

## **National College (Autonomous)**

### **VISION**

- To offer quality higher education to the younger generation, especially from the rural India, who are economically and socially backward, to liberate themselves from prejudice, oppression and ignorance and to gain knowledge for their bright future.

### **MISSION**

- To ignite the young minds with lofty ideas and inspire them to achieve excellence in the chosen field.
- To facilitate individual growth of students, with accent on character building, through co-curricular and extra-curricular activities.
- To encourage the students to take up research and help they reach global standards.
- To provide a congenial atmosphere to study and to learn with infrastructural facilities of high standards.
- To instill in the minds of the students, the sense of nationalism and to train them in social awareness.

## **RESEARCH DEPARTMENT OF PHYSICAL EDUCATION AND SPORTS SCIENCES**

### **VISION**

- To be an International Institute of Excellence, providing a conducive environment
- For education with a strong emphasis on innovation, quality, research and Strategic.
- Partnership blended with values and commitment to society.

## **MISSION**

- To create an ecosystem for learning and world class research.
- To nurture a sense of creativity and innovation.
- To instil highest ethical standards and values with a sense of professionalism.
- To take up activities for the development of Society.
- To develop national and international collaboration and strategic partnership with industry and institutes of excellence.  
To enable graduates to become future leaders and innovators.

## **VALUE STATEMENT**

Integrity, Innovation, Internationalization

(For candidate to be admitted from the academic year 2022 onwards)

SEM	PART	COURSE	COURSE TITLE	INST HRS/	CREDITS	EXAM HRS	MARKS			TOTAL
							INT	EXTERNAL		
S E M E S T E R  -  1								W	O	
	I	Language-U22TI/ U22HI/U22S1	Tamil/Hindi/Sanskrit	6	3	3	25	75	-	100
	II	English-I (U22E1)	English	6	3	3	25	75	-	100
	III	Core Course-1 (U22PE1)	History of Physical Education	5	3	3	25	75	-	100
		Core course-II (U22PE2P)	<b>Major Practical- 1</b> (Calisthenics, Aerobics, Pyramid, Drill and Marching, Minor Games)	3	4	3	25	70	5	100
		First Allied Course-I (U22APE1)	Scientific Aspects of Yoga & Gymnastics	5	3	3	25	75	-	100
		First Allied Course-II (U22APE2P)	<b>Allied Practical-I</b> (Yoga & Gymnastics)	3	4	3	25	70	5	100
	IV	Environmental Studies (U22ES)	Environmental Science	2	2	3	25	75	-	100
	<b>TOTAL</b>				<b>30</b>	<b>22</b>				

S E M E S T E R	I	Language- U22T2/U22H2/U22S2	Tamil/Hindi/Sanskrit	6	3	3	25	75	-	100
	II	English-I(U22E2)	English	4	3	3	25	75	-	100
		Communicative English-(U22CE1)		2	-	3	25	70	5	100
	III	Core course- (U22PE3P)	<b>Major Practical-II-</b> Track Events	3	3	3	25	70	5	100

**B.Sc. Physical Education, Health Education & Sports(2022-23 onwards)**

2		Core course- (U22PE4)	Theories of Track & Field Events	5	4	3	25	75	-	<b>100</b>
		First Allied Course - (U22APE3P)	<b>Allied Practical-II-</b> Field Events	3	3	3	25	70	5	<b>100</b>
		First Allied Course - (U22APE4)	Anatomy and Physiology	5	4	3	25	75	-	<b>100</b>
	<b>IV</b>	SBE Course- I(U22SBE:1)	Office Automation	2	2	3	25	75	-	<b>100</b>
	<b>Total</b>				<b>30</b>	<b>22</b>	-	-	-	-
3	<b>I</b>	Language-U22T3/ U22H3/U22S3	Tamil/Hindi/Sanskrit	6	3	3	25	75	-	<b>100</b>
	<b>II</b>	English-(U22E3)	English	6	3	3	25	75	-	<b>100</b>
	<b>III</b>	Core Course- (U22PE5)	Theories of games (cricket, Football, Hockey, & volleyball)	4	4	3	25	75	-	<b>100</b>
		Core course-V (U22PE6P)	<b>Major Practical-III</b> (Cricket & Football )	4	3	3	25	75	-	<b>100</b>
		Second Allied course- I(U22APE5P)	<b>Allied Practical-III</b> (Hockey & Volleyball)	3	3	3	25	70	5	<b>100</b>
		Second Allied Course - II(U22APE6)	Applied Kinesiology & Biomechanics	3	3	3	25	70	5	<b>100</b>
	<b>IV</b>	SBE Elective Course- 22SBE:2)	DTP	2	2	3	25	75	-	<b>100</b>
		Skill Based Elective Course-III	Practical	2	2	3	25	75	-	<b>100</b>
<b>Total</b>				<b>30</b>	<b>23</b>				-	<b>800</b>
	<b>I</b>	Language Course -U22T4/U22H4/U22S	Tamil/Hindi/Sanskrit	6	3	3	25	75	-	<b>100</b>

**B.Sc. Physical Education, Health Education & Sports(2022-23 onwards)**

S E M E S T E R - 4	<b>II</b>	English-I(U22E4)	English	4	3	3	25	75	-	<b>100</b>
		Communicative English-(U22CE2)	Communicative English	2	-	3	25	75	-	<b>100</b>
	<b>III</b>	Core course-(U22PE7P)	<b>Major Practical-IV</b> (Table Tennis, Ball badminton)	3	4	3	25	70	5	<b>100</b>
		Core course-(U22PE8)	Theories of major games - Basketball, Table Tennis, Ball badminton & Throw ball	4	4	3	25	75	-	<b>100</b>
		Second Allied Course-(U22APE7P)	<b>Allied Practical-IV</b> (Basketball& Throw ball)	3	3	3	25	70	5	<b>100</b>
		Second Allied Course-(U22APE8)	Modern trends in Physical Education& Sports Management	5	3	3	25	75	-	<b>100</b>
	<b>IV</b>	Non Major Elective Course-I (U22NME: I)	Sirappu Tamil	2	2	3	25	75	-	<b>100</b>
		Value Education Course:U22VE	Value Education	1	2	3	25	75	--	<b>100</b>
<b>Total</b>				<b>30</b>	<b>24</b>					<b>900</b>
S E M E S T E R	<b>III</b>	Core course-(U22PE11P)	<b>Major Practical-V-</b> (Kabaddi, Badminton, Kho-Kho, Swimming)	5	4	3	25	75	-	<b>100</b>
		Core course-(U22PE12)	Officiating and Coaching - IV (Kabaddi, Badminton, Kho-Kho, Swimming)	5	4	3	25	75	-	<b>100</b>
		Major Based Elective Course-(U22PE9E)	Guidance for Uniformed Services	5	4	3	25	75	-	<b>100</b>
		Major Based Elective Course-(U22PE10E)	Adapted Physical Education	5	4	3	25	75	-	<b>100</b>
		Core course-(U22PE13)	Basic Statistics in Physical Education	3	3	3	25	75	-	<b>100</b>
		Core Course-(U22PE14P)	<b>Major Practical-VI-</b> Intensive teaching Practice	3	3	3	25	70	5	<b>100</b>

**B.Sc. Physical Education, Health Education & Sports(2022-23 onwards)**

5	IV	Non Major Elective Course-(U22NME:II)	Sirappu Tamil	2	2	3	25	75	-	100	
		Soft Skills-(U22SS)	Soft Skills	2	2	3	25	75	-	100	
				<b>Total</b>	<b>30</b>	<b>26</b>			-	<b>800</b>	
S E M E S T E R	III	Core Course – (U22PE15P)	<b>Major Practical-VII-</b> (Training Methods in Sports )	6	3	3	25	70	5	100	
		Core Course– (U22PE16)	Science of Sports Training and Nutrition	4	3	3	25	70	5	100	
		Core Course– (U22PE17)	Exercise Physiology & Sports Injuries	5	4	3	25	75		100	
		Core Course– (U22PE18)	Test, Measurement & Evaluation	4	4	3	25	75		100	
		Core Course – (U22PE19P)	<b>Major Practical-VIII-</b> (Martial Arts, Project Sports Meet)	6	4	3	25	75		100	
		Major based elective Core course–	Health Education ,Recreation and Camping	4	3	3	25	75		100	
		V	Gender Studies Course– (U22GS)	Gender Studies	1	1	3	25	75		100
	6		Extension ACTIVITIES	Phy.Edu./NSS/NCC/Scrub/Dep.Association	-	1			-		
			<b>Total</b>	<b>30</b>	<b>23</b>					<b>700</b>	
			<b>Grant Total</b>	<b>180</b>	<b>140</b>					<b>4700</b>	
<b>Revised and approved–Board of Studies–2022–on 07.07.2022</b>											

### **PROGRAMME OUTCOMES:**

- B.Sc. Physical Education, Health Education and Sports is basically a science Programme meant for preparing students for excellence in Physical Education and Sports. To prepare highly competent and skilled person in the field of Physical
- Education & Sports and to serve the society. To acquired basic knowledge on higher academic system in Physical Education.
- Practical training gives better understanding of Physical education and sports.
- The programme basically to train the sports person systematically and scientifically.
- Development of personality, communication and leadership qualities.
- Have the skills and traits to working across the globe.
- Earning capabilities of livelihood for comfortable life.

### **PROGRAMME SPECIFIC OUTCOMES:**

- To integrate the study of childhood, social context of Physical Education.□
- To update the subject knowledge, pedagogical knowledge and communication skills.
- To attain the skills and knowledge on competitive exams, national and state level eligible test and other equivalent competitive exam in the field of Physical Education.
- The programme comprises of compulsory and optional theory as well as practical courses.
- The programme gives practical exposure to the various physical activities and sports. Hand-on training will be given in teaching of Physical Education, Sports and Yoga. To learn the fundamental skills and rules of major games and sports.
- B.Sc. Physical Education, Health Education and Sports is basic science degree, which leads to professional degree such as B.P.Ed. programme meant for preparing students for teaching / coaching profession.

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*Scheme and syllabus for B.Sc. Physical Education, Health Education and Sports  
Outcome based system (OBES) - 2022 onwards*

Sem	Course Code	Course Title	Credit	Hrs	Marks		
					I	E	T
I	U22PE1	History of Physical Education	3	3	25	75	100

### **Objective**

- To study and understand the fundamental concepts of Physical Education and contributions of allied sciences.
- To acquire the knowledge of history of Physical Education.

### **Course Outcomes (Cos)**

1. To study and understand the fundamental concepts of Physical Education.
2. To attain the knowledge of history of Physical Education.
3. Understand the basic competence and confidence to face the different challenges.
4. To acquire knowledge about scope and future of Physical education.
5. To elaborate about the sports competition's categories.

### **UNIT - I: Introduction to Physical Education**

Meaning and Definition of Education and Physical Education. Need, Nature and Scope of Physical Education. Physical training and Physical culture.

### **UNIT II: Multiple Developments and Learning**

Aim and Objectives of Physical Education. Development of Physical, Cognitive, Neuromuscular, Affective, Social, Emotional, Spiritual and Recreational. Theories of Learning. Laws of Learning.

### **UNIT III: Physical Education and allied Sciences**

Scientific basis Physical Education. Contribution of Allied Sciences - anatomy, Physiology, Biomechanics, Kinesiology, Sports Medicine, Psychology, Sociology and Computer Science.

### **UNIT IV: Foundation of Physical Education**

History of Physical Education in Sparta and Athens. Olympic Games: Ancient, Modern - Origin - Organization and conduct of the game - Olympic Flag, Torch, Oath, Emblem and Motto.

### **UNIT V: Sporting Institutions and Awards**

Recent developments in India: SAI, NSNIS, SNIPES, LNIPE. Sports Academics: Awards and Scholarships: Arjuna Award, Dhronocharya Award, Rajiv Gandhi Khel Ratna Award - International and National Competitions: Asian Games, SAF, SGF, RDS and BDS.

### **References:**

1. Bucher, Charles A., (1983). Foundations of Physical Education. St. Louis: The C.V. Mosby Company.
2. Thirunarayanan, C. and Hariharan, S., (1990). Analytical History of Physical Education. Karaikudi:C.T. & S.H. Publications.
3. Kamlesh, M.L., (1988). Physical Education: Facts and Foundation. New Delhi: P.B. Publications.

4. Sharma, O.P., (1998). History of Physical Education. New Delhi: Khel Shitya Kendra.
5. Wakharkar, D.G., (1967). Manual of Physical Education in India. Bombay: Pearl Publications Pvt. Ltd

### Question Paper Pattern

Section A (1*20=20)		Section B (5*5=25)	Section C (3*10=30)
1 to 20 Multiple Questions	Choice	21 to 25 Theory	26 to 30 Theory

### Online Resources

MOOC Course s	<a href="https://alison.com/course/diploma-in-outdoor-and-physical-education-studies-revised">https://alison.com/course/diploma-in-outdoor-and-physical-education-studies-revised</a>
E- content	<a href="https://www.sssutms.co.in/cms/Areas/Website/Files/Link/EContent/Foundation_physical_education.pdf">https://www.sssutms.co.in/cms/Areas/Website/Files/Link/EContent/Foundation_physical_education.pdf</a>
Other online resourc es	<a href="https://study.com/academy/lesson/physical-education-history-major-contributors.html">https://study.com/academy/lesson/physical-education-history-major-contributors.html</a>

### Relationship Matrix for COs, POs

Course Outcome s	Programme Outcomes											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	3	3	2	2	2	2	1	1	1	1
CO2	3	3	3	3	--	--	--	--	--	--	1	1
CO3	2	2	2	2	--	--	--	--	--	--	--	--
CO4	1	1	1	1								
CO5	--	--	--	--	2	2	2	2	1	1	1	1
Total	10	10	10	10	4	4	4	4	2	2	3	3
AVG	2	2	2	2	1.6	1.6	1.6	1.6	0.4	0.4	0.6	0.6

Notes: 1-Slight(low) 2- moderate (medium) 3-Substantial; (High) “—“there is no correlation

Sem	Course Code	Course Title	Credit	Hrs	Marks		
					I	E	T
I	U22PE2P	<b>MAJOR PRACTICAL -1</b> Calisthenics , Aerobics, Pyramid, Drill and Marching, Minor Games	4	3	25	75	100

### Objectives

- To provide adequate practice on fundamental, advance skills and techniques in selected sports discipline.
- To train on coaching, officiating and marking in selected sports discipline.

#### 1. Drill and Marching:

Attention - Stand-at-ease

Mark time march - Quick march Eyes right

Turnings (About turn, right turn, left turn)

#### 2. Pyramid

Two to Ten man pyramids

Wall - Tower - Triangle pyramid Moving - Collapse pyramid

#### 3. Aerobics

Counts

Mirror (walk or march, touch out, step touch, cap step)

Shapes (A,V,L,Jazz square, Diamond, Mambo, Clock step, Grapevine) Power move (lunges, gallop, jaz walk, shuffle, squats) Rhythm (ship, cha-cha)

#### 4. Drill and Marching

Preparation

Method of Instructions

Words of Command

Attention

Standing at Ease

Marching in Quick and Slow Time

#### 5. Minor Games

Tag Games – Relay Games- Ball Games – Skill Development Games

### METHOD OF EVALUATION

1) Proficiency in Skill	40 marks
2) Teaching Ability	30 marks
3) Viva-voce (Theoretical knowledge of the game, Rules/Interpretations)	15 marks
4) Record of Work	15 marks
TOTAL	100 marks

**Relationship Matrix for COs, POs**

Course Outcomes	Programme Outcomes											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	2	2	2	--	--	--	--	--	--	--	--
CO2	--	--	--	--	3	3	3	3	2	2	2	2
CO3	--	--	--	--	--	--	--	--	1	1	1	1
CO4	2	2	2	2	--	--	--	--	--	--	--	--
CO5	1	1	1	1	3	3	3	3	1	1	1	1
Total	5	5	5	5	9	9	9	9	4	4	4	4
AVG	1	1	1	1	1.8	1.8	1.8	1.8	0.8	0.8	0.8	0.8

Sem	Course Code	Course Title First Allied Course-I	Credit	Hrs	Marks		
					I	E	T
I	U22APE1	SCIENTIFIC ASPECTS OF YOGA & GYMNASTICS	4	3	25	75	100

### Objectives

- To acquire the practical knowledge of yogic practices.
- To provide practical exposure in selected indigenous activities.

### Course Outcomes:

1. Understand the fundamental skills and history of Yoga
2. To attain the knowledge about various Asanas and Medication
3. To acquire knowledge about Association and Organization of Gymnastics
4. To discuss rhythmic patterns using gymnastics and rhythmic exercises
5. To develop the skills for officiating and organizing the events

### UNIT I: Introduction & Objectives of Yoga

Meaning of yoga - Aim and objectives of Yoga - Concept of yoga, Systems of Yoga - Eight Limbs of yoga - Asanas - Classification of Asanas - Guidelines for practicing Asanas.

### UNIT II: Asanas

Procedure of doing Asanas. Asanas in Long Sitting Position - Prone Position - Supine Position - Standing Position - Kneeling Position. Physiological Benefits of Asanas. Pranayama - Types & Concepts of Prnayama - Closing the nostrils - Controlling the breath - Bhandhas - Practice Regulation - Importance of suspension (Kumbhaka) - Kriyas and its types. Meditation and its Types. Role of Meditation in Physical Education and Sports

### UNIT III: History of Gymnastics

History of Gymnastics: India. Warming-up, Specific Exercises for Gymnasts, Training Qualities, Load, Safety Hints, Warm-down

### UNIT IV: Floor Exercises

Floor Exercises for Men; Exercises and Techniques on Pommel Horse, Exercises and Techniques on Vaulting, Exercises and Techniques on Roman Rings, Exercises and Techniques on Parallel Bar, Exercises and Techniques on Horizontal bar. Floor Exercises for Women; Exercises and Techniques on Vaulting, Exercises and Techniques on Balance Beam, Exercises and Techniques on Asymmetric Bar.

### UNIT V: Rule and Regulation

Important Competitions, Rules, Officiating, Equipment's and their specification, Maintenance of Equipment's.

### References:

1. Coopn Phyllis and Milan Trnka, Teaching Gymnastic Skills to men and Women, Delhi, Surject Publications, 1982.

2. Modakpintum Gymnastics: A Scientific Approach, Pilani: Runthala Publisher's and Printers, 1996.
3. Elango. M, Kandasamy. M, Sivagnanam. P. Basic Gymnastics: Krishna Publications, 2007
4. B.K.S., Iyengar Light on Yoga, London: Unwin Paperbacks, 1989.
5. K. Chandrasekaran, "Sound health through yoga" PremKalyan Publication, Sedapatti, 1999.
6. Kumaresan P, yogasanam, Tirunelveli: Abinaya Publications, 2002.

### Question Paper Pattern

Section A (1*20=20)	Section B (5*5=25)	Section C (3*10=30)
1 to 20 Multiple Choice Questions	21 to 25 Theory	26 to 30 Theory

### Online Resources

MOOC Courses	<a href="https://alison.com/course/diploma-in-outdoor-and-physical-education-studies-revised">https://alison.com/course/diploma-in-outdoor-and-physical-education-studies-revised</a>
E-content	<a href="https://en.wikipedia.org/wiki/Ashtanga_(eight_limbs_of_yoga)">https://en.wikipedia.org/wiki/Ashtanga_(eight_limbs_of_yoga)</a>
Other online resources	<a href="https://en.wikipedia.org/wiki/Gymnastics">https://en.wikipedia.org/wiki/Gymnastics</a> <a href="https://en.wikipedia.org/wiki/Yoga">https://en.wikipedia.org/wiki/Yoga</a>

### Relationship Matrix for Cos, Pos

Course Outcomes	Programme Outcomes											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	2	2	3	3	3	3	--	--	--	--
CO2	3	--	--	--	3	3	3	3	--	--	--	--
CO3	1	--	--	--	--	--	--	--	1	1	1	1
CO4	2	2	2	2	--	--	--	--	--	--	--	--
CO5	1	--	--	--	--	--	--	--	1	1	1	1
Total	10	4	4	4	6	6	6	6	2	2	2	2
AVG	2	0.8	0.8	0.8	1.2	1.2	1.2	1.2	0.4	0.4	0.4	0.4

Notes: 1-Slight(low) 2- moderate (medium) 3-Substantial; (High) "--"there is no correlation

Sem	Course Code	Course Title First Allied Practical - I	Credit	Hrs	Marks		
					I	E	T
I	U22APE2P	YOGA & GYMNASTICS,AEROBICS	4	3	25	75	100

### Objectives

- To acquire the practical knowledge of yogic practices.
- To provide practical exposure in selected indigenous activities.

### COURSE OUTCOMES:

1. To provide adequate practice on fundamental, advance skills and techniques in
2. Selected sports discipline
3. To train on coaching, officiating in selected sports discipline
4. To know the markings of selected games
5. To develop and practicing the officiating rules in various games

### UNIT – 1 Yoga:Asanas

Asanas - Swastickasana, Padmasana, Vajrasana, Matsyendrasana, Samasana, Vipareetakarani, Bhujangasana, Dhanurasana, Matsyasana, Shalabasana, Halasana, Patchimotanasana, Yogamudra, Vakrasana, Sarvangasana, Shirsasana, Mayurasana, Vrikshasana, Tadasana, Makarasana, Shavasana

### UNIT II: Bandha and Kriyas

Bandha and Kriyas - Jalaneti, SutranetiUddyana, Nauli, KapalaBhati. Pranayama - Suryabandha, Ujjayi, Bhastrika, Nadishodhana, Sheetal, Shitkari

### UNIT – III Gymnastics: Level - 1 Skill

**Floor Exercise:** Forward Roll, Backward Roll, Handstand, Cartwheel, Leg Split, Dive Roll

**Vaulting Table:** Approach Run, Takeoff, Skill Execution, Flight, Landing

**Parallel Bar** - Perfect Swing, Straddle Seat, LSupport, Forward Roll, Backward Roll, Shoulder Stand, Dismount.

**Horizontal Bar**, Perfect Swing, Free Hip Circle, Mill Circle Forward, Mill circle Backward, Dismount. Roman Rings - Perfect Swing, Invested Hang, Rear Hang, Upstart, L-Support, Shoulder Stand, and Dismount.

**Pommel Horse:** Pommel Horse (Any one of the Apparatus in the following) - Supports, (Front, Rear, Straddle, Split, Feint), Single leg Circle Clockwise (Right leg and Left leg), Single leg Circle Anti Clockwise (Right leg and Left leg), Double leg Circle, Scissors.

### UNIT: IV - Officiating

Rules and interpretations, duties of the officials, official signals, system of officiating, equipment Specifications and score sheet for Yoga and Gymnastics

### UNIT-V - Record Note

Preparation of record for Yoga and Gymnastics, History, organizational set-up at International, national and state level sports bodies, skill, technique, tactics, major competitions in yoga and Gymnastics.

**Relationship Matrix for COs, POs**

Course Outcomes	Programme Outcomes											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	2	2	2	--	--	--	--	--	--	--	--
CO2	--	--	--	--	3	3	3	3	2	2	2	2
CO3	--	--	--	--	--	--	--	--	1	1	1	1
CO4	2	2	2	2	--	--	--	--	--	--	--	--
CO5	1	1	1	1	3	3	3	3	1	1	1	1
Total	5	5	5	5	9	9	9	9	4	4	4	4
AVG	1	1	1	1	1.8	1.8	1.8	1.8	0.8	0.8	0.8	0.8

Notes: 1-Slight (low) 2- moderate (medium) 3-Substantial; (High) “—“there is no correlation



Sem	Course Code	Course Title	Credit	Hrs	Marks		
					I	E	T
II	U22PE4	<i>THEORIES OF TRACK &amp; FIELD EVENTS</i>	4	4	25	75	100

### Objectives

- To provide meaningful training on fundamental and advance skills and techniques in selected sports discipline.
- To train on coaching, officiating and marking in selected sports discipline.

### COURSE OUTCOMES

1. To train for track events on scientific and systematic lines.
2. To explain the innumerable techniques and methods of running events.
3. To find out the assessment of track and field performance
4. To discuss the rules and interpretations of track and field events.

**UNIT I:** Fundamental and Advance Skills 18 Fundamental and advance skills, techniques, drills and lead-up games / activities - Sprints, Middle distance, Long distances, Relays, Steeple chase, Walking races, Hurdles and Cross country.

**UNIT II:** Assessment of performance - Sprints, Middle distance, Long distances, Relays, Steeple chase, Walking races, Hurdles and Cross-country events. Specific conditioning / training for above said events.

**UNIT III:** Markings of 200 m and 400 m track. Specific marking for Sprints, Middle distance, Long distances, Relays, Steeple chase, Walking races, Hurdles and Cross-country events. Equipment's and their specifications.

**UNIT IV:** Rules and interpretations, duties of the officials, official signals and score sheet for Sprints, Middle distance, Long distances, Relays, Steeple chase, Walking races, Hurdles and Cross- country events.

**UNIT V:** Preparation of record for Sprints, Middle distance, Long distances, Relays, Steeple chase, Walking races, Hurdles and Cross-country events. Technique and major competitions for jumps, throws and combined events. Organizational set-up at International, national and state level Olympic association History, World & Olympic records and other major competitions.

### References:

1. Book of rules of games and sports, (2005). New Delhi: National Council of Y.M.C.A of India.
2. Bosen, Ken O. (1994). Track & Field Fundamental Techniques, Patiala: MS Publication.
3. Joseph, Rogers L. (2000) USA Track & Field Coaching Manual. Champaign: Human Kinetics Publications.
4. Mariayyah,P., (2005). Track and Field, Coimbatore: Teachers publication.
5. Perinbaraj, S.B., & et al. (2009). Play field: Dimensions and its requirements, Karaikudi: Vinis publication.

### Question Paper Pattern

Section A (1*20=20)		Section B (5*5=25)	Section C (3*10=30)
1 to 20 Multiple Questions	Choice	21 to 25 Theory	26 to 30 Theory

### Online Resources

MOOC Courses	<a href="https://alison.com/course/diploma-in-outdoor-and-physical-education-studies-revised">https://alison.com/course/diploma-in-outdoor-and-physical-education-studies-revised</a>
E-content	<a href="https://www.slps.org/cms/lib/MO01001157/Centricity/Domain/5547/Track%20Events.pdf">https://www.slps.org/cms/lib/MO01001157/Centricity/Domain/5547/Track%20Events.pdf</a>
Other online resources	<a href="https://ncert.nic.in/textbook/pdf/jehp104.pdf">https://ncert.nic.in/textbook/pdf/jehp104.pdf</a>

### Relationship Matrix for Cos, Pos, PSOs

Course Outcome s	Programme Outcomes											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	2	2	3	3	3	3	--	--	--	--
CO2	3	--	--	--	3	3	3	3	--	--	--	--
CO3	1	--	--	--	--	--	--	--	1	1	1	1
CO4	2	2	2	2	--	--	--	--	--	--	--	--
CO5	1	--	--	--	--	--	--	--	1	1	1	1
Total	10	4	4	4	6	6	6	6	2	2	2	2
Weightage	2	0.8	0.8	0.8	1.2	1.2	1.2	1.2	0.8	0.8	0.8	0.8

Notes: 1-Slight (low) 2- moderate (medium) 3-Substantial; (High) “—“there is no correlation

Sem	Course Code	Course Title PRACTICAL- II	Credit	Hrs	Marks		
					I	E	T
II	U22PE3P	<i>OFFICIATING AND COACHING - TRACK EVENTS</i>	3	3	25	75	100

### Objectives

To provide meaningful training on fundamental and advance skills and techniques in selected sports discipline.

To train on coaching, officiating and marking in selected sports discipline.

### COURSE OUTCOMES:

1. To attain the knowledge about history of track and field events.
2. To impart the knowledge of marking of track and field events.
3. To explain the Rules and Regulation of track and field events
4. To impart the theoretical knowledge of officiating in track and field events.
- 5 To know the organizational set-up of athletics federation at various levels.

**UNIT I:** History Origin and development of track and field events.

**UNIT II:** Marking Layout & markings of 200 and 400 meters track.

**UNIT III:** Rules and Regulation Rules and their interpretations of all track and field events including Combined events, Steeple chase and Cross country.

**UNIT IV:** Mechanics of Officiating Duties of officials - official signals, score sheet - all track events including combined events, Steeple chase and Cross country.

**UNIT V:** Sports Federation / Association Organizational setup of International, national and state level federations / association. Marathon race, Major competitions, World and Olympic records.

### Reference

1. Anand. R.L. (1986). Play field manual, Patiala: NIS publication.
2. Book of rules of games and sports, (2005). New Delhi: National Council of Y.M.C.A of India.
3. Bosen, Ken O. (1994). Track & Field Fundamental Techniques, Patiala: MS Publication.
4. Conling, David, (1980) Athletics, London: Robert Hale
5. Joseph, Rogers L. (2000) USA Track & Field Coaching Manual. Champaign: Human Kinetics Publications.
6. Mariayyah,P., (2005). Track and Field, Coimbatore: Teachers publication.
7. Perinbaraj, S.B., & et al. (2009). Play field: Dimensions and its requirements, Karaikudi: Vinis publication.

**Relationship Matrix for COs, POs**

Course Outcomes	Programme Outcomes											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	2	2	2	--	--	--	--	--	--	--	--
CO2	--	--	--	--	3	3	3	3	2	2	2	2
CO3	--	--	--	--	--	--	--	--	1	1	1	1
CO4	2	2	2	2	--	--	--	--	--	--	--	--
CO5	1	1	1	1	3	3	3	3	1	1	1	1
Total	5	5	5	5	9	9	9	9	4	4	4	4
AVG	1	1	1	1	1.8	1.8	1.8	1.8	0.8	0.8	0.8	0.8

Notes: 1-Slight (low) 2- moderate (medium) 3-Substantial; (High) “—“there is no correlation

Sem	Course Code	Course Title First Allied Course	Credit	Hrs	Marks		
					I	E	T
II	U22APE4	ANATOMY AND PHYSIOLOGY	4	4	25	75	100

### Objectives

- To provide basic knowledge about human anatomy and physiology.
- To study the various systems in the human body and their functions.

### COURSE OUTCOMES:

1. To describe the structures and functions of tissues and muscles in human body
2. To summarize the classification, features and the importance of skeletal system in human body.
3. To understand the anatomy and physiology of nervous and digestive system
4. To elaborate the structure and functions of respiratory and circulatory systems.
5. To explain the role of endocrine glands in development and regulation of body function

**UNIT I: Introduction to Anatomy and Physiology**, Meaning of Anatomy and Physiology - Need and Scope of Anatomy and Physiology in Physical Education. Cell - Structure and Functions. Tissues - Types and Function. Muscular System - Types of Muscles: Skeletal Muscle, Cardiac Muscle, and Smooth Muscle.

**UNIT II: Skeletal System:** Meaning and Functions - Bones: Classification and Functions - General Features of Various Bones: Vertebral Column, Pelvic Bone, Radius and Ulna, Scapula, Femur and Bones of Skull - Joints: Definition and Classification of Joints.

### UNIT III: Nervous and Digestive Systems

Nervous System: Neuron - Central Nervous System (CNS): Brain and Spinal Cord - Peripheral Nervous System (PNS): Cranial Nerves and Spinal Nerves. Digestive System: Structure & Functions - Digestive Process - Liver, Pancreas - Functions.

**UNIT IV: Respiratory and Circulatory Systems:** Respiratory System - Respiration - Respiratory Track - Alveoli - Lungs: Structure & Functions - Gas Exchange - Vital Capacity. Circulatory System - Heart: Structure & Functions - Cardiac Cycle, Cardiac Output and Stroke Volume.

**UNIT V: Endocrine Systems:** Endocrine Glands - Functions of Endocrine Glands: Pituitary, Thyroid, Para-Thyroid, Thymus, Pancreas, Adrenal & Sex – their role, in growth, development and regulations of body functions.

### Reference

1. Curton, A.C." Function of the Human Body", London W.B. Saunders Company 1986.
2. Srivastava, etc. "Text book of practical Physiology", Calcutta, Scientific Book Agency, 1976.
3. Morehouse and Miller, "Physiology of Exercise", St. Louis the C.V. Mosby Company,
4. Kapovich and Sinnser, "Physiology of Muscular Activity", London W.B. Saunders
5. Anderson
6. Davis, D.V. "Gray's Anatomy", London Longman Green and Company Ltd., 1967.
7. Dyal, Ellen Neil Kinesiology. The Anatomy of motion.
8. Pearse Evelyn, B., "Anatomy and Physiology for Nurses" London, Faber and Faber Ltd., 1967.
9. Pearce J.W., "Anatomy for Students and Teachers of Physical Education, London, Edward Arnold and Company, 1959.

### Question Paper Pattern

Section A (1*20=20)		Section B (5*5=25)	Section C (3*10=30)
1 to 20 Multiple Questions	Choice	21 to 25 Theory	26 to 30 Theory

### Online Resources

MOOC Courses	<a href="https://alison.com/course/diploma-in-outdoor-and-physical-education-studies-revised">https://alison.com/course/diploma-in-outdoor-and-physical-education-studies-revised</a>
E-content	<a href="https://www.britannica.com/browse/Anatomy-Physiology">https://www.britannica.com/browse/Anatomy-Physiology</a>
Other online resources	<a href="https://www.sciencedirect.com/science/article/pii/B9780122386626500057">https://www.sciencedirect.com/science/article/pii/B9780122386626500057</a>

### Relationship Matrix for COs, POs

Course Outcomes	Programme Outcomes											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	2	2	3	3	3	3	--	--	--	--
CO2	3	--	--	--	3	3	3	3	--	--	--	--
CO3	1	--	--	--	--	--	--	--	1	1	1	1
CO4	2	2	2	2	--	--	--	--	--	--	--	--
CO5	1	--	--	--	--	--	--	--	1	1	1	1
Total	10	4	4	4	6	6	6	6	2	2	2	2
AVG	2	0.8	0.8	0.8	1.2	1.2	1.2	1.2	0.4	0.4	0.4	0.4

Notes: 1-Slight (low) 2- moderate (medium) 3-Substantial; (High) “—“there is no correlation

Sem	Course Code	Course Title First Allied Practical - II	Credit	Hrs	Marks		
					I	E	T
II	U22APE3P	<i>OFFICIATING AND COACHING - ( FIELD EVENTS)</i>	3	3	25	75	100

### Objectives

- To provide adequate practice on fundamental, advance skills and techniques in selected sports discipline.
- To train on coaching, officiating and marking in selected sports discipline.

### COURSE OUTCOMES

1. To train for track events on scientific and systematic lines.
2. To explain the innumerable techniques and methods of running events.
3. To find out the assessment of track and field performance
4. To discuss the rules and interpretations of track and field events.

#### UNIT I:

Fundamental and advance skills, techniques, drills and lead-up games for jumps, throw And combined events.

#### UNIT II:

Assessment of performance - . Assessment of performance - jumps, throws and combined events. Specific conditioning / training for above said events.

#### UNIT III:

Markings of jumps, throws and combined events. Specific marking for jumps, throws and combined events. Equipment's and their specifications.

#### UNIT IV:

Officiating Rules and interpretations, duties of the officials, official signals and score sheet for jumps, throwing and combined events.

#### UNIT V:

Record Note -Preparation of record for jumps throwing and combined events. Technique and major competitions for jumps, throws and combined events. Organizational set-up at International, national and state level Olympic association History, World & Olympic records and other major competitions.

### Reference

1. Book of rules of games and sports, (2005). New Delhi: National Council of Y.M.C.A of India.
2. Bosen, Ken O. (1994). Track & Field Fundamental Techniques, Patiala: MS Publication.
3. Joseph, Rogers L. (2000) USA Track & Field Coaching Manual. Champaign: Human Kinetics Publications.
4. Mariayyah,P., (2005). Track and Field, Coimbatore: Teachers publication.
5. Perinbaraj, S.B., & et al. (2009). Play field: Dimensions and its requirements, Karaikudi: Vinis publication.

**Relationship Matrix for COs, POs**

Course Outcomes	Programme Outcomes											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	2	2	2	--	--	--	--	--	--	--	--
CO2	--	--	--	--	3	3	3	3	2	2	2	2
CO3	--	--	--	--	--	--	--	--	1	1	1	1
CO4	2	2	2	2	--	--	--	--	--	--	--	--
CO5	1	1	1	1	3	3	3	3	1	1	1	1
Total	5	5	5	5	9	9	9	9	4	4	4	4
Weightage	1	1	1	1	1.8	1.8	1.8	1.8	0.8	0.8	0.8	0.8

Notes: 1-Slight (low) 2- moderate (medium) 3-Substantial; (High) “--“there is no correlation



Sem	Course Code	Course Title	Credit	Hrs.	Marks		
					I	E	T
III	U22PE5	<b><i>THEORIES OF GAMES (Cricket, Football, Hockey, Volleyball)</i></b>	4	4	25	75	100

### **Objectives**

- To provide meaningful training on fundamental and advance skills and techniques in selected sports discipline.
- To train on coaching, officiating and marking in selected sports discipline.

### **COURSE OUTCOMES**

1. To impart the theoretical knowledge on wide range such as origin, growth, development and organization.
2. To know the markings of selected games.
3. To discuss about the rules and regulations of selected games.
4. To elaborate the theoretical knowledge of officiating rules in various games.
5. To know the Sports bodies of selected games.

### **UNIT I:**

History Origin and development - Cricket, Football, Hockey, & Volleyball

### **UNIT II:**

Marking Layout& markings of field / court -Cricket, Football, Hockey, & Volleyball

### **UNIT III:**

Rules and Regulation Rules and their interpretations of Cricket, Football, Hockey, & Volleyball

### **UNIT IV:**

Mechanics of Officiating - Duties of officials - official signals, system of officiating, score sheet - Cricket, Football, Hockey, & Volleyball

### **UNIT V:**

Sports Bodies -International, national and state level sports bodies. International Olympic committee, Indian - Olympic association. Organizational setup of various sports bodies.

### **References:**

1. Aibara, E.B., (1975). Cricket. Patiala: National Institute of Sports
2. Anand. R.L. (1986). Play field manual, Patiala: NIS publication.
3. Book of rules of games and sports, (2005). New Delhi: National council of Y.M.C.A ofIndia.
4. Rao, C. V. (1971). Kabaddi, Patials, N.I.S. Publications.
5. Colberk A.L. (1966). Modern Basketball-A Fundamental Analysis of Skills and Tactics.London: Nicholas Kaya.
6. Dhanaraj, V. Hubert, (1991). Volleyball - A Modern Approach. Patiala: Sainoris
7. Perinbaraj, S.B., & et al. (2009). Play field: Dimensions and its requirements, Karaikudi:vinis publication.
8. Rao, E.Prasad (2002). The complete hand book on Kabaddi. Vizianagaram: Jagadambapublication.
9. Wein, Horts, (1979). The Science of Hockey. London: Pelham Books.

### Question Paper Pattern

Section A ( 1*20=20)	Section B (5*5=25)	Section C (3*10=30)
1 to 20 Multiple Choice Questions	21 to 25 Theory	26 to 30 Theory

### Online Resources

MOOC Courses	<a href="https://alison.com/course/diploma-in-outdoor-and-physical-education-studies-revised">https://alison.com/course/diploma-in-outdoor-and-physical-education-studies-revised</a>
E-content	<a href="http://www.cricketamerica.com/pdf/Cricket.pdf">http://www.cricketamerica.com/pdf/Cricket.pdf</a>
Other online resources	<a href="https://www.researchgate.net/publication/273511915_A_systemic_overview_of_football_game_The_principles_behind_the_game">https://www.researchgate.net/publication/273511915_A_systemic_overview_of_football_game_The_principles_behind_the_game</a> <a href="http://agashcollege.org/pdf/Hockey.pdf">http://agashcollege.org/pdf/Hockey.pdf</a> <a href="https://www.sosc.org/file/sports/Rules-Volleyball.pdf">https://www.sosc.org/file/sports/Rules-Volleyball.pdf</a>

### Relationship Matrix for COs, POs

Course Outcomes	Programme Outcomes											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	2	2	3	3	3	3	--	--	--	--
CO2	3	--	--	--	3	3	3	3	--	--	--	--
CO3	1	--	--	--	--	--	--	--	1	1	1	1
CO4	2	2	2	2	--	--	--	--	--	--	--	--
CO5	1	--	--	--	--	--	--	--	1	1	1	1
Total	10	4	4	4	6	6	6	6	2	2	2	2
AVG	2	0.8	0.8	0.8	0.8	0.8	0.80	0.8	0.4	0.4	0.4	0.4

Notes: 1-Slight (low) 2- moderate (medium) 3-Substantial; (High) “—“there is no correlation

Sem	Course Code	Course Title	Credit	Hrs	Marks		
					I	E	T
III	U22PE6P	<b>OFFICIATING AND COACHING (Hockey, Volleyball)</b>	3	4	25	75	100

### Objectives

- To provide meaningful training on fundamental and advance skills and techniques in selected sports discipline.
- To train on coaching, officiating and marking in selected sports discipline.

### COURSE OUTCOMES

1. To provide adequate practice on fundamental, advance skills and techniques in selected sports discipline.
2. To develop the playing ability and performance in games
3. To provide adequate practice for play field marking in selected sports discipline.
4. To train on coaching, officiating and marking in selected sports discipline.

#### UNIT I:

Fundamental and Advance Skills - Fundamental and advance - skills, techniques, drills and lead-up games in Cricket & Football.

#### UNIT II:

Playing Ability / Performance - Assessment of playing ability / performance -, Hockey, & Volleyball. Specific conditioning / training for Hockey, & Volleyball

#### UNIT III:

Layout & markings of court/field - Hockey, & Volleyball

#### UNIT IV:

Officiating Rules and interpretations, duties of the officials, official signals, and system of officiating, equipment specifications and score sheet for Hockey, & Volleyball

#### UNIT V:

Record Note Preparation of record for Hockey, & Volleyball. History, organizational setup at International, national and state level sports bodies, skill, technique, tactics, and major competitions For Hockey, & Volleyball

### Reference

1. Anand. R.L. (1986). Play field manual, Patiala: NIS publication.
2. Book of rules of games and sports, (2005). New Delhi: National Council of Y.M.C.A of India.
3. Rao, E.Prasad (2002). The complete hand book on Kabaddi. Vizianagaram: Jagadambapublication.
4. Colberk A.L. (1966). Modern Basketball-A Fundamental Analysis of Skills and Tactics. London: Nicholas Kaya.
5. Dhanaraj, V. Hubert, (1991). Volleyball – A Modern Approach. Patiala: Sainsoris

### Question Paper Pattern

Section A (1*20=20)		Section B (5*5=25)	Section C (3*10=30)
1 to 20 Multiple Questions	Choice	21 to 25 Theory	26 to 30 Theory

### Online Resources

MOOC Courses	<a href="https://alison.com/course/diploma-in-outdoor-and-physical-education-studies-revised">https://alison.com/course/diploma-in-outdoor-and-physical-education-studies-revised</a>
E-content	<a href="https://www.sosc.org/file/sports/Rules-Volleyball.pdf">https://www.sosc.org/file/sports/Rules-Volleyball.pdf</a>
Other online resources	<a href="http://agashcollege.org/pdf/Hockey.pdf">http://agashcollege.org/pdf/Hockey.pdf</a>

### Relationship Matrix for Cos, Pos, PSOs

Course Outcomes	Programme Outcomes											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	2	2	3	3	3	3	--	--	--	--
CO2	3	--	--	--	3	3	3	3	--	--	--	--
CO3	1	--	--	--	--	--	--	--	1	1	1	1
CO4	2	2	2	2	--	--	--	--	--	--	--	--
CO5	1	--	--	--	--	--	--	--	1	1	1	1
Total	10	4	4	4	6	6	6	6	2	2	2	2
AVG	2	0.8	0.8	0.8	1.2	1.2	1.2	1.2	0.4	0.4	0.4	0.4

Notes: 1-Slight (low) 2- moderate (medium) 3-Substantial; (High) “—“there is no correlation

Sem	Course Code	Course Title Second Allied Course - I	Credit	Hrs	Marks		
					I	E	T
III	U22APE6	<i>APPLIED KINESIOLOGY AND BIOMECHANICS</i>	3	3	25	75	100

### Objectives

- To understand human movements through Kinesiology and Biomechanics.
- To know the mechanical advantages applied in Sports.

### COURSE OUTCOMES

1. To analyze the fundamental movements of joints in human body
2. To acquire knowledge about the importance of Kinesiology and Biomechanics
3. To explain about the linear kinematics and bio-mechanical principles
4. To understand the mechanical advantages of angular and levers through Biomechanics
5. To understand the mechanical advantages of force through biomechanics

**UNIT I:** Introduction to Kinesiology and Biomechanics - Definition & Meaning of Kinesiology & Biomechanics - Scope - Need and importance of -Kinesiology and Biomechanics - Historical development of Kinesiology and Biomechanics.

#### UNIT II:

Origin, Insertion and Action of the Muscles 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 with special reference to the following muscles: Pectoralis major - Deltoid - Biceps - Sartorius – Quadriceps.

#### UNIT III:

Linear Kinematics & Kinetics - 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: Force

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

### Reference

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.

### Question Paper Pattern

<b>Section A ( 1*20=20)</b>	<b>Section B (5*5=25)</b>	<b>Section C (3*10=30)</b>
1 to 20 Multiple Choice Questions	21 to 25 Theory	26 to 30 Theory

### Online Resources

MOOC Courses	<a href="https://alison.com/course/diploma-in-outdoor-and-physical-education-studies-revised">https://alison.com/course/diploma-in-outdoor-and-physical-education-studies-revised</a>
E-content	<a href="https://www.hhrc.ac.in/ePortal/Physical%20Education/iii%20year%20BSC%20PHYSICAL%20EDUCATIONApplied%20Kinesiology.pdf">https://www.hhrc.ac.in/ePortal/Physical%20Education/iii%20year%20BSC%20PHYSICAL%20EDUCATIONApplied%20Kinesiology.pdf</a>
Other online resources	<a href="https://somepomed.org/wp-content/uploads/2018/01/Joseph-Hamill-Biomechanical-Basis-of-Human-Movement.pdf">https://somepomed.org/wp-content/uploads/2018/01/Joseph-Hamill-Biomechanical-Basis-of-Human-Movement.pdf</a>

### Relationship Matrix for COs, POs

Course Outcomes	Programme Outcomes											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	2	2	3	3	3	3	--	--	--	--
CO2	3	--	--	--	3	3	3	3	--	--	--	--
CO3	1	--	--	--	--	--	--	--	1	1	1	1
CO4	2	2	2	2	--	--	--	--	--	--	--	--
CO5	1	--	--	--	--	--	--	--	1	1	1	1
Total	10	4	4	4	6	6	6	6	2	2	2	2
AVG	2	0.8	0.8	0.8	1.2	1.2	1.2	1.2	0.4	0.4	0.4	0.4

Notes: 1-Slight (low) 2- moderate (medium) 3-Substantial; (High) “—“there is no correlation

Sem	Course Code	Course Title Allied Practical -III	Credit	Hrs	Marks		
					I	E	T
III	U22APE5P	<b>OFFICIATING AND COACHING</b> ( <i>Cricket, Football</i> )	3	3	25	75	100

### Objectives

- To provide meaningful training on fundamental and advance skills and techniques in selected sports discipline.
- To train on coaching, officiating and marking in selected sports discipline.

### COURSE OUTCOMES (COs)

1. To provide adequate practice on fundamental, advance skills and techniques in selected sports discipline.
2. To develop the playing ability and performance in games
3. To provide adequate practice for play field marking in selected sports discipline.
4. To train on coaching, officiating and marking in selected sports discipline.

### UNIT I:

Fundamental and Advance Skills - Fundamental and advance - skills, techniques, drills and lead-up games in Cricket & Football

### UNIT II:

Playing Ability / Performance - Assessment of playing ability / performance - Cricket, Football,. Specific conditioning / training for Cricket & Football

### UNIT III:

Layout & markings of court/field -Cricket & Football.

### UNIT IV:

Officiating Rules and interpretations, duties of the officials, official signals, and system of officiating, equipment specifications and score sheet for Cricket & Football.

### UNIT V:

Record Note Preparation of record for Hockey & Volleyball. History, organizational setup at International, national and state level sports bodies, skill, technique, tactics, and major competitions for Cricket & Football.

### Reference

1. Anand. R.L. (1986). Play field manual, Patiala: NIS publication.
2. Book of rules of games and sports, (2005). New Delhi: National Council of Y.M.C.A of India.
3. Rao, E.Prasad (2002). The complete hand book on Kabaddi. Vizianagaram: Jagadambapublication.
4. Colberk A.L. (1966). Modern Basketball-A Fundamental Analysis of Skills and Tactics. London: Nicholas Kaya.
5. Dhanaraj, V. Hubert, (1991). Volleyball – A Modern Approach. Patiala: Sainsoris
6. Part, Davic, (1979) Better Badminton Learn in yourself Book. London: Orient Paper Books.
7. Perinbaraj, S.B., & et al. (2009). Play field: Dimensions and its requirements, Karaikudi: Vinis publication.
8. Rao, C. V. (1971). Kabaddi, Patials, N.I.S. Publications. Yadav, Yogesh. (1969). Kho-Kho, Maharashtra Kho-Kho Association.

**Relationship Matrix for COs, POs**

Course Outcomes	Programme Outcomes											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	2	2	2	--	--	--	--	--	--	--	--
CO2	--	--	--	--	3	3	3	3	2	2	2	2
CO3	--	--	--	--	--	--	--	--	1	1	1	1
CO4	2	2	2	2	--	--	--	--	--	--	--	--
CO5	1	1	1	1	3	3	3	3	1	1	1	1
Total	5	5	5	5	9	9	9	9	4	4	4	4
AVG	1	1	1	1	1.8	1.8	1.8	1.8	0.4	0.4	0.4	0.4

Notes: 1-Slight (low) 2- moderate (medium) 3-Substantial; (High) “--“there is no correlation



Sem	Course Code	Course Title	Credit	Hrs	Marks		
					I	E	T
IV	U22PE8	<i>THEORIES OF MAJOR GAMES</i> - Basketball, Table Tennis, Ball badminton & Throw ball	4	4	25	75	100

### Objectives

- To provide meaningful training on fundamental and advance skills and techniques in selected sports discipline.
- To train on coaching, officiating and marking in selected sports discipline.

### Course Outcomes:

1. To impart the theoretical knowledge on wide range such as origin, growth, development and organization set-up at various levels of selected games
2. To know the markings of selected games.
3. To know the rules and regulations of selected games.
4. To understanding the theoretical knowledge of officiating
5. To know the Sports bodies of selected games.

### UNIT I:

History Origin and development - basketball, table tennis, ball badminton & throw ball.

### UNIT II:

Marking Layout & markings of field / court - basketball, table tennis, ball badminton & throw ball

### UNIT III:

Rules and Regulation -Rules and their interpretations of basketball, table tennis, ball badminton & throw ball

### UNIT IV:

Mechanics of Officiating - Duties of officials - official signals, system of officiating, score sheet basketball, table tennis, ball badminton & throw ball

### UNIT V:

Sports Bodies - International, national and state level sports bodies. International Olympic committee, Indian -Olympic association. Organizational setup of various sports bodies.

### Reference

1. Aibara, E.B., (1975). Cricket. Patiala: National Institute of Sports
2. Anand. R.L. (1986). Play field manual, Patiala: NIS publication.
3. Book of rules of games and sports, (2005). New Delhi: National council of Y.M.C.A ofIndia.
4. Rao, C. V. (1971). Kabaddi, Patials, N.I.S. Publications.
5. Colberk A.L. (1966). Modern Basketball-A Fundamental Analysis of Skills and Tactics.London: Nicholas Kaya.
6. Dhanaraj, V. Hubert, (1991). Volleyball – A Modern Approach. Patiala: Sainsoris

7. Perinbaraj, S.B., & et al. (2009). Play field: Dimensions and its requirements, Karaikudi:vinis publication.
8. Rao, E.Prasad (2002). The complete hand book on Kabaddi. Vizianagaram: Jagadambapublication.
9. Wein, Horts, (1979). The Science of Hockey. London: Pelham Books.

### Question Paper Pattern

Section A (1*20=20)	Section B (5*5=25)	Section C (3*10=30)
1 to 20 Multiple Choice Questions	21 to 25 Theory	26 to 30 Theory

### Online Resources

MOOC Courses	<a href="https://alison.com/course/diploma-in-outdoor-and-physical-education-studies-revised">https://alison.com/course/diploma-in-outdoor-and-physical-education-studies-revised</a>
E-content	<a href="https://www.lths.net/cms/lib/IL01904810/Centricity/domain/165/units/Basketball.pdf">https://www.lths.net/cms/lib/IL01904810/Centricity/domain/165/units/Basketball.pdf</a>
Other online resources	<a href="http://knlteachers.weebly.com/uploads/5/3/4/7/53475523/ball_badminton_rules.pdf">http://knlteachers.weebly.com/uploads/5/3/4/7/53475523/ball_badminton_rules.pdf</a> <a href="https://www.uspza.cz/soubory/pravidla_ag.pdf">https://www.uspza.cz/soubory/pravidla_ag.pdf</a> <a href="https://www.liberty.edu/media/1211/rules/IMS-Table-Tennis-Rules.pdf">https://www.liberty.edu/media/1211/rules/IMS-Table-Tennis-Rules.pdf</a>

### Relationship Matrix for Cos, Pos, PSOs

Course Outcomes	Programme Outcomes											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	2	2	3	3	3	3	--	--	--	--
CO2	3	--	--	--	3	3	3	3	--	--	--	--
CO3	1	--	--	--	--	--	--	--	1	1	1	1
CO4	2	2	2	2	--	--	--	--	--	--	--	--
CO5	1	--	--	--	--	--	--	--	1	1	1	1
Total	10	4	4	4	6	6	6	6	2	2	2	2
AVG	2	0.8	0.8	0.8	1.2	1.2	1.2	1.2	0.4	0.4	0.4	0.4

Notes: 1-Slight (low) 2- moderate (medium) 3-Substantial; (High) “—“there is no correlation

Sem	Course Code	Course Title Practical - IV	Credit	Hrs	Marks		
					I	E	T
IV	U22PE7P	<b>OFFICIATING AND COACHING - Basketball &amp; Throw ball</b>	3	4	25	75	100

### Objectives

- To provide meaningful training on fundamental and advance skills and techniques in selected sports discipline.
- To train on coaching, officiating and marking in selected sports discipline.

### COURSE OUTCOMES

1. To provide adequate practice on fundamental, advance skills and techniques in selected sports discipline.
2. To develop the playing ability and performance in games
3. To provide adequate practice for play field marking in selected sports discipline.
4. To train on coaching, officiating and marking in selected sports discipline.

#### UNIT I:

Fundamental and Advance Skills - Fundamental and advance - skills, techniques, drills and lead-up games in basketball & throw ball.

#### UNIT II:

Playing Ability / Performance - Assessment of playing ability / performance - Specific conditioning / training for basketball & throw ball.

#### UNIT III:

Layout & markings of court/field - basketball & throw ball.

#### UNIT IV:

Officiating Rules and interpretations, duties of the officials, official signals, and system of officiating, equipment specifications and score sheet for basketball & throw ball.

#### UNIT V:

Record Note Preparation of record for Hockey & Volleyball. History, organizational setup at International, national and state level sports bodies, skill, technique, tactics, and major competitions for basketball & throw ball.

### Reference

1. Anand, R.L. (1986). Play field manual, Patiala: NIS publication.
2. Book of rules of games and sports, (2005). New Delhi: National Council of Y.M.C.A of India.
3. Rao, E.Prasad (2002). The complete hand book on Kabaddi. Vizianagaram: Jagadamba publication.
4. Colberk A.L. (1966). Modern Basketball-A Fundamental Analysis of Skills and Tactics. London: Nicholas Kaya.
5. Dhanaraj, V. Hubert, (1991). Volleyball – A Modern Approach. Patiala: Sainsoris
6. Part, Davic, (1979) Better Badminton Learn in yourself Book. London: Orient Paper Books.
7. Perinbaraj, S.B., & et al. (2009). Play field: Dimensions and its requirements, Karaikudi: Vinis

**Relationship Matrix for COs, POs**

Course Outcomes	Programme Outcomes											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	2	2	2	--	--	--	--	--	--	--	--
CO2	--	--	--	--	3	3	3	3	2	2	2	2
CO3	--	--	--	--	--	--	--	--	1	1	1	1
CO4	2	2	2	2	--	--	--	--	--	--	--	--
CO5	1	1	1	1	3	3	3	3	1	1	1	1
Total	5	5	5	5	9	9	9	9	4	4	4	4
Weightage	1	1	1	1	1.8	1.8	1.8	1.8	0.4	0.4	0.4	0.4

Notes: 1-Slight (low) 2- moderate (medium) 3-Substantial; (High) “—“there is no correlation

Sem	Course Code	Course Title Second Allied Course	Credit	Hrs	Marks		
					I	E	T
IV	U22APE8	Modern Trends in Physical Education	3	3	25	75	100

### Objectives

- To provide meaningful Knowledge in physical education programme in India.
- To know about career options and modern trends in Physical Education.

### COURSE OUTCOMES

- 1 .To adequate the knowledge in physical education programme in India
- 2 .To explain about the career option in physical education.
- 3 .To discuss about the modern sports facilities.
- 4 .To know the modern trends in sports infrastructure.
- 5 .To develop the individual talent identification in sports.

### UNIT I:

Physical Education Programme - Physical Education Teacher Training programme in India: B.Sc., B.P.Ed., M.P.Ed., Research - programme: M.Phil., Ph.D. Coaching programmes: NIS Certificate, Diploma and M.S.

### UNIT II:

Avenues for Placements -School: Physical Education Teacher, Physical Director, RIPE, CIPE. College & University: Asst.-Director of Physical Education, Deputy Director of Physical Education, Director of Physical -Education, Assistant Professor, Associate Professor, Professor, Principal – Sports Council:Coaches, DSO, RSM, DGM and GM.

### UNIT III:

Modern Sports Facilities -Play area - synthetic track - Turf field - Toro flex surface - Grass field – Wooden surface -Indoor stadium - Structure and facilities - Flood lit matches.

### UNIT IV:

Sports Infrastructure -Assistance for building infrastructure - playfields, Gymnasium, Swimming pool, Stadium andEquipments - Assistance for coaching and training programme - Rural and urban - different levels -advance training and coaching - Assistance for competitions - District, State, National,and International - Incentives.

### UNIT V:

Talent Identification - Talent Identification in sports and games - The compulsory Physical Education programme inSchools and Colleges.

### Reference

1. Bunn, John W. (1955). Scientific Principles of Coaching. New York: Prentice Hall Inc.
2. Charles, Bucher A., (1972). Foundations of Physical Education. Saint Louis: TheC.V.Kosby Company.
3. Hey, James, G., (1973). The Biomechanics of Sports Techniques, Prentice Hall Inc.Englewood Cliffs N.S.
4. Singh, Ajmer., et. al. (2005). Essential of Physical Education. New Delhi: Kayani Publication.

### Question Paper Pattern

Section A (1*20=20)	Section B (5*5=25)	Section C (3*10=30)
1 to 20 Multiple Choice Questions	21 to 25 Theory	26 to 30 Theory

### Online Resources

MOOC Courses	<a href="https://alison.com/course/diploma-in-outdoor-and-physical-education-studies-revised">https://alison.com/course/diploma-in-outdoor-and-physical-education-studies-revised</a>
E-content	<a href="https://study.com/academy/lesson/current-trends-in-physical-education.html">https://study.com/academy/lesson/current-trends-in-physical-education.html</a>
Other online resources	<a href="https://www.tandfonline.com/doi/pdf/10.1080/23267402.1930.10622537">https://www.tandfonline.com/doi/pdf/10.1080/23267402.1930.10622537</a> <a href="https://www.ijrar.org/papers/IJRAR19D1415.pdf">https://www.ijrar.org/papers/IJRAR19D1415.pdf</a>

### Relationship Matrix for Cos, Pos, PSOs

Course Outcomes	Programme Outcomes											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	2	2	3	3	3	3	--	--	--	--
CO2	3	--	--	--	3	3	3	3	--	--	--	--
CO3	1	--	--	--	--	--	--	--	1	1	1	1
CO4	2	2	2	2	--	--	--	--	--	--	--	--
CO5	1	--	--	--	--	--	--	--	1	1	1	1
Total	10	4	4	4	6	6	6	6	2	2	2	2
AVG	2	0.8	0.8	0.8	1.2	1.2	1.2	1.2	0.4	0.4	0.4	0.4

Notes: 1-Slight (low) 2- moderate (medium) 3-Substantial; (High) “—“there is no correlation

Sem	Course Code	Course Title	Credit	Hrs	Marks		
		Allied Practical - IV			I	E	T
IV	U22APE7P	Officiating and Coaching- (Table Tennis, Ball badminton)	4	3	25	75	100

### Objectives

- To provide meaningful training on fundamental and advance skills and techniques in selected sports discipline.
- To train on coaching, officiating and marking in selected sports discipline.

### COURSE OUTCOMES

1. To provide adequate practice on fundamental, advance skills and techniques in selected sports discipline.
2. To develop the playing ability and performance in games
3. To provide adequate practice for play field marking in selected sports discipline.
4. To train on coaching, officiating and marking in selected sports discipline.

### UNIT I:

Fundamental and Advance Skills - Fundamental and advance - skills, techniques, drills and lead-up games in table tennis, ball badminton.

### UNIT II:

Playing Ability / Performance - Assessment of playing ability / performance -. Specific conditioning / training for table tennis, ball badminton.

### UNIT III:

Layout & markings of court/field -table tennis, ball badminton.

### UNIT IV:

Officiating Rules and interpretations, duties of the officials, official signals, and system of officiating, equipment specifications and score sheet for table tennis, ball badminton

### UNIT V:

Record Note Preparation of record for table tennis, ball badminton. History, organizational setup at International, national and state level sports bodies, skill, technique, tactics, major competitions for table tennis, ball badminton.

### Reference

1. Anand. R.L. (1986). Play field manual, Patiala: NIS publication.
2. Book of rules of games and sports, (2005). New Delhi: National Council of Y.M.C.A of India.
3. Rao, E.Prasad (2002). The complete hand book on Kabaddi. Vizianagaram: Jagadambapublication.
4. Colberk A.L. (1966). Modern Basketball-A Fundamental Analysis of Skills and Tactics. London: Nicholas Kaya.
5. Dhanaraj, V. Hubert, (1991). Volleyball – A Modern Approach. Patiala: Sainsoris
6. Part, Davic, (1979) Better Badminton Learn in yourself Book. London: Orient Paper Books.

7. Perinbaraj, S.B., & et al. (2009). Play field: Dimensions and its requirements, Karaikudi: Vinis publication.
8. Rao, C. V. (1971). Kabaddi, Patials, N.I.S. Publications. Yadav, Yogesh. (1969). Kho-Kho, Maharashtra Kho-Kho Association.

### **Relationship Matrix for COs, POs**

Course Outcomes	Programme Outcomes											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	2	2	2	--	--	--	--	--	--	--	--
CO2	--	--	--	--	3	3	3	3	2	2	2	2
CO3	--	--	--	--	--	--	--	--	1	1	1	1
CO4	2	2	2	2	--	--	--	--	--	--	--	--
CO5	1	1	1	1	3	3	3	3	1	1	1	1
Total	5	5	5	5	9	9	9	9	4	4	4	4
AVG	1	1	1	1	1.8	1.8	1.8	1.8	0.8	0.8	0.8	0.8

Notes: 1-Slight (low) 2- moderate (medium) 3-Substantial; (High) “—“there is no correlation



Sem	Course Code	Course Title	Credit	Hrs	Marks		
					I	E	T
V	U22PE11	Theories of Sports and Games- Kabaddi,Kho- Kho,Swimming,Badminton)	4	4	25	75	100

### Objectives

- To provide meaningful training on fundamental and advance skills and techniques in selected sports discipline.
- To train on coaching, officiating and marking in selected sports discipline.

### Course Outcomes:

- 1 .To impart the theoretical knowledge on wide range such as origin, growth, development and organization set-up at various levels of selected games
- 2 .To know the markings of selected games.
- 3 .To know the rules and regulations of selected games.
- 4 .To understanding the theoretical knowledge of officiating
- 5 .To know the Sports bodies of selected games.

### UNIT I:

History Origin and development - Kabaddi,Kho- Kho,Swimming,Badminton.

### UNIT II:

Marking Layout & markings of field / court - Kabaddi,Kho- Kho,Swimming,Badminton.

### UNIT III:

Rules and Regulation -Rules and their interpretations of Kabaddi,Kho- Kho,Swimming,Badminton)

### UNIT IV:

Mechanics of Officiating - Duties of officials - official signals, system of officiating, score sheet  
Kabaddi,Kho- Kho,Swimming,Badminton.

### UNIT V:

Sports Bodies - International, national and state level sports bodies. International Olympic committee, Indian -Olympic association. Organizational setup of various sports bodies.

### Reference

1. Aibara, E.B., (1975). Cricket. Patiala: National Institute of Sports
2. Anand. R.L. (1986). Play field manual, Patiala: NIS publication.
3. Book of rules of games and sports, (2005). New Delhi: National council of Y.M.C.A ofIndia.
4. Rao, C. V. (1971). Kabaddi, Patials, N.I.S. Publications.
5. Colberk A.L. (1966). Modern Basketball-A Fundamental Analysis of Skills and Tactics.London: Nicholas Kaya.
6. Dhanaraj, V. Hubert, (1991). Volleyball – A Modern Approach. Patiala: Sainsoris
7. Perinbaraj, S.B., & et al. (2009). Play field: Dimensions and its requirements, Karaikudi:vinis publication.
8. Rao, E.Prasad (2002). The complete hand book on Kabaddi. Vizianagaram: Jagadambapublication.
9. Wein, Horts, (1979). The Science of Hockey. London: Pelham Books.

### Question Paper Pattern

Section A (1*20=20)	Section B (5*5=25)	Section C (3*10=30)
1 to 20 Multiple Choice Questions	21 to 25 Theory	26 to 30 Theory

### Online Resources

MOOC Courses	<a href="https://alison.com/course/diploma-in-outdoor-and-physical-education-studies-revised">https://alison.com/course/diploma-in-outdoor-and-physical-education-studies-revised</a>
E-content	<a href="https://delhistatekabaddi.com/images/rules/Regular_Rules_AKFI.pdf">https://delhistatekabaddi.com/images/rules/Regular_Rules_AKFI.pdf</a>
Other online resources	<a href="https://www.fina.org/swimming/rules">https://www.fina.org/swimming/rules</a> <a href="https://www.ultimatekhokho.com/static-assets/pdf/rules-season1.pdf">https://www.ultimatekhokho.com/static-assets/pdf/rules-season1.pdf</a> <a href="https://anderson.edu/uploads/campus-life/badminton.pdf">https://anderson.edu/uploads/campus-life/badminton.pdf</a>

### Relationship Matrix for COs, POs

Course Outcomes	Programme Outcomes											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	2	2	3	3	3	3	--	--	--	--
CO2	3	--	--	--	3	3	3	3	--	--	--	--
CO3	1	--	--	--	--	--	--	--	1	1	1	1
CO4	2	2	2	2	--	--	--	--	--	--	--	--
CO5	1	--	--	--	--	--	--	--	1	1	1	1
Total	10	4	4	4	6	6	6	6	2	2	2	2
AVG	2	0.8	0.8	0.8	1.2	1.2	1.2	1.2	0.4	0.4	0.4	0.4

Notes: 1-Slight (low) 2- moderate (medium) 3-Substantial; (High) “—“there is no correlation

Sem	Course	Course Title	Credit	Hrs	Marks		
					I	E	T
V	U22PE12P	<b>Practical - V Officiating and Coaching- (Kabaddi,Kho- Kho,Swimming,Badminton)</b>	4	4	25	75	100

### Objectives

- To provide meaningful training on fundamental and advance skills and techniques in selected sports discipline.
- To train on coaching, officiating and marking in selected sports discipline.

### COURSE OUTCOMES

1. To provide adequate practice on fundamental, advance skills and techniques in selected sports discipline.
2. To develop the playing ability and performance in games
3. To provide adequate practice for play field marking in selected sports discipline.
4. To train on coaching, officiating and marking in selected sports discipline.

### UNIT I:

Fundamental and Advance Skills - Fundamental and advance - skills, techniques, drills and lead-up games in table tennis, ball badminton.

### UNIT II:

Playing Ability / Performance - Assessment of playing ability / performance -. Specific conditioning / training for Kabaddi,Kho- Kho,Swimming,Badminton.

### UNIT III:

Layout & markings of court/field -Kabaddi,Kho- Kho,Swimming,Badminton.

### UNIT IV:

Officiating Rules and interpretations, duties of the officials, official signals, system of officiating, equipments specifications and score sheet for Kabaddi,Kho- Kho,Swimming,Badminton

### UNIT V:

Record Note Preparation of record for table tennis, ball badminton. History, organizational setup at International, national and state level sports bodies, skill, technique, tactics, major competitions for Kabaddi,Kho- Kho,Swimming,Badminton.

### Reference

1. Anand. R.L. (1986). Play field manual, Patiala: NIS publication.
2. Book of rules of games and sports, (2005). New Delhi: National Council of Y.M.C.A of India.
3. Rao, E.Prasad (2002). The complete hand book on Kabaddi. Vizianagaram: Jagadambapublication.
4. Colberk A.L. (1966). Modern Basketball-A Fundamental Analysis of Skills and Tactics. London: Nicholas Kaya.
5. Dhanaraj, V. Hubert, (1991). Volleyball – A Modern Approach. Patiala: Sainsoris
6. Part, Davic, (1979) Better Badminton Learn in yourself Book. London: Orient Paper Books.
7. Perinbaraj, S.B., & et al. (2009). Play field: Dimensions and its requirements, Karaikudi: Vinis publication.
8. Rao, C. V. (1971). Kabaddi, Patials, N.I.S. Publications. Yadav, Yogesh. (1969). Kho-Kho, Maharashtra Kho-Kho Association.

**Relationship Matrix for COs, POs**

Course Outcomes	Programme Outcomes											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	2	2	2	--	--	--	--	--	--	--	--
CO2	--	--	--	--	3	3	3	3	2	2	2	2
CO3	--	--	--	--	--	--	--	--	1	1	1	1
CO4	2	2	2	2	--	--	--	--	--	--	--	--
CO5	1	1	1	1	3	3	3	3	1	1	1	1
Total	5	5	5	5	9	9	9	9	4	4	4	4
AVG	1	1	1	1	1.8	1.8	1.8	1.8	0.8	0.8	0.8	0.8

Notes: 1-Slight (low) 2- moderate (medium) 3-Substantial; (High) “—“there is no correlation

Sem	Course	Course Title	Credit	Hrs	Marks		
					I	E	T
V	U22PE9E	Major Based Elective Guidance for Uniformed Services	4	4	25	75	100

### Objectives

- To provide the fundamentals concepts of various Uniformed and Emergency services.
- To enable students explore number of career opportunities in public and private sectors.

### COURSE OUTCOMES

1. Applying to the various Uniformed and Emergency Services, for example Police, Fire, Ambulance, Coastguard, Army, Navy and Air Force.
2. Moving onto HNC level in a wide variety of courses such as HNC Social Sciences or HNC Coaching and Developing Sport
3. Exploring a number of career opportunities in the public, private and voluntary sectors, including the Police or Fire Service, Paramedics, Army, Navy, RAF, Coastguard, Probation Officer or the Prison Service.

#### UNIT I - An Overview of Uniformed Services & Armed Services

Uniformed Services – Definitions –Types –Ranks -Levels and positions in uniformed services -Roles and Responsibilities - Career and Opportunities –Qualification and requirements - Examinations and schedules - Syllabus and pattern -Training in uniformed services

#### UNIT -II

The Indian Army - Indian Air Force - Indian Navy and Indian Coast Guard - Definitions, Organisational Structure – Training- Roles and tasks

#### UNIT III- Indian Police &Paramilitary Forces of India

Indian Police Service - Central Police - Organisational Structure - Training - Roles and tasks Definitions –Types –Ranks - Organisational Structure- Training - Roles and tasks

#### UNIT IV - Fire and Rescue Services & Discipline, Training, Responsibilities and Authorityin Uniformed Services

Definitions – Organisational Structure-Training - Civil Defense - Role during emergency -Medical technician and Paramedics - Career and opportunities

#### UNIT –V

Definitions - Role of Discipline – Necessity of Discipline - Self-discipline – Necessity of Self-discipline –Conformity and obedience - Training -Role of Training – Necessity of Training -Authority/Command, order and duty -Power, Position, Status - Differences among different services

#### STUDY REFERENCES:

1. Gray, Debra. Public Services (uniformed) Book-1.Heinemann, 2004.
2. Hackett, James (ed.) (3 February 2010). The Military Balance 2010. International Institute for Strategic Studies; London: Routledge. ISBN 1-85743-557-5.
3. Hackett, James (ed.) (7 March 2012). The Military Balance 2012. International Institute for Strategic Studies; London: Routledge. ISBN 1857436423.
4. Kundu, A. Militarism in India: The Army and Civil Society in Consensus
5. Subramaniam, Arjun. India's Wars: A Military History, 1947-1971 (2017). ISBN 978-1-68247-241- Judy A.Driskell, (2007), “Sports Nutrition Fats and Proteins”, CRC Press.

### Question Paper Pattern

Section A (1*20=20)	Section B (5*5=25)	Section C (3*10=30)
1 to 20 Multiple Choice Questions	21 to 25 Theory	26 to 30 Theory

### Online Resources

MOOC Courses	<a href="https://alison.com/course/diploma-in-outdoor-and-physical-education-studies-revised">https://alison.com/course/diploma-in-outdoor-and-physical-education-studies-revised</a>
E-content	<a href="https://dopt.gov.in/sites/default/files/Revised_AIS_Rule_Vol_II_IAS_Rule_01_0.pdf">https://dopt.gov.in/sites/default/files/Revised_AIS_Rule_Vol_II_IAS_Rule_01_0.pdf</a>
Other online resources	<a href="https://dopt.gov.in/sites/default/files/Revised_AIS_Rule_Vol_I_Rule_10.pdf">https://dopt.gov.in/sites/default/files/Revised_AIS_Rule_Vol_I_Rule_10.pdf</a>

### Relationship Matrix for COs, POs

Course Outcomes	Programme Outcomes											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	2	2	3	3	3	3	--	--	--	--
CO2	3	--	--	--	3	3	3	3	--	--	--	--
CO3	1	--	--	--	--	--	--	--	1	1	1	1
CO4	2	2	2	2	--	--	--	--	--	--	--	--
CO5	1	--	--	--	--	--	--	--	1	1	1	1
Total	10	4	4	4	6	6	6	6	2	2	2	2
AVG	2	0.8	0.8	0.8	1.2	1.2	1.2	1.2	0.4	0.4	0.4	0.4

Notes: 1-Slight (low) 2- moderate (medium) 3-Substantial; (High) “—“there is no correlation

Sem	Course Code	Course Title Major Based Elective	Credit	Hrs	Marks		
					I	E	T
V	U22PE10E	Adapted Physical Education	4	4	25	75	100

### Objectives

- To provide the fundamentals concepts of Adapted Physical Education
- To enable the students to understand the various disabilities

### COURSE OUTCOMES:

1. To Learn game rules and strategies
2. Develop competency in movement and motor skills
3. Understand the advantages of regular physical activity
4. Develop muscular strength, balance, healthy level of flexibility
5. Demonstrate appropriate social skills in a physical activity setting
6. To strengthen the body composition and cardio-respiratory endurance
7. To demonstrate the rules and strategies of the game in their use in in-game settings
8. Participate regularly in developmentally age-appropriate movement and motor skills

#### UNIT-I

Introduction to Adapted Physical Education

Meaning, definition, aim and objectives of adapted physical education

Definition of Disabling Conditions - Benefits of Physical Education for persons with Disabilities

Movement Education Concepts

#### UNIT-II

Disability and Rehabilitation

Definition of Disability, Handicap and Impaired

Multiple disability Rehabilitation

Special education - Inclusive education

#### UNIT-III

Classification of Disability

Disability/ differently abled classification and sub classification in each disability

Blind- Deaf and Dumb- Orthopedically-Mentally Retarded

Spastic-Autism-Cerebral palsy

#### UNIT-IV

Rules of Adapted games and Class Management

Adapted games developed by Prof, Jaimitra for the blind

Adapted Volleyball- Kabaddi- Kho-kho –Tennis-Table Tennis – Cricket - track and field

Method to be adapted by the special education in sports- Recreation Games

Kinesthetic – one on one teaching, group teaching, circular method of teaching

#### UNIT-V

International Competitions, Dark Olympics, Silent Olympics, Paralympics Special Olympic

### REFERENCES

1. Thin, M. N., Special Olympics Bharat Trainer Manuel. New Delhi: Special Olympics Bharat, 2010
2. Jain, A. Adapted Physical Education. Delhi: Sports Publication, 2003
3. Auster, D. Principles and Methods of Adapted Physical Education. Mosby Publications. 1993
4. Jaimitra.S, Physical Education for the Blind Chennai: Grace Printer, 1990

### Question Paper Pattern

Section A (1*20=20)	Section B (5*5=25)	Section C (3*10=30)
1 to 20 Multiple Choice Questions	21 to 25 Theory	26 to 30 Theory

### Online Resources

MOOC Courses	<a href="https://alison.com/course/diploma-in-outdoor-and-physical-education-studies-revised">https://alison.com/course/diploma-in-outdoor-and-physical-education-studies-revised</a>
E-content	<a href="http://mmcmadinagar.ac.in/econtent/physical-education-sports/Physical-Education-IDEA-Pamphlet.pdf">http://mmcmadinagar.ac.in/econtent/physical-education-sports/Physical-Education-IDEA-Pamphlet.pdf</a>
Other online resources	<a href="https://core.ac.uk/download/pdf/323870469.pdf">https://core.ac.uk/download/pdf/323870469.pdf</a>

### Relationship Matrix for COs, POs

Course Outcomes	Programme Outcomes											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	2	2	3	3	3	3	--	--	--	--
CO2	3	--	--	--	3	3	3	3	--	--	--	--
CO3	1	--	--	--	--	--	--	--	1	1	1	1
CO4	2	2	2	2	--	--	--	--	--	--	--	--
CO5	1	--	--	--	--	--	--	--	1	1	1	1
Total	10	4	4	4	6	6	6	6	2	2	2	2
AVG	2	0.8	0.8	0.8	1.2	1.2	1.2	1.2	0.4	0.4	0.4	0.4

Notes: 1-Slight (low) 2- moderate (medium) 3-Substantial; (High) “—“there is no correlation



Sem	Course Code	Course Title	Credit	Hrs	Marks		
					I	E	T
V	U22PE13	Basic Statistics in Physical Education	3	4	25	75	100

### OBJECTIVE

- To develop basic Knowledge in Statistics
- To enable students understand concept of statistics in Physical Education

### COURSE OUTCOMES

1. To understand the basics concept in statistics in physical education
2. To attain the knowledge to measure the central tendency in data
3. To discuss about relative position and variability in data
4. To summarize the data which is correlation with respect to data
5. To understand the basics concept of statistics in physical education

### UNIT I:

Meaning and Definition of Statistics, Nature, Need and Importance of Statistics, Types of Statistics.  
Data- Quantitative data and Qualitative data

### UNIT II:

Frequency Distribution - Measure of Central Tendency, Mean, Median and Mode Definition Computation of mean and median and mode from the ungrouped and discrete data Specific Characteristics and use of measure of measure of central tendency

### UNIT III:

Measure of variability - Range - Quartile deviation- Mean deviation- Standard deviation Definition- Computation of Quartile deviation, Mean deviation, Standard deviation from the ungrouped data - Specific characteristics and uses of measure of variability.

### UNIT IV:

Measure of relative position - Meaning of percentiles, deciles and quartiles - computation of Percentiles, deciles and quartiles from the ungrouped data - Standard scales - Computation of T Scale and Hull scale - Normal Curve - Divergence from normality - Skewness and Kurtosis.

### UNIT V:

Measure of Relationship - Meaning and definition of correlation - computation of product Movement correlation from the ungrouped data - rank order correlation

### Reference

1. Clarke David H and H Harrison Clarke - Research Processes in Physical Education, Eaglewood Cliffs: Prentice Hall INC., 1984.
2. Gupta, Sp., Advanced Practical Statistics, New Delhi: S. Chand & Co., 1982.
3. Wilks, S.S., Elementary Statically Analysis, Deford& I, IBH publishing Co., Calcutta, 1984.

### Question Paper Pattern

Section A (1*20=20)	Section B (5*5=25)	Section C (3*10=30)
1 to 20 Multiple Choice Questions	21 to 25 Theory	26 to 30 Theory

### Online Resources

MOOC Courses	<a href="https://alison.com/course/diploma-in-outdoor-and-physical-education-studies-revised">https://alison.com/course/diploma-in-outdoor-and-physical-education-studies-revised</a>
E-content	<a href="https://www.slideshare.net/dryadav1300/statistics-in-physical-education">https://www.slideshare.net/dryadav1300/statistics-in-physical-education</a>
Other online resources	<a href="https://books.google.com/books?id=JwIqEAAAQBAJ&amp;printsec=copyright">https://books.google.com/books?id=JwIqEAAAQBAJ&amp;printsec=copyright</a>

### Relationship Matrix for COs, POs

Course Outcomes	Programme Outcomes											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	2	2	3	3	3	3	--	--	--	--
CO2	3	--	--	--	3	3	3	3	--	--	--	--
CO3	1	--	--	--	--	--	--	--	1	1	1	1
CO4	2	2	2	2	--	--	--	--	--	--	--	--
CO5	1	--	--	--	--	--	--	--	1	1	1	1
Total	10	4	4	4	6	6	6	6	2	2	2	2
AVG	2	0.8	0.8	0.8	1.2	1.2	1.2	1.2	0.4	0.4	0.4	0.4

Notes: 1-Slight (low) 2- moderate (medium) 3-Substantial; (High) “—“there is no correlation

Sem	Course Code	Course Title PRACTICAL - VI	Credit	Hrs	Marks		
					I	E	T
V	U22PE14P	Intensive Teaching Practice	3	3	25	75	100

### INTERNSHIP TRAINING PROGRAMME

- The Students are sent to various schools in and around Trichy for three weeks Intensive Teaching Practice Training.
- The students will handle the class allotted.
- The Physical Education Teacher / Director will be the supervisor in monitoring and guiding the Students as and when required.

#### UNIT: I

Assembly and Roll Call

#### UNIT: II

Warming up Exercise

#### UNIT: III

Formal Part

#### UNIT: IV

Special Part

#### UNIT - V

Recreative Part

### METHOD OF EVALUATION

1) Proficiency in Skill	40 marks
2) Teaching Ability	30 marks
3) Viva-voce (Theoretical knowledge of the game, Rules/Interpretations)	15 marks
4) Record of Work	15 marks
<b>TOTAL</b>	<b>100 marks</b>

### Relationship Matrix for COs, POs

Course Outcomes	Programme Outcomes											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	2	2	2	--	--	--	--	--	--	--	--
CO2	--	--	--	--	3	3	3	3	2	2	2	2
CO3	--	--	--	--	--	--	--	--	1	1	1	1
CO4	2	2	2	2	--	--	--	--	--	--	--	--
CO5	1	1	1	1	3	3	3	3	1	1	1	1
Total	5	5	5	5	9	9	9	9	4	4	4	4
Weightage	1	1	1	1	1.8	1.8	1.8	1.8	0.8	0.8	0.8	0.8

Notes: 1-Slight (low) 2- moderate (medium) 3-Substantial; (High) “—“there is no correlation

Sem	Course Code	Course Title PRACTICAL -VII	Credit	Hrs	Marks		
					I	E	T
VI	U22PE15P	Training Methods in Sports	3	3	25	75	100

1. Anaerobic Training

Plyometrics

Weights / resistance

Sprint

Interval (short / intermediate)

Circuit (High work rest ratio)

2 .Aerobic Training

Continuous

Fartlek

Circuit (low work rest ratio)

3 .Fitness Training with equipment's

Swiss ball

Tera-band

Medicine ball

Core board

TRX Band

Kettle bell

**METHOD OF EVALUATION**

1) Proficiency in Skill	40 marks
2) Teaching Ability	30 marks
3) Viva-voce (Theoretical knowledge of the game, Rules/Interpretations)	15 marks
4) Record of Work	15 marks
<b>TOTAL 100 marks</b>	

**Relationship Matrix for COs, POs**

Course Outcomes	Programme Outcomes											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	2	2	2	--	--	--	--	--	--	--	--
CO2	--	--	--	--	3	3	3	3	--	--	--	--
CO3	--	--	--	--	--	--	--	--	1	1	1	1
CO4	2	2	2	2	--	--	--	--	--	--	--	--
CO5	--	--	--	--	--	--	--	--	1	1	1	1
Total	4	4	4	4	3	3	3	3	2	2	2	2
AVG	0.8	0.8	0.8	0.8	1.4	1.4	1.4	1.4	0.4	0.4	0.4	0.4

Notes: 1-Slight (low) 2- moderate (medium) 3-Substantial; (High) “—“there is no correlation

Sem	Course Code	Course Title	Credit	Hrs	Marks		
					I	E	T
VI	U22PE16	Science of Sports Training and Nutrition	3	4	25	75	100

### OBJECTIVES

- To understand the values of food and its classification.
- To suggest appropriate diet for sport person.

### COURSE OUTCOMES:

1. Understand the meaning of sports training, load and to analyze the principles of trainings
2. Top acquire knowledge of training methods
3. To educate the development of motor components in training
4. To develop the technical and tactical preparation for high performance in competition
5. To develop the planning and Periodization
6. Understand the classification of foods and nutrition
7. To analyze fluid intake required for various levels and types of physical activity.
8. To explain about the nutrients: ingestion to energy metabolism
9. To discuss about the balance diet for players
10. To discuss about the relationships between diet and training for optimum performance.

**UNIT I:** Sports training and Training Load - Definition and Meaning of Sports training, Meaning of Coaching - Aim and Objectives of - Sports training - Principles of Sports training. Load, Recovery, Intensity, Density, Duration - and Frequency - Over Load, Fatigue - causes, symptoms and remedial measures.

**UNIT II:** Training Methods - Principles of training concern to fitness & sports - Types of different training method – Circuit training - Fartlek training - Interval training - Weight training - Plyometric training – MuscleContraction - Isometric, Isotonic, and Isokinetic.

**UNIT III:** Planning and Periodisation - Meaning and importance of planning - Types of Plan: Short term, Medium term and long-term -training programme. Periodization: Meaning & importance - Types of Periodization. Warmingup and cooling down.

**UNIT IV:** Introduction to Nutrition - Classification of foods. Meaning and definition of Sports Nutrition. Basic -Nutrition guidelines. Role of nutrition in sports. Factor to consider for developing nutrition plan - Nutrients: Ingestion to Energy Metabolism -Carbohydrates, Protein, Fat-Meaning, classification and its function. Vitamins, Minerals, Water-Meaning, classification and its function. -Role of hydration during exercise, water balance, Nutrition-daily caloric requirement andexpenditure.

**UNIT V:** Balance Diet -Definition - Balanced Diet - Principles of preparing the balanced diet. Balanced diet for Indian -Players / School children. Malnutrition and Adulteration of food- Pre-Competition, Competition and Post Competition meals. Diet analysis and planning. Fluidintake during exercise. Nutrition for Special Population.

### References:

1. J. Bunn Scientific Principles of coaching.
2. Hardayal Singh. Sports Training:
3. DrM.Elango, M.Kandasamy, P.Sivagnanam Fundamentals of Sports Training
4. Srilakshmi, B. (2012) Nutrition science. Delhi: New Age International (p) LimitedPublishers.
5. Srilakshmi, B. (2015) Human Nutrition (For B.Sc., Nursing students) Delhi: New AgeInternational (p) Limited Publishers.

### Question Paper Pattern

Section A (1*20=20)	Section B (5*5=25)	Section C (3*10=30)
1 to 20 Multiple Choice Questions	21 to 25 Theory	26 to 30 Theory

### Online Resources

MOOC Courses	<a href="https://alison.com/course/diploma-in-outdoor-and-physical-education-studies-revised">https://alison.com/course/diploma-in-outdoor-and-physical-education-studies-revised</a>
E-content	<a href="https://www.researchgate.net/publication/297695609_Nutrition_and_Athletic_Performance">https://www.researchgate.net/publication/297695609_Nutrition_and_Athletic_Performance</a>
Other online resources	<a href="https://l11nutrition.com/mod_l11/TOPI37/m373.pdf">https://l11nutrition.com/mod_l11/TOPI37/m373.pdf</a>

### Relationship Matrix for COs, POs

Course Outcomes	Programme Outcomes											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	2	2	3	3	3	3	--	--	--	--
CO2	3	--	--	--	3	3	3	3	--	--	--	--
CO3	1	--	--	--	--	--	--	--	1	1	1	1
CO4	2	2	2	2	--	--	--	--	--	--	--	--
CO5	1	--	--	--	--	--	--	--	1	1	1	1
Total	10	4	4	4	6	6	6	6	2	2	2	2
AVG	2	0.8	0.8	0.8	1.2	1.2	1.2	1.2	0.4	0.4	0.4	0.4

Notes: 1-Slight (low) 2- moderate (medium) 3-Substantial; (High) "--"there is no correlation

Sem	Course Code	Course Title	Credit	Hrs	Marks		
					I	E	T
VI	U22PE17	Exercise Physiology and Sports Injuries	4	4	25	75	100

### Objectives

- To understand the value of exercise physiology and its relationship towards higher performance.
- To study the influences of exercises on various systems.

### COURSE OUTCOMES:

1. To acquire knowledge about nature and nature and scope of exercise physiology.
2. Understanding the effects of exercise physiology on energy system of the body.
3. Understanding the effects of exercise physiology on oxygen and carbon dioxide transports of the body.
4. Understanding the effects of exercise physiology on hear and circulation of the body.
5. To develop the physiological principles on physical education and sports.

#### UNIT I: Introduction

Definition of Exercise Physiology. Nature, Aim and Scope of Exercise Physiology. Physical Fitness and Physiological fitness. Physiological bases warm-up and cool down-conditioning and training.

#### UNIT II: Energy System - Introduction to energy system, aerobic and anaerobic energy, ATP-P1-ADP.

Relationship between nutrition and energy. Sliding filament theory. Respiratory System and its Development through Exercise -Physiological aspect of exercise and sports - Concept of physical fitness and physical training -Physiological aspects of developments of basic motor qualities like strength, speed, endurance, flexibility and coordination - Effect of exercise on high altitude - Effect of alcohol, drugs and smoking on athletic performance

**UNIT III: Muscular Physiology - Muscular Physiology - Structural Properties of skeletal muscles -Types of muscles. Muscle fiber types - slow - twitch and fast - twitch (A, B, C) - slow oxidative and fast glycolytic. Fiber distribution (percentage of fibers) and performance - anaerobic and aerobic activity. Hypertrophy and hyperplasia of muscles types of muscle contraction.**

**UNIT IV: Cardiovascular System and its Improvement through Exercise -Shape and structure of the heart - heartbeat, pulse rate and stroke volume. Cardiac cycle -cardiac out-put before and after activity. Stroke volume response to exercise, regulation of -stroke volume, diastolic and systolic, Electrocardiogram.**

**UNIT V: Sports Injuries Definition and Meaning – Injuries – Tendon, Ligament -Classification of Injuries – Prevention of sports injuries -Open Injuries (Abrasion, Laceration, Incision, Puncture) – Closed Injuries (Sprain, Strain, Subluxation, Dislocation, Fracture, Contusion, Cramp) -First aid and treatment – PRICE therapy**

### Reference

1. Srivastava et. al, (1976). Text Book of Practical Physiology. Calcutta: Scientific Book Agency
2. Wilson, Kathleen J. W. (1987). Anatomy and Physiology, Health and illness. 6th Edition. Churchill Livingstone Edinburgh.
3. Gupta, A.P., (2010). Anatomy and physiology. Agra: Sumit Prakashan
4. Pearce, Evelyn B., (1979) Anatomy and physiology for Nurses. London: Faber and Faber Ltd.
5. Siva Ramakrishnan, S., (2002). Anatomy and Physiology. New Delhi: Friends Publication.
6. Wilmore, Jack H and Costill, David L. (1994). Physiology of Sports and Exercise.

### Question Paper Pattern

<b>Section A</b> <b>(1*20=20)</b>	<b>Section B</b> <b>(5*5=25)</b>	<b>Section C</b> <b>(3*10=30)</b>
1 to 20 Multiple Choice Questions	21 to 25 Theory	26 to 30 Theory

### Online Resources

MOOC Courses	<a href="https://alison.com/course/diploma-in-outdoor-and-physical-education-studies-revised">https://alison.com/course/diploma-in-outdoor-and-physical-education-studies-revised</a>
E-content	<a href="https://he.kendallhunt.com/sites/default/files/heupload/Brown_Kinesiology_2e_Chapter_8_0.pdf">https://he.kendallhunt.com/sites/default/files/heupload/Brown_Kinesiology_2e_Chapter_8_0.pdf</a>
Other online resources	<a href="https://www.researchgate.net/publication/307393137_Common_sports_injuries">https://www.researchgate.net/publication/307393137_Common_sports_injuries</a>

### Relationship Matrix for COs, POs

Course Outcomes	Programme Outcomes											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	2	2	3	3	3	3	--	--	--	--
CO2	3	--	--	--	3	3	3	3	--	--	--	--
CO3	1	--	--	--	--	--	--	--	1	1	1	1
CO4	2	2	2	2	--	--	--	--	--	--	--	--
CO5	1	--	--	--	--	--	--	--	1	1	1	1
Total	10	4	4	4	6	6	6	6	2	2	2	2
AVG	2	0.8	0.8	0.8	1.2	1.2	1.2	1.2	0.4	0.4	0.4	0.4

Notes: 1-Slight (low) 2- moderate (medium) 3-Substantial; (High) “—“there is no correlation



Sem	Course Code	Course Title	Credit	Hrs	Marks		
					I	E	T
VI	U22PE18	TEST, MEASUREMENT AND EVALUATION	4	4	25	75	100

### Objectives

- To impart the fundamentals of Test, Measurement and Evaluation.
- To understand various fitness tests and sports skill tests.

### COURSE OUTCOMES:

1. To impart the fundamentals of Test, Measurement and Evaluation
2. To understand the concept of test classification and administration in Physical Education
3. To explain about the Criteria of physical fitness test
4. To explain about the Criteria of motor fitness test
5. To understand various fitness tests and sports skill tests

**UNIT I:** Introduction to Test, Measurement and Evaluation - Meaning and definition of Test, Measurement and Evaluation in Physical Education. Need and -importance of Test, Measurement and Evaluation in Physical Education.

**UNIT II:** Test classification and administration -Classification of test - Sports Knowledge test. Standardized and Teacher made test - Skill test -classification - Objective test - subjective test - qualities of the test -Administration of the test. -Criteria of test Selection-Validity, reliability, Objectivity, Norms, Administrative feasibility.

**UNIT III:** Physical Fitness Test -Strength test - Bend knee sit ups test. Flexibility test - Sit and reach test. Speed test - 50 mts -run. Cardio respiratory Endurance - Cooper 12-minute Run / Walk test. Explosive strength test -- Standing broad jump

**UNIT IV:** Motor Fitness Test -AAHPERD Youth Fitness test. Motor fitness - JCR test. Barrow motor ability test. Harward -step test. Beep test.

**UNIT V:** Sports Skill Test -Johnson Basketball ability test. McDonald soccer test. Brady Volleyball test. Henry Friedel -field Hockey test. Badminton French Short Serve test.

### Reference

1. Barrow, Harold M. Rosomany (1964). A physical approach to measurement in physical education, Philadelphia: Lea and Febiger
2. Clarke, H. (1967). Application of measurement in Health and Physical Education. PrenticeHall Inc.
3. Donald, Mathews K. (1977). Measurement in Physical Education. London W.S. Saunders Company.
4. Bosco, James S. (1983). Measurement and Evaluation in Physical Education and Sports. New Jersey: Prentice Hall Inc.
5. Kansal, K. Devinder (2012). A practical approach to test, measurement and evaluation. New Delhi: SSS publication
6. Michael, P. Reiman, Robert C. Manske (2009), Functional Testing in Human Performance, United states of America: Human kinetics.

### Question Paper Pattern

Section A ( 1*20=20)	Section B (5*5=25)	Section C (3*10=30)
1 to 20 Multiple Choice Questions		

### Online Resources

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E-content	<a href="https://ncert.nic.in/textbook/pdf/keh109.pdf">https://ncert.nic.in/textbook/pdf/keh109.pdf</a>
Other online resources	<a href="https://studycbse.in/test-and-measurement/">https://studycbse.in/test-and-measurement/</a>

### Relationship Matrix for COs, POs

Course Outcomes	Programme Outcomes											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	2	2	3	3	3	3	--	--	--	--
CO2	3	--	--	--	3	3	3	3	--	--	--	--
CO3	1	--	--	--	--	--	--	--	1	1	1	1
CO4	2	2	2	2	--	--	--	--	--	--	--	--
CO5	1	--	--	--	--	--	--	--	1	1	1	1
Total	10	4	4	4	6	6	6	6	2	2	2	2
AVG	2	0.8	0.8	0.8	1.2	1.2	1.2	1.2	0.4	0.4	0.4	0.4

Notes: 1-Slight(low) 2- moderate(medium) 3-Substantial; (High) “—“ there is no correlation

Sem	Course Code	Course Title PRACTICAL - VIII	Credit	Hrs	Marks		
					I	E	T
VI	U22PE19P	MARTIAL ARTS & PROJECT SPORTS MEET	4	3	25	75	100

#### UNIT – 1

Martial art- Meaning Scope, nature and its significance—Indian martial arts.

History of martial art- silambam

Historical development of silambam- From pre Historic time to the second century A.D. -  
Silambam in Tamil Nadu.

#### UNIT – II

Evolution of stick fencing – Silambam Locks.

Different techniques- Stance- Attack.

Teaching and Coaching- Silambam.

Contemporary Society- Need for protection for girls- Women of self defence

#### UNIT – III

Fencing

History- Fencing. Field of play- application of rules of fencing equipment- invention of Fencing- foil, Epee, Sabre.(Movement, attack, apery) competition individual, team.

#### UNIT – IV

Taekwondo

History, types of defending and offence methods of taekwondo- different techniques- attack Teaching and coaching methods.

#### UNIT – V

Association- International Silambam, Fencing Association, Research studies- promotion of silambam as an international game of sport.

#### METHOD OF EVALUATION

1) Proficiency in Skill	40 marks
2) Teaching Ability	30 marks
3) Viva-voce (Theoretical knowledge of thegame, Rules/Interpretations)	15 marks
4) Record of Work	15 marks

TOTAL

100 marks

**Relationship Matrix for COs, POs**

Course Outcomes	Programme Outcomes											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	2	2	2	--	--	--	--	--	--	--	--
CO2	--	--	--	--	3	3	3	3	2	2	2	2
CO3	--	--	--	--	--	--	--	--	1	1	1	1
CO4	2	2	2	2	--	--	--	--	--	--	--	--
CO5	1	1	1	1	3	3	3	3	1	1	1	1
Total	5	5	5	5	9	9	9	9	4	4	4	4
AVG	1	1	1	1	1.8	1.8	1.8	1.8	0.8	0.8	0.8	0.8

Notes: 1-Slight (low) 2- moderate (medium) 3-Substantial; (High) “—“there is no correlation

Sem	Course Code	Course Title	Credit	Hrs	Marks		
					I	E	T
VI	U22PE20	Health Education, Recreation and camping	3	3	25	75	100

### Objectives

- To provide opportunities for a diverse range of recreation.
- To study the fundamentals of camping.

### UNIT - I

#### 1. Introduction to Recreation

Meaning and Definition of Recreation. Scope and Significance of Recreation. Objectives of Recreation – Relationship between Work, Play and Leisure

### UNIT – II

#### 2. Influence of Recreation in other Institutions

Agencies providing recreation. (Public, private, Voluntary) Rural, Urban community and Industrial Recreation. Special Education – Physically Challenged Recreational Activities.

### UNIT - III

#### 3. Leadership

Types of Recreational activities Qualities and qualification of good leader – Types of leaders and their Roles Adventure Sports – Trekking, Hiking, and Rafting – Safety measures

### UNIT - IV

#### 4. Introduction to Camping

Camping – Definition, Aims and objectives Scope and Significance of camping. Types of camps, selection and layout of camp sites.

### UNIT - V

#### 5. Camping Administration and Organization

Organization and administration of camps (camp programme and Activities). Organization set-up in camping Evaluation of camp work – Supervision

### STUDY BOOK:

1. Denford, H.G. Recreation in the American community, Harper & Brothers Publishers, New York, 1953.
2. Butler GD. Introduction of Community Recreation McGraw – Hill Book Company, NewYork, 1949.

### STUDY REFERENCES

1. Royappa, D.J., GovindRajulu, L.K. Camping and Education, Jupiter Press Private Ltd, Madras, 1973.
2. Rubin, R. Book of Camping, N.V. Assn Press, 1949.
3. Torkildsen, G. Leisure and recreation Management, E. & F.N. Span Ltd., New York, 1986.

### Question Paper Pattern

Section A (1*20=20)	Section B (5*5=25)	Section C (3*10=30)
1 to 20 Multiple Choice Questions	21 to 25 Theory	26 to 30 Theory

### Online Resources

MOOC Courses	<a href="https://alison.com/course/diploma-in-outdoor-and-physical-education-studies-revised">https://alison.com/course/diploma-in-outdoor-and-physical-education-studies-revised</a>
E-content	<a href="http://kuvempu.ac.in/eng/studymetrial/Login/Admin/study_material/388722-04-2020Health%20Edn-%20introduction.pdf">http://kuvempu.ac.in/eng/studymetrial/Login/Admin/study_material/388722-04-2020Health%20Edn-%20introduction.pdf</a>
Other online resources	<a href="https://dsert.kar.nic.in/bridgecourse/8thPE-EM.pdf">https://dsert.kar.nic.in/bridgecourse/8thPE-EM.pdf</a>

### Relationship Matrix for COs, POs

Course Outcomes	Programme Outcomes					Programme Specific Outcomes				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	1	1	2	2	1	1	1	2	1	2
CO2	2	1	--	--	--	--	--	--	--	1
CO3	1	2	--	--		1	--	--	--	2
CO4	--	1	--	1	1	2	--	1	1	--
CO5	--	1	--	--	2	1	1	--	2	--
TOTAL	4	9	2	3	4	5	2	3	4	5
AVG	0.8	1.8	0.4	0.6	0.8	1	0.4	0.6	0.8	1

Notes: 1-Slight(low) 2- moderate (medium) 3-Substantial; (High) "--"there is no correlation