Principles
- Class Management - Lesson Planning

Module - 3 Kriyas, Mudras and Bandhas

- Shatkriyas - Kapalabhati, Neti, Dhauti, Nauli & Basti
- Chinmudra – Vishnu mudra – Yogamudra
- Jalandharabandha – Uddiyanabandha – Moolabandha .

Module – 4 Pranayama and Meditation

- Nadishudhi Pranayama – Anuloma Viloma Pranayama - Ujjai Pranayama - Brahmari Pranayama- Sitkari Pranayama
- Meditation – Om Meditation – Yoga Nidra

Core Course: PPEM 12111: Introduction to Yoga and Yoga Therapy(Practicum)**Credit :04**

CO	CO Statement	PO/PSO	CL	KC	Class Hrs	Lab Hrs	Assessment
CO1	Understand traditional methods of Yoga	PO 4/PSO 5	Un	Fa	5	10	Practical Test And Viva voce
CO2	Understand the science and art of Yoga	PO 1/PSO 4	Un	Me		15	Practical Test And Viva voce
CO3	Able to demonstrate and analyze limbs of yoga	PSO 8	Ap	Proc		15	Practical Test And Viva voce
CO4	Able to design relaxation methods	PSO 7	Ap	Proc	5	10	Practical Test And Viva voce
CO5	Able to prescribe therapeutic measures	PSO 7	Ap	Proc	5	10	Practical Test And Viva voce
CO6	Able to teach Yogic sessions	PSO 7	Ap	Proc		15	Practical Test And Viva voce

Semester IV

Core Course: PPES 12122-Sports Medicine

Course Learning Outcomes:

- | | |
|-----|--|
| CO1 | Develop a coherent body of knowledge about the sports injuries and how they are handled during activities. |
| CO2 | Describe critically the use of banned and allowed substances in sports to enhance performances. |
| CO3 | Describe critically the proposed mechanisms of action and ergogenic value of dietary supplements and complementary medicines in performance enhancement. |
| CO4 | Explain Pathophysiology of injury, severity of injury and application of sports medicine model to provide appropriate treatment modalities. |
| CO5 | Identify evidence- based methods of injury prevention and apply appropriate risk management strategies to prevent physical activity related conditions. |
| CO6 | Explain and compare modalities used in the diagnosis, treatment and rehabilitation of sports related injuries. |
| CO7 | Analysis exercise physiology and prescription principles in the treatment and rehabilitation of sports related injuries. |
| CO8 | Apply underlying principles and concept of sports sciences. |
| CO9 | Contextualise discipline knowledge to performances in sports and /or health, disease and ageing. |
| C10 | Handle and perform Therapeutic modalities: First Aid procedure, Physiotherapy and massage during training sessions and related similar conditions. |

Course Content:

Module 1: Common Sports Injuries:

Abrasion, Laceration, Blisters, Muscle injuries, Muscular Hematoma-Muscle Cramp, Stitch, Ligament Injuries, Skeletal Injuries, Periostitis, Dislocation, Tendon Injuries, its treatment and prevention, Prevention of Sports injuries, Important factors in preventing sports injuries, RICE.

Module 2: Injuries of the Body specific regions:

Head and Neck, Shoulder, Upper Arm, Elbow, Wrist and Forearm, Hip and Thigh, Knee and Lower leg, Ankle and foot.

Module 3: Rehabilitation

Specific rehabilitation Programme in the following joints - Ankle, Knee, Low back, Elbow, Wrist, Shoulder & Hip.

Module 4: Stretching Exercises

Types of Stretching Exercises (Static, Dynamic & PNF stretching)- Advantages & disadvantages of each type, Benefits of stretching exercises, Stretching Exercises Programme for the following Joints:- Head & Neck, Shoulder Joint – Shoulder Girdle _Elbow, Wrist, Hip, Knee, Ankle and Spine .

Module 5 : First Aid for Sports Injuries

First Aid, Golden rules of First Aid, Responsibilities of First Aids, Artificial Respiration, Cardiac Massage Shock, Head injuries, Concussion, Unconsciousness, Back injuries, Sportsmen should seek medical advice when.

Module 6 : Sports Supplements & Ergogenic Aid

Creatine, Pyruvate, Carnitine, Caffeine, Protein, Ergogenic aid, Definition and its classes. Doping: Definition, Types Doping, Doping Method, Classes of Drugs.

Module 7: Thermoregulation

Conduction, Convection, Radiation, Evaporation, Thermometer, Absolute Humidity, Relative Humidity- Mechanism of Temperature regulation, Exercise and Thermoregulation, Heat acclimatization, Heat injuries, Cold acclimatization, Cold injuries.

Module8 : Sports Physiotherapy

Principles of Physiotherapy-Hydrotherapy: Modalities of Cryotherapy and Thermotherapy, Physiological effects of Hydrotherapy. Electrotherapy: Ultra Sound, Shortwave Diathermy, Microwave Diathermy Infrared Radiation, Ultraviolet radiation. Muscle stimulator (Galvanic &Faradic), Transcutaneous Nerve Stimulation (TENS), Interferential therapy-Laser therapy. Massage Therapy: Swedish massage, Deep Tissue Massage, Sports Massage. Bandaging Techniques

References:

1. Roy Steven and Richer Irvin. *Sports Medicine*, Prentice Hall,1983.
2. Kulund Daniel N.*The Injured Athlete*, Philadelphia: J B . Lippincott Co 1988.
3. Booher James M and Thibodeau Gary A, *Athletic Injury Assessment*, Toronto: Mosby College Publishing ,1985.
4. Huston M. A. *Sports Injuries*, Oxford : Oxford University Press ,1996.
5. Kupria, Werner. *Physical Therapy for Sports*, Philadelphia: W B Saunders Com .1995
6. Mellion , Morris B *Sports Injuries and Athletic Problems*, New Delhi: Surjeet Publication.1996
7. Mottram, David R. *Drugs in Sports*, London: Routledge.2004
8. Norris, Christopher M. *Sports Injuries*, Oxford : Butterworth Heinmann,1997
9. Pandey P.K and Gupta L.C. *Outline of Sports Medicine*, New Delhi : Jaypee Brothers.1987.
10. Pandey P .K. *Know How ? Sports Medicine*, Jalandhar: A.P. Pub.1985
11. Porter, stuart. Tidy's *Physiotherapy*, Oxford: Buterwort-Heinemann.2003
12. Satpathy G C. *Sports Medicine and Exercise Science*, New Delhi: Isha Books.2005
13. Sherry, Eugele and Bokor, Des. *Sports Medicine*, London : GMM Ltd .1997
14. Southmayd, William and Hoffman, Marshall. *Sports Health*,Ludhiana: Kalyani Publishers.1998
15. Prentice William, E. *Therapeutic modalities Sports Medicine*. St Louis : Time Mirror Mosby College Publishing,1990
16. Starky, Chad. *Therapeutic Modalities for: Athletics Trainers*, Philadelphia: F .A Davis Company,1990.
17. Knight, *Cryotherapy in Sport Injury Management , Human Kinetics*, Champaign: 1995.
18. Torg, Joseph,S. Etc. *Rehabilitation of athletic injuries,an atlas of therapeutic exercise*, Medical Publications, London,1987.
19. Prayor, Jennifer, A .& Webber, Barbara, A . *Physiotherapy for Respiratory and Cardiac Problems*, Churchill Livingstone, NewYork:1993

Core Course: PPES 12122-Sports MedicineCredits:04

CO	CO Statement	PO/PSO	CL	KC	Class Hrs	Lab Hrs	Assessment
CO1	Develop a coherent body of knowledge about the sports injuries and how they are handled during activities.	PO1 PSO2 PSO10	U	C	05	-	Assignment, Presentation and Class Tests
CO2	Describe critically the use of banned and allowed substances in sports to enhance performances.	PO1 PSO2	Un	Conc	10	-	Assignment, Presentation and Class Tests
CO3	Describe critically the proposed mechanisms of action and ergogenic value of dietary supplements and complementary medicines in performance enhancement.	PO1 PSO2 PSO10	Un	Conc	10	-	Assignment, Presentation and Class Tests
CO4	Explain Pathophysiology of injury ,severity of injury and application of sports medicine model to provide appropriate treatment modalities.	PO1 PSO2	Un	Conc	10	-	Assignment, Presentation and Class Tests
CO5	Identify evidence- based methods of injury prevention and apply appropriate risk management strategies to prevent physical activity related conditions.	PO1 PSO10	Ap	Conc	06	04	Assignment, Presentation and Practical Test and Class Tests
CO6	Explain and compare modalities used in the diagnosis, treatment and rehabilitation of sports related injuries.	PO1 PSO2	Un	Conc	10	05	Assignment, Presentation and Class Tests

CO7	Analysis exercise physiology and prescription principles in the treatment and rehabilitation of sports related injuries.	PO1 PSO2	Ap An	Conc Pro	05	-	Assignment, Presentation and Class Tests
CO8	Apply underlying principles and concept of sports sciences.	PO1 PSO2 PSO10	Ap	Conc Pro	10	-	Assignment, Presentation and Class Tests
CO9	Contextualized discipline knowledge to performances in sports and /or health, disease and ageing.	PO1 PSO2	Un	Conc	05	-	Assignment, Presentation and Class Tests
CO10	Handle and perform Therapeutic modalities: First Aid procedure, Physiotherapy and massage during training sessions and related similar conditions.	PO1 PSO10	An Ap	Conc	05	05	Assignment, Presentation and Practical Test and Class Tests

Core Course: PPES 12123 Health , Fitness and Wellness Education

Course Learning Outcomes:

- CO1 Understand the conceptual and diagnostic aspects of health and fitness
- CO2 Prescribe exercise for the cardio-respiratory fitness
- CO3 Execute appropriate weight training programme for the development of the fitness level of individual
- CO4 Design exercise programme for pregnant women, Children and senior citizens
- CO5 Understand the concept of flexibility and prescribe the methods to develop and assess flexibility
- CO6 Understand the sociological importance of Health and Fitness Club in the promotion and maintenance of a healthy generation

Module 1 -Introduction

- a. Modern concept of health, meaning and definition of health, difference between HRPF and PRPF.
- b. Assessing the components of fitness, goals and objectives
- c. Goal setting, Exercise prescription, ACSM Guidelines
- d. Basic principles for exercise programme design
- e. Principles of training, Means for developing fitness
- f. Fitness for different age groups, fitness for disabled

Module 2 -Aerobic Exercises

- a. Exercise prescription for cardio-respiratory fitness.
- b. Type (mode), frequency and time (Duration), Intensity, Volume.
- c. Assessment of cardio-respiratory fitness, Graded exercise testing (GXT).
- d. Exercise prescription by heart rate, Exercise prescription by perceived exertion, Exercise prescription by workload

Module 3 -Weight Management

- a. Exercise prescription for weight loss and weight management, principles and programmers.
- b. Obesity, Overweight, Underweight- Definition and trends.
- c. Obesity- types and causes.
- d. Weight management principles and practice, well balanced nutrition.
- e. Designing weight management programmers, preliminary steps- Designing weight loss programmers- Designing weight gain programmers.
- f. Designing programmers to improve body composition.

Module 4 -Flexibility and Exercise Prescription

- a. Basic flexibility, assessment of flexibility.
- b. Designing low-back care exercise programmer.
- c. Exercise prescription for clients with diabetes mellitus type I & II.
- d. Exercise prescription for clients with obstructive pulmonary disease, hypertension.
- e. Exercise programmers for pregnant women, children and geriatrics

Module 5 -Health and Fitness Management

- a. Management of health and fitness center- management theories applicable to health and fitness center - modern trends and responsibilities of manager.
- b. Organizational structure of health and fitness facilities.
- c. Principles and guidelines for facility planning, special infrastructure for health and fitness facilities.
- d. Health and fitness marketing management.
- e. Care and safety of health and fitness equipments

References

- A) Vivan H. Heyward. *Advance Fitness Assessment and Exercise Prescription.*, Human Kinetics, Champaign, USA
- B) David P. Swain, Brain C. Leutholtz. *Exercise Prescription: A Case study Approach to the ACSM Guidelines.*, Human Kinetics, Champaign, USA
- C) John c Grififfin. *Client Centered Exercise Prescription.*, Human Kinetics, Champaign, USA
- D) Franklin, BA. *ACSM's Guidelines for Exercise Testing and Prescription*, Human Kinetics, Champaign, USA, 2000.
- E) Baechle, TR and RW Earle. *Essentials of Strength Training and Conditioning.*, Human Kinetics, Champaign, USA, 2000.

Core Course: PPES12124/ PPEM: 12112/ PPES12125: Track and Field (Specialization)

Course learning outcomes

- CO1 Understand the history & development of track & field.
- CO2 Understand the fundamental techniques of track & field events.
- CO3 Able to design track & field layout.
- CO4 Understand the rules and officiating in track & field.
- CO5 Formulate training plans for various events.
- CO6 Understand common injuries in track & field and the rehabilitative exercises.
- CO7 Understand different training plans.

Module 1

- g. Introduction: History and Development of Track and field events
- h. Organizational setup of Track and Field Athletics
- i. Major competitions at National and International levels.

Module 2

- e. Rules and officiating in Track and field; Principles of officiating
- f. Track and Field lay out and marking

Module 3

- a. Fundamental techniques of Track events; Sprint events – Running form, starting and finishing technique.
- b. Middle and long distance running
- c. Walking events – walking technique
- d. Hurdles Events – Hurdling technique

Module 4

- a. Fundamental techniques of jumping events, Long jump – Mechanics of Jumping Hang style and hitch-kick techniques – Approach run, Take off, action in the air, landing
- b. High Jump-Straddle-role and Fosbury techniques

Module 5

- a. Fundamental Technique of Throwing events – Mechanics of throwing
- b. The shot put, Initial stance, glide/turn, throwing position, release, recovery.
- c. The Discus throw, Technique-initial stance, preliminary swing, the turn throwing position, release, recovery.
- d. The Javelin throw, Technique-the grip, carry, five-stride rhythm, release, recovery.
- e. The hammer throw, technique-the grip, initial position, preliminary swing, the turn release, and reverse.

Module 6

- a. Combined Events – Decathlon and Heptathlon- General Principles of training for combined events.

Module 7

- c. Pedagogic Principles of Track and Field Training:
 - (i) Periodization of training – preparatory training – build up training – high performance training.
 - (ii) Training plans – Long term plan, yearly plan, monthly and weekly schedule, day's programme – physical qualities.

Module 8 - Training Means and Methods:

- a. Conditioning.
- b. Warming up – general and specific
- c. Development of Physical fitness and motor qualities.
- d. Specific training for techniques development tactics – effect of training in attitude.

Module 9

- a. Talent Identification
- b. Training youth athletes and women athletes
- c. Psychological preparation for competition in track and field.

Module 10

- a. Common Injuries in Track and Field during training and competitions
- b. Prevention, treatment and rehabilitation of athletic injuries.
- c. Doping and its control

PRACTICALS - FUNDAMENTAL SKILLS

- a. Starting technique – Standing start crouch start and its variations, props use of blocks.
- b. Finishing techniques – Run, through forward lunging shoulder shrug.
- c. Relays – Various patterns of Baton exchange and understanding to relay zones.
- d. Hurdles – Approach, clearance over the Hurdle lead leg action, Trail leg action and recovery middle and long distance running.
- e. Steeple chase – Approach clearance recovery walking technique
- f. Long Jump (hang style and running in the air style) Approach run, take off, flight in the air and landing.
- g. High Jump (Straddle technique and Fosbury flop) – Approach run take off clearance over the bar and landing.
- h. Triple Jump – Approach run, take off hop step and Jun phase (action in the air) and landing.
- i. Pole vault – Hand grip and pole carry. The run and pole plant, take off, bar clearance and landing.
- j. Shot-put grip, stance glide, release and reverse (o' Brain style)
- k. Discus Throw – Grip, stance preliminary swing. Turns release and reverse.
- l. Javelin Throw – Grip, curry approach run release and reverse.
- m. Hammer Throw – Grip, preliminary swing turns, release and reverse.
- n. Combined Events: Decathlon and Heptathlon.

References

1. Carr, Gerry R. *Fundamentals of Track and Field, Mumbai: The Marine Sports. 1995.*
2. Ekta. *Teaching and Coaching Athletics, New Delhi: Sports Publication. 2003.*
3. Emmanuel, George. *Athletic meet – Marking, Rules, Directions, Cicily George: Kottayam. 2001*
4. Lawson, Gerald. *World Record Breakers in Track and Field Athletics, New York: Human Kinetics. 2000*
5. Thani V. *Encyclopedia of Track and Field, New Delhi: Sports Publication. 2003.*
6. Dybon Geoffrey, G.H. *The mechanics of Athletics London: University of London Press Ltd. 1961.*
7. Deberly J. *Menneth Modern track and field Englewood Cliffs, N.J. Prentice Hall Inc.*
8. Hooks Gene *Application of Weight Training to Athletics, Englewood Cliffs N.J. Prentice Hall Inc. 1962.*
9. Malhotra Ashok Kumar *A guide to be an athletic. Krishna Publications, New Delhi 1980.*
10. Mohan V.M. – *Athletics for Beginners Metropolitan Books, New Delhi.*
11. Robinson Johnson James and Hirschi. *Modern technique of track and field. London Henry Kimpton Publishers 1974.*
11. Ken O Bosen – *Track and Field fundamental technique NIS publications Patiala.*
12. Parachiwala J. *Athletics.*

Core Course: PPES12124/ PPEM: 12112/ PPES12125: Track and Field (specialization)

CO	CO Statement	PO/PSO	CL	KC	Class Hrs	Lab HRS	Assessment
1	Understand the history & development of track & field.	PO1 PSO1	Un	C	10	40	Assignment Presentation Class Test Practical Test And Viva voce
2	Understand the fundamental techniques of track & field events	PO1 PSO9	Un	C P	15	40	Assignment Presentation Class Test Practical Test And Viva voce
3	Able to design track & field layout.	PO3 PSO8	d	C	15	40	Assignment Presentation Class Test Practical Test And Viva voce
4	Understand the rules and officiating in track & field.	PO1 PSO1	Un	C	15	40	Assignment Presentation Class Test Practical Test And Viva voce
5	Formulate training plans for various events.	PO3 PSO9	F	P	15	40	Assignment Presentation Class Test Practical Test And Viva voce
6	Understand common injuries in track & field and the rehabilitative exercises.	PO1 PSO10	Un	C	10	40	Assignment Presentation Class Test Practical Test And Viva voce
7	Understand different training plans.	PO1 PSO1	Un	C	10	30	Assignment Presentation Class Test Practical Test And Viva voce

CORE COURSE: PPES 12124/ PPEM 12113 / PPES 12126– BASKETBALL

Course Learning Outcomes:

- | | |
|-----|---|
| CO1 | Understand the history of game Basketball in the world, and Indian scenario and the organizational set up of FIBA and BFI. |
| CO2 | Understand and interpret the rules and regulation and also the preparation and maintenance of Basketball indoor/outdoor courts. |
| CO3 | Perform as a referee to manage and control competitions situations of high standards. |
| CO4 | Demonstrate and mimic technical and tactical skills with high calibre of precision and accuracy during coaching sessions. |
| CO5 | Analyse game situations and adopt accurate tactics for the attainment of top form and preventing injuries of the team. |
| CO6 | Understand and use relevant training procedure to establish psychology stability and elite physical standards which ultimately leads to high performance standard of the participant. |
| CO7 | Plan and execute micro, meso and macro cycles of training and coaching plans to school and college level participants. |

Course Content

Module 1

- a. Historical development of game in India. Asia and world
- b. Organizational setup and structure of FIBA and BFI. Competitions at National and International level and at various levels.
- c. Distinguished personalities, Arjuna Awardees in Basketball.

Module 2

- a. Rules and officiating the Game – duties of officials
- b. Coach, captain, game observation
- c. Individual and group scouting and statistical analysis of players and matches
- d. Objective and subjective tests.
- e. Warming up and Stretching
- f. Diet and Mental attitude

Module 3

- a. The Court-Dimensions and Markings
- b. equipment and its measurement
- c. Teaching Aids.

Module 4

- f. Fundamental Skills – Dribbling-Basic and reverse dribbling, Dribbling, start and stop of a dribble, high, low and combinations of dribbles, Cross over dribbling, between the legs dribbling, behind the back dribbling .
- g. Ball Handling – Grip, Pivoting, Stride stop, Jump Stop & fake and drive
- h. Passing – Chest pass, over head pass, Bounce Pass - static and dynamic receiving.
- i. Shooting – The Set Shot, The Jump Shot, The Lay-Up Shot and its variations, The Hook shot and the Slam Dunk.
- j. The Rebound-Boxing out, Tipping-in, Defensive Catching, Offensive Catching
- k. Defending-Stance, Defense against a dribbler, Marking a passer, Preventing pass reception.

Module 5- Drills

- a. Dribbling Drills – Dribbling reaction, dribbling cones, dribbling tag, traffic jam dribbling.
- b. Passing Drills-Wall passing, piggy in the middle, 2-player passing drill, Machine gun passing
- c. Shooting Drills-One player drill, around the world, lay-up drill, three-man shooting drill
- d. Rebound drills – One-player drill, Tipping in drill, one on one drill
- e. Defensive Drills-Zig-Zag drills, Denial drill, two on two play.
- f. Fast break drills with three players and five players.

Module 6 – Offensive Tactics

- a. Individual passing fakes, shooting fakes, dribbling fakes, body and step fakes.
- b. Change of pace and direction different ways of cutting, cross over dribble.
- c. Combined tactics – give and go, criss-cross pick and roll, splitting the post, post plays out numbering situations, out of bound situations, jump ball situations, free throw situations, last movement situations.

Module 7–Individual Defence

Guarding a man without the ball, with the ball, cutter pivot player, the shooter and overguarding defensive tactics strict to man, sliding switching, sandwiching, coupling fronting.

Module 8 –Offensive Game

Fast break attack, freelance offense, passing game offense against man-man, offense against zone defense various systems of attack set plays and moves, defensive game man to man defense, floating man-man pressing man-man defense, man to man cum zone defense, different systems of zone defense, flexible man-man defense.

Module 9

- Selection of teams and organization of short-term camps
- Teaching and Coaching aids and gadgets
- Lay out construction and maintenance of play ground, equipment management.
- Precautions and remedial measures of basketball injuries.

References

1. Drewett, Jim. *Basketball Internet Linked*, London: TicktockPublising Ltd. 2001.
2. Jain, Naveen. *Play and Learn Basketball*, New Delhi: Sports Publications, 2005.
3. Sharma, *Basketball Skills and Rules*, New Delhi: Sports Publications. 2005.
4. Abbas Mootasir, *Principles of basketball*. Skunda Publications, Bombay.
5. Ebert Cheatum. *Basketball* W.B. Saunders Company.
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8. Roget Hain *Basketball drills from college coaches*, packet publishing co. Inc. West Nyack New York.
9. Dean Smith, *Basketball multiple offence in defense*. Prentice Hall Inc. Englewood Cliffs New Jersey.

Core Courses: PPES 12124/ PPEM 12113 / PPES 12126– Basketball

CO	CO Statement	PO/PSO	CL	KC	Class Hrs	Practicum\ Lab Hrs	Assessment
CO1	Understand the history of game Basketball in the world, and Indian scenario and the organizational set up of FIBA and BFI .	PO1 PSO9	U	C	10	-	Assignment, Presentation and Class Tests

CO2	Understand and interpret the rules and regulation and also the preparation and maintenance of Basketball indoor/outdoor courts.	PO1 PSO8	U	F	20	10	Assignment, Presentation and Practical Test and ClassTests
CO3	Perform as a referee to manage and control competitions situations of high standards.	PO1 PSO8	U An An	F	10	10	Assignment, Presentation and Practical Test and ClassTests
CO4	Demonstrate and mimic technical and tactical skills with high caliber of precision and accuracy during coaching sessions.	PO1 PSO9	U Ap	F	10	80	Assignment, Presentation and Practical Test and ClassTests
CO5	Analyze game situations and adopt accurate tactics for the attainment of top form and preventing injuries of the team.	PO1 PSO9	An	F	15	20	Assignment, Presentation and Practical Test and ClassTests
CO6	Understand and use relevant training procedure to establish psychology stability and elite physical standards which ultimately leads to high performance standard of the participant.	PO1 PSO2,9	U	P	15	30	Assignment, Presentation and Practical Test and ClassTests
CO7	Plan and execute micro, meso and macro cycles of training and coaching plans to school and college level participants.	PO1 PSO9	Ap	F	10	30	Assignment, Presentation and Practical Test and ClassTests

CORE COURSE: PPES 12124, PPEM 12114 / PPES 12127–

Cricket Course Learning Outcomes:

- CO1 Understand the history of game Cricket in Men/Women category and its organizational set up in the world, and Indian scenario.
- CO2 Understand and interpret the rules and regulation and also the preparation and maintenance of Cricket indoor/outdoor courts.
- CO3 Perform as a referee to manage and control competitions situations of high standards.

CO4	Demonstrate and mimic technical and tactical skills with high calibre of precision and accuracy during coaching sessions.
CO5	Analyse game situations and adopt accurate tactics for the attainment of top form and preventing injuries of the team.
CO6	Understand and use relevant training procedure to establish psychology stability and elite physical standards which ultimately leads to high performance standard of the participant.
CO7	Plan and execute micro, meso and macro cycles of training and coaching plans to school and college level participants.

Course Content

Module 1

- a. History and development of Cricket – Bodyline and Ashes Series. Historical development of Cricket in England, Australia, West Indies, South Africa, New Zealand, India, Pakistan, Sri Lanka, Zimbabwe and Bangladesh.
- b. History of Women’s Cricket.
- c. History of Indian Cricket.
- d. History of One-day cricket.
- e. History of World Cup Cricket.

Module 2

- a. Cricket controlling Bodies and its Organizational Set up-ICC, MCC and TCCB.
- b. Organizational setup, aims and objectives of B.C.C.I.
- c. Standing Committees of B.C.C.I.
- d. Major Tournaments organized by B.C.C.I.

Module 3

- a. Layout and maintenance of the oval.
- b. Dimensions of the field.
- c. Pitch-Types of Pitches and preparation and maintenance of a Turf Wicket.
- d. Essential equipments, measurements of equipments.
- e. Teaching Aids.
- f. Warming up, importance of warming up.

Module 4

- e. Fundamental skills-batting-basics. Defensive strokes, Attacking strokes, Modern improvised strokes. Funning between the wickets and Drills to improve the batting skills.
- f. Bowling-Basics. Out swinger. In swinger, Reverse Swing, Off spin and its variations, Leg spin and its variations and Drills to improve the bowling skills.
- g. Fielding-Ground fielding. (Stationary, on the run and Slide stop) Catching. (High, Low, Flat and Feflex Catching)
- h. Wicket Keeping-Drills to improve the wicket keeping skills.

Module 5

- e. The laws of cricket with interpretations.
- f. Officials in Cricket.
- g. Umpires and their duties.
 - (iv) Duties before the match
 - (v) Duties during the interval.
 - (vi) Duties after the match.
- h. Signals, Unofficial and additional signals.

Module 6

- a. Captaincy: Qualities of a good captain.
- b. Duties of captain
- c. Symptom of bad captaincy.

Module 7

- a. Criteria for selection of players at various levels.
- b. Warming up – conditioning and training process.
- c. Training methods.
- d. Planning a Coaching camp: Annual, Weekly and daily plan.

Module 8

- a. Psychological qualities of cricket player.
- b. Method of developing psychological qualities. Psychological skills training.

Module 9

- a. Injuries in cricket, prevention and first aid.
- b. Nutrition for cricket players.

Module 10

- a. Modern Trends in Cricket
- b. Cricket Vocabulary, Award winners and Records.

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1. *A handbook of Practical Training in Cricket, Mumbai: Jaico Publishing House. 1998.*
2. *Bose, Mihir. A History of Indian Cricket, New Delhi: Rupa & Co. 1990*
3. *Bradman, Donald. The Art of Cricket, London: Robson Books. 1998.*
4. *Coaching Youth Cricket. Australian Cricket Board, New York: Human Kinetics. 2000.*
5. *Elliot, Bruce et. Al. The Science of Fast Bowling, Mumbai: Marine Sports, 2001.*
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7. *Smith, Tom. New Cricket Umpiring and Scoring, London: Weidenfeld & Nicolson 2004.*
8. *Stewart, Alec. The Yough Cricketer, London: DK 1999.*
9. *The Laws of Cricket (2000 code 2nd Edition 2003) issued by BCCI.*
10. *Tyson, Frank, Learn Cricket with Frank Tyson. New Delhi: Rupa & Co. 2002.*
11. *Wills Book of Excellence: Cricket, Hyderabad: Orient Longman Limited 1987.*
12. *Wisden Cricketer's Almanack 2006.*

CORE COURSE: PPES 12124 ,PPEM 12114 / PPES 12127–Cricket

CO	CO Statement	PO/PS O	CL	KC	Class Hrs	Practicum\ Lab Hrs	Assessment
CO1	Understand the history of game Cricket in Men/Women category and its organizational set up in the world, and Indian scenario.	PO1 PSO9	U	C	10	-	Assignment, Presentation and ClassTests
CO2	Understand and interpret the rules and regulation and also the preparation and maintenance of Cricket indoor/outdoor courts.	PO1 PSO8	U	F	20	10	Assignment, Presentation and Practical Test and ClassTests
CO3	Perform as a referee to manage and control competitions situations of high standards.	PO1 PSO8	U An An	F	10	10	Assignment, Presentation and Practical Test and ClassTests
CO4	Demonstrate and mimic technical and tactical skills with high calibre of precision and accuracy during coaching sessions.	PO1 PSO9	U Ap	F	10	80	Assignment, Presentation and Practical Test and ClassTests
CO5	Analayse game situations and adopt accurate tactics for the attainment of top form and preventing injuries of the team.	PO1 PSO9	An	F	15	20	Assignment, Presentation and Practical Test and ClassTests
CO6	Understand and use relevant training procedure to establish psychology stability and elite physical standards which ultimately leads to high performance standard of the participant.	PO1 PSO2,9	U	P	15	30	Assignment, Presentation and Practical Test and ClassTests
CO7	Plan and execute micro, meso and macro cycles of training and coaching plans to school and college level participants.	PO1 PSO9	Ap	F	10	30	Assignment, Presentation and Practical Test and ClassTests

CORE COURSE: PPES 12124, PPEM 12115 / PPES 12128–Volleyball

- CO1 Understand the history of game Volleyball and its organizational set up in the world, Asia and Indian scenario.
- CO2 Understand and interpret the rules and regulation and also the preparation and maintenance of Volleyball court.
- CO3 Perform as a referee to manage and control competitions situations of high standards.
- CO4 Demonstrate and mimic technical and tactical skills with high calibre of precision and accuracy during coaching sessions.
- CO5 Analyse game situations and adopt accurate tactics for the attainment of top form of the team and individual games.
- CO6 Understand and use relevant training procedure to establish psychology stability and elite physical standards which ultimately leads to high performance standard of the participant.
- CO7 Plan and execute micro, meso and macro cycles of training and coaching plans to school and college level participant.

Course Content

Module 1:

- a. History of Volleyball, the development of game in the world, volleyball in Asia, Volleyball in India.
- b. Organizational set up FIVB, AVC and VFI.
- c. Recipients of Arjuna Award and Dronacharya Award.

Module 2:

- a. Warming up, Importance of warming up, principles of warming up, methods of warming up: General, specific and competition warming up, warm down.
- b. Court making : Construction and maintenance of volleyball court. Essential and additional equipments in volleyball.
- c. Rules of Volleyball and their interpretation.

- d. Duties of officials , Beach Volleyball.

Module 3:

Teaching and training of the techniques : With analysis, Volleyball pass (over head pass), Under hand pass (Dig pass), Underhand service, Tennis service, Upper hand back pass, Floating service, Pass in jump, Straight Smash, smash with body turn, Wrist outward smash, Wrist inward smash, Hesitation and smash, Zig-zag smash, Back- court attack, Rising ball attack, Jump service, One arm pass with back rolling, Volley pass with back rolling, Forward dive and pass, Single block, Group block, Set up training and setter and attack on direct pass from back court.

Module 4:

- a. Organization of competitions : Types of competitions and organization of competitions.
- b. Systems of conducting the competition in the world, Asia, Commonwealth, Regional and national levels.
- c. Methods of drawing , fixtures to divide positions at the end of competitions.
- d. Philosophy of officiating – mechanics of officiating , steps to improve officiating.
- e. Pre-requisite characteristics of a volleyball player.

Module 5:

- a. Tactics: Tactical training, individual tactics in service reception, set up, attack block and defense.
- b. Group tactics: 1) Service reception: 6men reception, 5men reception, 4 men reception, 3 men reception, 2 men reception.
- c. Attacking combinations : attack by 2,3 front row players and back row players and methods of teaching attacking combinations.
- d. Defense : Methods of teaching and defense system. Free ball defense (defense with no block) 2-1-3 forward angle defense, 2-1-3 backward angle defense, 2-0-4 defense system, 1-2-3 defense system, 2-2-2 defense system, 1-1-4 defense system , 3-0-3- defense system, 3-1-2 defense system, covering of the attack and methods of teaching.

Module 6:

- a. Test and measurements: Specific test for volleyball (endurance, speed, flexibility, explosive strength of arms and legs, jumping ability and speed endurance).
- b. Test for skills: Service –dig pass, volleyball pass, set up test, attack test, defense test.
- c. Selection of players and team composition: Talent selection of a team, selection of team captain, selection of starting six for immediate participation in competitions , team composition , scouting ,

preparation of scout report, procedures , areas scouted using of scout report in individual player coaching and team coaching.

Module 7:

- a. Psychological characteristics of a volleyball player: Psychological qualities required to specific position, methods of developing psychological qualities.
- b. Grading the team before, during and after the match, tactics of substitution and time out, rhythm of the game, switching of players, direct preparation of a team for a decisive competition.

Module 8:

- a. Complex training, functional training, pressure training, concentration training, will training, situational training, small court games.

References :

1. Cox Richard. H. “ Teaching Volleyball “ New Delhi subject publications.
2. Viera , Barbara Laun “ Teaching Volleyball Steps to Success “ Champaign, Illionis, leisure Press 1989.
3. Nocholas Keith, “ Modern Volleyball for teacher coach and player “ London Lepus Books ,1978.
4. Cozansky, Sue- “ Championship/ Volleyball Techniques and Drills “ , New York, Parker Publishing Co .Inc.1983.
5. Nicholas Keith- “ Volleyball the skills of the Games “ , Great Britain. The Gowood Press .1986.

CORE COURSE: PPES 12124, PPEM 12115 / PPES 12128–Volleyball

CO	CO Statement	PO/PSO	CL	KC	Class Hrs	Practicu m\ Lab Hrs	Assessment
CO1	Understand the history of game Volleyball and its organizational set	PO1 PSO9	U	C	10	-	Assignment, Presentation and Practical

	up in the world, Asia and Indian scenario.						Test and ClassTests
CO2	Understand and interpret the rules and regulation and also the preparation and maintenance of Volleyball court.	PO1 PSO8	U	F	20	10	Assignment, Presentation and Practical Test and ClassTests
CO3	Perform as a referee to manage and control competitions situations of high standards.	PO1 PSO8	U An An	F	10	10	Assignment, Presentation and Practical Test and ClassTests
CO4	Demonstrate and mimic technical and tactical skills with high calibre of precision and accuracy during coaching sessions.	PO1 PSO9	U Ap	F	10	80	Assignment, Presentation and Practical Test and ClassTests
CO5	Analyse game situations and adopt accurate tactics for the attainment of top form of the team and individual games.	PO1 PSO9	An	F	15	20	Assignment, Presentation and Practical Test and ClassTests
CO6	Understand and use relevant training procedure to establish psychology stability and elite physical standards which ultimately leads to high performance standard of the participant.	PO1 PSO2,9	U	P	15	30	Assignment, Presentation and Practical Test and ClassTests
CO7	Plan and execute micro, meso and macro cycles of training and coaching plans to school and college level participant.	PO1 PSO9	Ap	F	10	30	Assignment, Presentation and Practical Test and ClassTests

CORE COURSE: PPES 12124, PPEM 12116 / PPES 12129-Football

Course Learning outcomes

CO -1 Able to explain the relationship and difference between technical and tactical skills

CO- 2 Able to prepare effective season plans and individual practice plans.

CO – 3 Apply and teach the basic and intermediate offensive, defensive technical and tactical skills needed for a team's success.

CO – 4 Develop an athlete-cantered coaching philosophy.

CO – 5 Create standards-based teaching and coaching lesson plans for technical and tactical football skills.

CO – 6 Understand the traditional and modern game approaches to football practice CO -7
Reflect on values that inspire high standards of professional and ethical behaviour in the
pursuit of excellence.

Course Content

Module - 1. Introduction –

- History - Origin and Development of the Game – Football -
- Soccer at National and International level.
- Organisation set up of the game in the International and National level
- Role of Important institutions in the progression and promotion of the game – Football.
- Important competitions held at National and International level.
- Distinguished players of the game at National and International level.

Module - 2. Skills and techniques of football

- Basic skills, Advanced skills and Techniques of Football.
- Qualities and Competencies of Football players.
- Drills and lead – up activities – small sided game.

Module - 3 – Coaching Philosophy

- The concept of Coaching – meaning – aim and objectives of coaching
- The core of the game – principles of game – football.
- Coaching Content – Tactical – Technical – Physical – Psychosocial – Set Pieces - Formations – Goalkeeping
- General Terminology – Strategy – Tactic – Formation - Systems of play – definition – development of systems of play from Heroic age of soccer to present day of modern football.
- Tactics – definition – classification – significance of tactics.

Module 4 – Game analysis.

- Need and Importance of game analysis.
- Analysis of individual game
- Analysis of collective work

Module 5 – Laws of the Game.

- Rules and their interpretations
- Match officials – duties of officials
- Officiating - officiating signals

Module – 6 Play fields.

- Planning the layout, - construction marking and maintenance of playfield.

- Trends in modern football

Module – 7 Managing Soccer Injuries and Athlete Health

- A Coaches Duties and Players' Rights – good coaching – good officiating – Equipments and Facilities – Good Health Supervision
- Handling Medical Emergency – Common Soccer Injuries – Management - Labotary / Field Practical.

Module – 1 – Skills and Techniques

- Advanced skills and techniques of football
- Small sided game
- Goal keeping
- Reception – Set pieces – Dribbling and Shooting

Module - 2 – Tactics

- Individual Tactics – Team Tactics
- Attacking Tactics and Defensive Tactics
- Role of Coach

Module – 3 – Advanced Coaching

- Session Plans – Advanced Coaching Lessons
- Coaching Aids
- Modern Trends in Football

CORE COURSE: PPES 12124, PPEM 12116 / PPES 12129-Football

CO	CO Statement	PO/PSO	CL	KC	Class Hrs	Lab Hrs	Assessment
CO1	Able to Explain the relationship and difference between technical and tactical skills	PO1 PSO2 PSO10	Ap	Proc	10	10	Assignment, Presentation, Practical Test, Record and ClassTests

CO2	Able to prepare effective season plans and individual practice plans.	PO1 PSO2	Ap	Proc	10	10	Assignment, Presentation and Practical Test and ClassTests
CO3	Apply and teach the basic and intermediate offensive, defensive technical and tactical skills needed for a team's success.	PO1 PSO2 PSO10	Ap	Proc	5	10	Assignment, Presentation and Practical Test and ClassTests
CO4	Develop an athlete-centered coaching philosophy.	PO1 PSO2	Cr	Me	5	5	Assignment, Presentation and Practical Test and ClassTests
CO5	Create standards-based teaching and coaching lesson plans for technical and tactical football skills.	PO1 PSO10	Cr	Me	5	5	Assignment, Presentation and Practical Test and ClassTests
CO6	Understand the traditional and modern game approaches to football practice	PO1 PSO2	Un	Fa	5	5	Assignment, Presentation and Practical Test and ClassTests
CO7	Reflect on values that inspire high standards of professional and ethical behavior in the pursuit of excellence.	PO1 PSO2	Cr		5		Assignment, Presentation and Practical Test and ClassTests

CORE COURSE: PPES 12124 PPEM 12117 / PPES 12130-Handball

Course learning outcomes

- CO1: Understand the history & development of Handball.
- CO2: Understand the fundamental techniques of Handball.
- CO3: Able to design Handball layout.
- CO4: Understand the rules and officiating in Handball.
- CO5: Formulate training plans for various offensive and defensive Techniques.
- CO6: Understand common injuries in Handball and the rehabilitative exercises.

Module 1

- a. History of Handball. Development of Handball in India, Asia and World.
- b. Prerequisites for a Handball player.

- a. Rules and Regulations of Handball.
- b. Planning the Layout, construction and marking & Maintenance of play field.
- b. Officiating & Officials

signals. **Module 3** Defensive Techniques

Basic stance, Basic qualities, Initial position and movements of a defensive player. Group defense:
Giving over-taking over of an opponent, Man to Man defence.

Module 4 Offensive Techniques

Catching, passing, Dribbling, Feints, Throw on goal, Jump shot long, Jump shot high, Straight shot, Hip throw, Dive shot and Fall shot.

Module 5 - Offensive Tactics

Group Tactics – Frontal break through. Half position change, Positional change, screen, free throw combination, Counter attack. Systems of play in Offence and Defence: Offensive system – 3:3, 2:4, 4:2.

Module 6 Defensive system.

6:0, 5:1, 4:2, 3:3, 3:2:1, 5:0+1, 4:0+2.

Module 7

Training: Long term and short term plans. Preparing for competitions.

CORE COURSE: PPES 12124, PPEM 12117 / PPES 12130-Handball

	CO	PO/PSO	CL	KC	Class Hrs	Lab HRS	Assessment
1	Understand the history & development of Handball.	PO1 PSO1	U	C	15	30	Assignment, Presentation Practical Test Class tests And Viva voce
2	Understand the fundamental techniques of Handball.	PO1 PSO9	Un	C,P	15	30	Assignment, Presentation Practical Test Class tests And Viva voce
3	Able to design Handball layout.	PO3 PSO8	d	C	15	30	Assignment, Presentation Practical Test Class tests And Viva voce
4	Understand the rules and officiating in Handball.	PO1 PSO1	Un	C	15	30	Assignment, Presentation Practical Test Class tests And Viva voce
5	Formulate training plans for various offensive and defensive Techniques.	PO3 PSO9	Fa	P	15	30	Assignment, Presentation Practical Test Class tests And

							Viva voce
6	Understand common injuries in Handball and the rehabilitative exercises.	PO1 PSO10	Un	C	15	30	Assignment, Presentation Practical Test Class tests And Viva voce

**CORE COURSE: PPES 12124/ PPEM 12118 / PPES 12131 –
Badminton Course Learning Outcomes**

- | | |
|-----|--|
| CO1 | Understand the history of game Badminton and its organizational set up in the world, and Indian scenario. |
| CO2 | Understand and interpret the rules and regulation and also the preparation and maintenance of Badminton indoor/outdoor courts. |
| CO3 | Perform as a referee to manage and control competitions situations of high standards. |
| CO4 | Demonstrate and mimic technical and tactical skills with high calibre of precision and accuracy during coaching sessions. |

CO5	Analayse game situations and adopt accurate tactics for the attainment of top form of the team and individual Competitions.
CO6	Understand and use relevant training procedure to establish psychology stability and elite physical standards which ultimately leads to high performance standard of the participant.
CO7	Plan and execute micro, meso and macro cycles of training and coaching plans to school and college level participants.

Course Content

Module 1

- a. Origin, History and Development of Badminton in India and in the world.
- b. Competitions at National and International level.
- c. Rules and regulations of the game.
- d. Planning the Layout, construction and marking & Maintenance of play field.
- e. Officiating & Officials signals.

Module 2

- a. Grips
- b. Basic and advanced skills of badminton- Services, Defensive and Offensive shots and clears.
- c. Techniques of Badminton

Module 3- Tactics of play.

- a. Individual and team tactics.
- b. Singles, doubles and mixed doubles competitions.

Module 4– Training

- a. Selection the players.
- b. Long term and short term training plans.
- c. Preparing for competitions.

CORE COURSE: PPES 12124/ PPEM 12118 / PPES 12131 –Badminton

CO	CO Statement	PO/PSO	CL	KC	Class Hrs	Practicum \ Lab Hrs	Assessment
CO1	Understand the history of game Shuttle Badminton and its organizational set up in the world, and Indian scenario.	PO1 PSO9	U	C	10	-	Assignment, Presentation and Class Tests
CO2	Understand and interpret the rules and regulation and also the preparation and maintenance of Shuttle Badminton indoor/outdoor courts.	PO1 PSO8	U	F	20	10	Assignment, Presentation and Practical Test and Class Tests
CO3	Perform as a referee to manage and control competitions situations of high standards.	PO1 PSO8	U An An	F	10	10	Assignment, Presentation and Practical Test and Class Tests
CO4	Demonstrate and mimic technical and tactical skills with high calibre of precision and accuracy during coaching sessions.	PO1 PSO9	U Ap	F	10	80	Assignment, Presentation and Practical Test and Class Tests
CO5	Analayse game situations and adopt accurate tactics for the attainment of top form of the team and individual Competitions.	PO1 PSO9	An	F	15	20	Assignment, Presentation and Practical Test and Class Tests
CO6	Understand and use relevant training procedure to establish psychology stability and elite physical standards which ultimately	PO1 PSO2,9	U	P	15	30	Assignment, Presentation and Practical

	leads to high performance standard of the participant.						Test and ClassTests
CO7	Plan and execute micro, meso and macro cycles of training and coaching plans to school and college level participants.	PO1 PSO9	Ap	F	10	30	Assignment, Presentation and Practical Test and ClassTests

CORE COURSE: PPES 12124/ PPEM 12119 / PPES 12132-
Judo Course Learning Outcomes

CO 1 Understands advanced Skills and Techniques of Judo

CO2 Able to demonstrate the Skills and Technics

CO3 Understands the History and Development of Judo

CO4 Understands concepts of coaching Judo

CO 5 Understands the rules and regulations of the Judo

CO6 Plan and execute micro, meso and macro cycles of training and coaching plans to school and college level participants.

Course Content

Module 1

- c. Origin, History and growth of Judo in India and in the world.
- d. World, Olympic and National competitions. World championships and regional championships.

Module 2

- d. Rules and Regulations of Judo competition.
- e. Planning the Layout, construction and marking & Maintenance of the competition arena.
- f. Officiating & Officials signals.

Module 3

Fundamentals of Judo: Salutation, How to wear a Judogi, Kumi Katha, Ukemi, Posture, Kuzushi, Tskuri and Kake, Sluntai, Tai Sabaki using strength.

Module 4

Techniques and tactics of Judo.

Module 5

Training for Judo competition. Long term and short term plans, preparations for competitions.

CORE COURSE: PPES 12124/ PPEM 12119 / PPES 12132-Judo

CO	CO Statement	PO/PSO	CL	KC	Class Hrs	Lab Hrs	Assessment
CO1	Understands advanced Skills and Techniques of Judo	PO1 PSO2 PSO10	U	C	15	30	Assignment, Presentation Practical Test Class tests and Viva voce

CO2	Able to perform the Skills and Techniques	PO1 PSO2	P	P	15	30	Assignment, Presentation Practical Test Class tests and Viva voce
CO3	Understands the History and Development of Judo	PO1 PSO2 PSO10	U	C	15	30	Assignment, Presentation Practical Test Class tests and Viva voce
CO4	Understands concepts of coaching Judo	PO1 PSO2	U	C	15	30	Assignment, Presentation Practical Test Class tests and Viva voce
CO5	Understands the rules and regulations of the Judo skills.	PO1 PSO10	U	C	15	30	Assignment, Presentation Practical Test Class tests and Viva voce
CO6	Plan and execute micro, meso and macro cycles of training and coaching plans to school and college level participants.	PO1 PSO9	P	F	15	30	Assignment, Presentation Practical Test Class tests and Viva voce

CORE COURSE: PPES 12124/ PPEM 12120 / PPES 12133-Kabaddi and Kho-Kho

Course Learning Outcomes

- CO1 Understand the history of game Kabaddi and Kho-Kho and its organizational set up in the world, Asia and Indian scenario.
- CO2 Understand and interpret the rules and regulation and also the preparation and maintenance of Kabaddi and Kho-Kho court.
- CO3 Perform as a referee to manage and control competitions situations of high standards.
- CO4 Demonstrate and mimic technical and tactical skills with high caliber of precision and accuracy during coaching sessions.
- CO5 Analyse game situations and adopt accurate tactics for the attainment of top form of the team and individual games.
- CO7 Plan and execute micro, meso and macro cycles of training and coaching plans to school and college level participant.

Course Content

Module 1

- e. Origin-History and development of Kabaddi.
- f. Rules and regulations of the game.
- g. Planning the Layout, construction and marking & Maintenance of play field.
- h. Officiating & Officials signals.

Module 2–Techniques

- d. Raid-pre consideration of Raid-Caut-Entry-Retreat.
- e. Defence: Pre-requisites of a defensive player-right Zone-Centre Zone-Left Zone, Ankle-hold, Thigh hold, Knee hold, Waist, Wrist hold and Blocking.
- f. Chain system, Corner chain, Center Overchain.

Module 3

- b. Offensive Skills: Hand though, Toe though, Plunging though the chain, Jumping over the chain, escaping from the holds.

Module 4

- a. Systems of Play: Tactics and Strategies in Offence and Defence of the Game.

Module 5

- a. Training: Long term and short term plans.
- b. Preparation for competitions.

Module 6

- e. Origin, History and Development of Kho-Kho.
- f. Rules and regulations of the Game.
- g. Planning the Layout, construction and marking & Maintenance of play field.
- h. Officiating & Officials signals.

Module 7

- d. Defensive skills: Sitting in the square, giving Kho-Kho, advance Kho, pole turn moving out of square taking direction pole dive, flat dive, taping, covering, third attack, Correction of fouls.
- e. Offensive skills: Initial position of the runner, single chain, double chain, three six up, sixth attack, seventh attack, eighth attack, ring game, avoiding, entry during the game.
- f. Tactics and strategies in offence and defense.

Module 8

- c. Training: Long term and short term plans.
- d. Preparation for competitions.

CORE COURSE: PPES 12124/PPEM 12121 / PPES 12133-Kabaddi and Kho-Kho

CO	CO Statement	PO/PS O	CL	KC	Class Hrs	Practic um\ Lab Hrs	Assessment
CO1	Understand the history of game Kabaddi and Kho-kho and its organizational set up in the world, Asia and Indian scenario.	PO1 PSO9	U	C	10	-	Assignment, Presentation and Practical Test and Class Tests
CO2	Understand and interpret the rules and regulation and also the preparation and maintenance of Kabaddi and Kho-kho court.	PO1 PSO8	U	F	20	10	Assignment, Presentation and Practical Test and Class Tests
CO3	Perform as a referee to manage and control competitions situations of high standards.	PO1 PSO8	U An An	F	10	10	Assignment, Presentation and Practical Test and Class Tests
CO4	Demonstrate and mimic technical and tactical skills with high caliber of precision and accuracy during coaching sessions.	PO1 PSO9	U Ap	F	10	80	Assignment, Presentation and Practical Test and Class Tests
CO5	Analyze game situations and adopt accurate tactics for the attainment of top form of the team and individual games.	PO1 PSO9	An	F	15	20	Assignment, Presentation and Practical Test and Class Tests
CO6	Plan and execute micro, meso and macro cycles of training and coaching plans to school and college level participant.	PO1 PSO9	Ap	F	10	30	Assignment, Presentation and Practical

							Test and Class Tests
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CORE COURSE: PPES 12124/PPEM 12121 / PPES 12134 -Tennis

Course Learning Outcomes

CO 1 Understand the history of game Tennis

CO2 Understand and interpret the rules and regulation and also the preparation and maintenance of Tennis Court

CO3 Able to officiate Tennis competitions

CO4 Demonstrate and mimic technical and tactical skills with high calibre of precision and accuracy during coaching sessions.

CO 5 Analyze game situations and adopt accurate tactics for the attainment of top form of the team and individual games.

CO 6 Plan and execute micro, meso and macro cycles of training and coaching plans to school and college level participant.

Module 1

- c. Origin, History and Development of Tennis.
- d. Competitions at National and International level.

Module 2

- c. Teaching of sports.
- d. Grips
 - Eastern forehand
 - Eastern backhand
 - Continental
 - Western
- b. Basic Stroke
 - Forehand
 - Backhand
 - Service
 - Volley
 - Smash

Module 3-Progression of Technique

- a. Ball Sense

- b. Feeding
- c. Sequence of Coaching

Module 4 -Basic fundamentals of the game

- a. Tracking of the ball
- b. Movement of recovery
- c. Racket head control
- d. Balance
- e. Swing
- f. Intention

Module 5- Tennis Equipment

- a. Tennis Racket.
- b. Tennis Ball
- c. Strings
- d. Net
- e. Tennis Kit

Module 6

- a. Rules of the game and their interpretations.
- b. Planning the Layout, construction and marking &Maintenance of play field.
- c. Officiating and Official signals.

Module 7

- a) Different surface of Tennis Court and their maintenance.
- b) Selection of the site of a Tennis court.
- c) Marking of the Tennis court.

Reference

- A. Vivan H. Heyward. *Advance Fitness Assessment and Exercise Prescription.*, Human Kinetics, Champaign, USA
- B. David P. Swain, Brain C. Leutholtz. *Exercise Prescription: A Case study Approach to the ACSM Guidelines.*, Human Kinetics, Champaign, USA
- C. John c Griffffin. *Client Centered Exercise Prescription.*, Human Kinetics, Champaign, USA
- D. Franklin, BA. *ACSM's Guidelines for Exercise Testing and Prescription*, Human Kinetics, Champaign, USA, 2000.
- E. Baechle, TR and RW Earle. *Essentials of Strength Training and Conditioning.*, Human Kinetics, Champaign, USA, 2000.

CORE COURSE: PPES 12124/PPEM 12121 / PPES 12134 -Tennis

CO	CO Statement	PO/PSO	CL	KC	Class Hrs	Practicum\ Lab Hrs	Assessment
CO1	Understand the history of game Tennis	PO1 PSO9	U	C	10	-	Assignment, Presentation and Practical Test and ClassTests
CO2	Understand and interpret the rules and regulation and also the preparation and maintenance of Tennis Court	PO1 PSO8	U	F	20	10	Assignment, Presentation and Practical Test and ClassTests
CO3	Able to officiate Tennis competitions	PO1 PSO8	U An An	F	10	10	Assignment, Presentation and Practical Test and ClassTests
CO4	Demonstrate and mimic technical and tactical skills with high caliber of precision and accuracy during coaching sessions.	PO1 PSO9	U Ap	F	10	80	Assignment, Presentation and Practical Test and ClassTests
CO5	Analyze game situations and adopt accurate tactics for the attainment of top form of the team and individual games.	PO1 PSO9	An	F	15	20	Assignment, Presentation and Practical Test and ClassTests
CO6	Plan and execute micro, meso and macro cycles Of training and coaching plans to school and college level participant.	PO1 PSO9	Ap	F	10	30	Assignment, Presentation and Practical Test and ClassTests

CORE COURSE: PPES 12135 Dissertation

Learning Outcomes

CO 1 Identify key research questions within the realm of Physical education and sports and to carry out independent research work

CO 2 Identify suitable research methods

CO 3 Identify, summarize and critically evaluate relevant literature and write a literature review of the relevant field

CO 4 To apply the appropriate tools for the collection of data and collection of data

CO 5 Apply the statistical research training acquired in the taught element of the programme by designing an appropriate research strategy and research methodology to carry out research

CO 5 Demonstrate appropriate referencing and develop skills in academic writing

CO 6 Show evidence of clarity of argument, understanding of the chosen topic area, and presentation of technical information.

CO 7 Analyse and synthesize research findings

Co	CO Statement	PO/PSO	CL	KC	Class Hrs	Lab HRS	Assessment
1	Identify key research questions within the realm of Physical education and sports and to carry out independent research work	PO1 PSO4	Un	Conc	10	5	Assignment Presentation
2	Identify suitable research methods	PO1	Un	Conc	10	5	Assignment Presentation
3	Identify, summarize and critically evaluate relevant literature and write a literature review of the relevant field	PO1 PSO2 PSO3	Un	P	10	5	Assignment Presentation
4	To apply the appropriate tools for the collection of data and collection of data	PO1 PSO2 PSO3	Ap An Ev	P	10	5	Assignment Presentation Field visit
5	Apply the statistical research training acquired in the taught element of the programme by designing an appropriate research strategy and research methodology to	PO1	Ap	P	10	5	

	carry out research	PSO2	An				Presentation
6	Show evidence of clarity of argument, understanding of the chosen topic area, and presentation of technical information	PO1 PSO2	Ap An Cr	P	10	5	Presentation
7	Analyse and synthesize research findings	PO 1, PO 2, PO 3	An, Ap, Eva	P			Presentation, Viva voce

