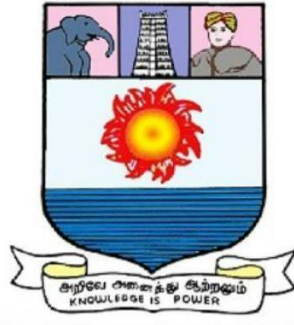


**DEPARTMENT OF PHYSICALEDUCATION AND SPORTS  
MANONMANIAM SUNDARANAR UNIVERSITY  
TIRUNELVELI – 627 012**



**REGULATION, SCHEME OF EXAMINATION AND SYLLABI FOR  
Master of Physical Education (M.P.Ed.)  
(2022-23 Onwards)**

# Department of Physical Education and Sports

## Manonmaniam Sundaranar University

### M.P.Ed. – Two Year Programme (CBCS)

#### Learning Outcome based Curriculum Framework (LOCF)

#### (2022-23 Onwards)

#### 1 a. Vision of the University

To provide quality education to reach the un-reached

#### b. Mission of the University

1. To conduct research, teaching and outreach programmes to improve conditions of human living.
2. To create an academic environment that honours women and men of all races, caste, creed, cultures and an atmosphere that values intellectual curiosity, pursuit of knowledge, academic freedom and integrity.
3. To offer a wide variety of off-campus educational and training programs, including the use of information technology, to individuals and groups.
4. To develop partnership with industries and government so as to improve the quality of the workplace and to serve as catalyst for economic and cultural development.
5. To provide quality / inclusive education, especially for the rural and un-reached segments of economically down-trodden students including women, socially oppressed and differently abled.

#### 2 a. Vision of the Department

Creating a sporty and fit nation through Physical Education and Sports

#### b. Mission of the Department

1. To conduct research, teaching and outreach programmes to improve health conditions and sports performance of human being.
2. To collaborate with stakeholders to improve the standard of living and to serve as catalyst for fitness and wellness.
3. To provide quality / inclusive physical education.
4. To provide opportunities to develop the knowledge, skills, and personalities necessary to meet their personal and professional goals.
5. To move towards a more physically active lifestyle by changing behavioural patterns.
6. To create the sports culture at the grass-root level.

#### 3. Preamble

The Master of Physical Education (M.P.Ed.) two-year (Four Semester, Choice Based Credit System) programme is a professional programme meant for preparing Physical Education Teachers for senior secondary (Class XI and XII) level as well as Assistant Professor/ Directors/ Sports Officers in Colleges/ Universities and Teacher educators in College/Dept. of Physical Education. The M.P.Ed. programme is designed to integrate

the study of childhood, social context of Physical Education, subject knowledge, pedagogical knowledge, aim of Physical Education and communication skills. The programme comprises of compulsory and optional theory as well as practical courses and compulsory school internship in School/ College/Sports Organizations/Sports Academy/Sports Club.

#### **4. Importance of the Programme**

The programme has been structured with the following features;

1. Designed for two years under choice-based credit system (CBCS) for 96 credits and 2800 marks based on Learning Outcome based Curriculum Framework.
2. Structured with a special intention to produce competent teachers' educators with adequate theoretical knowledge and practical abilities in teaching, research, coaching and extension in the light of National Curriculum Framework for Teacher Education (2014) and National Education Policy (2020).
3. Aimed at imparting quality teacher education and pursuing quality research in Physical Education and Sports.

#### **5. Programme Outcomes (POs)**

The programme aims the student to:

1. become active citizens of the nation with academic integrity, values and ethics
2. become outstanding academicians, prominent scholars, physical educationists, fitness trainer, policy makers, to be contributors for nation development
3. engage in research in the field of physical education and enable to solve various problems existing in the field at the global level and disseminate in the research forums
4. acquaints the dynamics of sports activities and offers them professional training to reach physical excellence in competitive sports
5. develop physical competence and knowledge of movement and safety, and their ability to use these to perform in a wide range of activities associated with the development of an active and healthy lifestyle.
6. develop interest and enthusiasm to be lifelong learners with high practical competencies and abilities to teach, train and coach.

#### **6. Programme Specific Outcomes (PSOs)**

At the time of graduation, the student will be able to:

1. plan and implement developmentally appropriate physical education lessons.
2. identify talent for various sports by assessing performance and potential, and design training programmes in the light of sports science principles.
3. apply critical thinking skills during a competitive situation to compete to the best of one's ability against opponents.
4. demonstrate capability to officiate various games and sports and acquires managerial skills to organize competitions and for facility management.
5. integrity and adherence to professional ethics as well as legal provisions related to sports
6. apply research tools to investigate issues related to proficiency in sports and recognize the need and ability to engage in independent and life-long learning.

## 7. Eligibility for Admission to the Course

1. Bachelor of Physical Education (B.P.Ed.) or equivalent with at least 50% marks
2. A minimum intercollegiate level participation in any recognized sports/games is compulsory.
3. The candidates should not have completed 35 years of age as on 1<sup>st</sup> July. However, relaxation of 3 years shall be given for SC/ST candidates.
4. Ex-Servicemen / Experienced Physical Education Teachers shall be given relaxation of 6 years of age.
5. The candidate should be medically fit and free from any deformity (Free from any physical impairment and mentally challenged)
6. Pregnant women are not permitted either for admission or to undergo during the course period. If violated during study, they will not be permitted to continue the course.
7. Admission shall be made based on ranking in the entrance and fitness test as per the State Government and University Guidelines.

## 8. Duration of the Programme

The Intake is 30 as per the NCTE norms and standards. The M.P.Ed. programme is of duration of two academic years, that is, four semesters under Choice Based Credit System (CBCS).

## 9. Programme Structure

The Course of study shall consist of three parts. Part-I Theory, Part-II Practicum and Part-III Internship.

### Part I –Theory

The programme offers a package of certain core and elective courses for the effective interaction among the students from different disciplines. This course is a practically oriented programme in nature and conducted as per the NCTE guidelines, hence no supportive courses are offered by this department. Two courses from e-PG Pathshala in the First and third semester as part of online courses. The theory paper consists of internal and external assessment. A candidate will be deemed to have passed the written examination and thesis, provided that the candidate shall have obtained a minimum of 50% in the university external examination and the total aggregate marks should be not less than 50% in internal and external.

### Part II – Practicum

Participation and learning the skills and techniques, teaching and coaching methods of following activities.

#### Semester I

**P-A** Racket Games, Gymnastics, Tennis and Swimming

**P-B** Track and Field Events Part I: Sprint, middle and long distance events, Long Jump, High Jump, Shot Put and Discus Throw.

**P-C** Multilateral Physical Development: Means and methods of developing Speed, Strength, Endurance, Flexibility, Agility and Coordination.

Games of Specialization I: Badminton, Basketball, Cricket, Football, Handball, Hockey, Kabaddi, Kho-Kho, Tennis and Volleyball (Carry Over - Select any one game as your first Specialisation)

### **Semester II**

**P-D** Games of Specialization I: Badminton, Basketball, Cricket, Football, Handball, Hockey, Kabaddi, Kho-Kho, Tennis and Volleyball

**P-E** Track and Field Events Part II: Hurdles, Relay, Triple Jump, Pole-Vault, Javelin Throw, Hammer Throw, Race Walk and Combined Events.

### **Semester III**

**P-F** Sports-specific Physical Development: Means and methods of developing specific strength, specific speed, specific endurance, speed endurance, sprint endurance, power, maximum strength, explosive strength, strength endurance in your games of Specialisation.

**P-G** New games, Yoga, Aerobics, Netball, Softball and Throwball

Games of Specialization II: Badminton, Basketball, Cricket, Football, Handball Hockey, Kabaddi, Kho-Kho, Tennis and Volleyball (Carry Over - Select any one game as second specialisation other than first specialization)

### **Semester IV**

**P-H** Game of Specialization II: Badminton, Basketball, Cricket, Football, Handball, Hockey, Kabaddi, Kho-Kho, Tennis and Volleyball

## **Part III - Internship**

The students of M.P.Ed. in second semester need to develop proficiency in taking teaching lessons in track & field and games. Each student teacher is expected to take at least ten lessons during the course of the second semester. The lessons will be supervised by the faculty members and experts who would discuss the merits and demerits of the concerned lessons and guide them for their future.

**Teaching and coaching practice**, a student is undergoing supervised practical training in the University departments/ Schools/ College/ Sports Organizations/ Sports Academies/ Sports Clubs. Students shall complete minimum of 10 teaching, 10 coaching and 10 officiating lessons in four weeks under the supervision of the assigned Department of Physical Education staff in the schools/ College/ Institutions/ Clubs/ Sports Organizations University departments/ Schools/ College/ Sports Organizations/ Sports Academies/ Sports Clubs.

**Village Adaptation Programme**, the students shall visit the neighboring village for a minimum period of two weeks, and they may organize various programmes such as; Physical Education and Sports related programmes; Creation of play fields for physical activities, sports and games; Awareness Programmes, health and fitness survey; and Develop area of Sports/Games in a particular village

**In Adventure activities/ Industry/ Stadia visit**, the students shall visit the sports industries at various part of India and national/International stadia will helps to combine theoretical knowledge with practical knowledge.

Adventure sports for students are highly motivational and practical which are unlikely to be seen from the normal classroom environment. Adventure aims at increasing

productivity, encourages students to work in different working environment, it builds team spirit, courage, confidence, true friendship and trust amongst each other. It also involves fitness and maintaining the balance between physical and mental ability of the students. It increases the mental fitness/toughness.

## **Semester II**

**I-A** Internship in Educational Institutions – Spell I: A total of 15 lessons to be taken from Athletics & Sports and Games at University Departments/ Schools/ Colleges/ Sports Organizations/ Sports Academies).

## **Semester III**

**I-B** Village Adaptation Programme

## **Semester IV**

**I-C** Internship in Educational Institutions - Spell II: A total of 15 lessons to be taken from Athletics & Sports and Games at University Departments/ Schools/ Colleges/ Sports Organizations/ Sports Academies)

**I-D** Adventure/Industry/Stadia Visit/Officiating

## **10. Scheme of Valuation**

### **A. Theory Examination – Continuous Internal Assessment (CIA) and University Terminal Examination (UTE)**

1. For each theory paper 25 marks for CIA and 75 marks for UTE.
2. There is no passing minimum for CIA. Passing minimum for UTE is 50% and the total passing minimum including CIA & UTE is 50 %.
3. Each CIA test carries a maximum of 25 marks and shall be converted for 15 marks. The marks secured in CIA (in total only) may be rounded off to the nearest integer.
4. The CIA component for theory courses shall include tests, seminar and assignments. The split-up of the CIA marks for all the Theory Courses;  
*The averages of the best two tests (15) + Assignment (5) +Seminar (5) = 25 marks*
5. For Project/Thesis: 50 marks maximum for internal and 50 marks maximum for external (Valuation (25) + Viva (25)). There is no passing minimum for internal valuation. Passing minimum for external is 50% and the total passing minimum including internal & external is 50%.
6. There shall be three compulsory periodical tests in a semester. Each periodical test is conducted for about one and half units of the syllabus in each course for an hour.
7. The question paper pattern for all theory courses (CIA) are given below;
  - i. Part A – Objective Type – 5 Qns. - 5 x 1 = 05 marks
  - ii. Part B – Short Answers – 2 out of 3 Qns. - 2 x 5 = 10 marks
  - iii. Part C – Descriptive/Analytical – 1 out of 2 Qns - 1x10 = 10 marks

**Total = 25 marks**

A student representing the university / State / National / international in game or sport and unable to write the Internal Examinations, he/she will be permissible to appear for special internal Examination as permitted by the Department.

## **B. Practicum Examination**

For each sports Practical paper 50 marks for Internal & 50 marks for External. There is no passing minimum for internal examination. Passing minimum for external is 50% and the total passing minimum including internal & external is 50%.

## **C. Internship Examination**

For each Teaching lesson, Internship/ Intensive Teaching paper 50 marks for Internal & 50 marks for External. There is no passing minimum for internal examination. Passing minimum for external is 50% and the total passing minimum including internal & external is 50%.

**D. Attendance** – University guidelines will be followed but it is practical oriented course hence the students attend the classes regularly without fail.

## **E. Adventure activities/ Industry/Stadia visit and Village Adaptation Programme:**

For each Adventure activities/ Industry/Stadia visit and Village adaptation Sports Programmes 100 marks for Internal. The passing minimum is 50 %.

## **11. Special Permission for University Examination**

A student representing the university / State / National / international in game or sport and unable to write the University Terminal Examinations, he/she will be permitted to appear for special supplementary University Examination as stipulated by the University.

## **12. Abbreviations**

L – Low, M –Medium, H – High

K<sub>1</sub> – Remember, K<sub>2</sub> – Understand, K<sub>3</sub> – Apply,

K<sub>4</sub> – Analyze, K<sub>5</sub> – Evaluate, K<sub>6</sub> – Create

### 13. Scheme of Examinations

SEM	Course Code	Course	Course Nature	Credits	Hours/Week	CIA	UTE
FIRST SEMESTER	PPEC11	Scientific Principles of Sports Training	Core 1	4	4	25	75
	PPEC12	Measurement and Evaluation in Physical Education	Core 2	4	4	25	75
	PPECPA	Exercise Physiology (e-PG Pathshala)	Core 3	4	4	25	75
	PPEEA	(A) Health Education and Sports Nutrition	Elective 1	3	4	25	75
	PPEEB	(B) ICT in Physical Education and Sports					
	PPEEC	(C) Value and Environmental Education					
	PPEL11	Racket Games, Gymnastics, Tennikoit and Swimming	Practicum 1	3	6	50	50
	PPEL12	Track and Field Events Part I	Practicum 2	3	6	50	50
	PPEL13	Multilateral Physical development	Practicum 3	2	4	50	50
	-----	Game of Specialisation I (Practicum)	-----	0	4	(Carry Over)	
SECOND SEMESTER	PPEC21	Applied Sport and Exercise Psychology	Core 4	4	4	25	75
	PPEC22	Sports Biomechanics and Kinesiology	Core 5	4	4	25	75
	PPEC23	Applied Statistics in Physical Education and Sports	Core 6	4	4	25	75
	PPEED	(D) Sports Journalism and Mass Media	Elective 2	3	4	25	75
	PPEEE	(E) Sports Technology					
	PPEEF	(F) Principles of Physical Literacy					
	PPEL21A	Game of Specialisation I - Badminton	Practicum 4	3	6	50	50
	PPEL21B	Game of Specialisation I - Basketball					
	PPEL21C	Game of Specialisation I - Cricket					
	PPEL21D	Game of Specialisation I - Football					
	PPEL21E	Game of Specialisation I - Handball					
	PPEL21F	Game of Specialisation I - Hockey					
	PPEL21G	Game of Specialisation I – Kabaddi					
	PPEL21H	Game of Specialisation I – Kho-Kho					
	PPEL21J	Game of Specialisation I – Tennis					
PPEL41K	Game of Specialisation I - Volleyball						
PPEL22	Track and Field Events Part II	Practicum 5	3	6	50	50	
PPEI21	Internship in Educational Institutions – Spell I	Internship 1	4	8	50	50	



SEM	Course Code	Course	Course Nature	Credits	Hours/Week	CIA*	UTE*
THIRD SEMESTER	PPEC31	Research Process in Physical Education and Sports	Core 7	4	4	25	75
	PPEC32	Physical Fitness and Wellness	Core 8	4	4	25	75
	PPECPB	Athletic Care and Rehabilitation (e-PG Pathshala)	Core 9	4	4	25	75
	PPEEG	(G) Sports Management and Marketing	Elective 3	3	4	25	75
	PPEEH	(H) Sports Tourism					
	PPEEJ	(I) Adapted and Corrective Physical Education					
	PPEL31	Sports-specific Physical Development	Practicum 6	2	4	50	50
	PPEL32	New Games, Yoga, Aerobics, Netball, Softball and Throwball	Practicum 7	3	6	50	50
	PPEI31	Village Adaptation Programme	Internship 2	2	4	100	--
	-----	Game of Specialisation - II (Practicum)	-----	0	6	(Carry Over)	
FOURTH SEMESTER	PPEC41	Yogic Sciences	Core 10	4	4	25	75
	PPEC42	Principles of Life Span Motor Development	Core 11	4	4	25	75
	PPEC43	Exercise Therapy for Lifestyle Diseases	Core 12	4	4	25	75
	PPEP41	Dissertation & Viva	Project	4	4	50	50
	PPEL41A	Game of Specialisation II - Badminton	Practicum 8	3	6	50	50
	PPEL41B	Game of Specialisation II - Basketball					
	PPEL41C	Game of Specialisation II - Cricket					
	PPEL41D	Game of Specialisation II - Football					
	PPEL41E	Game of Specialisation II - Handball					
	PPEL41F	Game of Specialisation II - Hockey					
	PPEL41G	Game of Specialisation II – Kabaddi					
	PPEL41H	Game of Specialisation II – Kho-Kho					
PPEL41J	Game of Specialisation II – Tennis						
PPEL41K	Game of Specialisation II - Volleyball						
PPEI41	Internship in Educational Institutions – Spell II	Internship 3	4	8	50	50	
PPEI42	Adventure/ Industry/ Stadia Visit/ Officiating	Internship 4	3	6	100	--	
<b>Total (12 core, 3 elective, 8 practicum, 4 internship &amp; 1 project) – 28 Courses</b>				<b>96</b>	<b>36 hrs/week</b>	<b>1100</b>	<b>1700</b>

\*CIA - Continuous Internal Assessment, UTE - University Terminal Examinations

#### 14. Course Syllabus (w.e.f the academic year 2022-23 onwards)

The programme is designed for two years under CBCS with 96 credits and 2800 marks. The structure of these courses is detailed in the following pages.

## Semester - I

### Core 1 - Scientific Principles of Sports Training

L	T	P	C
4	0	0	4

#### a. Course Code: PPEC11

#### b. Course Objectives

1. To understand the basic principles of sports training and overload principles.
2. To apply strength, speed, endurance, flexibility and coordinative abilities in various training programmes.
3. To design the training plan for elite athletes.

#### c. Course Prerequisites

Basic knowledge in training methodology and preparation of sportsman for high level performance.

#### d. Course Outcomes (COs)

COs	After the completion of the course, the students will be able to;	Bloom's K Level
CO1	describe various sports training principles and load adaptation.	K2
CO2	develop speed, strength, endurance, flexibility and coordination abilities by applying the principles of training.	K3
CO3	educate the next generation of sports talents without resorting to doping.	K3
CO4	analyse various fitness components with respect to sports and games.	K4
CO5	assess technical and tactical abilities to promote sports talent.	K5
CO6	design appropriate training plans for the development of optimum performance.	K6

#### e. Course Outlines

##### Unit - I Principles of Sports Training and Load Components (12 Hours)

Sports training: Meaning and Definition – Aim, Characteristics and Principles of Sports Training – Training Load: Definition, Adaptation and Principles of load - Overload principle, Causes of Over training, Symptoms of Over training and Remedial Measures – Super Compensation – Altitude Training – Cross Training – Warming up and limbering down.

##### Unit - II Speed, Strength and Endurance (12 Hours)

Components of Physical Fitness: Meaning and Definition - Speed: Types, Means and Methods to develop Speed (Repetition Method, Downhill Run, Parachute Running, Wind Sprints) – Strength; Types, Means and Methods to develop Weight Training, Isometric, Isotonic, Isokinetic, Medicine ball, elastic band training and Special Type Training: Plyometric Training – Endurance: types, Methods to Improve Endurance: Continuous Method, Interval Method, Repetition Method, Cross Country, Fartlek Training and circuit training

**Unit - III Flexibility and Coordinative Abilities****(10 Hours)**

Flexibility: Methods to Improve the Flexibility, Stretch and Hold Method and Ballistic Method - Coordinative abilities: Methods to improve Coordinative abilities: Sensory Method, Variation in Movement Execution Method, Variation in External Condition Method, Combination of Movement Method - Types of Stretching Exercises and training - Development of coordinative ability training

**Unit - IV Training Plan and Periodisation****(13 Hours)**

Training Plan: Macro cycle, Meso cycle and Micro cycle, Short Term Plan and Long Term Plans - Periodisation: Meaning, Single, Double and Multiple Periodisation, Preparatory Period, Competition Period and Transition Period - Linear and undulating Periodisation - Training peak.

**Unit - V Technical, Tactical Preparation and Doping****(13 Hours)**

Technical Training: Phases of skill acquisition, Methods of technical training, Causes of faults and corrections - Tactical training: Concept of tactics and strategy, Methods of tactical training – Talent identification: Methods and types – Doping: Definition, Side effects of drugs - Dietary supplements - IOC list of doping classes and methods - Blood Doping: Use of erythropoietin in blood boosting, Blood doping control – The testing programmes - Problems with the supply of medicines: Subject to IOC regulations, Over-The- Counter drugs (OTC), Prescription Only Medicines (POMs), Controlled Drugs (CDs) – Reporting Test results - Education.

**Activities:** Application of various exercise regimes to develop motor components - prepare micro, meso and macro cycles of training plan in your game of specialisation

**f. Mapping of COs to POs and PSOs**

COs	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	M	H	H	H	H	H	L	M	H	L	M	H
CO2	M	H	H	H	M	H	L	M	M	L	L	H
CO3	H	M	M	L	M	H	L	M	M	L	H	M
CO4	M	H	H	H	M	H	L	M	H	L	L	M
CO5	M	H	M	H	H	H	L	M	H	L	L	M
CO6	L	H	H	H	H	H	H	M	H	L	L	M

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## Semester - I

### Core 2 - Measurement and Evaluation in Physical Education

L	T	P	C
4	0	0	4

**a. Course Code: PPEC12**

**b. Course Objectives**

1. To predict the needs, abilities, and altitudes of an individual/sports person
2. To measure capacity, ability and inherent qualities of the individual/Sportsperson
3. To recommend training programme for various sports and games.

**c. Course Prerequisites**

Basic understanding of human performance and character

**d. Course Outcomes (COs)**

COs	After the completion of the course, the students will be able to;	Bloom's K Level
CO1	identify athletes for suitable games utilizing scientific techniques.	K1
CO2	describe the basic concepts of measurement and evaluation of various tests and measurements techniques.	K2
CO3	develop skills and techniques for creating new tests for various sports-related skills.	K3
CO4	analyze different tests and performances related to physical education and sports	K4
CO5	evaluating athletes' physical and technical abilities	K5
CO6	construct new tests for Sports and Games	K6

**e. Course Outlines**

**Unit - I Introduction**

**(12 Hours)**

Meaning and definition of Test, Measurement and Evaluation - Need and importance of Measurement and Evaluation - Domains of Human Performance: Cognitive, Affective and psychomotor domains - Criteria for Test Selection: Scientific Authenticity, Administrative feasibility, Educational Implications - Establishing Validity, Reliability, Objectivity and Norms – Types of tests: Knowledge tests and Skill Tests.

**Unit - II Physical and Physiological Fitness Tests**

**(12 Hours)**

AAHPERD Health Related Fitness Battery (revised in 1984) - ACSM Health Related Physical Fitness Test - Roger's physical fitness Index - Cardiovascular test - Harvard step test - 12 minutes run / walk test - Multi-stage fitness test (Beep test) - Blood pressure - Vital capacity - Heart rate - Pulse rate - Body temperature.

**Unit - III Motor Fitness and Psychological Variables Tests (12 Hours)**

Indiana Motor Fitness Test - Oregon Motor Fitness Test - JCR test - Barrow Motor Ability Test – Newton Motor Ability Test – Kraus Weber Minimum Muscular Fitness Test - Test for Anxiety, Aggression, Team cohesion, Achievement motivation, Mental toughness and Mental skills – McCloy Classification Index.

**Unit - IV Aerobic, Anaerobic and Anthropometric Tests (12 Hours)**

The Bruce Treadmill Test Protocol – Queens College Step test - Margaria-Kalamen Anaerobic power test - Wingate Anaerobic Test - Anthropometric Measurements: Height: Standing Height, Sitting Height - Ponderal index – Hip-waist ratio – BMI - Circumference: Arm, Waist, Hip, Thigh – Body composition using Skin folds - Somatotype and posture evaluation techniques.

**Unit - V Sports Skill Tests (12 Hours)**

Badminton: Miller Wall Volley Test, French Short Service Test - Johnson Basketball Test - Harrison Basketball Ability Test - Cricket: Sutcliff Cricket test - Hockey: Henry Friedel Field Hockey Test - Harban’s Hockey Test - Russel Lange Volleyball Test - Brady Volleyball Test – Mor Christian General Soccer Ability Skill Test Battery - McDonald Soccer Test - Dyer Tennis Test – Hewitt Tennis Test.

**Activities:** All the tests need to be conducted in practical and the scores may be analysed based on the individual performance and the same to be recorded in the note book.

**f. Mapping of COs to POs and PSOs**

COs	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	L	M	M	L	M	M	H	H	H	L	M	H
CO2	L	M	M	L	M	M	H	H	H	L	M	H
CO3	M	H	H	H	H	H	H	H	H	M	M	H
CO4	M	M	H	H	H	M	M	H	H	M	H	H
CO5	L	M	M	H	H	M	M	M	L	L	H	H
CO6	L	H	H	H	M	M	H	H	M	M	M	H

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**Semester - I**  
**Core 3 - Exercise Physiology (e-PG Pathshala)**

L	T	P	C
4	0	0	4

**a. Course Code: PPECPA**

**b. Course Objectives**

1. To acquire knowledge regarding effect of exercise on human physiology
2. To understand the function of cell and various system of the body.
3. To study the influence of climates on Sports Performance.

**c. Course Prerequisites**

Basic knowledge in Science, Human body and living beings

**d. Course Outcomes (COs)**

COs	After the completion of the course, the students will be able to;	Bloom's K Level
CO1	describe various functions of cell in the human body	K1
CO2	illustrate various systems for functioning of body during the exercise	K2
CO3	apply the principles of exercise physiology during exercise	K3
CO4	analyze the role of exercise in the human body	K4
CO5	assess the changes in physiology during exercise under different climate conditions	K5
CO6	develop the training plan considering the principles of physiology for better performance	K6

**e. Course Outlines**

**Unit - I System Physiology**

**(12 Hours)**

Introduction – Structure and unit of the body: Cell, Tissue. Human body organs – Body System: Skeletal, Muscular, Respiratory, Cardiovascular, Lymphatic, Digestive, Endocrine, Excretory, Reproductive, Nervous system – Muscle Types – Structure and Functions of Skeletal Muscle.

**Unit - II Cardiovascular System and Exercise**

**(12 Hours)**

Structure and functions of Cardiovascular System - Pulmonary and Systematic Circulations – Blood Vessels – Mechanism of Breathing – Types of Nervous System – Effects of exercise on cardiorespiratory and Nervous system.

**Unit - III Temperature Regulation in rest and exercise**

**(12 Hours)**

Skin Temperature - Routes of heat exchange: Conduction, Convection, Radiation, Evaporation - Concept of thermal comfort - Regulation of body temperature- Role of Hypothalamus - Role of Endocrine Glands - Role of skin temperature - Thermal control system - Process of acclimatization and adaptation

**Unit - IV Response to exercise: Hot and Cold environment**

**(12 Hours)**

Defining human thermal environment - Response of human body in hot environment - Prolonged physical activity in hot environment - Heat acclimatization - Heat disorders and illnesses – Heat stress management - Defining cold climate / environment -

Physiological response to cold - Acclimatization to Cold - Wind chill Index: Indicator of cold stress - Hypothermia during running/ swimming - Cold injury and illness - Positive aspects of sports training in cold environment

**Unit - V Bioenergetics and Muscle Energy**

**(12 Hours)**

Energy systems: Anaerobic and Aerobic Metabolism - Hormonal regulations of metabolism during exercise – Measuring energy expenditure – energy expenditure at rest and exercise – fatigue and its causes – muscle soreness – exercise induced muscle-cramps – Ergogenic aids.

**Activities:** Measuring energy expenditure during rest and exercises, identifying training heart rate, respiratory rate, climate conditions, classification of activity/sports based on metabolism.

**f. Mapping of COs to POs and PSOs**

COs	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	L	M	H	H	M	H	L	M	H	L	L	M
CO2	L	M	H	M	M	M	M	M	H	L	M	H
CO3	L	H	M	H	M	H	L	L	M	M	L	M
CO4	M	M	M	H	H	M	L	M	H	L	M	M
CO5	L	H	H	M	M	H	M	H	M	M	L	H
CO6	M	M	H	H	L	H	H	M	H	L	L	M

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## Semester - I

### Elective 1 (A) - Health Education and Sports Nutrition

L	T	P	C
3	1	0	3

#### a. Course Code: PPEEA

#### b. Course Objectives

1. To understand the basic knowledge of health education and sports nutrition.
2. To study the health problems in India.
3. To understand the concept of sports nutrition, influence of exercise and diet on weight management.

#### c. Course Prerequisites

Basic knowledge in health, lifestyle and food habits

#### d. Course Outcomes (COs)

COs	After the completion of the course, the students will be able to;	Bloom's K Level
CO1	identity the importance of health and its consequences.	K1
CO2	know health problems and its prevalence of society.	K2
CO3	understand importance of nutrition for better performance.	K3
CO4	maintain proper weight management to control the obesity.	K4
CO5	gain the knowledge of health education and it services and guidance.	K5
CO6	apply nutrition supplements to lose, gain and maintain weight	K6

#### e. Course Outlines

##### Unit - I Health Education

(10 Hours)

Concept, Dimensions, Spectrum and Determinants of Health - Definition of Health, and Health Education - Health Service, Health Instruction, Health Supervision - Aim, Objectives and Principles of Health Education - Personal Hygiene.

##### Unit - II Prevalence of Health

(10 Hours)

Communicable and Non-Communicable Diseases Obesity, Malnutrition, Adulteration in food, Environmental sanitation, Explosive, Population, Personal and Environmental Hygiene for schools Objective of school health service, Role of health education in schools. Health Services - Care of skin, Nails, Eye health service, Nutritional service, Health appraisal, Health record, Healthful school environment, first- aid and emergency care etc.

##### Unit - III Personal Hygiene

(09 Hours)

Meaning of Hygiene, Type of Hygiene, Dental Hygiene, Effect of Alcohol on Health, Effect of Tobacco on Health, Life Style Management, Management of Hypertension, Management of Obesity, Management of Stress

##### Unit - IV Sports Nutrition

(10 Hours)

Meaning and Definition of Sports Nutrition, Role of nutrition in sports, Basic Nutrition guidelines, Nutrients: Ingestion to energy metabolism (Carbohydrate, Protein and Fat), Role of carbohydrates, Fat and protein during exercise, Vitamins, minerals and water



## Unit - V Exercise and Weight Management

(09 Hours)

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

**Activities:** Health survey in society, preparing a personal health records, awareness of communicable and non-communicable diseases in and around the living area – Doing health services at institutions/villages.

### f. Mapping of COs to POs and PSOs

COs	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	L	M	H	H	M	H	L	M	H	L	L	M
CO2	M	L	M	L	M	M	M	H	H	M	M	H
CO3	M	H	L	H	L	M	L	M	H	M	M	L
CO4	M	L	M	M	H	M	L	M	H	H	M	M
CO5	L	H	M	M	M	L	M	H	M	M	L	H
CO6	M	M	H	H	L	H	H	M	H	M	M	M

### g. References

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**Semester - I**  
**Elective 1 (B) - ICT in Physical Education and Sports**

L	T	P	C
3	1	0	3

**a. Course Code: PPEEB**

**b. Course Objectives**

1. To provide knowledge of communication and classroom interaction.
2. To understand the applications of computer.
3. To analyze and interpret research data using ICT tools and to utilize of web resources for research activities and e-learning.

**d. Course Prerequisites**

Basic understanding in computer and technology

**e. Course Outcomes (COs)**

COs	After the completion of the course, the students will be able to;	Bloom's K Level
CO1	understand the components and applications of computer in Physical Education and Sports.	K2
CO2	recognize and use various software for organization and administration.	K3
CO3	conduct survey using online tools and technologies.	K4
CO4	evaluate and analyse the sports performance using ICT.	K5
CO5	create e-content in physical education and sports.	K6
CO6	develop web-based learning for teaching and coaching.	K6

**e. Course Outlines**

**Unit - I Communication & Classroom Interaction**

**(09 Hours)**

Concept, Elements, Process & Types of Communication - Barriers & Facilitators of communication - Communicative skills: Listening, Speaking, Reading & Writing - Concept & Importance of ICT - Scope of ICT: Teaching Learning Process, Publication Evaluation, Research and Administration - Challenges in Integrating ICT in Physical Education and Sports.

**Unit - II Fundamentals of Computers**

**(10 Hours)**

Meaning and Applications of Computer - Hardware and Software – Input and Output Devices - Types Computer Memory - Concept and Types Viruses & its Management – LAN, WAN – Intranet - Internet and its Applications - Web Browsers & Search Engines - Legal & Ethical Issues.

**Unit - III MS Office**

**(10 Hours)**

MS Word: Main Features, Page alignment, mail merge, styles of formatting & its Uses in Physical Education - MS Excel: Main Features, creation of formulas, inserting chart, macros functions, & its Applications in Physical Education - MS PowerPoint: Preparation of Slides with Multimedia Effects – Designing broucher, invitation and certificates.

**Unit - IV ICT Integration in Teaching Learning Process (10 Hours)**

Approaches to Integrating ICT in Teaching Learning Process - Project Based Learning (PBL) - Co-Operative Learning Collaborative Learning ICT and Constructivism: A Pedagogical Dimension – MOOCs Four Quadrants – e-content development.

**Unit - V Online Tools (09 Hours)**

Web Based Learning - VR & AR – Creation of Animated Videos – Online Tools for Fixtures Drawing, Marking of playfield, Match analysis, Scoring of matches, conducting survey and knowledge tests - Google tools in Physical Education: Google Form, Google meet, Google Docs, Slides and Sheets.

**f. Mapping of COs to POs and PSOs**

COs	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	M	M	H	M	L	M	M	M	M	M	M	M
CO2	M	M	M	L	M	M	M	H	H	M	M	H
CO3	M	H	H	M	L	H	L	M	M	M	M	L
CO4	L	H	M	L	M	M	M	H	H	L	L	M
CO5	L	H	M	L	L	L	M	H	M	M	M	H
CO6	M	M	H	M	L	M	H	M	H	L	L	L

**g. References**

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**Semester - I****Elective 1 (C) - Value and Environmental Education**

L	T	P	E
3	1	0	3

**a. Course Code: PPEEC****b. Course Objectives**

1. To understand the nature of environmental adaptation
2. To study the human ethical value and principles.
3. To study natural resources, eco-system and pollution free environment.

**c. Course Prerequisites**

Basic knowledge in Human values and ethics, nature and pollution.

#### d. Course Outcomes (COs)

COs	After the completion of the course, the students will be able to;	Bloom's K Level
CO1	understand the human values and nature.	K2
CO2	practice the pollution free eco system	K3
CO3	operate natural resources management and Govt. policies.	K3
CO4	classify the values and environments	K4
CO5	analyse and improve the rural & urban students health status.	K4
CO6	facilitate health related physical activity programme	K6

#### e. Course Outlines

##### Unit -I Value and Environmental Education (09 Hours)

Environmental Education: Definition - Goals- Objectives and guidelines - Pre requisition for a successful environmental education. Value Education: Definition, Concept, Classification, Theory, Criteria and Sources of values - Aims and objectives of value education - Role and Need for value education in the contemporary society - Classification of Values.

##### Unit -II Value Education and Personal Development (10 Hours)

Human Values: Truthfulness, Constructively, Sacrifice, Sincerity, Self-resilience, Altruism, Egoism, Scientific Vision, relevancy of human values to good life. - Character Formation towards Positive Personality - Modern challenges of adolescent: emotions and behavior. Constitutional Values - Social Values - Professional values - Religious and Moral Values - Environmental Ethical Values - National Integration and international understanding. - Need of Humanistic value for espouse peace in the society - Conflict of cross-cultural influences, cross-border education.

##### Unit - III Eco-system (10 Hours)

Definition, Scope, Need and Importance of environmental studies, Concept of environmental education, Historical background of environmental education, Celebration of various days in relation with environment, plastic recycling and probation of plastic bag/cover, Role of educational institution in environmental conservation and sustainable development, Pollution free eco-system, conservation of biodiversity - methods, importance.

##### Unit - IV Sanitation, Physical and Health Services (09 Hours)

Rural and Urban Health Problems, Causes, prevention method, improvement of Rural & Urban health, Process of Health Services, Education Activity, Services on Rural, Urban and Slum Area, Sanitation at Fairs & Festivals, Mass Education & Health education, health and Physical awareness Program for public.

##### Unit - V Natural Resources and Government Policies (10 Hours)

Water, earth, air and Land resources, food resources, effects and control measures of: Air, Water, Land Pollution, Noise, Thermal, light and plastic pollution. Management of environment and resources, Role and Responsibilities of pollution control board. Government policy.

**Activities:** Conserving nature and conducting awareness programme for the people.

## f. Mapping of COs to POs and PSOs

COs	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	H	L	L	L	M	H	M	L	L	H	H	M
CO2	H	L	L	M	L	H	M	L	L	H	H	M
CO3	H	L	L	L	M	M	M	L	L	H	H	M
CO4	L	M	L	L	L	H	M	M	M	L	L	L
CO5	M	M	M	M	M	L	M	M	M	L	M	L
CO6	H	L	L	L	L	H	M	L	L	H	H	M

## g. References

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## Semester - I

### Practicum 1 - Racket Games, Gymnastics, Tennikoit and Swimming

L	T	P	C
0	0	6	3

#### a. Course Code: PPEL11

#### b. Course Objectives

1. To provide an opportunity for students to understand the natures of sports.
2. To study the playfield layout, marking and officiating for Racket Games, Gymnastics, Tennikoit and Swimming.
3. To identify the factors for improving technical and tactical ability of the players.

#### c. Course Prerequisites

Basic knowledge in sports and games.

#### d. Course Outcomes (COs)

COs	After the completion of the course, the students will be able to;	Bloom's K Level
CO1	recall the general rules and regulations.	K1
CO2	demonstrate the fundamental skills.	K2

CO3	analyze the strategies and performance of the players.	K3
CO4	interpreting the rules and regulations during competition.	K4
CO5	layout and marking the play fields.	K5
CO6	develop the performance through suitable training plan.	K6

### e. Course Outlines

#### Racket Games (Table Tennis & Ball Badminton) Gymnastics, Tennikoit & Swimming

Basic/fundamental skills – Drills/Lead up activities - Physical, Technical and Tactical preparation – General rules and interpretations, Duties of officials, methods of officiating – Playfield layout and marking - equipment specifications.

### f. Mapping of COs to POs and PSOs

COs	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	L	H	M	H	M	L	M	H	H	H	H	L
CO2	L	H	M	H	M	L	M	H	H	H	L	L
CO3	L	H	H	M	M	L	M	M	H	H	L	L
CO4	L	H	H	M	M	L	M	H	M	H	L	L
CO5	L	H	M	M	M	L	M	M	M	H	H	L
CO6	L	H	M	M	M	L	M	H	M	H	H	L

### g. References

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**Semester - I**  
**Practicum 2 - Track and Field Events Part I**

L	T	P	C
0	0	6	3

**a. Course Code: PPEL12**

**b. Course Objectives**

1. To provide an opportunity for students to understand the natures of athletics.
2. To understand the track and field layout & marking and officiating.
3. To identify the factors for improving technical & tactical ability of the athletes.

**c. Course Prerequisites**

Basic knowledge in fundamental motor skills.

**d. Course Outcomes (COs)**

COs	After the completion of the course, the students will be able to;	Bloom's K Level
CO1	recall the methods of developing the running, jumping and throwing abilities in athletics.	K1
CO2	demonstrate the techniques in Track and Field events	K2
CO3	analyze the performance of the athletes scientifically.	K3
CO4	interpreting the rules and regulations during competition.	K4
CO5	evaluate the performance of athletes.	K5
CO6	adapt with the new trends in teaching and coaching of track and field	K6

**e. Course Outlines**

**Sprint, Middle and Long Distance Events**

Techniques for starts: Crouch and Standing Starts – Running mechanism in various Track events - Techniques for Finish - Drills for improving running abilities - Means and methods of developing running abilities – Rules and regulations – Layout and marking – Equipment specifications – Officials and Officiating – Factors Influencing performance – Talent Identification - Application of Scientific principles.

**Long Jump and High Jump**

Long Jump Techniques (Approach run, take-off, flight and landing) – High Jump Techniques (Approach run, take-off, bar clearance and landing) - Drills for improving jumping abilities - Means and methods of developing jumping abilities – Rules and regulations – Layout and marking – Equipment specifications – Officials and Officiating – Factors Influencing performance – Talent Identification - Application of Scientific principles.

**Shot Put and Discus Throw**

Shot put Techniques (Preparation, Stance, gliding/rotation, delivery stance, release and follow-through) – Discus Throw Techniques (Preparation, Stance, rotation, delivery stance, release and follow-through) - Drills for improving throwing abilities - Means and methods of developing throwing abilities – Rules and regulations – Layout and marking

- Equipment specifications – Officials and Officiating – Factors Influencing performance
- Talent Identification - Application of Scientific principles.

### General

Nutritional recommendations – Injuries Management - Athletics Competitions at World, Asia, National, State and District Level – List of National Award winners –Opening and Closing Ceremony Protocol - Periodisation.

### f. Mapping of COs to POs and PSOs

COs	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	L	H	M	H	M	L	M	H	H	H	H	L
CO2	M	M	L	H	H	L	M	H	H	H	L	M
CO3	L	H	H	M	M	M	L	M	H	L	M	L
CO4	L	H	H	M	M	L	M	H	M	H	L	L
CO5	M	M	L	H	L	M	L	M	L	L	L	M
CO6	L	H	M	M	M	L	M	H	M	H	H	L

### g. References

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## Semester – I

### Practicum 3 - Multilateral Physical Development

**a. Course Code: PPEL13**

L	T	P	C
0	0	4	2

**b. Course Objectives**

1. To provide the training foundation for success in all sports.
2. To improve the basic biomotor abilities such as endurance, strength, speed, flexibility, and coordination.
3. To develop a strong foundation to tolerate sport-specific training activities and ultimately have a greater potential for athletic development.

**c. Course Prerequisites**

Basic knowledge in preparation of sportsmen for the competitive environment.

**d. Course Outcomes (COs)**

COs	After the completion of the course, the students will be able to;	Bloom's K Level
CO1	understand the importance of multilateral physical development.	K1
CO2	identify the means and methods of developing the biomotor abilities.	K2
CO3	apply the concepts of multilateral development plan during the early stages of an athlete's development.	K3
CO4	assess and analyse the motor development with respect to maturation and aging.	K4
CO5	evaluate training plan for improving the physical fitness.	K5
CO6	create a fit and healthy citizen of the nation.	K6

**e. Course Outlines**

Training to develop speed, strength, endurance, agility, coordination, flexibility, and overall general fitness. Set the training goals are best accomplished through diverse group of exercise techniques at different environments.

- Aerobic - Continuous training, Fartlek Training, Circuit Training, Interval Training.
- General fitness training, Flexibility Training, SAQ, Cross Training, Resistance training (Medicine Ball, Swiss Ball, Thera Band, sand training, parachute), Balance Training (Wobble Board, Kettle Bell), Assisted and resisted hill training.
- Complex & Concurrent Training, Parcourse Training.

**f. Mapping of COs to POs and PSOs**

COs	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	L	M	H	M	H	L	M	H	M	L	L	M
CO2	L	H	M	H	H	L	M	H	M	L	L	M
CO3	L	H	M	H	M	L	L	M	M	L	L	H
CO4	L	M	M	H	M	M	L	M	M	L	L	H
CO5	H	M	L	M	M	H	L	M	M	L	L	L
CO6	H	H	M	M	M	H	H	H	M	L	L	L

## **g. References**

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## Semester - II

### Core 4 - Applied Sport and Exercise Psychology

L	T	P	C
4	0	0	4

#### a. Course Code: PPEC21

#### b. Course Objectives

1. To provide the framework for the psychological dynamics of sports and exercise.
2. To convey psychology concepts for improving performance in physical education and sports
3. To estimate the impact of athletes' behaviour during competition and exercise.

#### c. Course Prerequisites

Basic knowledge in sportsmen behaviour and performance.

#### d. Course Outcomes (COs)

COs	After the completion of the course, the students will be able to;	Bloom's K Level
CO1	identify the sports and exercise behaviour of an individual	K1
CO2	understand the psychological factors affecting sports performance	K2
CO3	predict exercise behaviour and adherence of an individual	K3
CO4	categorize the factors affecting sports performance	K4
CO5	perform psychosocial assessment of an individual in various developmental stages in sports	K5
CO6	design the psychological skill development programme	K6

#### e. Course Outlines

##### Unit - I Introduction

(12 Hours)

Meaning, History, Scope, Need and importance of Sports Psychology – Perception theories - Factor affecting Perception – Personality: Structure and Assessment – Personality traits and sports performance – Anxiety – Stress – Motivation- Aggression.

##### Unit - II Exercise Environments

(12 Hours)

Competition and cooperation: Definition, Process and determination – Enhancing cooperation – Principles and approaches of feedback and reinforcement – Guidelines for reinforcement and punishment – Behaviour modification in Sports – Athletic injuries and psychology – Exercise and well-being – role of sports psychology in Injury Rehabilitation.

##### Unit - III Group Cohesion

(12 Hours)

Definition and assessment of group cohesion – Relationship between cohesion and performance – Children and sports psychology - Participation pattern among women in Sports - Burnout and overtraining – Addiction and Unhealthy behaviour.

#### Unit IV - Performance Enhancement

(12 Hours)

Meaning, assessment, and improve/develop arousal, imagery, self-confidence, goal setting and Concentration – Psychological preparation (Before, during and after the competition) - Psychological skill training – Character development and physical activity.

#### Unit - V Behaviour Enhancement

(12 Hours)

Exercise effects psychological well-being - Changing personality and cognitive function with exercise - Exercise behaviour and adherence – Psychological factor in athletic injuries – Career transition in sports – Fair play and good sporting behaviour.

**Activities:** Assessment of psychological factors which affect the sports performance through inventory and techniques in sports settings.

#### f. Mapping of COs to POs and PSOs

COs	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	M	H	H	M	M	H	L	H	H	L	L	M
CO2	M	H	H	M	M	H	L	H	H	L	L	M
CO3	M	H	H	M	M	M	L	H	M	L	M	H
CO4	L	M	M	H	H	H	L	M	H	M	L	M
CO5	L	M	H	M	M	H	L	H	H	L	M	H
CO6	L	M	L	H	H	H	L	H	H	L	L	M

#### g. References

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## Semester – II

### Core 5 - Sports Bio-Mechanics and Kinesiology

L	T	P	C
4	0	0	4

#### a. Course Code: PPEC22

#### b. Course Objectives

1. To remember the principles of biomechanics, muscles and movements.
2. To apply the concept of kinetics and kinematics in sports
3. To analyse the qualitative and quantitative movements in sports.

#### c. Course Prerequisites

Basic principles of human movements, muscles and mechanical principles.)

#### d. Course Outcomes (COs)

COs	After the completion of the course, the students will be able to;	Bloom's K Level
CO1	discuss the knowledge of kinetics and kinematics	K2
CO2	apply the biomechanical principles on sports specific movements	K3
CO3	analyse the biomechanical principles in sports and games	K4
CO4	describe the muscle action, origin and insertion	K2
CO5	apply kinesiological principles for efficient human movements	K3
CO6	critically evaluate human movements in sports settings	K5

#### e. Course Outlines

##### Unit - I Introduction to Biomechanics and Kinesiology (10 Hours)

Biomechanics: Meaning and Definition – Sports Biomechanics: Meaning and Definition, Importance and scope – Organisation of Biomechanics: Static and Dynamic, Scalar and Vector, Distance and Displacement - Kinematics and Kinetics – Meaning, Nature and Scope of Applied Kinesiology – Axis and Planes – Axis of motion.

##### Unit - II Muscle Action, Origin and Insertion (11 Hours)

Origin, insertion and action of muscles: Pectoralis major and minor, Deltoid, Biceps, Triceps (Anterior and Posterior), Trapezius, serratus, Sartorius, Rectus femoris, Abdominis, Quadriceps, Hamstring, Gastrocnemius.

##### Unit - III Centre of Gravity, Equilibrium, Motion and Forces (13 Hours)

Motion: Meaning and Definition - Types of Motion: Linear motion, Angular motion, Circular motion and Uniform motion - Newton Law of Motion: Law of Inertia, Law of Acceleration and Law of Counter Force – Force: Meaning and Definition, Sources of force, Force components, Force applied at an angle, Centripetal force and Centrifugal force, Friction force, Pressure, Buoyant force, Principles of Force – Spin: Meaning, Types and Magnus effect.

##### Unit - IV Projectile and Leverage advantages (13 Hours)

Projectile: Meaning and Definition, freely falling bodies - Equation of projectiles, Principles of Projectile - Fluid Mechanism: Water resistance, Air resistance and

Aerodynamics - Work, Power, Energy, Kinetic energy and Potential energy - Lever: classes of lever and leverage advantage - Equilibrium: Meaning and Definition, Guiding Principle of Equilibrium - Stability: Static and Dynamic, Stages of Stability, Factors affecting stability – Centre of Gravity: concept of Centre of Gravity, Line of Gravity, Mass and Weight and Earth Gravity – Momentum - Impulse and Impact – Elasticity.

**Unit - V Qualitative and Quantitative Movement Analysis (13 Hours)**

Analysis of Sports skills - Types of analysis: muscular and mechanical - Methods of analysis: Qualitative, Quantitative and Predictive – Gait Analysis - Application of Biomechanical Principles on Sports movements.

**Activities:** Analyse the Biomechanical principles and Muscle movements on sports skills, prescribe the remedial measures to improve the movement economy.

**f. Mapping of COs to POs and PSOs**

COs	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	L	H	H	H	M	H	L	H	H	H	M	M
CO2	M	M	M	M	M	M	L	H	H	L	L	M
CO3	M	H	H	M	M	M	M	H	M	M	M	H
CO4	L	M	M	H	H	H	M	M	H	M	M	M
CO5	M	H	H	M	M	H	L	H	H	H	M	H
CO6	L	M	H	H	H	H	L	H	H	L	L	M

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## Semester – II

### Core 6 - Applied Statistics in Physical Education and Sports

L	T	P	C
4	0	0	4

#### a. Course Code: PPEC23

#### b. Course Objectives

1. To recall knowledge of statistics and its terms like data, population and sample.
2. To demonstrate knowledge of descriptive statistics, scales and normal curve.
3. To perform complex data analysis by using statistical software.

#### c. Course Prerequisites

Basic knowledge of Mathematics and critical analysis of data.

#### d. Course Outcomes (COs)

COs	After the completion of the course, the students will be able to	Bloom's K Level
CO1	recognize data based on the levels of measurement	K <sub>1</sub>
CO2	comprehend the concept and use of descriptive statistics, normal curve, scales and graphs for appropriate data visualization	K <sub>2</sub>
CO3	assess statistical appeals to make decisions based on hypothetical testing	K <sub>3</sub>
CO4	apply the concept of scales for construction of norms	K <sub>4</sub>
CO5	distinguish between parametric and non-parametric tests	K <sub>5</sub>
CO6	analyse any given data applying applicable statistical tools to arrive valid inferences	K <sub>6</sub>

#### e. Course Outlines

##### Unit - I Introduction

(12 Hours)

Meaning and Definition of Statistics - Need and importance of Statistics - Types of Statistics - Meaning of the terms: Population, Sample, Data and its types (Nominal, ordinal, interval and ratio), Variables and its types (Discrete and continuous) - Parametric and non-parametric statistics.

##### Unit - II Descriptive Statistics

(12 Hours)

Meaning and construction of frequency table - Meaning, Calculation, advantages and demerits of Measures of central tendency; Mean, median and mode - Meaning, Calculation, advantages and demerits of Range, Quartile Deviation, Standard Deviation - Meaning of Normal Curve - Principles and Properties of normal curve - Divergence from normality; Skewness and Kurtosis.

##### Unit - III Scales and Graphs

(12 Hours)

Meaning, Calculation and advantages of scoring scales; Percentile, Z score, T-scale, Six Sigma scale, Hull scale- Graphical Representation in Statistics; Line diagram, Bar diagram, Histogram, Frequency Polygon, Ogive Curve, pie chart - Type I & II Error- Level of significance-Degrees of Freedom.

**Unit - IV Inferential Statistics****(12 Hours)**

Computation of Independent and Dependent “t” test – Non-parametric Test; chi square test and Man Mann Whitney U test - Meaning of correlation - Calculation of Product moment method and Spearman rank order correlation - Calculation of ANOVA- Concept of ANCOVA and factorial ANOVA.

**Unit - V Statistical Software****(12 Hours)**

Introduction to SPSS, R & Python - Data entry, editing variable and data window, calculation of descriptive and inferential statistics in SPSS – Basic functions of R & Python.

**Activities:** Collect, organize, analyse and interpret the data using software.

**f. Mapping of COs to POs and PSOs**

COs	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	L	M	H	M	H	M	M	H	M	H	L	H
CO2	L	H	H	H	H	M	M	H	M	M	M	H
CO3	M	H	H	H	M	M	L	M	M	M	L	H
CO4	L	M	H	H	M	M	L	M	M	M	M	H
CO5	M	M	H	M	M	H	L	M	M	M	L	H
CO6	M	H	H	M	M	H	L	H	M	M	L	H

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**Semester - II**  
**Elective 2 (D) - Sports Journalism and Mass Media**

**a. Course Code: PPEED**

L	T	P	C
3	1	0	3

**b. Course Objectives**

1. To understand and impart the skills of Journalism.
2. To acquire the knowledge of mass media and its influences on Sports.
3. To apply the concepts of journalism in report writing.

**c. Course Prerequisites**

Basic skills of story writing, inter and intrapersonal communication.

**d. Course Outcomes (COs)**

COs	After the completion of the course, the students will be able to;	Bloom's K Level
CO1	report on sporting events and seek accreditation for them	K1
CO2	acquire knowledge of writing sports report.	K2
CO3	illuminate sports articles for magazine and periodicals.	K3
CO4	plan and prepare sports bulletins and news letters	K4
CO5	interact with sports professionals	K5
CO6	produce several projects that demonstrate their own style and perception of sports events to the public.	K6

**e. Course Outlines**

**Unit - I Introduction**

**(11 Hours)**

Meaning and Definition of Journalism, Ethics of Journalism – Canons of journalism- Sports Ethics and Sportsmanship – Reporting Sports Events. National and International Sports News Agencies.

**Unit - II Sports Bulletin**

**(13 Hours)**

Concept of Sports Bulletin: Journalism and sports education – Structure of sports bulletin – Compiling a bulletin – Types of bulletin – Role of Journalism in the Field of Physical Education: Sports as an integral part of Physical Education – Sports organization and sports journalism – General news reporting and sports reporting.

**Unit - III Mass Media**

**(12 Hours)**

Mass Media in Journalism: Radio and T.V. Commentary – Running commentary on the radio - Sports expert's comments - Role of Advertisement in Journalism - Sports Photography: Equipment- Editing – Publishing.

**Unit - IV Report Writing on Sports**

**(12 Hours)**

Brief review of Olympic Games, Asian Games, Common Wealth Games World Cup, National Games and Indian Traditional Games - Preparing report of an Annual Sports Meet for Publication in Newspaper - Organization of Press Meet.

**Unit - V Journalism****(12 Hours)**

Sports organization and Sports Journalism – General news reporting and sports reporting - Methods of editing a Sports report - Evaluation of Reported News - Interview with and elite Player and Coach.

**Activities:** Watching live sports events and writing reports periodically.

**f. Mapping of COs to POs and PSOs**

COs	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	L	M	M	M	H	M	L	H	M	M	H	L
CO2	L	H	M	H	H	M	M	H	M	M	H	L
CO3	M	H	H	M	M	M	L	M	M	M	H	L
CO4	L	M	M	H	M	M	M	M	M	M	H	L
CO5	M	M	H	M	M	M	L	M	M	M	M	L
CO6	M	H	M	M	M	M	L	M	M	M	M	M

**g. References**

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**Semester – II****Elective 2 (E) - Sports Technology**

L	T	P	E
3	1	0	3

**a. Course Code: PPEEE****b. Course Objectives**

1. To understand the principles and purpose of instrumentation in sports
2. To study the concept of construction and installation of sports facilities
3. To analyse the advantages in different types of equipments on sports performance

**c. Course Prerequisites**

Basic knowledge of technology and infrastructure facilities in sports

#### d. Course Outcomes (COs)

COs	After the completion of the course, the students will be able to;	Bloom's K Level
CO1	describe how technologies has influenced in sports and games	K1
CO2	identify the various modern technologies used in sports	K2
CO3	explain how technology related to sports training and research	K3
CO4	distinguish the merits and demerits sports surfaces and equipments	K2
CO5	analyse the emerging technologies in modern sports	K4
CO6	critically evaluate the new technology devices to help professionals and athletes	K5

#### e. Course Outlines

##### **Unit - I Technology and Instrumentation in Sports (10 Hours)**

Sports Technology: Meaning, definition, purpose, advantages and applications - General Principles and purpose of instrumentation in sports - Workflow of instrumentation and business aspects - Technological impacts on sports - Sports Sector: Government and private - Sports governance, Skills, infrastructure and other constraints.

##### **Unit - II Technology Innovation in Sports (09 Hours)**

Adhesives - Nano glue - Nano moulding technology - Nano turf - Foot wear production - Factors and application in sports – Foams: Polyurethane, Polystyrene, Styrofoam, closed- cell and open-cell foams, Neoprene Foam - Smart Materials – Shape Memory Alloy (SMA) - Thermo chromic film - High-density modelling foam - Technological device: advantages and disadvantages.

##### **Unit - III Technology in Sports Surfaces (10 Hours)**

Modern surfaces for play fields - Construction and installation of sports surfaces - Types of materials: Synthetic, wood, polyurethane, Artificial turf - Modern technology in the construction of indoor and outdoor facilities - Technology in manufacture of modern play equipments - Use of computer and software in match analysis and coaching.

##### **Unit - IV Technologies in Equipments (09 Hours)**

Balls: Types, materials and advantages - Bat/Stick/Racquet: Types, materials and advantages - Clothing and shoes: Types, Materials and Advantages - Measuring equipments: Throwing and Jumping Events - Protective equipments: Types, materials and advantages - Electronic timing - Nano technology in sports equipments - Technological Aids - Athletics, basketball, badminton, cricket, football, handball, hockey, kabaddi, tennis and volleyball.

##### **Unit - V Technology in Coaching (10 Hours)**

Basketball: Ball Feeder - Field Hockey: Ball Thrower and Edge Power Trainer - Cricket: Bowling Machine - Tennis: Serving Machine - Volleyball: Serving Machine - Lighting Facilities: Field Method of erecting Flood Light and measuring luminous - Video Coverage: Types, Place and Position of Camera in Live coverage of sporting events.

**Activities:** Visit to the National/ international stadia to analyse the modern technologies.

## f. Mapping of COs to POs and PSOs

COs	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	L	M	H	H	M	L	L	H	M	H	L	L
CO2	L	M	H	H	M	L	L	H	M	H	L	L
CO3	L	M	H	H	M	L	L	H	M	H	L	L
CO4	L	M	H	H	M	L	M	M	H	H	H	H
CO5	M	M	M	H	M	L	M	M	H	H	L	L
CO6	M	M	M	H	M	L	L	M	H	H	H	M

## g. References

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## Semester – II

### Elective 2 (F) - Principles of Physical Literacy

L	T	P	E
3	1	0	3

#### a. Course Code: PPEEF

#### b. Course Objectives

1. To learn to move just as they must learn to read and write.
2. To gain the confidence and ability to lead healthy lives by successfully acquiring fundamental movements.
3. To acquire sports skills through by participating in a variety of activities and sports.

#### c. Course prerequisites

Basic knowledge of movements and its orientation, confidence and understanding of movements

#### d. Course Outcomes (COs):

COs	After the completion of the course, the students will be able to;	Bloom's K Level
CO1	understand physical literacy and its practical implications to all stakeholders	K1
CO2	integrate physical literacy in curriculum design	K2

CO3	create a fit citizen through the knowledge of physical literacy	K3
CO4	reflect on existing training processes of PE/sports from physical literacy perspectives	K4
CO5	conduct assessments for analysing the individual physical literacy level.	K5
CO6	adopt physical literacy based pedagogical practices for lifelong learning	K6

## e. Course Outlines

### Unit - I Physical Literacy Perspectives (09 Hours)

Review of sessions plans and session delivery of PE/sports coaching, Identification of improvement areas, physical literacy concept understanding, detailed analysis and possibilities how physical literacy can impact sessions and their impact

### Unit - II Physical Literacy and Practical Implications (10 Hours)

Philosophical underpinnings of physical literacy: practical implications for key stakeholders PE teacher, coaches, parents, administration and others; physical literacy connection to sports, education and health policies and practices

### Unit - III Physical Literacy in Curriculum Design (10 Hours)

Physical literacy competency development, physical literacy-based curriculum design, grade wise curriculum structure, curriculum as a continuum

### Unit - IV Physical Literacy based Pedagogical Practices (10 Hours)

Pedagogical practices to foster physical literacy, Mosston spectrum of pedagogical practices, physical literacy-based lesson plans

### Unit - V Physical Literacy-based Assessments (09 Hours)

Progression approach for physical literacy, assessment methods for physical literacy, quantitative and qualitative approaches, progressions approach

**Activities:** To prepare physical literacy programme for children and adults.

## f. Mapping of COs to POs and PSOs

COs	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	H	M	M	H	M	H	H	M	M	L	L	H
CO2	H	M	M	H	M	H	H	M	M	L	L	H
CO3	H	M	M	H	M	H	H	M	H	L	L	H
CO4	H	M	M	M	L	H	H	M	H	L	L	H
CO5	H	M	M	M	L	H	M	M	M	L	L	H
CO6	H	M	M	H	L	H	M	M	M	L	L	H

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## Semester - II

### Practicum 4 - Game of Specialisation I

#### Badminton, Basketball, Cricket, Football, Handball, Hockey, Kabaddi, Kho-Kho, Tennis & Volleyball

(Choose any one game as Specialisation)

L	T	P	C
0	0	6	3

#### a. Course Code: PPEL21(A-K)

#### b. Course Objectives

1. To provide an opportunity for students to understand the natures of games.
2. To study the playfield layout, marking and officiating.
3. To identify the factors for improving technical and tactical ability of the players.

#### c. Course Prerequisites

Basic knowledge in sports and games and preparing sportsperson for the competition.

#### d. Course Outcomes (COs)

COs	After the completion of the course, the students will be able to;	Bloom's K Level
CO1	recall the equipments specifications, playfield dimensions, rules and regulations.	K1
CO2	demonstrate the fundamental and advanced skills.	K2
CO3	analyze the strategies and tactics of the participating teams in competition.	K3
CO4	interpret the rules and regulations during competition.	K4
CO5	layout and marking the play fields.	K5
CO6	develop the technical and tactical abilities of the players through suitable training plan.	K6

#### e. Course Outlines

#### **Badminton, Basketball, Cricket, Football, Handball, Hockey, Kabaddi, Kho-Kho, Tennis & Volleyball.**

Skills (Fundamental and Advanced Skills) – Drills/Lead up activities - Physical, Technical and Tactical preparation – Rules and regulations, interpretations - Duties of Officials - Methods of officiating – Official Signals – Scoring - Playfield dimensions, layout and marking - Equipment specifications- Competitions arrangements.

Organizational Set-up - Nutritional recommendations – Injuries Management - Competitions at World, Asia, National, State and District Level – List of National Award winners – Periodisation –Philosophy of coaching – Qualification and Qualities of Coach.

#### f. Mapping of COs to POs and PSOs

COs	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	L	H	M	H	M	L	M	H	H	H	H	L
CO2	L	H	M	H	M	L	M	H	H	H	L	L
CO3	L	H	H	M	M	L	M	M	H	H	L	L
CO4	L	H	H	M	M	L	M	H	M	H	L	L
CO5	L	H	M	M	M	L	M	M	M	H	H	L
CO6	L	H	M	M	M	L	M	H	M	H	H	L

#### g. References

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## Semester - II

### Practicum 5 - Track and Field Events Part II

L	T	P	C
0	0	6	3

**a. Course Code: PPEL22**

**b. Course Objectives**

1. To provide an opportunity for students to understand the natures of athletics.
2. To understand the track and field layout & marking and officiating.
3. To identify the factors for improving technical & tactical ability of the athletes.

**c. Course Prerequisites**

Basic knowledge in fundamental motor skills.

**d. Course Outcomes (COs)**

COs	After the completion of the course, the students will be able to;	Bloom's K Level
CO1	recall the methods of developing the running, jumping and throwing abilities in athletics.	K1
CO2	demonstrate the techniques in Track and Field events	K2
CO3	analyze the performance of the athletes scientifically.	K3
CO4	interpreting the rules and regulations during competition.	K4
CO5	evaluate the performance of athletes.	K5
CO6	adapt with the new trends in teaching and coaching of track and field	K6

**e. Course Outlines**

**Relay and Hurdles**

Techniques for baton passing in relay: Upward, downward and push pass – Hurdling techniques - Techniques for Start and Finish - Drills for improving baton passing and hurdling - Means and methods of developing hurdling abilities – Rules and regulations – Layout and marking – Equipment specifications – Officials and Officiating – Factors Influencing performance – Talent Identification - Application of Scientific principles.

**Triple Jump and Pole Vault**

Triple Jump Techniques (Approach run, take-off, hop, step, jump and landing) – Pole Vault Techniques (Pole carry, approach run, pole plant, take-off, pole bending, drive and swing, extension, rock-back, push, bar clearance and landing) - Drills for improving jumping abilities - Means and methods of developing jumping abilities – Rules and regulations – Layout and marking – Equipment specifications – Officials and Officiating – Factors Influencing performance – Talent Identification - Application of Scientific principles.



## Javelin Throw and Hammer Throw

Javelin Throw Techniques (Carry, Approach run, withdrawal stride, impulse/crossover stride (3,5,7), release and follow-through) – Hammer Throw Techniques (Preliminary swing, heel-to-toe turns, release and follow-through) - Drills for improving throwing abilities - Means and methods of developing throwing abilities – Rules and regulations – Layout and marking – Equipment specifications – Officials and Officiating – Factors Influencing performance – Talent Identification - Application of Scientific principles.

### General

Combined events - Race Walk - Road Race - Cross Country Race - Nutritional recommendations – Injuries Management – Record Holder in Athletics at World, Olympics, Asia, National, State and University Level – List of National Award winners – Periodisation.

### f. Mapping of COs to POs and PSOs

COs	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	L	H	M	H	M	L	M	H	H	H	H	L
CO2	M	M	L	H	H	L	M	H	H	H	L	M
CO3	L	H	H	M	M	M	L	M	H	L	M	L
CO4	L	H	H	M	M	L	M	H	M	H	L	L
CO5	M	M	L	H	L	M	L	M	L	L	L	M
CO6	L	H	M	M	M	L	M	H	M	H	H	L

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## Semester - II

### Internship 1 – Internship in Educational Institutions – Spell I

L	T	P	C
0	0	8	4

#### a. Course Code: PPEI21

#### b. Course Objectives

1. To recognize the academic and administrative functions in educational institutions and gain professional experience.
2. To observe the classroom management and teaching methods to develop professional attitude, aptitude and organizational skills.
3. To develop organizing skills by participating in variety of activities during pre-service period and report the experience.

#### c. Course Prerequisites

Knowledge on meaning of internship, various types of teacher education institution, skill of observation, note-making and reporting.

#### d. Course Outcomes (COs)

COs	After the completion of the course, the students will be able to;	Bloom's K Level
CO1	recall the day to day activities that are taking place in educational institutions.	K1
CO2	interpret various teaching methodologies and acquire various skills of teaching.	K2
CO3	integrate the theoretical and practical knowledge on strategies and methods and instructional aids	K3
CO4	value new perspectives and enhances motivation to continue learning and reflecting to become an inspiring teacher.	K4
CO5	assess their teaching competencies and skills.	K5
CO6	build their own way of choosing, designing, organizing and conducting meaningful PE activities.	K6

#### e. Course Outlines

Students must go for internship to have first-hand experience with Educational Institutions (EIs) for two weeks in Spell 1. This internship programme shall include teaching basic skills in sports and games and indigenous activities giving exposure to students in all such activities. Internship/ teaching practice would include engagement with the community, i.e. school/ college/ sports organization/ sports academy/ sports club and should have the following components: A minimum of 15 lessons out of which 5 teaching, 5 coaching and 5 officiating in the school/ college/ institution/ department shall be conducted.

#### Activities

The students undergo an internship for a period of two weeks in EIs. This exercise helps the students to get knowledge on all the happenings in the EIs and thereby paves way to prepare the students to face the profession of teaching in the future ahead.

They observe all the activities such as Teaching, Coaching and officiating sports and games, preparation of Lesson Plan, etc. and all other activities taking place from morning assembly till the end of the day.

The students record what they have taken in the day and make the entry in the prescribed records given to them.

#### f. Mapping of COs to POs and PSOs

COs	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	H	H	L	L	L	L	H	L	L	M	M	H
CO2	H	M	L	L	L	L	H	L	L	M	M	H
CO3	H	H	L	L	L	M	H	L	L	M	M	M
CO4	H	H	L	L	L	L	H	L	L	M	M	M
CO5	H	M	L	L	L	M	H	L	L	M	M	L
CO6	H	H	L	L	L	L	H	L	L	M	M	L

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## Semester - III

### Core 7 - Research Process in Physical Education and Sports

L	T	P	C
4	0	0	4

#### a. Course Code: PPEC31

#### b. Course Objectives

1. To provide an opportunity for students to establish or advance their understanding of research.
2. To explore research terminologies, research methods, ethics, sampling and research design
3. To acquaint with mechanism of thesis writing.

#### c. Course Prerequisites

Basic knowledge on critical analysis of data.

#### d. Course Outcomes (COs)

COs	After the completion of the course, the students will be able to;	Bloom's K Level
CO1	understand research terminologies and research problem	K1
CO2	employ the reviewing skills to have conceptual understanding of variables under study to frame objectives and hypothesis	K2
CO3	examine the types of research, design, tools, and sampling techniques	K3
CO4	explain the ethical principles of research	K4
CO5	apply the concepts of research methods while writing thesis, proposal and research paper	K5
CO6	prepare research proposal in standard format meeting the guidelines for submitting to funding agencies	K6

#### e. Course outlines

##### Unit - I Introduction

(12 Hours)

Meaning and Definition of Research – Need, Nature and importance of research in Physical Education - Types of Research - Location of Research Problem - Criteria for selection of a research problem - Steps in research process - Formulation of hypothesis – Literature: Purpose of the literature, Literature search techniques – Variables and its types.

##### Unit - II Methods of Research

(12 Hours)

Survey Study: Interview and Questionnaire method - Case study- Historical Research: Steps in Historical Research, Sources of Historical Research: Primary Data and Secondary Data- Historical Criticism: Internal Criticism and External Criticism – Meta Analysis- Philosophical Research.

##### Unit - III Experimental Research

(12 Hours)

Experimental Research; Meaning, Nature and Importance – Experimental and control group – Steps in experimental research - Experimental Design (Single Group Design,

Reverse Group Design, Repeated Measure Design, Static Group Comparison Design, Equated Group Design, Factorial Design) – Cross sectional/ Survey designs - Time series designs - Longitudinal designs – Reliability analysis.

#### Unit - IV Sampling

(12 Hours)

Meaning and Definition of sampling- Types of Sampling - Probability Methods; Systematic Sampling, Cluster sampling, Stratified Sampling, Area Sampling, Multistage Sampling - Non-Probability Methods: Convenience Sample, Judgment Sampling, Quota Sampling, Snowball sampling - Determining the sample size considerations in research – common faults in research.

#### Unit - V Research Proposal and Report writing

(12 Hours)

Chapterization of Thesis / Dissertation: Front Materials, Body of Thesis and Back materials - Method of Writing Research proposal - Method of writing abstract - Full paper for presenting in a conference and to publish in journals – APA format for Bibliography writing.

**Activities:** Preparing a mini project, abstract, proposal and synopsis.

#### f. Mapping of COs to POs and PSOs

CO	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	L	M	H	M	L	L	L	M	M	L	L	H
CO2	L	M	H	M	L	L	L	M	M	L	L	H
CO3	L	M	H	M	L	L	L	M	M	L	L	H
CO4	L	M	H	M	L	L	L	M	M	L	L	H
CO5	L	M	H	M	L	L	M	M	M	L	L	H
CO6	L	M	H	M	L	L	M	M	M	L	L	H

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**Semester - III**  
**Core 8 - Physical Fitness and Wellness**

L	T	P	C
4	0	0	4

**a. Course Code : PPEC32**

**b. Course Objectives**

1. To recall the knowledge of fitness components and leisure-time physical activity.
2. To apply fitness concepts to weight management.
3. To improve flexibility for healthy living.

**c. Course Prerequisites**

Basic understanding of the importance of health, regular physical activities and nutrition for health living.

**d. Course Outcomes (COs)**

COs	After the completion of the course, the students will be able to;	Bloom's K Level
CO1	explain various fitness components to improve health status.	K <sub>1</sub>
CO2	describe nutrition and it's important to managing weight.	K <sub>2</sub>
CO3	apply various aerobic exercises to develop fitness.	K <sub>3</sub>
CO4	apply various anaerobic exercises to develop fitness.	K <sub>3</sub>
CO5	assess various flexibility exercises to improve fitness.	K <sub>5</sub>
CO6	design new training regimen for weight training principles.	K <sub>6</sub>

**e. Course outlines**

**Unit - I Fitness Components and Conditioning (12 Hours)**

Physical fitness and Wellness: Meaning and Definition, concept of physical fitness, Principles of physical fitness, Physiological principles involved in human movement. Components of Physical Fitness, Leisure time physical activity and identify opportunities in the community to participate in this activity, Current trends in fitness and conditioning, components of total health fitness and the relationship between physical activity and lifelong wellness – Loading procedure, Load for various fitness components.

**Unit - II Nutrition and Weight Management (13 Hours)**

Nutrition: Meaning and Definition, Types and importance – Nutrients: Nutrition labelling information, Food Choices, Food Guide Pyramid, Influences on food choices - social, economic, cultural, food sources, Comparison of food values - Weight Management, proper practices to maintain, lose and gain body weight - Eating Disorders, Proper hydration, effects of performance enhancement drugs

**Unit - III Aerobic Fitness and Correct Movement Form (12 Hours)**

Aerobic activities: Aerobic meaning and Definition, Cardio respiratory Endurance training, proper movement forms, i.e., correct stride, arm movements, body alignment, proper warm-up, cool down, and stretching exercises, monitoring heart rates during activity - Assessment of cardio respiratory fitness and set goals to maintain or improve fitness levels, Cardio respiratory activities including i.e. power walking, pacer test,

interval training, incline running, distance running, aerobics and circuits - effect of aerobic training on cardio respiratory endurance

**Unit - IV Anaerobic Fitness and Weight Training Principles (11 Hours)**

Anaerobic Activities: Anaerobic meaning and Definition, Resistance Training for Muscular Strength and Endurance; principles of resistance training, Safety techniques (spotting, proper body alignment, lifting techniques, spatial, awareness. and proper breathing techniques). Weight training principles and concepts; basic resistance exercises (including free hand exercises with weights, free weight exercise, weight machines, exercise bands and tubing, medicine balls, fit balls) – effect of anaerobic training on cardio respiratory endurance.

**Unit - V Flexibility and Fitness Exercises (12 Hours)**

Flexibility Training: Meaning and Definition, Relaxation Techniques and Core Training - Safety techniques (stretching protocol; breathing and relaxation techniques) types of flexibility exercises (i.e. dynamic, static), Develop basic competency in relaxation and breathing techniques, Pilates, Yoga, simplified physical exercises.

**Activities:** Application of various Physical fitness programmes – Aerobic fitness training preparation – anaerobic fitness training preparation – Prepare a nutritional chart for elite athletes

**f. Mapping of COs to POs and PSOs**

CO	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	L	M	H	M	H	L	M	H	M	L	L	M
CO2	L	H	M	H	H	L	M	H	M	L	L	M
CO3	L	H	M	H	M	L	L	M	M	L	L	H
CO4	L	M	M	H	M	M	L	M	M	L	L	H
CO5	H	M	L	M	M	H	L	M	M	L	L	L
CO6	H	H	M	M	M	H	H	H	M	L	L	L

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### Semester III

#### Core 9 - Athletic Care and Rehabilitation (e-PG Pathshala)

L	T	P	C
4	0	0	4

#### a. Course Code: PPECPB

#### b. Course Objectives

1. To provide an opportunity for students to understand sports injuries.
2. To apply basic treatment protocol using rehabilitation exercise for quick recovery.
3. To design a rehabilitative programme.

#### c. Course Prerequisites

Basic knowledge in injuries and science of human body

#### d. Course Outcomes (COs)

COs	After the completion of the course, the students will be able to;	Bloom's K Level
CO1	understand different types of human body posture and deformities.	K2
CO2	evaluate the effectiveness of exercise interventions on postural deformities.	K3
CO3	manipulate injured muscles using different massage techniques.	K4
CO4	develop rehabilitation programme for sports injuries	K5
CO5	facilitate injuries using sports modalities.	K6
CO6	create rehabilitative programmes for lifestyle diseases.	K6

#### e. Course Outlines

##### Unit - I Corrective Physical Education

(12 Hours)

Definition and objectives of corrective physical Education. Posture and body mechanics, Standards of Standing Posture. Value of good posture, Drawbacks and causes of bad posture. Posture test – Examination of the spine.

##### Unit - II Posture

(12 Hours)

Normal curve of the spine and its utility, Deviations in posture: Kyphosis, lordosis, flat back, Scoliosis, round shoulders, Knock Knee, Bow leg, Flat foot. Causes for deviations and treatment including exercises.

##### Unit - III Rehabilitation Exercises

(12 Hours)

Rehabilitation Exercise: Definition and purpose - Passive, Active, Assisted, Resisted exercise for Rehabilitation, Stretching, PNF techniques and principles – Rehabilitation Equipments.

##### Unit - IV Massage

(12 Hours)

Brief history of massage – Massage as an aid for relaxation – Points to be considered in giving massage – Physiological, Chemical, Psychological effects of massage – Indication / Contra indication of Massage – Classification of the manipulation used massage and their specific uses in the human body – Stroking manipulation: Effleurage – Pressure manipulation: Petrissage Kneading (Finger, Kneading, Circular) ironing Skin



Rolling – Percussion manipulation: Tapotement, Hacking, Clapping, Beating, Pounding, Slapping, Cupping, Poking, Shaking Manipulation, Deep massage.

**Unit - V Sports Injuries Care, Treatment and Support (12 Hours)**

Principles pertaining to the prevention of Sports injuries – care and treatment of exposed and unexposed injuries in sports – Principles of apply cold and heat, infrared rays – Ultrasonic, Therapy – Short wave diathermy therapy. Principles and techniques of Strapping and Bandages.

**Activities:** Assess and diagnose lifestyle diseases and conduct survey.

**f. Mapping of COs to POs and PSOs**

CO	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	L	M	H	M	H	H	L	H	M	L	L	H
CO2	L	H	M	H	H	H	L	H	M	L	L	H
CO3	L	H	M	H	M	H	L	M	M	L	L	H
CO4	L	M	M	H	M	H	L	M	M	L	L	H
CO5	L	M	L	M	M	H	L	M	M	L	L	H
CO6	L	H	M	M	M	H	L	H	M	L	L	H

**g. References**

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**Semester – III**

**Elective 3 (G) - Sports Management and Marketing**

L	T	P	C
3	1	0	3

**a. Course Code: PPEEG**

**b. Course Objectives**

1. To describe organization and administration setup in sports setting.
2. To analyze and interpret sports management and marketing techniques.
3. To develop opportunities to construct & design the curriculum of PE in broader aspects realizing the age group, gender consideration and physiological basis

**c. Course prerequisites**

Basic understanding of managerial and business skills

#### d. Course Outcomes (COs)

COs	After the completion of the course, the students will be able to;	Bloom's K Level
CO1	understand the concept of sports management	K2
CO2	establish the ability to apply an understanding of ethics to the professional arena.	K2
CO3	demonstrate basic knowledge and understanding of office management	K3
CO4	develop human relationship to articulate the global scope of sport and recognize diversity issues in sport management	K4
CO5	manage sponsorship for organizing sports competitions	K5
CO6	create the ability to think critically to manage human resources.	K6

#### a. Course Outlines

##### UNIT-I Introduction

(10 Hours)

Meaning of management, functions of management, (planning, organizing, controlling, leading, evaluation) - Skills of management (technical skill, human skill, conceptual skill) - Role of manager (interpersonal roles, informational roles, decision roles).

##### UNIT-II Organisation

(10 Hours)

Attributers of organization - Classifying organizations - Organizational set up of clubs; sport associations, Sports Authority of India, Department of sports and Youth affairs (Center & State) -School and University Department of sports and Association of Indian Universities- Khelo India – Fit India – Supervision - Supervisory techniques.

##### UNIT-III Planning

(09 Hours)

Planning: Steps in the planning process – Strategic Planning - Planning sports facilities (outdoor and indoor) - Program planning; (normal and special population) - Social and economic parameters in planning.

##### UNIT-IV Human Resource management

(10 Hours)

Event management - Manpower requirement planning, organization, development, recruitment and placement - Office management - Personnel management - Human resource management - Financial management - Monitoring performance of physical education personnel - Behavioural audit - Human relations - Communication in personal management - Public relations.

##### Unit - V Sports Marketing

(09 Hours)

Marketing ethics - Marketing participation - Implementing the marketing process - Marketing activities - Public relations - Fundraising - Sports sponsorship – Publicity - Factors in sports marketing

**Activities:** organising sports events by generating fund, publicity, exhibiting managerial skills during intramural and extramural tournaments.

**f. Mapping of COs to POs and PSOs**

CO	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	M	H	L	H	L	M	L	M	M	H	L	L
CO2	M	H	L	H	L	M	L	L	M	H	L	L
CO3	M	H	L	H	L	M	L	M	M	H	M	L
CO4	M	H	L	H	L	H	L	L	M	H	L	M
CO5	M	H	L	H	L	L	L	L	M	H	M	M
CO6	M	H	L	H	L	M	L	L	M	H	L	M

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**Semester III**

**Elective 3 (H) - Sport Tourism**

**a. Course Code: PPEEH**

**b. Course Objectives**

1. To study the concept active and passive tourism in Sports.
2. To develop sports activity based on available tourism resources.
3. To provide adequate knowledge about Sport Tourism Today and Future.

L	T	P	C
3	1	0	3

**c. Course Prerequisites**

Learners should have adequate knowledge about Tourism and its impact on economics of the nation.

#### d. Course Outcomes (COs)

COs	After the completion of the course, the students will be able to;	Bloom's K Level
CO1	demonstrate a basic understanding of the history and theoretical underpinnings of recreation, sport and tourism in modern society.	K1
CO2	understand the impact sport tourism activities for economic development the nation.	K2
CO3	apply knowledge of basic tourism principles to professional sports.	K3
CO4	promote entrepreneurial skills among students.	K4
CO5	develop socially, ethically responsible business leaders.	K5
CO6	design, implement, and evaluate services in recreation, sport and tourism venues	K6

#### e. Course Outlines

##### Unit – I Introduction

(10 Hours)

Sport tourism – Nature of Sport, Tourism and Sport Tourism – influence of increased sports participation and sport tourism – active and passive sports on holidays and non-holydays – development of sports activity based on available tourism resources.

##### Unit - II Principles of Sports Tourism

(10 Hours)

Impact of Sport Tourism: Economic, Socio-cultural, Environmental and Health impact of Sports Tourism – Sport Tourism Today and Future – Management Principles of Sports Tourism Development.

##### Unit - III Sports Tourism Business

(09 Hours)

The Business of Sports Tourism - Key aspects of business dynamics – Sports Finance – Funding, Success and Sustaining Sports Tourism - Key metrics for sports tourism success, economic impact, and the disruptors to the sports tourism industry - Trends of Sports Tourism - E Sports.

##### Unit - IV Sport Communications

(09 Hours)

Sport Communications – Introduction and history – Media Relations: Press Releases, Press Conferences, Media Guides, Photography, Video News Releases and Conference calls – Working media list – Preparation for the Interview.

##### Unit - V Crisis Management

(10 Hours)

Crisis Management – Internal Communications – Integrated Marketing Communications: Advertising, Media Planning and Direct Marketing – Current issues in sports communication.

**Activities:** encouraging students to create sport tourism activities for corporate people, watching live sports at the venue of competition. Preparing a model revenue generation project through active and passive sports tourism.

## f. Mapping of COs to POs and PSOs

CO	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	M	L	L	L	M	M	L	M	M	H	M	M
CO2	M	L	M	L	M	M	L	M	M	H	M	M
CO3	M	L	L	L	M	M	L	M	M	H	M	L
CO4	M	L	H	L	M	M	L	M	M	H	M	L
CO5	M	L	M	L	M	M	L	M	M	H	M	M
CO6	M	L	L	L	M	M	L	M	M	H	M	M

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## Semester – III

### Elective 3 (I) - Adapted and Corrective Physical Education

L	T	P	C
3	1	0	3

#### a. Course Code : PPEEJ

#### b. Course Objectives

1. To develop physical activity programme for persons with disabilities.
2. To provide adequate knowledge about intellectually challenged people.
3. To learn teaching methods to be adapted by the Special Educator.

#### c. Course Prerequisites

Basic knowledge of the difficulties of the differently abled people.

#### d. Course Outcomes (COs)

COs	After the completion of the course, the students will be able to:	Bloom's K Level
CO1	understand about classification of disabilities	K1
CO2	identify adopted games for differently abled persons	K2

CO3	analyse benefits of exercise for differently abled persons	K3
CO4	Interpret the rules and regulations of adapted games	K4
CO5	develop methods of playing inclusive games.	K5
CO6	create inclusive physical education programme.	K6

### e. Course Outlines

#### UNIT I Introduction

(09 Hours)

Definition of Disabling Conditions - Benefits of Physical Education for persons with Disabilities - Recreational Sports Opportunities, Competition Opportunities - Special Olympics, Paralympics and Deaf Olympics.

#### UNIT II Classification of Disability

(10 Hours)

Classification of Disability: Visual, Auditory, Neuromuscular, Orthopedic-Cardiovascular, Respiratory, Mental, Emotional. Adapted Physical Education Activities - Specific Guidelines for: Visual Impairment, Hearing Impairment, intellectually challenged, Orthopedically Handicapped.

#### UNIT III Adaptation of Motor Activities

(10 Hours)

Adaptation of Motor Activities – Principles for Adaptation of Motor Activities – Facilities and Equipment for different disabilities. Orientation on Facilities - Types of Equipment- Minimum equipment, Additional Equipment, Evaluation of Equipment. Leisure, Recreation and Sports Facilities for persons with disabilities.

#### UNIT IV Adapted Games

(10 Hours)

Adapted Games for Persons with Disability: Rules of Adapted games and Class Management – Adapted Games for the blind: Adapted Volleyball, Kabaddi, Tennis, Table Tennis and Adapted minor games and Track and Field events. Teaching methods to be adapted by the Special Educator in Sports, Recreation and Games. Kinesthetic – one on one teaching, group teaching, circular method of teaching. Unified Sports.

#### UNIT V Inclusive Education

(09 Hours)

Inclusive Education: Meaning, Definition, Aim and Objectives. Strategies for including students. Steps for modifying and adaptation of the physical education curriculum. Methods of playing Inclusive games.

**Activities:** Plan and prepare sports and Physical Activity programmes for differently abled persons. Prepare an inclusive physical education programmes.

### f. Mapping of COs to POs and PSOs

CO	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	H	M	M	M	L	H	M	L	M	M	L	H
CO2	H	M	M	M	L	H	M	L	M	M	L	H
CO3	H	M	M	M	H	H	M	L	M	M	L	H
CO4	H	M	M	M	H	H	M	L	M	M	L	H
CO5	H	M	M	M	M	H	H	L	M	M	L	H
CO6	H	M	M	M	M	H	H	L	M	M	L	H

### g. References

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### Semester – III

#### Practicum 6 – Sports-specific Physical Development

##### a. Course Code: PPEL31

L	T	P	C
0	0	4	2

##### b. Course Objectives

1. To provide the specific training for success in all sports.
2. To improve the specific fitness such as Specific strength, Specific speed, Specific endurance, speed endurance, sprint endurance, Power, Long, middle distance endurance, maximum strength, explosive strength, strength endurance.
3. To develop a strong foundation to tolerate high-fitness training activities and ultimately have a greater potential at elite level.

##### c. Course Prerequisites

Basic knowledge in fundamental/general motor fitness.

##### d. Course Outcomes (COs)

COs	After the completion of the course, the students will be able to;	Bloom's K Level
CO1	understand the importance of sports-specific physical development.	K1
CO2	identify the means and methods of developing the sports-specific motor fitness.	K2
CO3	apply the concepts of sports-specific development plan during the later stages of an athlete's development.	K3
CO4	focus on conditioning the body and mind to excel through the unique demands sports specific fitness and recovery required by each sport as well as minimize injury.	K4
CO5	evaluate training plan for improving the sports specific fitness.	K5
CO6	create a sporty nation.	K6

##### e. Course Outlines

Training to develop Specific strength, Specific speed, Specific endurance, speed endurance, sprint endurance, Power, Long, middle distance endurance, maximum strength, explosive strength, strength endurance and overall specific fitness.

Anaerobic - High-intensity plyometric training (HIIT) & Power Training (PT), Elastic strength Training (EST), Specific weight Training (SWT), Lactate Threshold Interval

training (LTIT), Alactic training (AT), Game Specific fitness training, Pressure Training, Simulation Training.

#### f. Mapping of COs to POs and PSOs

COs	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	L	M	H	M	H	L	M	H	M	L	L	M
CO2	L	H	M	H	H	L	M	H	M	L	L	M
CO3	L	H	M	H	M	L	L	M	M	L	L	H
CO4	L	M	M	H	M	M	L	M	M	L	L	H
CO5	H	M	L	M	M	H	L	M	M	L	L	L
CO6	H	H	M	M	M	H	H	H	M	L	L	L

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### Semester - III

#### Practicum 7 - New Games, Yoga, Aerobics, Netball, Softball and Throwball

L	T	P	C
0	0	6	3

#### a. Course Code: PPEL32

#### b. Course Objectives

1. To provide an opportunity for students to understand the nature of activities.
2. To study the playfield layout, marking and officiating for New Games, Yoga, Aerobics, Netball, Softball and Throwball.
3. To identify the factors for improving technical and tactical ability of the participant.

#### c. Course Prerequisites

Basic and fundamental knowledge in new games and yoga.

#### d. Course Outcomes (COs)

COs	After the completion of the course, the students will be able to;	Bloom's K Level
CO1	memorize the rules and regulations.	K1
CO2	develop the fundamental skills in new games and yoga	K3
CO3	analyze the tactics and performance of the players.	K3
CO4	interpreting the rules and regulations during competition.	K4



CO5	layout and marking the play fields.	K5
CO6	develop the performance through suitable training plan.	K6

### e. Course Outlines

#### New Games, Yoga, Aerobics, Netball, Softball and Throwball

Basic/fundamental skills – Drills/Lead up activities –Physical, Technical and Tactical preparation – General rules and interpretations, Duties of officials, methods of officiating – Playfield layout and marking - equipment specifications - synchronized movements in yoga – Pranayama and Meditational practices.

### f. Mapping of COs to POs and PSOs

COs	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	L	H	M	H	M	L	M	H	H	H	H	L
CO2	L	H	M	H	M	L	M	H	H	H	L	L
CO3	L	H	H	M	M	L	M	M	H	H	L	L
CO4	L	H	H	M	M	L	M	H	M	H	L	L
CO5	L	H	M	M	M	L	M	M	M	H	H	L
CO6	L	H	M	M	M	L	M	H	M	H	H	L

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### Semester - III

#### Internship 2 – Village Adaptation Programme

L	T	P	C
0	0	4	2

#### a. Course Code: PPEI31

#### b. Course Objectives

1. To establish community engagement through sports.
2. To establish sports culture in village.
3. To identify hidden talents from rural background.

### c. Course Prerequisites

Basic idea to conduct sports and games.

### d. Course Outcomes (COs)

COs	After the completion of the course, the students will be able to;	Bloom's K Level
CO1	identify the sports talents from rural people.	K1
CO2	organise sports events with available resources.	K3
CO3	develop sports culture to adapt in a particular village.	K3
CO4	create sports playfield facilities.	K4
CO5	support to make awareness in sports education for their future development.	K5
CO6	prioritize domain areas and plan developmental activities accordingly	K6

### e. Course Outlines

Students shall visit the neighbouring village for a minimum period of two weeks and they may organize various programmes to all age groups such as; Physical Education and Sports related programmes; Creation of play fields for physical activities, sports and games; Awareness Programmes, health and fitness survey; and Develop area of Sports/Games in a particular village – Community engagement through sports.

### f. Mapping of COs to POs and PSOs

COs	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	H	H	L	L	L	L	H	L	L	M	M	H
CO2	H	M	L	L	L	L	H	L	L	M	M	H
CO3	H	H	L	L	L	M	H	L	L	M	M	M
CO4	H	H	L	L	L	L	H	L	L	M	M	M
CO5	H	M	L	L	L	M	H	L	L	M	M	L
CO6	H	H	L	L	L	L	H	L	L	M	M	L

### g. References

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**Semester – IV**  
**Core 10 - Yogic Sciences**

L	T	P	C
4	0	0	4

**a. Course Code: PPEC41**

**b. Course Objectives**

1. To understand the concept of yoga principles and practices.
2. To apply asana and pranayama practices to improve health, fitness and internal system of the body.
3. To analysis of yoga practices to improve physiological and psychological components.

**c. Course Prerequisites**

Knowledge of yoga for make positive changes

**d. Course Outcomes (COs)**

COs	After the completion of the course, the students will be able to;	Bloom's K Level
CO1	describe the concept of yoga and its principles.	K1
CO2	identify the suitable asanas and pranayama to develop health and well-being.	K3
CO3	activate various endocrine system by practicing chakras.	K3
CO4	apply various kriyas and bandhas to clean internal organs.	K4
CO5	develop meditational and mudras practices for the improvement of psychological well-being.	K5
CO6	create the yoga packages for all ages groups.	K6

**e. Course Outlines**

**Unit - I Fundamental of Yoga and Principles**

**(11 Hours)**

Meaning and Definition of Yoga. Astanga Yoga: Yama, Niyama, Aasna, Pranayama, Prathyahara, Dharana, Dhyana, Samadhi, Concept of Yogic Practices; Principles of Breathing – Awareness – Relaxation, Sequence – Counter pose – Time – Place – Clothes – Bathing – Emptying the bowels – Stomach – Diet – No Straining – Age – Contra- Indication – Inverted asana – Sunbathing – International Day of Yoga – IDY Protocol.

**Unit - II Asana, Pranayama and Chakras**

**(13 Hours)**

Loosening exercise: Techniques and benefits. Asanas: Types - Techniques and Benefits, Surya Namaskar: Methods and benefits. Pranayama: Types - Methods and benefits. Nadis: Meaning, methods and benefits, Chakras: Major Chakaras- Benefits of clearing and balancing Chakras.

**Unit - III Kriyas and Bandhas**

**(11 Hours)**

Shat Kriyas- Meaning, Techniques and Benefits of Neti – Dharti – Kapalapathi - Trataka – Nauli – Basti, Bandhas: Meaning, Techniques and Benefits of JalendraBandha, JihvaBandha, Uddiyana Bandha, MulaBandha.

**Unit - IV Mudras and Meditation****(12 Hours)**

Meaning, Techniques and Benefits of Hasta Mudras, Asamyuktahastam, Samyuktahastam, Mana Mudra, Kaya Mudra, Banda Mudra, Adhara Mudra. Meditation: Meaning, Techniques and Benefits of Meditation – Passive and active, Saguna Meditation and Nirguna Meditation.

**Unit - V Effects of Yoga on Human systems****(13 Hours)**

Yoga Supplemental Exercise – Yoga Compensation Exercise – Yoga Regeneration Exercise-Power Yoga. Role of Yoga in Psychological Preparation of athlete: Mental Wellbeing, Anxiety, Depression Concentration, Self-Actualization. Effect of Yoga on Physiological System: Circulatory, Skeletal, Digestive, Nervous, Respiratory, Excretory System

**Activities:** Apply various yoga concepts to develop fitness, Health and internal organs – practice asanas, pranayama, kriyas and meditation

**f. Mapping of COs to POs and PSOs**

CO	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	L	M	H	M	H	H	L	H	M	L	L	H
CO2	L	H	M	H	H	H	L	H	M	L	L	H
CO3	L	H	M	H	M	H	L	M	M	L	L	H
CO4	L	M	M	H	M	H	L	M	M	L	L	H
CO5	L	M	L	M	M	H	L	M	M	L	L	H
CO6	L	H	M	M	M	H	L	H	M	L	L	H

**g. References**

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**Semester - IV**  
**Core 11 - Principles of Life Span Motor Development**

L	T	P	C
4	0	0	4

**a. Course Code: PPEC42**

**b. Course Objectives**

1. To enable the students to understand how maturational age and chronological age are distinct.
2. To study how functional constraints affect motor skill development and learning.
3. To understand the components of physical fitness that interact to affect a person's movements over the life span.

**c. Course Prerequisites**

Basic knowledge of movements and physical literacy.

**d. Course Outcomes (COs)**

COs	After the completion of the course, the students will be able to	Bloom's K Level
CO1	understand how interactions of the developing and maturing individual, the environment, and the task being performed bring about changes in a person's movements.	K1
CO2	recall the history of motor development.	K2
CO3	understand the motor components and growth and development	K3
CO4	demonstrate various locomotor, nonlocomotory and manipulative skills.	K4
CO5	apply the knowledge of motor skills to identify the movement patterns.	K6
CO6	understanding of the concepts and how they apply to real-world situations.	K6

**e. Course Outlines**

**Unit - I Introduction**

**(12 Hours)**

Definition-Motor Development, Motor Learning, Motor Control, Physical growth, Maturation and Aging- Newell's Model of Motor Development-Theoretical perspectives in Motor Development: Maturation, information processing and ecological perspectives-Principles of Motion and Stability—Classification of Motor Activities.

**Unit - II Growth, Maturation and Aging**

**(12 Hours)**

Physical Growth and Aging: Prenatal and Postnatal Development-Development of the cardio respiratory system, Skeletal System, Muscular System, Adipose System, Endocrine System and Nervous System-Growth in Stature and Body Weight-Chronological age and age groups.

**Unit - III Motor Development**

**(12 Hours)**

Early Motor Development: Movement of Infant, Motor Milestones-Development of human Locomotion: Creeping, Crawling, Walking and Running-Development of Ballistic

Skills: Throwing, Kicking, Punting and Striking-Development of Manipulative Skills: Grasping, Reaching, catching and anticipation.

#### Unit - IV Perception

(12 Hours)

Sensory-Perceptual Development: Visual, Kinesthetic, Auditory and Intermodal perception- Development of Postural control and Balance -Constraints to motor development: Social and cultural, Psychological and Knowledge constraints.

#### Unit - V Genetical Regulation

(12 Hours)

Genetic Regulation of Growth: The Human Genome and Gene, Genetics of selected performance phenotypes- Hormonal Regulation of Growth: Types of hormone and their actions-Physical Activity as a factor in Growth, maturation and Performance: Physical Activity with Stature, body weight, body composition, physique, specific tissues and biological maturity-concept of trainability.

**Activities:** Prepare chart for growth and aging, height and weight chart, motor development activities, functional development exercise.

#### f. Mapping of COs to POs and PSOs

CO	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	H	M	M	L	M	H	M	H	M	L	L	H
CO2	H	M	M	L	M	H	M	H	M	L	L	H
CO3	H	M	M	L	M	H	M	H	M	L	L	H
CO4	H	M	M	L	M	H	M	H	M	L	L	H
CO5	H	M	H	L	M	H	M	H	M	L	L	H
CO6	H	M	H	L	M	H	M	H	M	L	L	H

#### g. References

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**Semester – IV**  
**Core 12 - Exercise Therapy for Lifestyle Diseases**

**a. Course Code: PPEC43**

L	T	P	C
4	0	0	4

**b. Course Objectives**

1. To understand the contemporary issues in health and wellbeing.
2. To develop the knowledge and understanding of disease process and risk factors associated with lifestyle diseases.
3. Prepare training schedule for manage and prevent lifestyle diseases.

**c. Course Prerequisites**

Basic knowledge of diseases and disorder, effects of exercise.

**d. Course Outcomes (COs)**

COs	After the completion of the course, the students will be able to;	Bloom's K Level
CO1	understand the causes of various diseases associated with sedentary lifestyles.	K2
CO2	examine the benefits of physical activity for health.	K2
CO3	compare the health benefits of active and sedentary lifestyles.	K3
CO4	measure the issues associated with old age and pregnancy.	K4
CO5	compare the problems associated with cardiovascular diseases.	K5
CO6	develop a lifelong physical training plan for healthy living,	K6

**e. Course Outlines**

**Unit – I Introduction**

**(12 Hours)**

Meaning and Definition of Exercise therapy – Forms of cardiovascular diseases – understanding the disease process – determining individual risk – reducing risk through physical activity – risk of heart attack and death during exercise.

**Unit – II Obesity**

**(12 Hours)**

Obesity-classification-control of body weight - Etiology of obesity - health problems associated with overweight and obesity-general treatment of obesity – role of physical activity in weight control – physical activity and health risk reduction.

**Unit – III Diabetes**

**(12 Hours)**

Diabetes – classification – Etiology of diabetes– Health problems associated with diabetes - general treatment of diabetes – role of physical activity in diabetes – diet control.

**Unit – IV Arthritis and Asthma**

**(12 Hours)**

Arthritis – Etiology of arthritis – Health problems associated with arthritis - general treatment of arthritis – Role of physical activity in arthritis – Body image – Diet and exercise on body image – Asthma – Exercise and asthma.

**Unit – V Exercise for Older Adults and Pregnancy**

**(12 Hours)**

Training considerations, contraindications and recommendations: Exercise and Older Adults, Exercise and Adaptive fitness, Exercise and youth, Exercise and Pregnancy

## f. Mapping of COs to POs and PSOs

CO	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	H	M	M	M	L	H	L	L	M	M	L	H
CO2	H	M	M	M	L	H	L	L	M	M	L	H
CO3	H	M	M	M	H	H	L	L	M	M	L	H
CO4	H	M	M	M	H	H	L	L	M	M	L	H
CO5	H	M	M	M	M	H	L	L	M	M	L	H
CO6	H	M	M	M	M	H	L	L	M	M	L	H

## g. References

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**Semester - IV**  
**Project – Dissertation & Viva**

L	T	P	C
0	4	0	4

**a. Course Code: PPEP41**

**b. Course Objectives**

1. To plan and structuring the report in a logical and coherent order
2. To write interpretation and documenting it in a clearly and concisely'
3. To elaborate the notions of the research work through a short presentation and defend the posed questions convincingly based on the findings of their research work.

**c. Course Prerequisites**

Posses' basic skill of writing, Skill or articulating one own view, Knowledge of tabulation and statistical techniques, Knowledge to work in MS office and Critique research papers and published studies

**d. Course Outcomes (COs)**

COs	After the completion of the course, the students will be able to	Bloom's K Level
CO1	recall the standard guideline for reporting and referencing	K1
CO2	conceptualize and introduce the variables in a scholarly manner; and rephrase reviewed literature in a standard format	K2
CO3	organize a report in a coherent way adhering the mechanics and format style of writing	K3
CO4	Explore the data to formulate appropriate implication and recommendation	K4
CO5	prioritise the novel findings and interpret them aligning with related literature	K5
CO6	design a comprehensive report and demonstrate the expertise by defending in front of the pane I members	K6

**e. Course Outlines**

1. Each student is required to get corrections (pruning) for the subcomponents of each chapter before submission.
2. Thesis shall be submitted before the commencement of the terminal examination of semester IV.
3. Candidate shall not be permitted to submit the dissertation on which a degree/ diploma/ certificate has already been conferred on him/her on anyone else by the university or any other university / institution.
4. Dissertation will be evaluated by both internal and external examiners.

**f. Viva- voce Examination**

The viva-voce Board may consist of the Head of the Department, the Research Supervisor and an External Examiner. The minimum quorum may be two including the external examiner.

### g. Mapping of COs to POs and PSOs

CO	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	L	M	H	M	L	L	L	M	M	L	L	H
CO2	L	M	H	M	L	L	L	M	M	L	L	H
CO3	L	M	H	M	L	L	L	M	M	L	L	H
CO4	L	M	H	M	L	L	L	M	M	L	L	H
CO5	L	M	H	M	L	L	M	M	M	L	L	H
CO6	L	M	H	M	L	L	M	M	M	L	L	H

### h. References

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### Semester - IV

#### Practicum 8 - Game of Specialisation II

#### Badminton, Basketball, Cricket, Football, Handball, Hockey, Kabaddi, Kho-Kho, Tennis & Volleyball

(Choose any one game as Specialisation other than the Game of Specialisation I)

L	T	P	C
0	0	6	3

#### a. Course Code: PPEL41(A-K)

#### b. Course Objectives

1. To provide an opportunity for students to understand the natures of games.
2. To study the playfield layout, marking and officiating.
3. To identify the factors for improving technical and tactical ability of the players.

#### c. Course Prerequisites

Basic knowledge in sports and games and preparing sportsperson for the competition.

#### d. Course Outcomes (COs)

COs	After the completion of the course, the students will be able to;	Bloom's K Level
CO1	recall the equipments specifications, playfield dimensions, rules and regulations.	K1
CO2	demonstrate the fundamental and advanced skills.	K2
CO3	analyze the strategies and tactics of the participating teams in competition.	K3
CO4	interpret the rules and regulations during competition.	K4
CO5	layout and marking the play fields.	K5
CO6	develop the technical and tactical abilities of the players through suitable training plan.	K6

#### e. Course Outlines

##### **Badminton, Basketball, Cricket, Football, Handball, Hockey, Kabaddi, Kho-Kho, Tennis & Volleyball.**

Skills (Fundamental and Advanced Skills) – Drills/Lead up activities - Physical, Technical and Tactical preparation – Rules and regulations, interpretations - Duties of Officials - Methods of officiating – Official Signals – Scoring - Playfield dimensions, layout and marking - Equipment specifications- Competitions arrangements.

Organizational Set-up - Nutritional recommendations – Injuries Management - Competitions at World, Asia, National, State and District Level – List of National Award winners – Periodisation –Philosophy of coaching – Qualification and Qualities of Coach.

#### f. Mapping of COs to POs and PSOs

COs	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	L	H	M	H	M	L	M	H	H	H	H	L
CO2	L	H	M	H	M	L	M	H	H	H	L	L
CO3	L	H	H	M	M	L	M	M	H	H	L	L
CO4	L	H	H	M	M	L	M	H	M	H	L	L
CO5	L	H	M	M	M	L	M	M	M	H	H	L
CO6	L	H	M	M	M	L	M	H	M	H	H	L

#### g. References

- Charan, Singh. (2019). Basketball Play and Learn (1<sup>st</sup> Ed.,). Sports Educational Technologies First edition.
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- || Kumar, N. (2020). Play & Learn Football. New Delhi: Khel Sahitya Kendra Publishers.
- || Kumar, N. (2020). Play & Learn Tennis. New Delhi: Khel Sahitya Kendra Publishers.
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## Semester - IV

### Internship 3 – Internship in Educational Institutions – Spell II

L	T	P	C
0	0	8	4

#### a. Course Code: PPEI41

#### b. Course Objectives

1. To recognize the academic and administrative functions in educational institutions and gain professional experience.
2. To observe the classroom management and teaching methods to develop professional attitude, aptitude and organizational skills.
3. To develop organizing skills by participating in variety of activities during pre-service period and report the experience.

#### c. Course Prerequisites

Knowledge on meaning of internship, various types of teacher education institution, skill of observation, note-making and reporting.

#### d. Course Outcomes (COs)

COs	After the completion of the course, the students will be able to;	Bloom's K Level
CO1	recall the day to day activities that are taking place in educational institutions.	K1
CO2	interpret various teaching methodologies and acquire various skills of teaching.	K2
CO3	integrate the theoretical and practical knowledge on strategies and methods and instructional aids	K3
CO4	value new perspectives and enhances motivation to continue learning and reflecting to become an inspiring teacher.	K4
CO5	assess their teaching competencies and skills.	K5
CO6	build their own way of choosing, designing, organizing and conducting meaningful PE activities.	K6

#### e. Course Outlines

Students must go for internship to have first-hand experience with Educational Institutions (EIs) for two weeks in Spell 2. This internship programme shall include teaching basic skills in sports and games and indigenous activities giving exposure to students in all such activities. Internship/ teaching practice would include engagement with the community, i.e. school/ college/ sports organization/ sports academy/ sports club and should have the following components: A minimum of 15 lessons out of which 5 teaching, 5 coaching and 5 officiating in the school/ college/ institution/ department shall be conducted.

#### Activities

The students undergo an internship for a period of two weeks in EIs. This exercise helps the students to get knowledge on all the happenings in the EIs and thereby paves way to prepare the students to face the profession of teaching in the future ahead.

They observe all the activities such as Teaching, Coaching and officiating sports and games, preparation of Lesson Plan, etc. and all other activities taking place from morning assembly till the end of the day.

The students record what they have taken in the day and make the entry in the prescribed records given to them.

#### f. Mapping of COs to POs and PSOs

COs	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	H	H	L	L	L	L	H	L	L	M	M	H
CO2	H	M	L	L	L	L	H	L	L	M	M	H
CO3	H	H	L	L	L	M	H	L	L	M	M	M
CO4	H	H	L	L	L	L	H	L	L	M	M	M
CO5	H	M	L	L	L	M	H	L	L	M	M	L
CO6	H	H	L	L	L	L	H	L	L	M	M	L

#### g. References

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- Kulbeer Singh., & Jaswinder, Singh. (2016). Teaching Methods in Physical Education. New Delhi: Khel Sahitya Kendra Publishers.
- Rajesh Tripathi. (2010). Method of Physical Education. New Delhi: Khel Sahitya Kendra Publishers.
- Yatendra Singh., & Bipin Dubey. (2021). Pedagogy of Physical Education. New Delhi: Khel Sahitya Kendra Publishers.

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### Semester - IV

#### Internship 4 – Adventure/ Industry/ Stadia Visit/ Officiating

L	T	P	C
0	0	6	3

#### a. Course Code: PPEI42

#### b. Course Objectives

1. To get exposure in nature and channelizing energy.
2. To develop self-confidence by having experience with real world.
3. To develop future vision of the sports infrastructure and facilities.

#### c. Course Prerequisites

Basic knowledge of sports and nature.

#### d. Course Outcomes (COs)

COs	After the completion of the course, the students will be able to;	Bloom's K Level
CO1	visualize the future sports infrastructure.	K1
CO2	understand the importance of nature.	K2
CO3	adopt balanced life with nature.	K3

CO4	harness skills in versatility and readiness.	K4
CO5	make collaboration with industries and stakeholders.	K5
CO6	act as an official in respective sports and games.	K6

### e. Course Outlines

Students shall visit the sports industries at various part of India. Visit to national/International stadia will helps to blend theoretical with practical knowledge.

Adventure sports for students are highly motivational and practical which are unlikely to be seen from the normal classroom environment. Adventure aims at increasing productivity, encourages students to work in different working environment, it builds team spirit, courage, confidence, true friendship and trust amongst each other. It also involves fitness and maintaining the balance between physical and mental ability of the students. It increases the mental fitness/toughness.

#### Activities

- Adventure and leadership training camp.
- Officiating various sports and games either inside or outside the institutions.
- Visit to national and international stadia and sports industries.
- Watching live sports events at the competition venue.

### f. Mapping of COs to POs and PSOs

COs	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	H	H	L	L	L	L	H	L	L	M	M	H
CO2	H	M	L	L	L	L	H	L	L	M	M	H
CO3	H	H	L	L	L	M	H	L	L	M	M	M
CO4	H	H	L	L	L	L	H	L	L	M	M	M
CO5	H	M	L	L	L	M	H	L	L	M	M	L
CO6	H	H	L	L	L	L	H	L	L	M	M	L

### g. References

- Abhay N. Buchha. (2021). Officiating And Coaching in Sports and Physical Education. New Delhi. Khel Sahitya Kendra Publishers.
- Firdous Ahmed Lone. (2021). Officiating and Coaching. New Delhi. Khel Sahitya Kendra Publishers.
- Gangadhara Reddy, N. (2018). Information Facilities in Physical Education Colleges. New Delhi. Khel Sahitya Kendra Publishers.
- Vikram Singh. (2021). Adventure Camp. New Delhi. Khel Sahitya Kendra Publishers.

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### 15. Blueprint of the Question Paper for the CIA:

Total Marks = 25

Course Outcome	Cognitive Level	Qns. No	Options	Marks
<b>Section A – Multiple Choice Type Questions</b>				<b>(5x1=5 marks)</b>
CO1 – CO5	K1*	1	-	1
	K2	2	-	1
	K3	3	-	1
	K4	4	-	1
	K5	5	-	1
<b>Section B – Answer any TWO Questions</b>				<b>(2x5=10 marks)</b>
CO1/CO2	K2	6	-	5
CO2/CO3	K3	7	-	5
CO3/CO4	K4/K5	8	-	5
<b>Section C – Answer the Questions</b>				<b>(1x10=10 marks)</b>
CO4/CO5/CO6	K3-K6	9	9 (a) / (b)	10

### 16. Blueprint of the Question Paper for the UTE:

Total Marks = 75

Course Outcome	Cognitive Level	Qns. No	Options	Marks
<b>Section A – Multiple Choice Type Questions</b>				<b>(10x1=10 marks)</b>
CO1 – CO5	K1	1	-	1
	K1	2	-	1
	K1	3	-	1
	K2	4	-	1
	K2	5	-	1
	K3	6	-	1
	K3	7	-	1
	K4	8	-	1
	K5	9	-	1
	K6	10	-	1
<b>Section B – Answer all the Questions</b>				<b>(5x5=25 marks)</b>
CO1 – CO6	K1	11	11 (a) / 11 (b)	5
	K2	12	12 (a) / 12 (b)	5
	K3	13	13 (a) / 13 (b)	5
	K4	14	14 (a) / 14 (b)	5
	K5	15	15 (a) / 15 (b)	5
<b>Section C – Answer all the Questions</b>				<b>(5x8=40 marks)</b>
CO2 – CO6	K2	16	16 (a) / 16 (b)	8
	K3	17	17 (a) / 17 (b)	8
	K4	18	18 (a) / 18 (b)	8
	K5	19	19 (a) / 18 (b)	8
	K6	20	20 (a) / 20 (b)	8

\*(K1-Remember, K2-Understand, K3-Apply, K4-Analyse, K5-Evaluate, K6-Create)



To evaluate the cognitive level of each student based on their performance in the summative examinations, six levels of revised Bloom's Taxonomy – K1-K6 are to be adopted in framing the questions.

Revised Bloom's Taxonomy	Part A (1 Mark)	Part B (Either or Type Qns) (5 Marks)	Part C (Either or Type Qns) (8 Marks)	Total	Percentage
K1	3 (3)	1 (5)	1 (8)	16	21
K2	3 (3)	1 (5)	1 (8)	16	21
K3	2 (2)	1 (5)	1 (8)	15	20
K4	1 (1)	1 (5)	1 (8)	14	19
K5/K6	1 (1)	1 (5)	1 (8)	14	19
Total	10	25	40	75	100

### 17. UTE Question Paper – Skeleton

Code No: \_\_\_\_\_

Sub. Code: \_\_\_\_\_

M.P.Ed DEGREE EXAMINATION, MONTH YEAR

Semester (I/II/III/IV)

**COURSE TITLE**

(For those who joined in July 2022 and onwards)

**Time: Three Hours**

**Maximum: 75 Marks**

COs	Bloom's K Level	Q.No	Description
<b>Section – A (10x1= 10 marks)</b> <b>Choose the best Answer</b>			
		1	Two questions from each unit covering different COs and K levels
		2	
		3	
		4	
		5	
		6	
		7	
		8	
		9	
		10	
<b>Section – B (5x5= 25 marks)</b> <b>Answer all the questions</b>			
		11 (a) / 11 (b) 12 (a) / 12 (b) 13 (a) / 13 (b) 14 (a) / 14 (b) 15 (a) / 15 (b)	Either OR Type One question (a & b) should be taken from same unit and 5 questions from 5 units with different COs and K Levels. The alternatives (a) and (b) of the question should be designed from same CO.
<b>Section – C (5x8= 40 marks)</b> <b>Answer all the questions</b>			
		16 (a) / 16 (b) 17 (a) / 17 (b) 18 (a) / 18 (b) 19 (a) / 18 (b) 20 (a) / 20 (b)	Either OR Type One question (a & b) should be taken from same unit and 5 questions from 5 units with different COs and K Levels. The alternatives (a) and (b) of the question should be designed from same CO.

Note: The model question paper should cover COs as mentioned in the Syllabus

K Level – CO Correlations

K1 & K2 - CO1, K3 - CO2, K4 - CO3, K5- CO4, K6 - CO5

**18. UTE Question Paper**

Code No: 22209

Sub. Code: PPEC31

**M.P.Ed DEGREE EXAMINATION, NOVEMBER 2022**

Third Semester

**CORE 6 – RESEARCH PROCESS IN PHYSICAL EDUCATION AND SPORTS**

(For those who joined in July 2022 and onwards)

**Time: Three Hours****Maximum: 75 Marks**

COs	Bloom's K Level	Q.No	Section – A (10x1= 10 marks) Choose the best Answer
CO1	K1	1	Research in our field can be placed on a continuum that has _____ research at one extreme and _____ research at the opposite extreme. A) Applied, Basic B) <u>Basic, Action</u> C) Applied, Action D) <u>Applied, Analytical</u>
CO1	K1	2	Which research usually deals with theoretical problems? A) Applied B) Basic C) Action D) Analytical
CO2	K2	3	A study on 'Sachin Tendulkar' is comes under A) Survey B) <u>Case Study</u> C) Meta-Analysis D) <u>Interview</u>
CO3	K3	4	In Historical research, _____ are concerned with the time, authorship and authenticity of the document. A) Internal Criticism B) <u>External Criticism</u> C) Minimum Pole D) <u>Maximum Pole</u>
CO3	K3	5	The overall structure and strategy of a piece of research work is called A) Research Proposal B) <u>Research Paper</u> C) Research Synopsis D) <u>Research Design</u>
CO1	K1	6	In Experimental study the independent variable is _____. A) Establishes B) correlates C) Depends D) Manipulates
CO2	K2	7	List of every individual observation of any variable is called A) Sample Frame B) Sample C) Sample Size D) Sample Unit
CO4	K4	8	Sampling depends on A) Representativeness B) Homogeneity C) Adequacy D) All of these
CO5	K5	9	Discussion on hypothesis is situated in the chapter A) One B) <u>Three</u> C) Four D) <u>Two</u>
CO6	K6	10	Find the missing components of given references as per APA format. "Chris, Gratton., & Ian, Jones. Research Methods for Sports Studies. London: Routledge Taylor & Francis Group". A) Journal Number B) Issue Number C) Year of Publication D) Journal Name

<b>Section – B (5x5= 25 marks)</b> <b>Answer all the questions</b>			
CO1	K2	11 (a)	Explain - Analytical methods of research.
	K2	11 (b)	Distinguish between Basic and Applied research.
CO3	K3	12 (a)	Examine Primary Data in Historical research.
	K3	12 (b)	Develop a proposal for Meta Analysis
CO4	K4	13 (a)	“Effect of circuit training on strength Endurance” – In this study, classify experimental and control groups.
	K4	13 (b)	How was reliability established in research?
CO2	K6	14 (a)	Create a spatial and temporal data with Olympic results.
	K6	14 (b)	Justify the significance of ethical consideration in research.
CO5	K5	15 (a)	Summarize the study given below in an abstract - “Comparison of strength and speed between college level <u>Volleyball and Basketball players</u> ”
	K5	15 (b)	Critically evaluate the APA format for Journal and Books
<b>Section – C (5x8= 40 marks)</b> <b>Answer all the questions</b>			
CO2	K2	16 (a)	Write the check list for selecting a research problem
	K2	16 (b)	What is hypothesis? and explain the types of hypotheses.
CO3	K3	17 (a)	Explain the meaning and steps of Historical research.
	K3	17 (b)	Explain the meaning and steps of Philosophical research.
CO4	K4	18 (a)	Analyze the merits and demerits of research design for better output in research.
	K4	18 (b)	Illustrate with example of any two experimental design.
CO5	K5	19 (a)	Rank the non-probability sampling with justifications.
	K5	19 (b)	Justify the reason for choosing probability sampling in research.
CO6	K6	20 (a)	Prepare a model research synopsis for the comparative research.
	K6	20 (b)	Prepare a model research proposal for the experimental research.

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