

# **B.Sc PHYSICAL EDUCATION**

## **Course Structure and Syllabus**

(For the candidates admitted from the academic year 2024-2025 onwards)

# **CHOICE BASED CREDIT SYSTEM (CBCS)**



**THANTHAI HANS ROEVER COLLEGE (AUTONOMOUS)**

**(Nationally Re-Accredited by NAAC with A Grade)**

**(Affiliated to Bharathidasan University, Tiruchirappalli)**

**ELAMBALUR, PERAMBALUR – 621 220**



## **VISION**

- To Make All Students Physical Active and Educated, Having Acquired Motor Skills to Perform a Variety of Physical Activities, Physical Fitness Knowledge, And Intrinsic Motivation to Pursue a Healthy and Active Lifestyle.

## **MISSION**

- To Dedicate and Focus On the Development of the Students Physical, Mental, and Intellectual.
- Programs Within the Department are Interdisciplinary by Nature and Combine the Fields of Education and Social Sciences.
- To Provide High Quality Education and Career Preparation with Excellent Teaching

## **PROGRAMME OUTCOMES (POs)**

1. Acquire knowledge, understand concepts and apply new ideas which enable them to be employable or self employed.
2. Demonstrate motivation in advancing to higher learning programmes
3. Engage in socially responsible behavior and have value added education
4. Have exposure to technical proficiency, analytical, soft skills and life skills development.
5. Develop broad understanding in the basic concepts of languages/ Commerce/ Management studies/physical Sciences/Biological Science/Life Science.

## **PROGRAMME SPECIFIC OUTCOMES (PSOs)**

PSO1: Become Physically, Mentally, Emotionally and Socially strong individual to the society

PSO2: Utilize the Physical activities as a tool to manage stress in their life

PSO3: Basic knowledge on Human Anatomy and Physiology, Bio-Mechanics.

Training methods various areas in physical education

PSO4: Capability to get employment in uniform service jobs

PSO5: Study the teaching oriented physical education courses

**Thanthai Hans Rover College (Autonomous), Elambalur, Perambalur - 621 220**

**B.Sc. Physical Education**

CHOICEBASEDCREDITSYSTEM–LEARNING OUTCOMES BASEDCURRICULUM FRAMEWORK (CBCS- LOCF)

**(For the candidates admitted from the academic year 2024 - 2025 onwards)**

Semester	Part	Course Code	Title of the Course	Ins. Hours/ Weeks	Credits	Exam Hours	CIA (Max)	ESE (Max)	Total (Max)
1	I	23UT1/H1/F1	Language	6	3	3	25	75	100
1	II	23UE1	English	6	3	3	25	75	100
1	III	23UPE1CC1	Foundation and History of Physical Education	6	5	3	25	75	100
1	III	23UPE1CC2	Human Anatomy and Physiology	5	5	3	25	75	100
1	III	23UPE1AC1	Yoga for Health Education	5	3	3	25	75	100
I	I V	23UPE1SE1	(NME)-I	2	2	3	25	75	100
			Value Added Course*		2*	2	50	50	100*
<b>Total</b>				<b>30</b>	<b>21</b>	-	-	-	<b>600</b>
2	I	23UT2/H2/F2	Language	6	3	3	25	75	100
2	II	23UE2	English	6	3	3	25	75	100
2	III	23UPE2CC3	Major Games –I And Track & Field I	5	5	3	25	75	100
2	III	23UPE2CC4P	Practical -Major Games –I And Track & Field I	5	5	3	40	60	100
2	III	23UPE2AC2P	Practical -Yoga Practice – I	4	3	3	40	60	100
2	I V	23UPE2SE2	Fundamentals of Yoga –NME II	2	2	3	25	75	100
2	I V	23UPE2SE3	Organization, Administration and Methods in Physical Education	2	2	3	25	75	100
			Value Added Course*		2*	2	50	50	100*
<b>Total</b>				<b>30</b>	<b>23</b>	-	-	-	<b>700</b>
3	I	23UT3/H3/F3	Language	6	3	3	25	75	100
3	II	23UE3	English	6	3	3	25	75	100
3	III	23UPE3CC5	Major Games –II And Track & Field II	6	5	3	25	75	100

3	III	23UPE3CC6P	Practical -Major Games –II And Track & Field II	4	4	3	40	60	100
3	III	23UPE3AC3	Indigenous Activates (Mass Demonstration)	4	3	3	25	75	100
3	I V	23UPE3SE4	Exercise Physiology	2	2	3	25	75	100
3	I V	23UHW	Health and Wealth	1	1	3	25	75	100
3	I V	23UGS	Gender Studies	1	1	3	25	75	100
			Value Added Course*		2*	2	50	50	100*
<b>Total</b>				<b>30</b>	<b>22</b>	-	-	-	<b>800</b>
4	I	23UT4/H4/F4	Language	6	3	3	25	75	100
4	II	23UE4	English	6	3	3	25	75	100
4	III	23UPE4CC7	Major Games –III And Track & Field III	5	5	3	25	75	100
4	III	23UPE4CC8P	Practical - Major Games –III And Track & Field III	5	5	3	40	60	100
4	III	23UPE4AC4P	Indigenous Activates (Mass Demonstration) Practical	4	3	3	40	60	100
4	I V	23UPE4SE5	Soft Skill Development	2	2	3	25	75	100
4	I V	23UES	Environmental Studies	2	2	3	25	75	100
			Value Added Course*		2*	2	50	50	100*
<b>Total</b>				<b>30</b>	<b>23</b>	-	-	-	<b>700</b>
5	III	23UPE5CC9	Test Measurement and Evaluation in Physical Education	6	5	3	25	75	100
5	III	23UPE5CC10	Computer Application in Physical Education	6	5	3	25	75	100
5	III	23UPE5CC11	Research and Elementary Statistics in Physical Education	6	4	3	25	75	100
5	III	23UPE5DE1	Health Education and First Aid	5	4	3	25	75	100
5	III	23UPE5DE2	Sports Psychology and Sociology	5	4	3	25	75	100
5	I V	23UVE	Value Education	2	2	3	25	75	100
			Summer Internship**		2*				
			Value Added Course*		2*	2	50	50	100*

				<b>Total</b>	<b>30</b>	<b>24</b>	-	-	-	<b>700</b>
6	III	23UPE6CC12	Science of Sports Training	6	5	3	25	75	100	
6	III	23UPE6CC13P	Practical - Major Games –IV And Track & Field IV-Practical	5	5	3	40	60	100	
6	III	23UPE6CC14	Sports Bio Mechanics and Kinesiology	6	4	3	25	75	100	
	III	23UPE5CC15PW	Project with Viva-Voce	3	3	Evaluation		80	100	
						Viva		20		
6	III	23UPE6DE3	Principal and Techniques of Officiating and Coaching	5	4	3	25	75	100	
6	III	23UPE6DE4	Physical Fitness Management	5	4	3	25	75	100	
6	V		Extension Activity	-	1	-	-	-	-	
			Value Added Course*		2*	2	50	50	100*	
				<b>Total</b>	<b>30</b>	<b>26</b>	-	-	-	<b>500</b>
				<b>Grand Total</b>	<b>180</b>	<b>140</b>				<b>4000</b>

**\* Extra Credit Courses which will not be included in the total CGPA**

- Summer Internship after 4<sup>th</sup> semester during summer vacation -30 Hours
- Value added course (Outside Instruction hours: 30 hours)

<b>Course details:</b>	<b>No. of Courses &amp; Credits</b>	<b>Total Credits</b>
<u>Part I</u>		
Tamil	4 * 3	12
<u>Part II</u>		
English	4 * 3	12
<u>Part III</u>		
Core Course	11 * 5+3*4	67
Core Course: Project with Viva-Voce	1 * 3	3
Allied Course	4 * 3	12
Discipline Elective	4 * 4	16
<u>Part IV</u>		
Skill Enhancement Courses	6 * 2	12
Gender Studies	1 * 1	1
Environmental Studies	1* 2	2
Value Education	1 * 2	2
<u>Part V</u>		
Extension Activity	1 (Credit Only)	1

**Note:**

	Internal Marks	External Marks
1. Theory	25	75
2. Practical	40	60
3. Separate passing minimum is prescribed for Internal and External marks		

**FOR THEORY**

The passing minimum for CIA shall be 40% out of 25 marks [i.e. 10 marks]

The passing minimum for Semester Examinations shall be 40% out of 75 marks [i.e. 30 marks]

**FOR PRACTICAL**

The passing minimum for CIA shall be 40% out of 40 marks [i.e. 16 marks]

The passing minimum for Semester Examinations shall be 40% out of 60 marks [i.e. 24 marks]

- Project : 100 Marks (The Project will be evaluated by an Internal and an External Examiner)  
Dissertation- 80 Marks  
Viva Voce - 20 Marks

**List of Value Added Courses:**

Course Code	Course Title
23UPEVA1	First Aid and Safety Education
23UPEVA2	Sports Medicine
23UPEVA3	Science and Sports Technology
23UPEVA4	Modern trends in Physical Education
23UPEVA5	Olympic Movement
23UPEVA6	Recreation and Camping in Physical Education

## CORE COURSE:

1	23UPE1CC1	Foundation and History of Physical Education
2	23UPE1CC2	Human Anatomy and Physiology
3	23UPE2CC3	Major Games –I And Track & Field I
4	23UPE2CC4P	Practical -Major Games –I And Track & Field I
5	23UPE3CC5	Major Games –II And Track & Field II
6	23UPE3CC6P	Practical -Major Games –II And Track & Field II
7	23UPE4CC7	Major Games –III And Track & Field III
8	23UPE4CC8P	Practical - Major Games –III And Track & Field III
9	23UPE5CC9	Test Measurement and Evaluation in Physical Education
10	23UPE5CC10	Computer Application in Physical Education
11	23UPE5CC11	Research and Elementary Statistics in Physical Education
12	23UPE5CC12PW	Project with Viva-Voce
13	23UPE6CC13	Science of Sports Training
14	23UPE6CC14P	Practical - Major Games –IV And Track & Field IV- Practical
15	23UPE6CC15	Sports Bio Mechanics and Kinesiology

## ALLIED COURSE:

1	23UPE1AC1	Yoga for Health Education
2	23UPE2AC2P	Practical -Yoga Practice – I
3	23UPE3AC3	Indigenous Activities (Mass Demonstration)
4	23UPE4AC4P	Indigenous Activities (Mass Demonstration) Practical

### **SKILL ENHANCEMENT COURSE:**

1	23UPE1SE1	(NME)-I
2	23UPE2SE2	Fundamentals of Yoga –NME II
3	23UPE2SE3	Organization, Administration and Methods in Physical Education
4	23UPE3SE4	Exercise Physiology
5	23UPE3SE5	Sports Medicine and Physiotherapy
6	23UPE4SE6	Soft Skill Development

### **DISCIPLINE SPECIFIC ELECTIVE COURSE:**

1	23UPE5DE1	Health Education and First Aid
2	23UPE5DE2	Sports Psychology and Sociology
3	23UPE6DE3	Principal and Techniques of Officiating and Coaching
4	23UPE6DE4	Physical Fitness Management

**SEMESTER – I**  
**CORE COURSE 1 - FOUNDATION AND HISTORY OF PHYSICAL EDUCATION**

**Course Code:** 23UPE1CC1

**Hours:** 6

**Credit:** 5

**Exam Hours:** 3

**External Marks:** 75

**Internal Marks:** 25

**Objectives:**

- To know the history, Awards and sports scheme of Physical Education.
- To define the aims and objectives of Physical Education.

**Course outcome**

- Know the fundamental concepts of physical education.
- Learn the Historical development of physical education in India
- Attain knowledge about the sports organization in India Physical Education.
- Enhance knowledge about sports organization, Sports awards.
- Have a Fair idea about national sports federation/ association is a highlight.

**UNIT: I**

Meaning and definition of Education- Aims and objectives of Education- Meaning and definition of Physical Education- Aims and objectives of Physical Education - Scopes of Physical Education - Need and importance of Physical Education- Scientific of physical Education in Sports

**UNIT: II**

Basic of Physical Education-History of Physical Education in Sparta and Athens- Olympic Games – Ancient and Modern- Olympic flag-Torch-Oath- Emblem - Motto- Marathon Race - Road race

**UNIT: III**

Sports organization in India,- Physical Education in India-Y.M.C.A –NIS-NSNIS-LNIPE and its contribution-Recent developments SAI - IOA - and its Objectives SDAT -SGFI-Youth Games-RDS- BDS - Asian games-South Asian Game-Commonwealth games- SAF. Nerhu Yuva Kendra sports

**UNIT: IV**

Awards and Honors: Arjuna award- Dronacharya award- Rajiv Gandhi Khel Ratna award - Abulkalam Azad award- Dyanchand award.

**UNIT: V**

Important National and International Trophies: Santhosh Trophy- Ranji Trophy- Rangasamy Cup- Thomas Cup- Davis cup. , Khelo India- Fit India- movement national sports day.

**Books for Reference:**

1. Bucher, Charles A. Foundation of Physical Education, St.Louis: The C.V. Mosby Company, 1983.

2. Oberteuffer, Delbert, Physical Education New York: Herpor and Brothers Publishers, 1974.
3. Williams, Jerse, Feiring – The Principles of Physical Education, London: W.B. Saunders Company, 1964.
4. Sharman, Jaksan R. Introduction in Physical Education, New York: Harpor and Brothers Publishers, 1970.
5. Kamiesh M.L. and M.S Sargral, Principles and History of Physical Education, Prakash Brothers Educational Publishers, 1981.

**Text Books:**

- Bucher ,Charles A(1986),Foundation so Physical Education, St.Louis :CV Mosby Company.
- Nixon ,EE & Cozen ,F W(1969),AnIntroductiontoPhysicalEducation,Philadelphia:W.BSaundersCo.
- Thirunarayanan,C.andHariharanS(1990),AnalysticalHistoryofPhysicalEducation.K araikudiC.T&S.HPublication.
- SandeepKumar“history,principlesandfoundationsinphysicaleducation’ ISBN:978-81-921354-4-1,2016.

**PHYSICAL EDUCATION**

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Relationship Matrix for COs, POs and PSOs

Semester	Code	Title of the Course					Hours	Credits			
I	23UPE1CC1	FOUNDATION AND HISTORY OF PHYSICAL EDUCATION					6	5			
Course Outcomes (COs)	Programme Outcomes(POs)					Programme Specific Outcomes(PSOs)					
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	
CO1	✓	✓		✓	✓	✓	✓		✓	✓	
CO2	✓	✓	✓	✓		✓	✓	✓	✓		
CO3	✓	✓	✓			✓	✓			✓	
CO4	✓	✓	✓			✓	✓		✓	✓	
CO5	✓	✓		✓		✓	✓	✓	✓	✓	
Number of Matches(✓) = 37 Relationship: High											
<b>Mapping</b>	1-29%	30-59%		60-69%		70-89%		90-100%			
<b>Matches</b>	1-14	15-29		30-34		35-44		45-50			
<b>Relationship</b>	Very Poor	Poor		Moderate		High		Very High			

**SEMESTER – I**

## CORE COURSE 1I - HUMAN ANATOMY AND PHYSIOLOGY

**Allied Code: 23UPE1CC2**

**Hours: 5**

**Credit: 5**

**Exam Hours: 3**

**External Marks: 75**

**Internal Marks: 25**

### **Objectives:**

- To know the human body structure and functions.
- To state the need and importance of anatomy and physiology.

### **Course out come**

- Gain basic knowledge about the human anatomy and physiology
- Know about the structure of Human body and the system
- Know about the various systems in the human body and the system.
- Highlight the need and importance of anatomy and physiology in the field of physical education.
- Highlight on select systems in the human body.

### UNIT-I

Definition - Meaning of Anatomy and Physiology-Need and Importance of Anatomy and Physiology- Cell – Structure & Functions part of the cell- Tissues – Definition- Types and Function

### UNIT-II

Meaning and Functions of Skeletal System- Type of Bones -Classification of bones – Definition and Classification of Joints – structure and functions of joint- Muscular System – Types of Muscles..

### UNIT-III

Circulatory System – Structure and Function of heart - Cardiac Output- Cardiac Cycle- Stroke Volume and Athletic heart- Respiratory System - Meaning of Respiration, Respiratory Organs- Lungs – Structure and functions of Lungs – Vital Capacity- oxygen dept-Second wind

### UNIT-IV

Nervous System – Structure of Neuron- Central Nervous System (CNS) – Brain and Spinal Cord- Peripheral Nerves System (PNS) - Consuls of Nervus,-Function of neuron - Reflex arc

### UNIT-V

- Endocrine System- Structure of Pituitary-Thyroid- adrenal Glands their role- growth development- regulations of body functions - Sense Organs-urinary system

**Textbooks**

- Pearce, Evelyn B., (1979) Anatomy and physiology for Nurses, London: Faber and Faber Ltd.
- Wilmore, Jack Hand  
Costill, David L. (1994). Physiology of Sports and Exercise. Human kinetics.
- Wilson, Kathleen J. W. (1987). Anatomy and Physiology, Health and illness. 6th Edition. Churchill Livingstone Edinburgh. Publication.
- Dr. Harsh Kumar Yadav, “Anatomy and Physiology” ISBN: 978-81-921352-1-2. Edition. 2016.

**Books for Reference:**

1. Pearce Evelyn, Anatomy and Physiology for Nurses, Jaypee. Brothers Medical Publishers, New Delhi, 1997.
2. Chaurasia B.D. Human Anatomy, CBS Publishers, 1982.
3. Chatterjee Chandicharan, Human Physiology, Medical Allied Agency Volume I and II, Calcutta, 1980.

**PHYSICAL EDUCATION**

Relationship Matrix for COs, POs and PSOs

Semester	Code	Title of the Course	Hours	Credits						
I	23UPE1CC2	ALLIED COURSE II- HUMAN ANATOMY AND PHYSIOLOGY	5	5						
Course Outcomes (COs)	Programme Outcomes(POs)					Programme Specific Outcomes(PSOs)				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	✓		✓	✓	✓	✓	✓	✓		✓
CO2	✓	✓	✓			✓		✓		✓
CO3	✓		✓	✓	✓	✓	✓	✓	✓	✓
CO4			✓	✓	✓	✓		✓	✓	✓
CO5	✓		✓		✓	✓		✓		✓
Number of Matches(✓) = 36 Relationship: High										

<b>Mapping</b>	1-29%	30-59%	60-69%	70-89%	90-100%
<b>Matches</b>	1-14	15-29	30-34	35-44	45-50
<b>Relationship</b>	Very Poor	Poor	Moderate	High	Very High

**SEMESTER – I**

## ALLIED COURSE 1 - YOGA FOR HEALTH EDUCATION

**Course Code: 23UPE1AC1**

**Hours: 5**

**Credit: 3**

**Exam Hours: 3**

**External Marks: 75**

**Internal Marks: 25**

### **Objectives:**

- To know about the uses of yoga for life.
- Define Yoga need and importance of Yoga.

### **Course outcome**

- Know the history of yoga and Upanishads
- Study the various concepts of yoga in eight limbs
- Learn the concept of Pranayama and meditation and practice it.
- Learn about other gymnastics events.
- Difference between yoga practices and physical exercise.

### UNIT - I

Meaning and definition of Yoga- History of Yoga- Yoga in India-Yogic institution in India- Aims & objectives of yoga- Scope of Yoga- Eight Limbs of Yoga- Yoga Diet

### UNIT - II

**Asanas:**Types of Asanas-Testing the listed Asanas- Suryanamaskara,Balasana,Siddhasana Padmasana- Vajrasana- Sukhasana- Bhujangasana-Halasan-Sarvangasan-Salabhasana-Dhanurasana-Chakraasana-Tadasana-Utkatasana-Padahastana-Paschimothanasana-Navasana-Viparaithakarni-Shirshasana-Shavasana.

### UNIT - III

Definition – Meaning of Pranayama – Types of Pranayama: Nadi Suddhi- Nadi Shodhana,- Kaphalabhathi- Ujjiayi- Sitali- Sitkari- General principles of practicing Asana- Pranayama- Meditation -Physiological benefits of Asanas

### UNIT- IV

Kriyas - Type of Kriyas- Kaphalabhathi- Trataka –Neti- Dhauthi- Nauli- Basti.

### UNIT – V

Rehabilitation Exercise – Asthma- Back Pain-Stress-Anxiety. Yogic Practics and Physical Exercise- Role of Meditation in Physical Education & Sports

Books for Reference:

1. Swami Kuvalayananda, Asanas, Kaivalyadhama, Lonavala, Pune.
2. B.K.S. Iyankar, Light on Yoga Harper Collins Publications, Delhi.
3. Dr. K. Chandrasekaran, Sound Health Through Yoga, PremKalyan Publications, Sedapatti, Madurai, 1999.
4. Dr.P.Mariayyah, Suriyanamaskar Jaya Publishing House, Perunthurai, Erode.
5. Dr. P. Mariayyah, Asanas, Sports Publishers, Raja Street, Coimbat

## PHYSICAL EDUCATION

Relationship Matrix for COs, POs and PSOs

Semester	Code	Title of the Course	Hours	Credits						
I	23UPE1AC1	YOGA FOR HEALTH EDUCATION	5	3						
Course Outcomes (COs)	Programme Outcomes(POs)					Programme Specific Outcomes(PSOs)				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	✓	✓		✓	✓	✓	✓	✓		✓
CO2	✓	✓	✓		✓	✓	✓	✓		✓
CO3	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CO4	✓	✓	✓			✓		✓	✓	
CO5		✓	✓	✓	✓		✓	✓	✓	✓
Number of Matches(✓) = 40 Relationship: High										

<b>Mapping</b>	1-29%	30-59%	60-69%	70-89%	90-100%
<b>Matches</b>	1-14	15-29	30-34	35-44	45-50
<b>Relationship</b>	Very Poor	Poor	Moderate	High	Very High

## NON MAJOR ELECTIVE COURES - SPORTS NUTRITION

**Course Code: 23UPE1SE1**

**Hours: 2**

**Credit: 2**

**Exam Hours: 3**

**External Marks: 75**

**Internal Marks: 25**

**UNIT-I**

Meaning need nature and importance of nutrition, role of nutrition on higher performance in sports.

**UNIT-II**

Basic of nutrition, carbohydrates, fats, proteins, vitamins, minerals, water, balanced diet, nutritive value of food stuffs.

**UNIT-III**

Nutrition for athletes and players, energy requirements in sports, carbohydrate loading.

**UNIT-IV**

Percentage of energy derived from foods, glycemic index of food, dietary fiber of food.

**UNIT-V**

Principles of weight control, exercise. The key to successful weight loss management designing. We loss programme. Tips for control body weight.

**Books for Reference:**

1. Pande P.K.and L.C. Gupta, Putline of sports medicine: Jaypee brothers new Delhi, 1987.
2. Hoeger W.K. Werner and Sharon A.Hoeger, fitness and wellness: Motor publicshing company Englewood,1900.
3. Goeswami shashikant, nutrition for sports "SAIONSNIS" Patiala, 1996.

**SPORTS MEDICINE**

(Value Added Course)

UNIT I

Definition, need, nature and scope of sports medicine. importance of sports medicine in physical education and sports

UNIT II

Different methods in promoting physical fitness - walking, jogging, swimming, cycling dancing and skipping

UNIT III

Women in sports: performance and sexual difference, drugs and doping – injuries; barbers-contusions filaematoenas, cramps and muscle strain, joint sprain dislocation, fracture.

UNIT IV

Sports physiotherapy  
Methods, effects, indication and contra indication  
Exercise- classification and therapeutic using of exercise in repatriation

UNIT V

Bandage – types, application, strapping for major joint &body parts

Book reference;

1. Starkey chad/therapeutic modalities of athletic trainers, F.A Davis company, pheladelpes 1990
2. Prentice Williams E. therapeutic modalities sports medicine ST louis 1990
3. Sundararajan / sports medical lectures; rosin publication, Chennai

## **CORE COURSE –MAJOR GAMES–I AND TRACK&FIELD–I**

**((Major Games: Football, Kabaddi & Volleyball**

**Track & Field: Sprint, Middle Distance and Long Distance Race)**

**Core Code: 23UPE2CC3**

**Hours: 5**

**Credit: 5**

**Exam Hours: 3**

**External Marks: 75**

**Internal Marks: 25**

### **Objectives**

1. To understand the concept of Track and Field Marking and Officiating
2. To understand and apply various skills.
3. To promote knowledge and awareness of rules and regulation

### **Course outcome**

- Gain knowledge about various sports and games and its organizations.
- Gain fundamental knowledge about the ground preparation, its dimensions and markings.
- Have a basic knowledge of rules and interpretation of games and sports.
- Have a knowledge of equipment and its specifications.
- Have a basic knowledge about system of officiating techniques of games and sports.

### **UNIT I**

Origin, History and Development of the Game–International, National and State Level Organization.

### **UNIT II**

Fundamental Skills–Lead–Up Games, Various Symptoms of Play–Selection of Players.

### **UNIT III**

Training: Warm–up Technical Training–Tactical Training–Coaching Programme

### **UNIT – IV**

Layout of Playfield–Rules and their Interpretations–methods of officiating Duties of Officials– Important Tournaments and Cups.

### **UNIT V**

Athletics: Layout of 400M & 200M track marking, Sprint, Middle distance and Long Distance Race.

### **Books for References:**

Conling David, Athletics, London, Robert Hale, 1980

Prabhakar Eric, The way to Athletic Gold, Madras East –

Westpress Pct. Ltd., 1995 Dr. P. Mariayyah, Football, Sports Publications, Raja Street, Coimbatore.

Dr. P. Mariayyah, Kabaddi, Sports Publications, Raja Street, Coimbatore. Dr. P. Ma

riayyah, Volleyball, Sports Publications, Raja Street, Coimbatore.

Dr. P. Mariayyah, Track and Field, Sports Publications, Raja Street, Coimbatore. Thompson Ganagon, Play Better Soccer in all colour, W. B. Saubders Company, 1972. D. Hanaraj V. Hubert, Volleyball – A Modern Approach, Patiala, Sainsoris, 1991.

Relationship Matrix for COs, POs and PSOs

Semester	Code	Title of the Course					Hours	Credits				
II	23UPE2C3	<b>SEMESTER – II                      MAJOR GAMES – I AND                      TRACK &amp; FIELD – I                      (Major Games: Football                      Kabaddi &amp; Volleyball)                      Track &amp; Field:                      Sprint, Middle Distance and Long Distance Race)</b>					5	5				
Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)						
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5		
CO1	✓	✓	✓	✓	✓	✓	✓	✓	✓			
CO2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
CO3	✓	✓		✓	✓	✓	✓	✓		✓		
CO4	✓	✓		✓		✓	✓	✓		✓		
CO5		✓		✓		✓	✓	✓		✓		
Number of Matches (✓) = 39 Relationship: High												

Mapping	1-29%	30-59%	60-69%	70-89%	90-100%
Matches	1-14	15-29	30-34	35-44	45-50
Relationship	Very Poor	Poor	Moderate	High	Very High

**SEMESTER – II**

## PRATICAL - MAJOR GAMES–I AND TRACK&FIELD–I

((Major Games: Football, Kabaddi & Volleyball

Track & Field: Sprint, Middle Distance and Long Distance Race)

Core Code: 23UPE2CC4P

Hours: 5

Credit: 5

Exam Hours: 3

External Marks: 60

Internal Marks: 40

### Testingon:

1. FundamentalSkills
2. FinerSkills
3. PlayingAbility/Performance
4. OfficiatingTechniques

### SchemeofAssessment:

1. FundamentalSkill&DefensiveandOffensiveSkill-		30
2. Playingability/Performance	-	20
3. OfficiatingTechnique	-	5
4. Recordnote	-	5
<b>TOTAL</b>	-	<b>60</b>

### Books for Reference:

ConlingDavid,Athletics,London,RobertHale,1980.

PrabhakarEric,ThewaytoAthleticGold,MadrasEast-

WestpressPvt.Ltd.,1995.Dr.P.Mariayyah,Football,SportsPublications,RajaStreet,Coimb  
atore.

Dr.P.Mariayyah,Kabaddi,SportsPublications,RajaStreet,Coimbatore.Dr.P.M  
ariayyah,volleyball,SportsPublication,RajaStreet,Coimbatore.

Dr.P.Mariayyah,TrackandField,SportsPublications,RajaStreet,Coimbatore.ThompsonWilli  
am,TeachingSoccer,Delhi,SurjeetPublications1996.

CartingGanagon,PlayBetterSoccerinAllColour,W.B.SaubdersCompany,1972.DhanarajV.H  
ubert,Volleyball-AModernApproach,Patiala,Sainsoris,1991.

Semester	Code	Title of the Course	Hours	Credits						
II	23UPE2CC 4P	<b>SEMESTER – II PRATICAL MAJOR GAMES – I AND TRACK &amp; FIELD – I (Major Games: Football Kabaddi &amp; Volleyball) Track &amp; Field: Sprint, Middle Distance and Long Distance Race)</b>	5	5						
Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	✓	✓	✓	✓	✓	✓	✓	✓	✓	
CO2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CO3	✓	✓		✓	✓	✓	✓	✓		✓
CO4	✓	✓		✓		✓	✓	✓		✓
CO5		✓		✓		✓	✓	✓		✓
Number of Matches(✓) = 39 Relationship: High										

<b>Mapping</b>	1-29%	30-59%	60-69%	70-89%	90-100%
<b>Matches</b>	1-14	15-29	30-34	35-44	45-50
<b>Relationship</b>	Very Poor	Poor	Moderate	High	Very High

## SEMESTER – II

## **YOGA PRACTICES- PRACTICAL-I**

Testing the Listed Asanas, Pranayamas, Kriyas, Mudras and Suryanamaskara

**Core Code: 23UPE2AC2**

**Hours: 4**

**Credit: 3**

**Exam Hours: 3**

**External Marks: 60**

**Internal Marks: 40**

### **Objectives:**

- To know the types of asanas and its benefits
- To comprehend the practical knowledge in yoga.

### **Course outcome**

- Learn the technique of Suryanamaskar.
- Attain basic knowledge of corrective Asana.
- Have a knowledge about the relaxative, cultural and meditative asanas.
- Gain knowledge about pranayama, meditation, kriyas and Bandhas techniques.
- Have a knowledge meditations values system of the body and difference of mudras.

### **UNIT I**

Surya Namaskara.

### **UNIT II**

#### **Asanas:**

Types of asanas- Testing the listed asanas: Padmasana- Vajrasasna- Sukhasana- Bhujangasana- Halasana- Sarvangasana- Salabhasana- Dhanurasana- Sugasana-Mayurasana-Thadasana – karudasana – sakrasana- sidhasana- Utkasana – ustrasana- Bakasana- Gomukhasana- Navasana

### **UNIT III**

Pranayama - Naddi Suddhi - Nadi Shodhana-Vamandhauti

### **UNIT IV**

Kriyas- Kaphalabhathi – Trataka - Neti.

### **UNIT V**

Mudras- Chin Mudra- Shanmuki Mudra,-Nasikagra Mudra,-Yoga Mudra-Maha Mudra.

Books for Reference: Kaivalyadhama

1. Swami Kuvalayananda, Asanas, , Lonavala, Pune.
2. B.K.S. Iyankar, Light on Yoga Harper Collins Publications, Delhi.
3. Dr. K. Chandrasekaran, Sound Health Through Yoga, PremKalyan Publications, Sedapatti, Madurai, 1999.
4. Dr.P.Mariayyah, Suriyanamaskar Jaya Publishing House, Perunthurai, Erode.
5. Dr. P. Mariayyah, Asanas, Sports Publishers, Raja Street, Coimbatore-1

## PHYSICAL EDUCATION

Relationship Matrix for COs, POs and PSOs

Semester	Code	Title of the Course	Hours	Credits						
II	22UPE2AC2	YOGA PRACTICES- PRACTICAL-I	4	3						
Course Outcomes (COs)	Programme Outcomes(POs)					Programme Specific Outcomes(PSOs)				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	✓	✓		✓	✓	✓	✓	✓		✓
CO2	✓	✓	✓		✓	✓	✓	✓		✓
CO3	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CO4	✓	✓	✓			✓		✓	✓	
CO5		✓	✓	✓	✓		✓	✓	✓	✓
Number of Matches(✓) = 40 Relationship: High										

<b>Mapping</b>	1-29%	30-59%	60-69%	70-89%	90-100%
<b>Matches</b>	1-14	15-29	30-34	35-44	45-50
<b>Relationship</b>	Very Poor	Poor	Moderate	High	Very High

**SEMESTER – II**

## FUNDAMENTALS OF YOGA (NME)

**Core Code: 23UPE2SE2**

**Hours: 2**

**Credit: 2**

**Exam Hours: 3**

**External Marks: 75**

**Internal Marks: 25**

Course outcome

- Understand the fundamental concepts of yogic practice.
- Have a fair idea about the Foundation of Yoga
- Learn the principles of practicing asana, pranayama and meditation.
- Learn the selected Kriyas, mudras and bandhas.
- Have a knowledge about the leading yoga school both in Indian and foreign soil.

UNIT-I

History of Yoga- Meaning and definition of Yoga-Aims and Objectives of Yoga-Eight Limbs of Yoga-Suryanamaskar.

UNIT-II

Asanas: Cultural Asanas- Padahastasana-Trikonasana- Pascimottanasana- Vakrasana-

Shalabasana- Bhujanganasa- Sarvangasana- Halasana. - Balasana, - Chakrasana, - sirasasana

UNIT-III

Pranayama: What is Pranayama-concept of pranayama -NaddiSuddhi-NadiShodhana - Kaphalabhathi- Ujjiayi-Sitali-Sitkari.

UNIT-IV

Meaning of Kriya – Types of Kriyas: Meditation- Kaphalabhathi- Trataka- Neti- Dhauthi-Nauli-Basti.

UNIT-V

Benefits of Yogic practices– Physiological – Psychological – Spiritual – Sociological benefits.

Books for Reference

1. Dr. K. Chandrasekaran, Sound Health Through Yoga, PremKalyan Publications, Sedapatti, Madurai, 1999.
2. Dr. P. Mariayyah, Suriyanamaskar Jaya Publishing House, Perunthurai, Erode.
3. Dr. P. Mariayyah, Asanas, Sports Publishers, Raja Street, Coimbatore-1
4. B.K.S. Iyankar, Light on Yoga Harper Collins Publications, Delhi.
- 5 Swami Kuvalayananda, Asanas, Kaivalyadhama, Lonavala, Pune.

Relationship Matrix for COs, POs and PSOs

Semester	Code	Title of the Course					Hours	Credits				
II	23UPE2SE2	FUNDAMENTALS OF YOGA (NME)					2	2				
Course Outcomes (COs)	Programme Outcomes(POs)					Programme Specific Outcomes(PSOs)						
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5		
CO1	✓	✓		✓	✓	✓	✓	✓		✓		
CO2	✓	✓	✓		✓	✓	✓	✓		✓		
CO3	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
CO4	✓	✓	✓			✓		✓	✓			
CO5		✓	✓	✓	✓		✓	✓	✓	✓		
Number of Matches(✓) = 40 Relationship: High												

<b>Mapping</b>	1-29%	30-59%	60-69%	70-89%	90-100%
<b>Matches</b>	1-14	15-29	30-34	35-44	45-50
<b>Relationship</b>	Very Poor	Poor	Moderate	High	Very High

**SEMESTER – II**

## **ORGANIZATION, ADMINISTRATION, AND METHODS IN PHYSICAL EDUCATION**

**Core Code: 23UPE2SE3**

**Hours: 2**

**Credit: 2**

**Objectives:**

- To know the organization, administration and methods of teaching in physical education.
- To define the importance of organization and administration.

**Course outcome**

- Attain Fair idea about teaching techniques and teaching aids.
- To know maintenance and of play field and equipment.
- Know how to draw fixtures for various Tournaments.
- The known method of physical activities and demonstrations
- Attain the basic knowledge about the teaching innovations & teaching lesson plan.

**Exam Hours: 3**

**External Marks: 75**

**Internal Marks: 25**

### **UNIT I**

Meaning and Importance of Organization and administration – Scheme of Physical Education in: Schools, Colleges, Universities, Districts State and National Level – Quality and Qualification of Physical Education Teacher.

### **UNIT II**

Facilities – Track, Play Grounds, Gymnasium, Swimming Pool – Layout of Playfields (Basketball, Kabaddi, Hockey, Volleyball) Care and Maintenance of Play fields.

### **UNIT III**

Method in Physical Education–meaning– Factors influencing Method Presentation Technique–Teaching Aids–Principles of Class Management. Methods of Teaching of activities

### **UNIT – IV**

Tournaments Intramural. Extramural – Types of Tournament, Knock out, League, Combination Tournament, Methods of drawing Fixtures

### **UNIT -V**

Lesson plan – Values lesson plan – Types of Lesson plan – General Lesson Plan – Particular Lesson Plan.

**BooksforReferences:**

KamleshM.L. Scientific “ArtofTeachingPhysicalEducation” NewDelhiMetropolitan1994.Thiru.  
 NarayananCandHarisharaSharma “MethodsInPhysicalEducation” KarailkudiCJand  
 S.H.1989  
 Joseph.P.M.“Organization of PhysicalEducation”.

Relationship Matrix for COs, POs and PSOs

Semester	Code	Title of the Course					Hours	Credits			
II	23UPE2SE3	<b>ORGANIZATION, ADMINISTRATION AND METHODS IN PHYSICAL EDUCATION</b>					2	2			
Course Outcomes (COs)	Programme Outcomes(POs)					Programme Specific Outcomes(PSOs)					
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	
CO1	✓	✓	✓	✓	✓	✓	✓			✓	
CO2	✓	✓	✓	✓	✓	✓	✓		✓	✓	
CO3	✓	✓		✓	✓	✓	✓	✓		✓	
CO4	✓	✓	✓	✓	✓	✓	✓			✓	
CO5	✓	✓		✓		✓				✓	
Number of Matches(✓) = 38      Relationship: High											

Mapping	1-29%	30-59%	60-69%	70-89%	90-100%
Matches	1-14	15-29	30-34	35-44	45-50
Relationship	Very Poor	Poor	Moderate	High	Very High

**MAJOR GAMES – II AND TRACK & FIELD – II**  
**(Major Games: Hockey, Basket Ball & Hand ball**  
**Field Event: jump Event-High jump, Long jump, Triple jump & Pole vault)**

**Core Code: 23UPE3CC5**  
**Hours: 5**  
**Credit: 5**

**Exam Hours: 3**  
**External Marks: 75**  
**Internal Marks: 25**

**Objectives**

- To understand the concept of Track and Field Marking and Officiating
- To understand and apply various skills.
- To promote knowledge and awareness of rules and regulation

**Course outcome**

- Gain knowledge about various sports and games and its organizations.
- Gain fundamental knowledge about the ground preparation, its dimensions and markings.
- Have a basic knowledge of rules and interpretation of games and sports.
- Have a knowledge of equipments and its specifications.
- Have a basic knowledge about system of officiating techniques of games and sports.

**UNIT I**

Origin, History and Development of the Game – International, National and State Level Organization.

**UNIT II**

Fundamental Skills – Lead-Up Games, Various Symptoms of Play – Selection of Players.

**UNIT III**

Training: Warm-up Technical Training – Tactical Training – Coaching Programme

**UNIT – IV**

Layout of Playfield – Rules and their Interpretations – methods of officiating Duties of Officials – Important Tournaments and Cups.

**UNIT V**

Athletics: High jump Long Jump Triple jump & Pole vault

Relationship Matrix for COs, POs and PSOs

Semester	Code	Title of the Course	Hours	Credits						
III	23UPE2CC3	<b>SEMESTER – III</b> <b>MAJORGAMES–</b> <b>IIANDTRACK&amp;FIELD – II</b> (Major Games Hockey, Basket Ball & Hand ball  Field Event: jump Event-High jump, Long jump, Triple jump & Pole vault)	5	5						
Course Outcomes (COs)	Programme Outcomes(POs)					Programme Specific Outcomes(PSOs)				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	✓	✓	✓	✓	✓	✓	✓	✓	✓	
CO2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CO3	✓	✓		✓	✓	✓	✓	✓		✓
CO4	✓	✓		✓		✓	✓	✓		✓
CO5		✓		✓		✓	✓	✓		✓
Number of Matches(✓) = 39 Relationship: High										

Mapping	1-29%	30-59%	60-69%	70-89%	90-100%
Matches	1-14	15-29	30-34	35-44	45-50
Relationship	Very Poor	Poor	Moderate	High	Very High

**SEMESTER – III**

## MAJORGAMES–II AND TRACK&FIELD – II PRACTICAL

(Major Games: Hockey, Basket Ball & Hand ball  
Field Event: jump Event-High jump, Long jump, Triple jump & Pole vault)

**Core Code: 23UPE3CC6P**

**Hours: 4**

**Credit: 4**

**Exam Hours: 3**

**External Marks: 60**

**Internal Marks:40**

### Objectives

- To understand the concept of Track and Field Marking and Officiating
- To understand and apply various skills.
- To promote knowledge and awareness of rules and regulation

### Course outcome

- Gain knowledge about various sports and games and its organizations.
- Gain fundamental knowledge about the ground preparation, its dimensions and markings.
- Have a basic knowledge of rules and interpretation of games and sports.
- Have a knowledge of equipment and its specifications.
- Have a basic knowledge about system of officiating techniques of games and sports.

#### Testingon:

5. FundamentalSkills
6. Finer Skills
7. PlayingAbility/Performance
8. Officiating Techniques

#### SchemeofAssessment:

5. FundamentalSkill&DefensiveandOffensiveSkill-		30
6. Playingability/Performance	-	20
7. OfficiatingTechnique	-	5
8. Recordnote	-	5
<b>TOTAL</b>	-	<b>60</b>

Relationship Matrix for COs, POs and PSOs

Semester	Code	Title of the Course	Hours	Credits						
III	23UPE3CC6P	<b>SEMESTER – III</b> <b>MAJORGAMES-II AND</b> <b>TRACK &amp; FIELD-II</b> (Major Games: Hockey, Basket Ball & Hand ball  Field Event: jump Event-High jump, Long jump, Triple jump & Pole vault)	4	4						
Course Outcomes (COs)	Programme Outcomes(POs)					Programme Specific Outcomes(PSOs)				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	✓	✓	✓	✓	✓	✓	✓	✓	✓	
CO2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CO3	✓	✓		✓	✓	✓	✓	✓		✓
CO4	✓	✓		✓		✓	✓	✓		✓
CO5		✓		✓		✓	✓	✓		✓
Number of Matches(✓) = 39      Relationship: High										

<b>Mapping</b>	1-29%	30-59%	60-69%	70-89%	90-100%
<b>Matches</b>	1-14	15-29	30-34	35-44	45-50
<b>Relationship</b>	Very Poor	Poor	Moderate	High	Very High

**SEMESTER – III**

## INDIGENOUS ACTIVITIES (MASS DEMONSTRATION)

**Core Code:23UPE3AC3**  
**Hours: 4**  
**Credit: 3**

**Exam Time : 3**  
**External Marks: 75**  
**Internal Marks: 25**

### Objectives

- To educate and provide hand on training for mass demonstration activities.
- To develop co-ordination, rhythm and precision in physical activities with help of light apparatus

### Course outcome

- Learn the technique of Suryanamaskar.
- Attain basic knowledge of corrective Asana.
- Gain fundamental knowledge about the mass diral activates
- Have a basic knowledge of rules nd interpretation of games and sports.
- Have a knowledge of coordination and its specifications.
- Have a basic knowledge about system of grope activates

### . UNIT – I CALLISTHENICS

Callisthenics exercises - with verbal command, drum and music (2, 4, 8 & 16 counts).

### UNIT – II MARCHING

Marching - Quick march and halt. Marching with about turn. Marching with salute.

### UNIT – III INDIAN CLUBS AND WANDS

Light apparatus exercises - with verbal command, drum and music (2, 4, 8 & 16 counts) - Indian Clubs and Wands. Standing Exercise, Jumping Exercise, Moving Exercise and combination of these exercises with wands and Indian clubs.

### UNIT – IV HOOPS AND DUMBBELLS

Light apparatus exercises - with verbal command, drum and music (2, 4, 8 & 16 counts) – Hoops and dumbbells. Standing Exercise, Jumping Exercise, Moving Exercise and combination of these exercises with Hoops and dumbbells.

### UNIT – V PYRAMID AND AEROBICS

Formation of Pyramid. Aerobics with music.

### TEXT BOOKS

1. Athichan, A, et. al., (2007) Hand book of Indigenous activities. Karaikudi: Vinsi publication.
2. Tirunaryanan, C. and Hariharan. S, (1993). Methods in Physical Education. Karaikudi: South India Press.

### REFERENCE BOOKS

1. Mathew, Thomas., (2009). 150 Minor Games. Karaikudi: Vinsi publication.
2. Perinbaraj, Bevinson. S. (2006). Methods in Physical Education. Karaikudi: Vinsi publication.
3. Thomas, J.P., (1969). Physical Education Lesson. Madras: Gnanodya press.

Relationship Matrix for COs, POs and PSOs

Semester	Code	Title of the Course	Hours	Credits						
III	23UPE3AC3	SEMESTER – III  INDIGENOUS ACTIVITES (MASS DEMONSTRATION)	4	3						
Course Outcomes (COs)	Programme Outcomes(POs)					Programme Specific Outcomes(PSOs)				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	✓	✓	✓	✓	✓	✓	✓	✓	✓	
CO2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CO3	✓	✓		✓	✓	✓	✓	✓		✓
CO4	✓	✓		✓		✓	✓	✓		✓
CO5		✓		✓		✓	✓	✓		✓
Number of Matches(✓) = 39      Relationship: High										

<b>Mapping</b>	1-29%	30-59%	60-69%	70-89%	90-100%
<b>Matches</b>	1-14	15-29	30-34	35-44	45-50
<b>Relationship</b>	Very Poor	Poor	Moderate	High	Very High

**SEMESTER – III**

## EXERCISE PHYSIOLOGY

**Core Code: 23UPE3SE4**

**Hours: 2**

**Credit: 2**

**Exam Hours: 3**

**External Marks: 75**

**Internal Marks: 25**

### Objectives:

- To know the scope of Physiology of exercise in physical education
- To understand the functions of the human body and its organs.

### Course out come

- Learn about the various systems in the human body and their functions.
- Know the need and importance of exercise physiology in the field of Physical Education.
- Highlight on selected systems changes occur during exercises.
- Know the basic concept of balanced diet.
- Have a fair idea about the effect of exercise and training on selected system.

### UNIT – I

Meaning -Scope - Definition –Nature Aim and Scope Physiology of exercise-Structure and function of skeletal Muscles-Types of Muscle fibers. Terminology, Muscle fiber Distribution , Muscle Tone

### UNIT – II

Cardiac Cycle- Stroke Volume- Cardiac Output- Heart Rate- Blood pressure – Systolic- Diastolic- Effect of exercise on Circulatory system. Pulse Rate -Heart Problems and Exercise -.vital capsity , -lung volume,-respiratory system -Tidal Volume - Residual volume- Oxygen Debt,,

### UNIT – III

Central Nervous System (CNS)-Peripheral Nervous System (PNS)-Effect of exercise on Nervous system. Structure of Neuron-Function of neuron- Structure & Function of synapse- Reaction time - Movement time

### UNIT – IV

Metabolism – ATP -Anaerobic Metabolism-Aerobic Metabolism-Fat metabolism-Protein metabolism.

### UNIT – V

Sports performance in different atmosphere – weather-Sports performance in high altitude-Sports performance in cold climate and hot climate- Sex differences on exercise-Aging and exercise.

### Books for Reference:

1. Amrit Kumar, R, Moses. (1995). Introduction to Exercise Physiology. Madras: PoompugarPathipagam

2. Devrises H.A Physiology of exercise for physical Education and Athletics London, Staples Press – 1976.
3. More house LE and Milter A.T. Physiology of exercise St Louis, The CV Mosby Company 1976.
4. Jonson W.R. Science and Medicine of exercise and sports London Harper & Bros 1974.

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5. Guyton AC Text book of Medical Physiology W.B. Soundars Company Philadelphia.
6. Bourne GH the Structure and function of Muscle London Academic Press.

### PHYSICAL EDUCATION

Relationship Matrix for COs, POs and PSOs

Semester	Code	Title of the Course					Hours	Credits			
III	23UPE3SE4	ALLIED COURSE -III- EXERCISE PHYSIOLOGY					2	2			
Course Outcomes (COs)	Programme Outcomes(POs)					Programme Specific Outcomes(PSOs)					
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	
CO1	✓		✓	✓	✓	✓	✓	✓		✓	
CO2	✓	✓	✓			✓	✓	✓		✓	
CO3	✓		✓	✓	✓	✓		✓	✓	✓	
CO4			✓		✓	✓		✓	✓	✓	
CO5	✓		✓	✓	✓	✓		✓		✓	
Number of Matches(✓) = 36 Relationship: High											

<b>Mapping</b>	1-29%	30-59%	60-69%	70-89%	90-100%
<b>Matches</b>	1-14	15-29	30-34	35-44	45-50
<b>Relationship</b>	Very Poor	Poor	Moderate	High	Very High

## SEMESTER – III

### SPORTS MEDICINE AND PHYSIOTHERAPY

**Core Code: 23UPE3SE5**

**Hours: 2**

**Credit: 2**

#### **Objectives**

1. To provide knowledge about the causes of injuries.
2. To provide means or treatment for sports injuries and for rehabilitation of injuries

**Exam Hours: 3**

**External Marks: 75**

**Internal Marks: 25**

#### **Learning Outcomes**

1. At students will be successful in graduating and gaining employment in the field of athletic training
2. Identify, describe, and explain concepts associated with the domains of athletic training education
3. Communicate effectively in the oral and written form using evidence based practice principles
4. Learning treatment and rehabilitation programme by the students.
5. Develop and defend clinical reasoning skills in the clinical education setting when interacting with injured• athletes.

#### **UNIT - I**

Common Athletic injuries and their treatment ,Sprain, Strain.  
Types of fracture and their treatment

#### **UNIT - II**

Dislocation ,Muscle cramp,Bleeding,Woundanditstypes,Contusion,AbrasionandPuncturewounds

#### **UNIT - III**

Meaning ,Nature ,Need and importance of Physiotherapy

Shortwave

Diathermy,MicrowaveDiathermy,DiapulseDiathermy,UltraSoundWaves,Infraredrays,Ultraviolet rays.

#### **UNIT- IV**

BriefHistoryofMessageClassificationoftheManipulationsusedinmessagethetechniquesandusesindi cationof all manipulation

#### **UNIT – V**

Rheumatic Conditions

1. Classification–Rheumatoid Arthritis
2. Spondylitis
3. Acuter respiratory conditions
4. Chronic respiratory conditions

5. Conditions of the Nervous System.  
Introduction, Signs and Symptoms of neurological disorders like Paralegia, Hemiplegia, Cerebral Palsy.

**Book for References:**

- Thorndike, Athletic injuries.
- I.B. Clayton, Text Book of Electrotherapy and Action therapy. Edwin
- M. Prasnet, Manual of Massage and Movements.

Relationship Matrix for COs, POs and PSOs

Semester	Code	Title of the Course					Hours	Credits			
III	23UPE3SE5	SPORTS MEDICINE AND PHYSIOTHERAPY					2	2			
Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)					
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	
CO1	✓	✓		✓	✓	✓	✓	✓		✓	
CO2	✓		✓		✓	✓	✓	✓		✓	
CO3	✓	✓		✓	✓	✓	✓	✓	✓	✓	
CO4	✓		✓	✓	✓	✓	✓			✓	
CO5	✓	✓	✓	✓	✓		✓			✓	
Number of Matches (✓) = 38      Relationship: High											

1.

<b>Mapping</b>	1-29%	30-59%	60-69%	70-89%	90-100%
<b>Matches</b>	1-14	15-29	30-34	35-44	45-50
<b>Relationship</b>	Very Poor	Poor	Moderate	High	Very High

## SEMESTER – IV

### MAJOR GAMES-III AND TRACK & FIELD– III

**MAJOR GAMES:** (Badminton Ball Badminton, Kho Kho ,  
**FIELD EVENTS:** throw events – Discus throw; hammer throw Javelin & shot put)

**Core Code:**23UPE4CC7

**Hours:**5

**Credit:**5

**Exam Hours:** 3

**External Marks:** 75

**Internal Marks:** 25

#### Objectives:

- To know the practical knowledge in throws events.
- To define the specific rules of throws events.
- To know the various games history and its rules and regulations.
- To understand the rules of events theoretically.

#### Course outcome

- Gain knowledge about various sports and games and its organizations.
- Gain fundamental knowledge about the ground preparation, its dimensions and markings.
- Have a basic knowledge of rules and interpretation of games and sports.
- Have a knowledge of equipments and its specifications.
- Have a basic knowledge about system of officiating techniques of games and sports.

#### UNIT I

Origin, History and Development of the Game – International, National and State Level Organization.

#### UNIT II

Fundamental Skills – Lead-Up Games, Various Symptoms of Play – Selection of Players.

#### UNIT III

Training: Warm-up Technical Training – Tactical Training – Coaching Programme

#### UNIT – IV

Layout of Playfield – Rules and their Interpretations – methods of officiating Duties of Officials – Important Tournaments and Cups.

#### UNIT-V

**Athletics-** throw events – Discus throw; hammer throw Javelin & shot put

**Books for References:**

Dr. Anil Sharma, O.P. Sharma Rules of Sports, Sports Publication, 4264/3 Ansari Road New Delhi – 2.

Conling David, Athletics, London Robert Hale 1980

Dr. P. Mariayah Track & Field, Sports publication, Raja St. Coimbatore Ken O. Bosen, “Track & Field Fundamental Techniques NIS Publications, Patiala.

**Relationship Matrix for COs, POs and PSOs**

Semester	Code	Title of the Course	Hours	Credits						
IV	23UPE4CC7	<b>SEMESTER – IV MAJOR GAMES-III AND TRACK &amp; FIELD – III</b> (Badminton Ball Badminton, Kho Kho throw events – Discus throw; hammer throw Javelin & shot put)	5	5						
Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	✓	✓	✓	✓	✓	✓	✓	✓	✓	
CO2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CO3	✓	✓		✓	✓	✓	✓	✓		✓
CO4	✓	✓		✓		✓	✓	✓		✓
CO5		✓		✓		✓	✓	✓		✓
Number of Matches (✓) = 39      Relationship: High										

<b>Mapping</b>	1-29%	30-59%	60-69%	70-89%	90-100%
<b>Matches</b>	1-14	15-29	30-34	35-44	45-50
<b>Relationship</b>	Very Poor	Poor	Moderate	High	Very High

## SEMESTER – IV

### MAJOR GAMES-III AND TRACK & FIELD– III PRATICAL

**MAJOR GAMES:** (Badminton Ball Badminton, Kho Kho ,  
**FIELD EVENTS:** throw events – Discus throw; hammer throw Javelin &shot put)

**Core Code:23UPE4CC8P**

**Hours:5**

**Credit:5**

**Exam Hours: 3**

**External Marks: 60**

**Internal Marks: 40**

#### Objectives

- To understand the concept of Track and Field Marking and Officiating
- To understand and apply various skills.
- To promote knowledge and awareness of rules and regulation

#### Course outcome

- Gain knowledge about various sports and games and its organizations.
- Gain fundamental knowledge about the ground preparation, its dimensions and markings.
- Have a basic knowledge of rules and interpretation of games and sports.
- Have a knowledge of equipment and its specifications.
- Have a basic knowledge about system of officiating techniques of games and sports.

#### Testingon:

9. Fundamental Skills
10. Finer Skills
11. Playing Ability/Performance
12. Officiating Techniques

#### SchemeofAssessment:

9. Fundamental Skill & Defensive and Offensive Skill-		30
10. Playing ability/Performance	-	20
11. Officiating Technique	-	5
12. Record note	-	5
<b>TOTAL</b>	-	<b>60</b>

Relationship Matrix for COs, POs and PSOs

Semester	Code	Title of the Course	Hours	Credits						
IV	23UPE4CC8P	<b>SEMESTER – IV MAJORGAMES-III AND TRACK &amp; FIELD-III</b> (Badminton Ball Badminton, Kho Kho throw events – Discus throw; hammer throw Javelin & shot put)	5	5						
Course Outcomes (COs)	Programme Outcomes(POs)					Programme Specific Outcomes(PSOs)				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	✓	✓	✓	✓	✓	✓	✓	✓	✓	
CO2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CO3	✓	✓		✓	✓	✓	✓	✓		✓
CO4	✓	✓		✓		✓	✓	✓		✓
CO5		✓		✓		✓	✓	✓		✓
Number of Matches(✓) = 39 Relationship: High										

<b>Mapping</b>	1-29%	30-59%	60-69%	70-89%	90-100%
<b>Matches</b>	1-14	15-29	30-34	35-44	45-50
<b>Relationship</b>	Very Poor	Poor	Moderate	High	Very High

## SEMESTER – IV

### INDIGENOUS ACTIVITIES (MASS DEMONSTRATION) PRACTICAL

**Core Code:**23UPE4AC4P  
**Hours:** 4  
**Credit:** 3

**Exam Time** : 3  
**External Marks:** 60  
**Internal Marks:** 40

#### Objectives

- To educate and provide hand on training for mass demonstration activities.
- To develop co-ordination, rhythm and precision in physical activities with help of light apparatus

#### Course outcome

- Learn the technique of Suryanamaskar.
- Attain basic knowledge of corrective Asana.
- Gain fundamental knowledge about the mass diral activates
- Have a basic knowledge of rules nd interpretation of games and sports.
- Have a knowledge of coordination and its specifications.
- Have a basic knowledge about system of grope activates

#### . UNIT – I CALLISTHENICS

Callisthenics exercises - with verbal command, drum and music (2, 4, 8 & 16 counts).

#### UNIT – II MARCHING

Marching - Quick march and halt. Marching with about turn. Marching with salute.

#### UNIT – III INDIAN CLUBS AND WANDS

Light apparatus exercises - with verbal command, drum and music (2, 4, 8 & 16 counts) - Indian Clubs and Wands. Standing Exercise, Jumping Exercise, Moving Exercise and combination of these exercises with wands and Indian clubs.

#### UNIT – IV HOOPS AND DUMBBELLS

Light apparatus exercises - with verbal command, drum and music (2, 4, 8 & 16 counts) – Hoops and dumbbells. Standing Exercise, Jumping Exercise, Moving Exercise and combination of these exercises with Hoops and dumbbells.

#### UNIT – V PYRAMID AND AEROBICS

Formation of Pyramid. Aerobics with music.

### TEXT BOOKS

1. Athichan, A, et. al., (2007) Hand book of Indigenous activities. Karaikudi: Vinsi publication.
2. Tirunaryanan, C. and Hariharan. S, (1993). Methods in Physical Education. Karaikudi: South India Press.

### REFERENCE BOOKS

1. Mathew, Thomas., (2009). 150 Minor Games. Karaikudi: Vinsi publication.
2. Perinbaraj, Bevinson. S. (2006). Methods in Physical Education. Karaikudi: Vinsi publication.
3. Thomas, J.P., (1969). Physical Education Lesson. Madras: Gnanodya press.

Relationship Matrix for COs, POs and PSOs

Semester	Code	Title of the Course	Hours	Credits						
IV	23UPE4AC4P	SEMESTER – IV  INDIGENOUS ACTIVITES (MASS DEMONSTRATION) PRACTICAL	4	3						
Course Outcomes (COs)	Programme Outcomes(POs)					Programme Specific Outcomes(PSOs)				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	✓	✓	✓	✓	✓	✓	✓	✓	✓	
CO2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CO3	✓	✓		✓	✓	✓	✓	✓		✓
CO4	✓	✓		✓		✓	✓	✓		✓
CO5		✓		✓		✓	✓	✓		✓
Number of Matches(✓) = 39      Relationship: High										

Mapping	1-29%	30-59%	60-69%	70-89%	90-100%
Matches	1-14	15-29	30-34	35-44	45-50
Relationship	Very Poor	Poor	Moderate	High	Very High

## SEMESTER – V

### TEST, MEASUREMENT AND EVALUATION IN PHYSICAL EDUCATION

**Core Code: 23UPE5CC9**

**Hours: 6**

**Credit: 5**

**Objectives:**

- To know the importance of test and measurement in physical education.
- To learn the need and importance of evaluation and its basics.

**Course outcome**

- Know the fundamentals of test, measurement and evaluation.
- Learn the need and importance of test, measurements and evaluation.
- Gain basic knowledge of criteria for administration of test.
- Attain knowledge about classification of test.
- Learn how to measure Physiological, Anthropometrical and Psychological aspects.

**UNIT – I**

Meaning of Test, Measurement and Evaluation- Need and importance of test, measurement and evaluation in physical education.

**UNIT – II**

Criteria of test- Scientific authenticity Reliability – Validity - Objectivity –Practicability – norms -administrative feasibility and educational application.

**UNIT – III**

AAPHER youth fitness test- Indiana Motor Fitness Test- JCR test- Harvard step test-12 minutes run or Walk test.- barrow motor ability test

**UNIT – IV**

Johnson Basketball ability test- Mc Donald Soccer test- Broer Miller Tennis Test- Russell Lange Volleyball Test- Dribbling and goal shooting test in Hockey.- Badminton test

**UNIT – V**

Need and importance of evaluation – principles of evaluation- Basic methods of evaluation.

**Textbooks**

- Barrow,HaroldM.Rosomany(1964).Aphysicalapproachtomeasurementinphysicaled ucation,Philadepphia:LeaandFebiger
- Kansal,K.Devinder(2012).Apracticalapprochtotest,measurementandevaluation.Ne wDelhi:SSSpublishation
- Morrow,JrJames.,Jackson,Allen,Disch,James,Mood,Dale,(2011).Measure ment andEvaluationinHumanPerformacewithWebStudyGuide-4thEdition.

➤ Dr.AmitBanerjee,“SportsManagements”.ISBN:978-81-8908-202-4.Edition.2017

Books for Reference:

1. Barrow, H.M. and McGee, R.,A Practical Approach to Measurement in Physical Education, Lea andFebiger, Philadelphia, 1964.
2. Bovard, J.E, Cozens, E, W. and Hagman, P.E., Test and Measurements in Physical Education, W.B.Sunders Company, Philadelphia, 1949.
3. Campbell, W.R. and Tucker, N.M. An Introduction in Physical Education, GBell and Sons Ltd., London,1967
4. Cureton, T.K. Physical Fitness Appraisal and Guidance, TheC.Mosby Company, St.Louis 1947.
5. Hunsicker, P.A. and Montoye, H.J. Applied Test and Measurements in Physical Education, PrenticeHall Inc., New York, 1953.
6. Meyers, C.R. and Belsh, E.T. Measurement in physical Education, The Ronald press Company. NewYork, 1962.
7. Wilgoose, C.E, Evaluation in Health Education and physical Education, McGraw Hill Book Company,Inc, New York.

Relationship Matrix for COs, POs and PSOs

Semester	Code	Title of the Course					Hours	Credits			
V	23UPE5CC9	<b>TEST, MEASUREMENT AND EVALUATION IN PHYSICAL EDUCATION</b>					6	5			
Course Outcomes (COs)	Programme Outcomes(POs)					Programme Specific Outcomes(PSOs)					
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	
CO1	✓	✓	✓	✓	✓	✓	✓		✓	✓	
CO2	✓	✓		✓	✓	✓	✓		✓	✓	
CO3	✓	✓		✓	✓	✓			✓	✓	
CO4	✓	✓	✓		✓	✓	✓			✓	
CO5	✓	✓		✓	✓	✓	✓	✓		✓	
Number of Matches(✓) = 39 Relationship: High											

<b>Mapping</b>	1-29%	30-59%	60-69%	70-89%	90-100%
<b>Matches</b>	1-14	15-29	30-34	35-44	45-50
<b>Relationship</b>	Very Poor	Poor	Moderate	High	Very High

## SEMESTER – V

### Computer Application in Physical Education

**Core Code: 23UPE5CC10**

**Hours: 6**

**Credit: 5**

**Objectives:**

- To know the basics of computer applications in sports science.
- To impart the basic concepts of Computer System, Software packages and Internet.

**Exam Hours: 3**

**External Marks: 75**

**Internal Marks: 25**

**Course outcome**

- To exhibit improved understanding of computer operations
- Student to gain practical exposure on Ms-Office
- Student to gain practical exposure on power point
- Student to gain practical exposure on spread sheet
- To gain practical knowledge on Internet

#### **UNIT – I**

Introduction to computer – Components of Computer System – Types of Computer - Hardware – Software.

#### **UNIT – II**

Word Processing Basic – Opening Documents and Closing documents – Moving Around in a Document – Text Creation and Manipulation - Formatting the Text -Handling Multiple Documents - Table Manipulation – Printing.

#### **UNIT – III**

Basics – Creation of Presentation - Preparation of Slides – Providing aesthetics - Slide Manipulation and Slide Show- Presentation of the Slides - Spread sheets for Small accountings.

#### **UNIT – IV**

**Basics** – Elements of Electronics Spread Sheet- Manipulation of cells – Providing Formulas

#### **UNIT – V**

Internet - Service on InterNet – Web –Browsing software - Surfing the Internet. **E-mail:** Basic of electronic mail - Viewing an email - Sending an Email - Saving mails - Sending same mail to various users – softcopy as attachment - Role of e-sources in teaching, training and coaching in Sports.

**Text Book(s):**

1. Misty E. Vermaat, "Discovering Computers & Microsoft Office 2013: A Fundamental Combined Approach", Cengage Learning, 2013.

**Reference Book(s):**

1. V. Rajaraman, Neeharika Adabala, "Fundamentals of Computers", PHI Learning Pvt. Ltd., 2014.
2. Reema Thareja, "Fundamentals of Computers", Oxford University Press India, 2014.

## Relationship Matrix for COs, POs and PSOs

Semester	Code	Title of the Course					Hours	Credits			
V	23UPE5CC10	Computer Application in Physical Education					6	5			
Course Outcomes (COs)	Programme Outcomes(POs)					Programme Specific Outcomes(PSOs)					
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	
CO1	✓	✓	✓	✓	✓	✓	✓		✓	✓	
CO2	✓	✓		✓	✓	✓	✓		✓	✓	
CO3	✓	✓		✓		✓	✓		✓	✓	
CO4	✓	✓		✓	✓	✓	✓		✓	✓	
CO5	✓			✓	✓	✓	✓		✓	✓	
Number of Matches(✓) = 39      Relationship: High											

Mapping	1-29%	30-59%	60-69%	70-89%	90-100%
Matches	1-14	15-29	30-34	35-44	45-50
Relationship	Very Poor	Poor	Moderate	High	Very High

## SEMESTER – V

### Research and Elementary Statistics in Physical Education

Core Code: 23UPE5CC11

Hours: 5

Credit: 4

Exam Hours: 3

External Marks: 75

Internal Marks: 25

#### Objectives:

- To acquaint students with various statistical methods and their applications in real times.
- To develop skills in handling complex problems in quantitative data.(50% Theory and 50% Problem)

#### Course outcome

- Know the fundamentals in statistics and diagrams.
- To use and apply a wide variety of grouped and ungrouped data
- .Know the advanced statistics in Range- Mean deviation- Quartile deviation and Standard Deviation and their uses.
- To Realize Correlation methods, Regression and its uses.
- To know of various Sampling techniques, hypotheses types,Independent and dependent variations

#### UNIT– I

Meaning and definition of Research. Need, Importance and Scope of Research in Physical Education and Sports. Classification of Research. Meaning of the terms - Research Problem, hypothesis, limitations and delimitations.

#### UNIT – II

Methods of Research - Research Ethics. Need for surveying related literature. Literature sources, Library reading. Research design – meaning and need of research design. Sampling: meaning of sample- types of sample. Survey study – Need for survey study.

#### UNIT – III

Definition of Statistics and its scope- Types of statistics-Collection of data and Classification of data -Frequency distribution- Diagrammatic representation –Bar diagram- Pie diagram- Histogram.

Measure of Central Tendency- Mean- Median- Mode- Definition- Merits and Demerits- Computing Mean- Median and Mode from grouped and ungrouped data.

#### UNIT – IV

Measures of Dispersions- Range- Mean deviation- Quartile deviation and Standard Deviation- Definition, Merits and Demerits - Computing Range- M.D- Q.D- S.D. from Discrete data only.

#### UNIT – V

Meaning and Definition of Correlation and its types-Merits and demeritsKarl Pearson and Rank Correlation- Meaning and Definition of Regression and its uses. (Only theory)

**Books for Reference:**

1. Gupta, S.C., Kapoor ,V.K.,Fundamentals of Mathematical Statistics, New Delhi S. Chand & Co. 1982.
2. Suresh kumar. M. Statistics for Physical Education Researchers. Karunanithi Publishers. 2012.
3. Larson L.A. and Yocom R.D. Measurement and Evaluation in Physical Health and Recreation EducationSt. Louis, C.W. Mosby Co. 1951

**PHYSICAL EDUCATION**

Relationship Matrix for COs, POs and PSOs

Semester	Code	Title of the Course					Hours	Credits			
V	23UPE5CC11	<b>Research and Elementary Statistics in Physical Education</b>					5	4			
Course Outcomes (COs)	Programme Outcomes(POs)					Programme Specific Outcomes(PSOs)					
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	
CO1	✓	✓		✓	✓	✓			✓	✓	
CO2	✓	✓		✓	✓	✓	✓		✓	✓	
CO3	✓		✓	✓	✓	✓		✓		✓	
CO4	✓				✓	✓	✓		✓	✓	
CO5	✓	✓	✓		✓	✓	✓		✓	✓	
Number of Matches(✓) = 35 Relationship: High											

<b>Mapping</b>	1-29%	30-59%	60-69%	70-89%	90-100%
<b>Matches</b>	1-14	15-29	30-34	35-44	45-50
<b>Relationship</b>	Very Poor	Poor	Moderate	High	Very High

## SEMESTER – V

### Health Education and First Aid

**Core Code: 23UPE5DE1**

**Hours: 4**

**Credit: 4**

**Exam Hours: 3**

**External Marks: 75**

**Internal Marks: 25**

#### **Objectives:**

- To know about first aid and its importance.
- To comprehend themselves and help others who are in need.

#### **Course outcome**

- Gain knowledge about the fundamental concepts of Health Education.
- Understand the various communicable and non-communicable diseases.
- Have a fair idea about the social issues and First Aid.
- Attain knowledge about Food and nutrition
- Gain Knowledge about First Aid and Uses of first Aid.

#### UNIT – I

Meaning of Health Education- Definition of Health Education- Aim and objective of Health Education- Scope of Health Education- Need and importance of Health education.

#### UNIT – II

Communicable Diseases – Causes- modes of spread and Prevention–Tuberculosis, Rabies – Malaria- Chicken pox-HIV and AIDS

#### UNIT –III

Physical Health- Physical Fitness-Health related fitness-Performance related fitness.

#### UNIT – IV

Athletic injuries: Sprain-Strain-contusion-Fracture-Dislocation-Muscle Cramp-Abrasion-Laceration and Puncture wound. Incisions- Avulsions- Blisters

#### UNIT – V

Aim of first aid-Meaning of ordinary first aid-Definition and Importance of First Aid-ABC rule of first aid – an open airway – Breathing – Circulation – Check for Bleeding-Equipments of first aid box.

### Textbooks

- Frank, H. & Walter, H., (1976).  
Turners school health education. Saint Louis: The C.V. Mosby Company.
- Odum, E.P. (1971). Fundamental of ecology. U.S.A.: W.B. Saunders Co.
- Dr. Dev Raj Yadav. "Health Education" ISBN: 978-93-86641-04-5. Edition 2018.

Books for Reference:

1. Park and Park "Preventive and social medicine"
2. Anderson "School Health Practice".
3. Bedi Yashpal "Social and Preventive medicine".
4. First Aid to the Injured "St John Ambulance Association".

### PHYSICAL EDUCATION

Relationship Matrix for COs, POs and PSOs

Semester	Code		Title of the Course			Hours	Credits			
V	23UPE5DE1		Health Education and First Aid			4	4			
Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	✓	✓		✓	✓	✓	✓	✓		✓
CO2	✓		✓		✓	✓	✓	✓		✓
CO3	✓	✓		✓	✓	✓	✓	✓	✓	✓
CO4	✓		✓	✓	✓	✓	✓			✓
CO5	✓	✓	✓	✓	✓		✓			✓
Number of Matches(✓) = 38                      Relationship: High										

Mapping	1-29%	30-59%	60-69%	70-89%	90-100%
Matches	1-14	15-29	30-34	35-44	45-50
Relationship	Very Poor	Poor	Moderate	High	Very High

## SEMESTER – V

### SPORTS PSYCHOLOGY AND SOCIOLOGY

**Core Code: 23UPE5DE2**

**Hours: 4**

**Credit: 4**

**Exam Hours: 3**

**External Marks: 75**

**Internal Marks: 25**

#### **Objectives:**

- To know the sportsmen behaviors.
- To understand the importance of sports psychology in physical education and sports.

#### **Course outcome**

- Learn the importance and Scope of Sports Psychology and Sociology.
- Understand the characteristics of personality, its dimension and types.
- Gain a fair idea about the methods of practice in sports psychology.
- Have a knowledge about Leadership and Group Dynamics
- Learned the need, importance and scope of sport sociology

#### UNIT-I

Meaning and definition of Sports Psychology -Need and importance of Sports Psychology in Physical Education and Sports - Scope of Sports Psychology.

#### UNIT-II

Basic Considerations in Motor Learning and Performance: Reaction Time- Movement Time- Reflex Time- Response Time.

#### UNIT-III

Meaning and Definitions of Personality- Composition of Personality- State and Traits of Sports Person- Learning – Theories of Learning- Law of Learning.

#### UNIT-IV

Motivation- Psychological factors affecting Sports Performance– Tension – Anxiety – Stress – Aggression-Psycho- tonicor Autogenic training – Preparation Phase– Relaxation Phase – Motivation Phase.

#### UNIT-V

Meaning- Nature and scope of sociology in physical Education and sports-Sports culture-Sports as a means of national integration-. Evolution of Sports Sociology.

**Textbooks**

- Blair, J. & Simpson, R. (1962). Educational psychology, New York: McMillan Co.
  - Cratty, B. J. (1968). Psychology and physical activity. Eaglewood Cliffs. Prentice Hall.
- Dr. Sandeep Kumar. "Sports Psychology and Sociology" ISBN: 978-81-921352-6-7. Edition. 2016

**Books for Reference:**

1. John D. Lauther, "Sports Psychology", Englewood, Prentice Hall Inc.
2. Robert N. Singer, "Motor Learning and Human Performance", New York: The Macmillan Co.
3. Mirosław Vauks and Bryant Cratty, "Psychology and the Superior Athlete", London, the Macmillan Co.
4. Robert N. Singer, "The Psychology Domain Movement Behaviour" Philadelphia - Lea and Febiger.

**PHYSICAL EDUCATION**

**Relationship Matrix for COs, POs and PSOs**

Semester	Code	Title of the Course					Hours	Credits			
V	23UPE5DE2	SPORTS PSYCHOLOGY AND SOCIOLOGY					4	4			
Course Outcomes (COs)	Programme Outcomes(POs)					Programme Specific Outcomes(PSOs)					
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	
CO1	✓	✓		✓	✓	✓	✓		✓	✓	
CO2	✓	✓	✓	✓	✓	✓	✓	✓		✓	
CO3	✓			✓		✓		✓	✓	✓	
CO4	✓			✓	✓	✓	✓				
CO5	✓	✓		✓	✓	✓	✓	✓	✓	✓	
Number of Matches(✓) = 37      Relationship: High											

<b>Mapping</b>	1-29%	30-59%	60-69%	70-89%	90-100%
<b>Matches</b>	1-14	15-29	30-34	35-44	45-50
<b>Relationship</b>	Very Poor	Poor	Moderate	High	Very High

## SEMESTER – VI

### SCIENCE OF SPORTS TRAINING

**Core Code: 23UPE6CC13**

**Hours:6**

**Credit:5**

**Exam Hours: 3**

**External Marks: 75**

**Internal Marks: 25**

#### **Objectives:**

- To understand the basic knowledge about training program.
- To analyse the scientific approach to improve the techniques and tactics.

#### **Course outcome**

- Have a basic knowledge in sports training.
- Elaborate the training components.
- Learn about the training process, components of load and overload.
- Attain knowledge about technical training and tactical training concept.
- Use various methods in sports training for preparation of the sports persons.

#### Unit – I

Meaning and Definitions of Sports Training- Aim and Objectives of Sports Training-Principles of Sports Training-Importance of Warm up – Warm down.

#### Unit – II

Training Load – Intensity- Density and Volume- Load adaptation-Over load and recovery - Factors of load-Types of training-Circuit training- Fartlek training-Plyometric training–Interval training.

#### UNIT – III

Meaning and Development of motor Components:Speed-Strength-Endurance-Flexibility-Agility-Co-Ordination.

#### UNIT – IV

Periodization-Meaning of Periodization- Aim and content of periods –preparatory-Competition-Transitional-Single Periodization-Double Periodization-Long Term-Short Term.

#### UNIT – V

Meaning and Definition of Techniques and Tactics- Technical and tactical preparation of athletes-Type of Training Plans Chat-Micro Cycle– Meso Cycle –MacroCycle.

### Textbooks

- Bompa, Tudor O. (1990). *Periodization theory and methodology of training*. (4Ed) Champaign: Human Kinetics
- Harre, Dietrich, (ed). (1982) *Principles of sport training*. Berlin. Sportverlag,
- Matreyev, I. (1982) *Fundamentals of sport training*. Berlin. Sportverlag,
- Dr. Sukhbir Singh. "Sports Training" ISBN: 978-81-921352-5-0, Edition 2016.

### Books for Reference:

1. Arnhem D. Daniel, Pretice (William. E) (1963). Principles of Athletic Training, Mosby year book.
2. Hardayal Singh (1991). Science of sports Training. New Delhi. D.V.S Publications.
3. Preiffer (Ronaldp, Mangasl Brentc) (2005).
4. Concepts of Athletic Training. Jones and Bartlett, Sudbury, Mansachsetti Boston, Tornoto London, Singapore. Strand (1996), Fitness Education. Benjamin Cumming

## PHYSICAL EDUCATION

### Relationship Matrix for COs, POs and PSOs

Semester	Code	Title of the Course					Hours	Credits			
VI	23UPE6CC13	SCIENCE OF SPORTS TRAINING					6	5			
Course Outcomes (COs)	Programme Outcomes (POs)					Programme Specific Outcomes (PSOs)					
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	
CO1	✓	✓	✓		✓	✓	✓	✓		✓	
CO2	✓	✓		✓	✓	✓	✓		✓	✓	
CO3	✓	✓		✓	✓	✓	✓			✓	
CO4	✓	✓			✓	✓			✓	✓	
CO5	✓	✓	✓		✓	✓				✓	
Number of Matches (✓) = 35 Relationship: High											

<b>Mapping</b>	1-29%	30-59%	60-69%	70-89%	90-100%
<b>Matches</b>	1-14	15-29	30-34	35-44	45-50
<b>Relationship</b>	Very Poor	Poor	Moderate	High	Very High

**SEMESTER – VI**  
**Practical - Major Games –IV and Track & field -IV**  
**(Specialization Major Game)**

**Core Code: 23UPE6CC14P**  
**Hours: 5**  
**Credit: 5**

**Exam Hours: 3**  
**External Marks: 60**  
**Internal Marks: 40**

**Objectives**

1. To impart the fundamentals of knowledge about the theory of sports and games
2. To understand various organization body of Sports and Games in National and international.

**Course outcome**

- Gain knowledge about various sports and games and its organizations.
- Gain fundamental knowledge about the ground preparation, its dimensions and markings.
- Have a basic knowledge of rules and interpretation of games and sports.
- Have a knowledge of equipments and its specifications.
- Have a basic knowledge about system of officiating techniques of games and sports.

**UNIT I**

**Prerequisites of an Official:** Qualification and Qualities of officials,- Philosophy of Officiating in the above listed four games.

**UNIT II**

**History and Organizational Setup:** History and Development-, International,- national level organizational setup-, Major Tournaments and Trophies in the above listed four games.

**UNIT III**

**Principles and Mechanism of Officiating:** General principles of officiating - Duties and powers of officials - Mechanism of officiating in the above listed four games.

**UNIT IV**

**Dimensions of Play Field:** Measurements of play fields of the above listed si games.

**UNIT V**

**Rules and their Interpretations** Rules of the following games and there in the above listed four games.

**TEXT BOOK:**

1. Perinbaraj Bevinson, Play Field: Dimensions and its Requirements, Vinsi Publications, Karaikudi, 2003.

## REFERENCE BOOKS:

1. Anand, R.L., Play Field Manual Patiala: NISPublication, 1998.
  2. Ashwin Shaw, Cricket manual, New Delhi: Luther worth Publishers, 2001.
  3. Authors Guide, Rules of Games and Sports, New Delhi: YMCA Publishing House, 2002.
  4. Buck .H.C, Rules of Games and sports, New Delhi: YMCA Publishing House, Masse Hall, 2000.
  5. Bunn, J. W., The Art of officiating Sports, Prentice Hall, Englewood Cliff, 1997.
  6. Bunn, J.W., The Basketball Coaches' Guide to Success, Prentice Hall, 1998.
  7. Hardayal Singh, Sports Training - General Theory and Methods. NSNIS, 2005.
  8. Saggarr S.K, Play better Volleyball, New Delhi: Kay Kay Printers, 1994.
  9. Tan Poin, coaching youth cricket, London: Human Kinetics, 2009.
- Vinod marotrao Bali, Officiating and Coaching, Sports Publication, New Delhi, 2015

## PHYSICAL EDUCATION

Relationship Matrix for COs, POs and PSOs

Semester	Code	Title of the Course					Hours	Credits			
VI	23UPE6CC14P	Practical - Specialization Major Games					5	5			
Course Outcomes (COs)	Programme Outcomes(POs)					Programme Specific Outcomes(PSOs)					
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	
CO1	✓	✓	✓	✓	✓	✓	✓	✓	✓		
CO2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
CO3	✓	✓		✓	✓	✓	✓	✓		✓	
CO4	✓	✓		✓		✓	✓	✓		✓	
CO5		✓		✓		✓	✓	✓		✓	
Number of Matches(✓) = 39 Relationship: High											

Mapping	1-29%	30-59%	60-69%	70-89%	90-100%
Matches	1-14	15-29	30-34	35-44	45-50
Relationship	Very Poor	Poor	Moderate	High	Very High

**SEMESTER – VI**  
**Sports Bio Mechanics and Kinesiology**

**Core Code: 23UPE6CC15**

**Hours: 6**

**Credit: 4**

**Exam Hours: 3**

**External Marks: 75**

**Internal Marks: 25**

**Objectives:**

- To understand the basics of kinesiology and sports biomechanics.
- To know the various origin, insertion and muscle action.

**Course outcomes:**

- Understand the basics of kinesiology and sports biomechanics.
- Given fair idea about the various origin, insertion and muscle action.
- Provided the basic concepts of linear kinematics and kinetics.
- Studied the fundamentals aspects of levers and its types.
- Gained knowledge about force and movement analysis.

**UNIT – I**

Definition & Meaning of Kinesiology & Sports Biomechanics - Scope - Need and importance of Sports Kinesiology and Biomechanics - Historical development of Kinesiology and Sports Biomechanics.

**UNIT – II**

Involvement of various muscles during different fundamental and auxiliary movements of hip, knee, shoulder, elbow joint, shoulder girdle and trunk region. Origin, insertion and action of the muscles - Pectoralis major – Deltoid – Biceps – Sartorius - Quadriceps.

**UNIT – III**

Definition & meaning - Distance, displacement, speed, velocity, acceleration due to gravity, inertia, mass, force, weight, momentum. Newton's law of motion – Law of Inertia, Law of acceleration, Law of action and reaction. Forms of motion – Linear, Angular and General motion.

**UNIT – IV**

Definitions & meaning - angular distance, angular displacement, angular velocity, angular acceleration. Levers – Types of levers, Advantages of levers in sports movement. Definition of Centre of gravity and its importance.

**UNIT – V**

Definition of forces, types of forces, internal and external forces, centripetal and centrifugal force. Biomechanical analysis of walking, running, jumping and throwing.

**REFERENCES:**

1. Hay, J. (1993). The Biomechanics of Sports Techniques. New Jersey: Prentice Hall Inc.
2. Thompson. (1998). Structural Kinesiology. New York: McGraw-Hill.
3. Wells, Katherine F., and Kathryn, Luttgens. (1976). Kinesiology the scientific basis of human motion. Philadelphia: Saunders Company
4. Gladys, Scott., M. (2005). Text book in Kinesiology. New York: Warren's Books.
5. Peter, McGinnis. (2005). Biomechanics of Sport and Exercise. Champaign: Human Kinetics.
6. Shaw, Dhananjay. (1998). Pedagogic Kinesiology, Delhi: Sports publication.
7. Susan, J Hall. (2004). Basic Biomechanics. New York: McGraw Hill Education.
8. [www.teachPE.com](http://www.teachPE.com)

Semester	Code	Title of the Course					Hours	Credits			
VI	23UPE6CC15	<b>Sports Bio Mechanics and Kinesiology</b>					6	4			
Course Outcomes (COs)	Programme Outcomes(POs)					Programme Specific Outcomes(PSOs)					
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	
CO1	✓	✓	✓	✓	✓	✓	✓	✓	✓		
CO2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
CO3	✓	✓		✓	✓	✓	✓	✓		✓	
CO4	✓	✓		✓		✓	✓	✓		✓	
CO5		✓		✓		✓	✓	✓		✓	
Number of Matches(✓) = 39      Relationship: High											

Mapping	1-29%	30-59%	60-69%	70-89%	90-100%
Matches	1-14	15-29	30-34	35-44	45-50
Relationship	Very Poor	Poor	Moderate	High	Very High

**SEMESTER – VI**

**PRINCIPLES AND TECHNIQUES OF OFFICIATING AND COACHING**

**Core Code: 23UPE6DE3**

**Hours: 6**

**Credit: 4**

**Exam Hours: 3**

**External Marks: 75**

**Internal Marks: 25**

**Objectives:**

- To know the scientific principles of teaching, training and coaching.
- To apply the techniques, tactics and strategy by knowing the principles of coaching.

**Course outcome**

- Understand the need of officiating and coaching
- Understand the need of Duties of Official-Official Signals-Position of officiating.
- To Realize play field Dimensions and throw events Specification
- To know rules and scoring system of selected games
- To Realize Skills and techniques of selected games and throw events.

**UNIT – I**

Philosophy of officiating- Qualification and Qualities of Officials-General principles of officiating.

**UNIT – II**

Pre, during and post Duties of Official-Mechanism of Officiating-Official Signals-Position of officiating.

**UNIT – III**

Dimensions of play field event- Marking-Dimensions and layout of the play field and throw Events-Specifications of equipment

**UNIT – IV**

Rules of games: Football- Hockey and Kabaddi-Throw Events-Score sheet of games –Football- Hockey and Kabaddi -Throw events.

**UNIT – V**

Specific Skills and techniques: Football-Hockey and Kabaddi- Throw Events-Lead up games to develop the skill/technique - Football, Hockey and Kabaddi- Throw events. Discus -, hammer -, javelin- shot put

**Books for Reference:**

1. Buck Rules of Sports and Games, Published by NCY sI, New Delhi.

2. Jenson G. and Fisher AG, (1972). Scientific Basis of Athletic Conditioning, 2<sup>nd</sup> edition, Lea andFebigeer, Philadelphia.
3. Jones RJ and et.al., (1982). Guide to Effective Principles and Practices, Allyn and Bacon, Inc.
4. LawtherJD (1951). Psychology of Coaching, Prentice Hall, Inc, Englewood Cliffs, New Jersey.
5. Singh H (1984). Sports Training, General Theory and Physical Fitness, NIS, Patiala.
6. Thomas JP (1971). Scientific Weight Training for Sports and Games, Gnanodaya Press, Madras.

## PHYSICAL EDUCATION

Relationship Matrix for COs, POs and PSOs

Semester	Code	Title of the Course	Hours	Credits						
VI	23UPE6DE3	PRINCIPLES AND TECHNIQUES OF OFFICIATING AND COACHING	6	4						
Course Outcomes (COs)	Programme Outcomes(POs)					Programme Specific Outcomes(PSOs)				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	✓	✓	✓	✓	✓	✓	✓	✓	✓	
CO2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CO3	✓	✓		✓	✓	✓	✓	✓		✓
CO4	✓	✓		✓		✓	✓	✓		✓
CO5		✓		✓		✓	✓	✓		✓
Number of Matches(✓) = 39 Relationship: High										

<b>Mapping</b>	1-29%	30-59%	60-69%	70-89%	90-100%
<b>Matches</b>	1-14	15-29	30-34	35-44	45-50
<b>Relationship</b>	Very Poor	Poor	Moderate	High	Very High

## SEMESTER – VI PHYSICAL FITNESS MANAGEMENT

**Core Code: 23UPE6DE4**  
**Hours: 5**  
**Credit: 4**

**Exam Hours: 3**  
**External Marks: 75**  
**Internal Marks: 25**

### **UNIT-1**

Meaning and Definition of physical fitness, physical fitness concepts and techniques, principles of physical fitness, physiological principles invalid in human movement. Components of physical fitness

### **UNIT-2**

Nutrition labeling information, food choice, 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 Eating disorders proper hydration the effect and performance of physical fitness management

### **UNIT-3:**

Cardio respiratory training: Monitoring heart rate during activity. Assessment of cardio respiratory fitness and set goals to maintain or improve fitness level. (power, walking, pacer test, interval training, incline training, distance running aerobics and circuits )  
Anaerobic exercise resistance training for muscular strength and endurance principles of resistance training, proper body alignment lifting techniques. Weight training principles and concepts;

### **UNIT-4:**

Flexibility training, relaxation techniques and core training. Safety techniques (stretching protocol; breathing and relaxation techniques) types of flexibility exercise.

### **UNIT-5:**

The exercise prescription, quantity and quality of the exercise program, warm up and limbering down. Concept of body composition, somato type and physical activity. Obesity, energy, balance, weight control.

### **Reference:**

David K. Miller & T. Earl Allen, Fitness, A life time commitment, Surjeet Publication Delhi 1989.

Dificore Judy, the complete guide to the postnatal fitness, A & C Black Publishers Ltd. 35 Bedford row, London 1998

Dr. A.K. Uppal, Physical Fitness, Friends Publications (India), 1992.

Warner W.K. Oeger& Sharon A. Hoeger, Fitness and Wellness, Morton Publishing Company, 1990.

Elizabeth & Ken day, Sports fitness for women, B.T. Batsford Ltd, London, 1986.

Emily R. Foster, KarynHartiger& Katherine A. Smith, Fitness Fun, Human Kinetics Publishers 2002.

Lawrence, Debbie, Exercise to Music. A & C Black Publishers Ltd. 37, Sohe Square, London 1999

Robert Malt. 90 day fitness plan, D.K. publishing, Inc. 95, Madison Avenue, New York 2001

Semester	Code	Title of the Course					Hours	Credits			
VI	23UPE6DE4	<b>PHYSICAL FITNESS MANAGEMENT</b>					5	4			
Course Outcomes (COs)	Programme Outcomes(POs)					Programme Specific Outcomes(PSOs)					
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	
CO1	✓	✓	✓	✓	✓	✓	✓	✓	✓		
CO2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
CO3	✓	✓		✓	✓	✓	✓	✓		✓	
CO4	✓	✓		✓		✓	✓	✓		✓	
CO5		✓		✓		✓	✓	✓		✓	
Number of Matches(✓) = 39      Relationship: High											

Mapping	1-29%	30-59%	60-69%	70-89%	90-100%
Matches	1-14	15-29	30-34	35-44	45-50
Relationship	Very Poor	Poor	Moderate	High	Very High