

**NATIONAL COLLEGE (AUTONOMOUS), TIRUCHIRAPPALLI - 620 001**  
Nationally Accredited at 'A' Level by NAAC

**B. Sc. PHYSICAL EDUCATION**

Sem	Part	Course	Course Title	Ins. Hours/ week	Credit	Exam Hrs.	Marks			Total
							CIA	External		
								W	O	
I	I	Language Course – (LC-1)		6	3	3	25	75	-	100
	II	Language Course-III – (LC-III)		6	3	3	25	75	-	100
	III	Core Course-I(CC-I)	Foundation of Physical Education	5	5	3	25	75	-	100
		Core Course-I(CC-II)	Practical-1 Cricket	3	-	-	-	-	-	-
		First Allied Course-I (IAC-I)	History of Physical Education	5	3	3	25	75	-	100
		First Allied Course-II (IAC-II)	Anatomy and Physiology	3	-	-	-	-	-	-
	IV	Skill based elective-I (SBEC-I)	Computer Application-I	2	2	3	25	75	-	100
		<b>TOTAL</b>			<b>30</b>	<b>16</b>				
II	I	Language Course-II – (LC-II)		6	3	3	25	75	-	100
	II	English Language Course – II (ELC-II)		4	2	3	25	75	-	100
		Communicative English	Course-I (CEC-I)	2	1	3	25	75	-	100
	III	Core Course-II(CC-II)	Practical-I Cricket	3	6	3	25	70	5	100
		Core Course-III(CC-III)	Practical-II Track & Field	5	5	3	25	75	-	100
		First Allied Course-II (IAC-II)	Anatomy and Physiology	3	3	3	25	70	5	100
		First Allied Course-III (IAC-III)	Practical Yoga	5	3	3	25	75	-	100
	IV	Environmental studies course	Environmental studies	2	2	3	25	75	-	100
	<b>TOTAL</b>			<b>30</b>	<b>24</b>					<b>800</b>
III	I	Language Course-III – (LC-III)		6	3	3	25	75	-	100
	II	English Language Course – III (ELC-III)		6	3	3	25	75	-	100
	III	Core Course-IV(CC-IV)	Theories of Sports and Games volley Ball and Basketball	4	4	3	25	75	-	100
		Core Course-V(CC-V)	Practical – III Volleyball & Basketball	3	-	-	-	-	-	-
		Second Allied Course – I – (2AC-I)	Health Education and First Aid	5	3	3	25	75	-	100
		Second Allied Course – II – (2AC-II)	Practical –IV Gymnastic & Athletics	2	-	-	-	-	-	-
	IV	Skill Based Elective Course-II(SBE-II)	Computer Application-II	2	2	3	25	75	-	100
		Skill Based Elective Course-II(SBE-II)	Computer Application-III (DTP LAB)	2	2	3	25	75	-	100

		<b>TOTAL</b>		<b>30</b>	<b>17</b>					<b>700</b>
IV	I	Language Course-IV – (LC-IV)		6	3	3	25	75	-	100
	II	English Language Course – IV (ELC-IV)		4	2	3	25	75	-	100
		Paper-II		2	1					
	III	Core Course-V(CC-V)	Practical – III Volleyball & Basketball	2	5	3	25	70	5	100
		Core Course-VI(CC-VI)	Practical VI Track & Field	4	4	3	25	75	-	100
		Second Allied Course – II – (2AC-II)	Sports Management	3	3	3	25	70	5	100
		Second Allied Course – III – (2AC-III)	Practical Gymnastics & Athletics	5	3	3	25	75	-	100
	IV	Non Major Elective Course –I (NME-I)		2	2	3	25	75	-	100
		Value Education	VE	2	2	3	25	75	-	-
		<b>TOTAL</b>		<b>30</b>	<b>24</b>					<b>700</b>
V	III	Core Course-VII(CC-VII)	Kinesiology	5	5	3	25	75	-	100
		Core Course-VIII(CC-VIII)	Test and Measurement, Evaluation and Elementary Statistics	5	5	3	25	75	-	100
		Elective course-I	Fundamental of Sports Training	5	4	3	25	75	-	100
		Elective Course-II	Theories of Sports and Games football badminton handball	5	4	3	25	75	-	100
		Core Course-IX	Theories of sports and games (silambam, fencing, taekwondo)	2	-	3	25	75	-	100
		Core Course-X	Practical V(Football,Badminton,Handball)	3	-	-	-	-	-	-
		Non – Major Elective Course-II (NMEC-II)		3	2	3	25	75	-	100
		Soft Skills		2	2	3	25	75	-	100
		<b>TOTAL</b>		<b>30</b>	<b>22</b>					<b>700</b>
VI	III	Core Course-IX	Theories of Sports and Games Silambam Fencing Taekwondo	3	5	3	25	75	-	100
		Core Course-X	Practical football badminton handball	3	5	3	25	70	5	100
		Core course-XI	Physiology and Exercise	6	6	3	25	75	-	100
		Core Course-XII	Principals of	6	6	3	25	75	-	100

			Physical education and Physiology							
		Core Course-XIII	Practical Silambam Fencing Taekwondo	6	6	3	25	75	-	100
		Elective course III	Teaching Practical	5	4	3	25	75	-	100
V		Gender Studies Course (GSC)	Gender Studies	1	1	3	25	75	-	100
		Extensive activities			1	-	-	-	-	
		<b>Total</b>		30	35				-	700
		<b>Grand Total</b>			<b>140</b>					<b>4000</b>

Part - I	LANGUAGE	4 COURSES	12 CREDITES
PART - II	ENGLISH	4COURSES	10 CREDITES
PART - III	COMMUNICATIVE ENGLISH	2COURSES	02CREDITES
PART - III	CORE CORESE	13 COURSE	70CREDITES
	ELECTIVE COURSE	3COURSE	12CREDITS
	ALLIED COURSE- I	3 COURSES	09CREDITES
	ALLIED COURSE- II	3COURSES	09CREDITES
PART - IV	ENVIRONMENTAL STUDIES	1COURSES	02CREDITES
	VALUE EDUCATION	1COURSES	02CREDITES
	NON MAJOR ELECTIVE	2COURSES	04CREDITES
	SKILL BASED ELECTIVE	3 COURSES	06CREDITES
	GENDER STUDIES	1COURSES	01CREDITES
PART - V	EXTENSIVE ACTIVITIES	-	01CREDITES
	<b>TOTAL</b>		<b>140 CREDITES</b>

**CIA: Continuous Internal Assessment, W: Written; O: Oral**

**\* Examinations will be in the even semester**

**There will be oral test for all Practical Examination and Communicative English Courses.**

**The oral test will carry 5 marks in the external component.**

\*\*\*\*\*

### **ENGLISH FOR COMMUNICATION – U13E1**

**Semester: I**

**English Language Course: I**

**Instruction Hours/Week: 6**

**Credit: 3**

**Unit I :**

1. Civilization and History – C.E.M. Joad
2. The Fun They Had – Issac Asimov

**Unit II:**

3. Big Numbers and Infinities – George Gamow
4. Oil – G.C. Thornley

**Unit III:**

5. An Observation and an Explanation – Desmond Morris
6. A Robot about the House – M.W.Thring

**Unit IV:**

7. A Wrong Man in Worker's Paradise – Rabindranath Tagore
8. Making Surgery Safe – Horace Shipp

**Unit V:**

9. Using Land Wisely – L.Dudley Stam
10. The Karuburator – Karel Capek

**Text Book:**

- 1) English through Reading, by W.W.S.Baskar and N.S.Prabu, Published by Macmillan Publishers India Ltd.

\*\*\*\*\*

**ENGLISH THROUGH EXTENSIVE READING - U13E2****Semester: II****English Language Course: II****Instruction Hours/Week: 4****Credit: 2****Unit I**

- |             |                                   |
|-------------|-----------------------------------|
| R.K.Narayan | An Astrologer's Day               |
| Boman Desai | Between the Mosque and the Temple |

**Unit II**

- |           |                      |
|-----------|----------------------|
| O.Henry   | The Gift Of the Magi |
| Premchand | The Child            |

**Unit III**

- |                     |                             |
|---------------------|-----------------------------|
| R.P. Sisodia        | The Last Salvation          |
| Kasturi Sreenivasan | I prepare to gotoCoimbatore |

**Unit IV**

- |             |                       |
|-------------|-----------------------|
| F.E.B. Gray | A Slip of the Tongue  |
| Ruskin Bond | The Eyes are not Here |

**Unit V**

- |                     |                      |
|---------------------|----------------------|
| Rabindranath Tagore | The Cabuliwallah     |
| Guy de Maupassant   | The Diamond Necklace |

**Text book**

- 1) Glimpses of Life; an Anthology of Short Stories; Board of Editors [Orient Longman]

\*\*\*\*\*

**COMMUNICATIVE ENGLISH I – U13CE1****Semester: II****Communicative English Course: I****Instruction Hours/Week:2****Credit: 1****OBJECTIVES**

- 1) To Facilitate communication
- 2) To expose the students to various levels/types of communication.
- 3) To help the students achieve communicative competency

**UNIT I**

- 1) At the College
- 2) on the Campus
- 3) outside the class

**UNIT II**

- 1) At the Post office
- 2) For Business and Pleasure
- 3) Review

**UNIT III**

- 1) Are you smart?
- 2) Are you creative?
- 3) Is it too hard to improve?
- 4) How to win?

**UNIT IV**

- 1) View points
- 2) Snakes and ladders
- 3) Your Self

**UNIT V**

- 1) Write Circulars, notes-reminders, warnings, farewells, apology;
- 2) Draft invitations – marriage, annual day, inaugural functions of associations, Valediction, seminar, and workshop.
- 3) Draft Short messages- compliments, birthday wishes, notifications, etc., Draft Posters-Slogans, announcements etc.,
- 4) Dialogue writing

**Text Book:**

Creative English for Communication (2nd edition) by Krishnasamy and Sriraman.

**Reference:** Websites [www.english club.com](http://www.english club.com)

[www.using english.com](http://www.using english.com)

Owl-online writing lab

MIT-open course ware

[www.eslcafé.com](http://www.eslcafé.com)

\*\*\*\*\*

**ENGLISH FOR COMPETITIVE EXAMINATIONS – U13E3**

**Semester: III**

**English Language Course: III**

**Instruction Hours/Week: 4**

**Credit: 2**

**Unit-I:**

Basics of English

- (a) Parts of speech
- (b) Tenses
- (c) Active and passive voice
- (d) Tag questions

**Unit –II:**

- (a) Errors and how to avoid them
- (b) Spotting errors
- (c) Reconstructing passages
- (d) Précis writing

**Unit –III**

Reading comprehension

**Unit –IV:**

Vocabulary – synonyms, antonyms, prefix & suffix, Homonyms, sentence completion, spelling Phrasal verbs & Idiomatic Expressions.

**Unit –V:**

Writing letters and drafting a resume /cv

Types of essays and how to write them Guidance to a group discussion and

Guidance to attending an interview

**Text book:**

English for Competitive Examinations by R.P.Bhatnagar & Rajul Bhargava macmillan India ltd.

\*\*\*\*\*

**COMMUNICATIVE ENGLISH II – U13CE2**

**Semester: III**

**Communicative English Course: II**

**Instruction Hours/Week:2**

**Credit: 1**

**Unit-I**

Enriching Vocabulary – Register Development; who is who; Synonyms, antonyms, Active and Passive vocabulary, proverbs

**Unit –II**

Tense Forms with emphasis on differences between Present and Present Continuous; Past and Present Perfect – Framing questions, Auxiliaries, if clauses; conjunctions, and linkers; Prepositions

**Unit –III**

Pronunciation, Good Pronunciation habits, R.P., Greetings, Farewells commands etc

**Unit –IV**

Conversational Skills – Affirmative or Negative Language – idiomatic expressions, Phrases, Dialogue Writing,

**Unit –V**

Writing Skills – Note- taking, note- making, e-mail- Describing an object- narrating a story

**Reference Books:**

1. A Practical English Grammar by A.J Thomson and A.V. Martinet.
2. Remedial English Grammar, by F.T. Wood.
3. English for competitive Examinations by R.P Bhatnagar & Rajul Bhargava.

\*\*\*\*\*

**READING POETRY AND DRAMA– U13E4**

**Semester: IV**

**English Language Course: IV**

**Instruction Hours/Week: 6**

**Credit: 3**

**POETRY:**

**Unit: I**

John Milton	:	On His Blindness
Oliver Goldsmith	:	The village Schoolmaster
William Wordsworth	:	The Solitary Reaper

**UNIT II**

P.B.Shelley	:	Ozymandias
John Keats	:	La Belle Dame Sans
Merci Browning	:	Incident of the French Camp

**UNIT III**

John Masfield	:	Laugh and Be Merry Robert
Frost	:	Stopping by the Woods on a Snow Evening
John Drink water	:	The Vagabond

**DRAMA:****Unit: IV**

Anton Chekhov	:	The Bear Norman
Mckinnel	:	The Bishop's Candlesticks

**Unit: V**

Fritz Karinthy	:	Refund F.M.
Synge	:	Riders to the Sea.

**Textbooks:**

- 1) An Introduction to Poetry edited by A.G.Xavier; [Macmillan]
- 2) Nine Modern Plays: ed. B.T Reddy, Oxford University Press

\*\*\*\*\*

**FOUNDATION OF PHYSICAL EDUCATION – U13PE1**

Semester: I

**Core Course:**

**Instruction Hours/Week: 5**

**I Credit: 5**

**Unit-I**

Meaning and scope of Physical Education and Sports.

**Unit-II**

Aims and objectives of Physical Education of Sports- Physical Development-Mental Development-Social Development-Emotional Development -Development of neuron-muscular co-ordination-Development of good citizenship-Worthy use of leisure.

**Unit-III**

Scientific basis of Physical Education and sports, Contribution of Allied Sciences, Anatomy, Physiology, Kinesiology, Psychology, Sociology, Bio-Mechanics and Bio-Chemistry.

**Unit-IV**

National Programmers' of Physical Education and Sports – National Institute of Physical Educational and Sports-Sports Talent Search- Scholarship- National Coaching Scheme- Rural Sports- Woman in Sports- National Physical Fitness Program me- National Awards and Honors to outstanding sportsmen.

**Unit-V**

Youth welfare programme- SAI, NCC,NSS, NSO, Scouts and Guides- Youth hostels- Youth festivals and Nehru YuvakKendras-Olympic Movement and its impact on Physical Education and Sports.

**Reference Books:**

1. Bucher Charles, A. "Foundation of Physical Education, New York, Harper and Brothers Publications, 1970
2. Nixon, Eungonee, E. and Cozens, W. "An Introduction to Physical Education", London B.Sainders Company, 1974.
3. Obertenffer, Delbert, "Physical Education", New York, Harper and Brothers Publichers, 1970.
- 4.Sharmen, Johson, R. "Introduction of Physical Education", New York, Ms. Barnos and company, 1974

Williams, JoansFirins, "The Principles of Physical Eduation", London W.B.Sanndes Company, 5.1964.

Wakhar, D.G. "Manual of Physical Education in India", Bombay, Pearl Publisher Pvt. Ltd., 1967.

\*\*\*\*\*

### **PRACTICAL I – CRICKET – U13PE2P**

**Semester: I & II**

**Core Course: II**

**Instruction Hours/Week: 3+3**

**Credit: 5**

#### **Unit-I BATTING:**

- a) Grip, Stance and back – lift
- b) Different Strokes
  1. Forward defensive stroke
  2. Backward defensive stroke
  3. Drives-off drive- cover
  4. drive-on drive and straight drive
- c) Square cut-off the back foot, off the front foot-Hook-shot and Pull-shot-Sweep shot
- d) Leg glance-Late cut.

#### **Unit-II BOWLING:**

Fundamentals of bowling:

- a) Grip-Run-up--Position of front foot and delivery-Follow through.

#### **Unit-III Different types of bowling:**

- a) Fast – bowling, out swing and in swing
- b) Leg-cutter and off-cutter
- c) Slow bowling, off break and leg break, leg break includes googly,
- d) Top spin and flipper.

#### **Unit-IV FIELDING:**

1. Wicket-keeping stance and gathering the ball on both sides of the wicket.
2. Class in position, slips short legs, silly mid off, silly mid-on, etc.,
3. Out fielding
4. Catching, Slip-catching and high catching
5. Pick-up and throw.

#### **UNIT – V TACTICS:**

1. Different field placing for different types of bowling.
2. Use of bowlers.

#### **BOOK FOR REFERENCE:**

1. Sicharda, Boury, "Hurry, Wichards Cricket", London, Pelhom Books. 1975.
2. MankodVinod, "How to play cricket", Rupa and Company, 1976.
3. Greig, Tony, "Growing on cricket", B.L.Publication, 1974.
4. John, Snow, "Cricket How to become Champion", London William Duscombs Publishers Ltd., 1975
5. N.I.S. "Cricket" JeeAterice.
6. Geet, G.R. "Cricket Problem", by speads Affairs, Varanasi Stadium Sigm.
7. M.S.Mushtag, "How to Play Cricket", Delhi, Vikas Publishing House, 1981.

\*\*\*\*\*



**CORE COURSE: III- U13PE3P****PRACTICAL - II – TRACK AND FIELD- CC-U13PE3P****Semester: II****Instruction Hours/Week: 5****Core Course: III****Credits: 5****UNIT-I:**

- a) Activities that increase heart rate during warm-up.
- b) Activities suitable for cool-down.
- c) Safe stretching activities for warm-up and cool-down

**UNIT-II: Sprints**

- a) Body Position, Arm & Leg Action
- b) Reaction: visual, audio
- c) Acceleration
- d) Starts - Elongated, Medium & Bunch Start
- e) League Sprints (45m)

**UNIT-III: Relays**

- a) Correct running style emphasizing on proper position and foot placement,
- b) Practice of standing starts.

**UNIT-IV: HURDLES**

- a) Body Position, Arm & Leg Action
- b) Consistent strides between hurdles

**UNIT V- DISTANCE RUNNING**

- a) 1600m
- b) 2400m
- c) Steeple Chase

**REFERENCE BOOK:**

1. Chauhan, B.S., Khel Jagat Mein Athletics, Jalandhar: A.P.Pub.,1999.
2. Fox,E.L., Physiological Basis of Physical Education and Athletics, Brown Pub.,1989.
3. Gothi, Ekta, Teaching and Coaching Athletics, ND: Sports Pub.1997.

\*\*\*\*\*

**CORE COURSE IV- U13PE4**  
**THEORIES OF SPORTS AND GAMES**  
**VOLLEYBALL & BASKETBALL**

**Semester: III****Instruction Hours/Week: 5****Core Course: IV****Credit: 5****UNIT-I**

1. History of Volleyball in India & Asia
2. Court – Dimensions, Officials of Volleyball
3. Warming up – General & Specific

**UNIT - II**

1. Techniques:-
  - a) Service – Under Arm, Side Arm, Overhead & Floating
  - b) Pass – The Volley, The dig

c) Player's Stance – Receiving the ball and Passing the Teammates.

### UNIT-III

History of Basket Ball:

a) All India (b) In Asia (c) In World

1) Organization of Basket Ball: Working Federation of Basket Ball at District Level State Level, National Level and International Level

a) Warming Up: Meaning, Definition, Importance Of Warming up

b) Principles of Warming Up, training load

### UNIT-IV

a) Cooling Down: Its meaning and Importance

b) Layout and Maintenance of Basket Ball Play field

c) Equipment of Basketball and their specifications

d) Sports awards and personalities of Basket Ball

### UNIT-V

Fundamental Skills of Basketball:-

a) Passes -Two hand chest pass, two hand bounce pass, overhead pass, side arm pass, hook pass and back pass

b) Dribbling: High low and reverse dribbling

c) Shooting: Layup Shot, Free Shot, Hook Shot, Jump Shot

d) Rebounding: Offensive and Defensive

### BOOKS FOR REFERENCE

1. American Program, Coaching Youth Volley Ball, Campaign, H.K.,1996
2. Backcourt Spiking in Modern Volley Ball, Chennai: FIVB,1996.
3. Cosco Skill Stactics-Volley Ball, Delhi: Sports Publication,1994.
4. Scates,A.E.,Winning Volley Ball, WC Brown, 1993.
5. Coleman and Ray,'Basketball' An official E.B.B.A. Publication, West Yorkshire,1976.

\*\*\*\*\*

## CORE COURSE V - (CC-V) U13PE5P PRACTICAL II (VOLLEYBALL & BASKETBALL)

Semester: III & IV

Instruction Hours/Week:2+3

CoreCourse:V

Credit : 5

### UNIT-I

1. General and specific conditioning exercise

2. Fundamental Skills

3. Drills for developing the skills

### UNIT-II

1. Team Tactics and Strategy Systems of Play

2. Standardized skill test Scouting of performance

3. Rules officiating system

### UNIT-III

1. Pivoting

2. Group tactics

3. Offensive

4. Defensive
5. Rebounding

**UNIT-IV**

1. Volleyball: Fundamental Skills
2. Players stance, Receiving the ball and passing
3. Service, pass, spike, block, Dives and rolls.
4. Lead up Games

**UNIT-IV**

1. Player's stance and ball handling
2. Passing and receiving techniques.
3. Dribbling
4. Shooting

**Book Reference:**

1. Mountasis, Abbas, "Principles of Basketball," Bombay, skanda Publications, 1979.
2. Bec, Clair and Nortan, Kan, Man Defence and attack," New York, The Ronald Press Company, 1959.

\*\*\*\*\*

**CORE COURSE VI - U12PE6P  
PRACTICAL-TRACK AND FIELD**

**Semester: IV**

**Instruction Hours/Week: 5**

**Core Course: VI**

**Credit: 5**

**UNIT-I DISCUS THROW:**

- a) Grip,
- b) Preparation / Standing Position,
- c) Wind up,
- d) Rotation,
- e) Release & reverse Step

**UNIT-II: JAVELIN**

- a) Grips,
- b) Run-up, Preparation,
- c) Release & Reverse step : Techniques - Standing Throw,
- d) 3 - 5 Stride Run-up & Cross Over-step

**UNIT-III: TRIPLE JUMP**

- a) Run Up,
- b) Hop,
- c) Step,
- d) Jump,
- e) Flight & Landing

**UNIT-IV: HIGH JUMP**

- a) Run Up
- b) Take-off Foot
- c) Flight & Landing
- d) Technique - Straddle & / or Fosbury Flop

**Unit-V: Long jump**

- a) Run Up
- b) Take-off Foot
- c) Flight & Landing
- d) Techniques - Hang & / or Hitch kick

**BOOK REFERENCES:**

1. Chauhan, B.S., Khel Jagat Mein Athletics, Jalandhar: A.P.Pub.,1999.
2. Fox, E.L., Physiological Basis of Physical Education and Athletics, Brown Pub.,1989.
3. Gothi, Ekta, Teaching and Coaching Athletics, ND: Sports Pub.1997.

\*\*\*\*\*

**CORE COURSE VII-U12PE7  
KINESIOLOGY AND BIOMECHANICS**

**Semester: V**

**Core Course: VII**

**Instruction Hours/Week: 5**

**Credit: 5**

**UNIT – I – INTRODUCTION**

Meaning- brief history- aim and objectives- importance of Kinesiology for Physical Education and Sports.

**UNIT-II-FUNDAMENTAL CONCEPT**

Structural classification of muscles – types of contraction (concentric – eccentric and static)- muscle tone postural muscles- reciprocal innervations and inhibition strength reflex- group action- direction and angle of pull and its significance- action of two joint muscles- relation of muscle and bone coverage- center of gravity- line of gravity- axis and planes of motion fundamental-starting positions-terminology of fundamental movements- functional classifications of muscles.

**UNIT-III-Location, origin, insertion and action of muscles at various joints.**

1. Upper extremity – shoulder girdle, shoulder joints, elbow joint, wrist joint, metapalngial joints.
2. Lower extremity – hip joint, knee joint, ankle joint, metatarsal joints.

Muscular analysis of fundamental movement. Walking, running, jumping, throwing, catching, pulling, pushing, striking, hanging.

**UNIT-IV BIO – MECHNICS – INTRODUCTION**

Meaning, aims, objects and importance.

**TYPES OF MOTION**

Linear motion and angular motion

**ANGULAR KINEMATICS**

Angular speed, angular velocity, angular acceleration and relationship between angular motion and projectile motion.

**UNIT – V LINEAR KINETICS**

Mass, Weight, force, pressure, work, power, energy, impulse, mementum, impact, fraction and Newton's Law of Motion.

**ANGULAR KINETICS**

Movement of inertia, conservation of momentum, transfers of momentum, levers, equilibrium.

**BOOK REFERENCE:**

1. Duval Ellen Neil, Kinesiology and Anatomy and Motion, Mosby & Co.,
2. Ahnderson MC clug, Human Kinetics and Analysis of Body movements, William Heinmann, London.
3. Broor, Efficiency of Human Movements, Saunder& Co.
4. David.L.Kelly, Kinesiology and Fundamentals of Motion Descriptions, Prentice Hall.
5. Sunderarajan – Biomechanics of Sports and Games, Roshan Publication, Madras – 1.

\*\*\*\*\*

**CORE COURSE VIII - U12PE8E****TEST MEASUREMENT EVALUATION AND ELEMENTARY STATISTICS**

**Semester: V**

**Core Course: VIII**

**Instruction Hours/Week : 5**

**Credit : 5**

**UNIT – I INTRODUCTION**

Aim and objectives-Definitions of Test – Measurement – Evaluation – Nature of Evaluation place of Evaluation in Education – Health of Physical Education- Education – Evaluation – Criteria for evaluation – validity – Reliability – Objectivity – Administrative – Norms – Standardized tests

**UNIT-II AREA OF EVALUATION**

Strength and power – Cardiovascular – Motor ability Motor fitness –General Physical fitness – Athletic ability – skill test.

1. Johnson Basketball ability test.
2. MC Donald Soccer test
3. Broer – Miller Tennis Test
4. Brady Volley ball test
5. Dribbling and goal shooting test in Hockey

**UNIT-III ELEMENTARY STATISTICS**

Statistics – Meaning, Definition, Functions, Need and importance, uses, Types of statistics. Meaning of the terms – population, sample, Data-kinds of data, variables – Discrete, Continuous, Parametric, Non-Parametric.

**UNIT-IV**

Frequency tables – Meaning, uses and construction of frequency table.

**UNIT-V**

Measures of central tendency – calculations of Mean, Median and Modemerits, demerits and characteristics, percentiles / deciles.

Diagramatic and Graphical representation of data.

**BOOK REFERECES:**

1. Barrow, Harold, M and Rose Marry. M. Gee, a practical Measurement in Physical Education, Philadelphia : Lea and Gebier.
2. Clark, H. Harrison, Application of Measurement of Health and Physical Education, Eaglewood cliffs, N.J : Prentice Hall, Inc.

3. Mathews, Donald K. Measurements in Physical Education, Philadelphia, W.B.Saunders – Company.
4. Meyers, Carlton. R and Blesh, Erwin, T., Measurement in Physical Education, New York; The Ronald press company, 1969.
5. Campbell, R., and Tucker N.M., An Introduction to Test and Measurement in Physical Education, London; G. Bell and Sons Ltd.,
6. Hunsickerpaul, a and monotoye, Henry J., Applied Tests and Measurements in Physical Education, New York ; Prentice Hall 1953.
7. Clark, H. Harrison and Clarke, H.David., Research process in Physical Education, Engle wood, New Jersey, Prentice – Hall, Inc. 1984.
8. Wilks, S.S. Elementary Statistical Analysis, Calcutta : Oxford and IBII Publishing Co., 1964

\*\*\*\*\*

### **Elective Course I – U12PE9E**

#### **FUNDAMENTALS OF SPORTS TRAINING**

**Semester: V**

**Elective Course: I**

**Instruction Hours/Week:**

**Credit : 4**

#### **UNIT - I**

Aims and Objectives of Sports Training

#### **TRAINING LOAD:**

1. Important features of training load, (intensity, density, duration and frequency) Principles of Training load, relationship between the load and adaptation, conditions of adaptation.

#### **UNIT-II**

#### **DEVELOPMENT OF IMPORTANT MOTOR COMPONENTS:**

1. Strength – forms of strength, characteristics of strength, strength training means and methods.
2. Endurance – forms of Endurance characteristics of endurance, Endurance training means and methods.
3. Speed – forms of speed, characteristics of speed. Speed training means and methods.
4. Flexibility – forms of flexibility characteristics of flexibility, basis of flexibility methods of development of flexibility.
5. Agility – forms of Agility – characteristics of agility methods of development of agility-Co-ordination.

#### **UNIT-III**

Technical Preparation, Fundamental and methods for the development of technique in sports, stages technical development, causes and correction of faults.

#### **UNIT-IV**

Tactical Preparation: Tactical concepts, methods of tactical development.

Training plans: Long term and short – term plans, periodisation (single, and multiple) cyclic process of training.

Planning for competition: Main and build – up competitions, competition frequency, and preparation for competition.

#### **UNIT-V**

Motor development and its implications in relation to different sex and age groups.

**BOOKS FOR REFERENCE**

1. Gatty, B. "Preceptual and motor development in Infants and Children" Premice Hall, 1979.
2. Dicl.F.W. "Sports Training Principles" LondonLepus. 1980.
3. Jenson, C.R. Fisher, A.G. "Scientific Basis of Athletic Conditioning" Philadelphia Lea and Febigar, 1972.
4. Matweyew, L.P., "Fundamentals of Sports Training" (Translation from Russian, Moscow, Mir Publishers), 1981.
5. Pyle. Frank. S. "Towards Better Coaching", Canberra, Australian Government Publishing Service, 1980.
6. Singh, H. "Sports Training" General theory and methods Patiala. N.I.S. 1984.
7. Wilmore, J.H. "Athletic Training and Physical Fitness" Sydney. Allyn and Bacon. Inc. 1977.

\*\*\*\*\*

**ELECTIVE COURSE II – U12PE10E**  
**THEORIES OF SPORTS AND GAMES**  
**(HANDBALL, FOOTBALL, BADMINTON)**

**Semester: V**

**Elective Course: II**

**Instruction Hours/Week : 4**

**Credit : 4**

**UNIT – I FOOTBALL**

Rules and their Interpretations-Method of officiating and Scoring- officials- Layout and Maintenance of play fields- Methods of Officiating Duties of Officials – Important Tournaments and Cups.

**UNIT-II**

Tactics and Strategy- Systems in the Games- Leadup Games- Evaluation.-Training -Warm up-Warming-down, -Essential fitness components-training load.

**UNIT-III -HANDBALL**

History of Handball -The correct way to catch the ball with two hands- Catching the low ball-running -catching the high ball - Catching the ball to the side- Diagram of hand ball court - preparation of score sheet-Two handed chest pass One handed shoulder pass- The reverse pass- The pass to the side- The long pass.

**UNIT-IV -BADMINTON**

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

**UNIT-V**

- a) Different types of grips, various strokes, different types of shots and smashes.
- b) Identify the lines and areas on the badminton court
- c) scoring system used in both singles and doubles play
- d) basic strategies used in singles and doubles play
- e) Identify issues of safety and etiquette issues in badminton

**BOOK REFERENCES:**

- 1) Rowland. B.J. "Handball a complete guide". London, Faber and -4- Faber Ltd, 24,Runset Square, 1970.
- 2) Mund, Charler.L. "Handball Fundamentals" Charles, E. Merri Companty Columbus, Chio, 1970.
- 3) Philips, B.E., "Handball its pay and management", New York, The Ronald press company,1957.

- 4) Winston, Mary, "How to play winning Tennis", New York Eoothriff one west 37<sup>th</sup> street, 1979.
- 5) Leighton J.M. "Inside Tennis Techniques of winning", New Jersey prentice Hall Inc, Englewood cliffs, 1967
- 6) Trengore, Alan, "The art of Tennis", London. 1964

\*\*\*\*\*

**CORE COURSE IX - U12PE11  
THEORIES OF SPORTS AND GAMES  
(SILAMBAM, FENCING, TEAKWONDO)**

**Semester: V & VI Instruction  
Hours/Week: 2+3**

**Course: XI  
Credit : 5**

**UNIT – 1 SILAMBAM**

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, Saber.(Movement, attack, parry) competition individual, team.

**UNIT-IV**

- a) How to use your foil safely
- b) How to fence safely
- c) The Target Area
- d) The Principles of Fencing with the foil
- e) Fencing Etiquette

**UNIT-V TEAKWONDO**

History –basic rules-belt color meanings-common stances-attention stance-ready stance-sitting  
stance-walking stance-“L”stance-basic routines-four directional punching-sparing-defense  
techniques.

**BOOK REFERENCES:**

- 1) History of silambam fencing-An Indian martial art-Dr.J. David Manual Raj Nov 19, 1993.
- 2) Our physical activities (Kandivilli, Bombay old students Association Training Institute for physical, 1962).
- 3) J. David Manual Raj 'Silambam Fencing from india'
- 4) D.C. Majumdar Encyclopadia of Indian physical culture, (Reopura, borada, India: Good Companies, 1950).
- 5) K. Rajagopalan, A Brief History of physical Education in India (Delhi-6, Army publishers, 1962)

\*\*\*\*\*



**CORE COURSE X - U12PE12P**

**PRACTICAL -V (FOOTBALL, BADMINTON, HANDBALL)**

**Semester: V & VI**

**Instruction Hours/Week: 3+3**

**Core Course: X**

**Credit : 5**

**UNIT-1 –FOOTBALL**

**FUNDAMENTAL SKILLS:**

(a)pass and passing techniques, passing drills (b)Trapping, receiving and ball control techniques (c)Dribbling and running with the ball dribbling skills (d)Types of kick: (i)low drive (ii)lifted kicks (iii)Half volley (iv)Punt kicks and full volleys

Kicking and shooting practices, heading techniques, heading drills. Goal keeping techniques, keeping drills.

**UNIT II-BADMINTON**

Holding the racquet (a) forehand grip, back hand grip, holding the shuttle cocks mid grip (b) Base grip.

Footwork for various strokes (a) forehand strokes (b) back hand strokes (c) over head strokes (d) round the head stroke.

**UNIT-III**

Basic shots- (a) smash (b) lob, toss or clear (c) net shot (d) drive

Singles service- (a) high job service (b) low service (c) medium service.

Doubles service-(a) low or long service (b) drive or shafting service (c) high-flick service

**UNIT-IV-HANDBALL**

Fundamental Skills –

(a) Basic skills such as the correct way to catch the ball with two hands, catching the high ball.

(b)Passing and throwing, two handed chess pass, one handed shoulder pass, the reverse pass , the pass to the side , the long pass.

(c) Running with the ball(dribbling)

(d)shooting: the falling shot from outside , the falling shot with feint, the diving shot , the throw shot, the jump shot , the penalty shot, the reverse shot

(e) goal keeping.

**UNIT-V-HANDBALL**

TACTICS -6-0 setting- up defense formation, 5-1 defense formation and movement, 4-2 defense formation and movement.2-3 defense formation and movement, attack against 6-0 defense, attack against 5-1 defense attack against 4-2 defense, attack against 2-3 defense.

**REFERENCE BOOKS.**

- 1) Rowland, B.J “Handball a complete Guide” London, Faber Ltd, 24 unset Square, 1970.
- 2) Mnad, Charler. L “Handball Fundamentals”, Charles,E. Merri company coloumbus Chio,1968.
- 3) Phillips, B.E “Handball its pay and management” New York. The Ronald Press Company,1957.
- 4) Davis, “Better Badminton learn it yourself Book” London paper books, 1979.
- 5) Brown, E. “Better Badminton”, London Faber and Faber, 1969.
- 6) Rogers. Wynn. “Advanced Badminton”, Lowa, Brown Company 1970.

\*\*\*\*\*

**Core Course XI -U12PE13**

**PHYSIOLOGY OF EXERCISE**

**Semester : VI**

**Core Course : XI**

**UNIT – I**

Meaning, Nature and Scope of Exercise Physiology.

**UNIT-II**

Physiological concept of Health and Fitness. Effect of Exercise on the various systems of the body with special emphasis on the

- a) Circulatory
- b) Respiratory
- c) Digestive
- d) Muscular
- e) Endocrine and
- f) Nervous system

**UNIT – III-MUSCLE CONTRACTION AND EXERCISE**

- a) Properties and Composition of voluntary muscles
- b) Minute structure of voluntary muscle.
- c) Changes in muscle contraction
- d) Nerve control of muscular activity
- e) Conditions affecting muscular contraction

**UNIT – IV-FACTORS AFFECTING SPORTS PERFORMANCE**

- a) Warming up
- b) Conditioning
- c) Training
- d) Relation between Performance Security of Exercise.
- e) Physiological factors affecting speed, strength, Endurance and technique.

**UNIT – V**

Sources of Energy: Carbohydrates, Proteins and fats, Anaerobic and Aerobic Glycolysis, Metabolism of protein and fat.

Energy requirement for sports – optional utilization of Energy for different activities.

**BOOKS FOR REFERENCE:**

- 1) Guyton, A.C. Functions of the Human Body. London W.B.Saunders Company, Latest Ed.
- 2) Srivastara etc. Text Book of Practical Physiology Culcutta Scientific Book Agency
- 3) Morehouse and Miller. Physiology of Exercise, St. Louis, C.V. Mosby Company Latest Ed.
- 4) Karporich and sinning, Physiology of muscular Activity, London W.B. Saunders Company 1955.
- 5) Shaver. L. Essentials of Exercise Physiology.

\*\*\*\*\*

**CORE COURSE XII - U12PE14**  
**PRINCIPLES OF PHYSICAL EDUCATION**  
**AND EDUCATIONAL PSYCHOLOGY**

**Semester: VI**

**Core Course: XII**

**Instruction Hours/Week: 6**

**Credit : 6**

**UNIT – I INTRODUCTION****PRINCIPLES OF PHYSICAL EDUCATION**

1. Meaning of the term 'Principles' – sources of principles of Physical Education – related subjects.
2. Aims and objectives of Education and Physical Education.
3. Definition of Education and Physical Education – Physical culture and Physical training.

**UNIT-II**

“Biological foundations of Physical Education – Hereditary traits – Muscle tone – Athletic Heart – unsynchronised development – Reciprocal innervation – Reflex Arc – vital capacity – differences between boys and girls during the period of adolescence – somato type classification according to Sheldon and Kretschmer, Exercise – biological necessity growth – structure – function – Body Mechanics – Principles of Load in Training.

**UNIT – III**

Sociological foundations – gregarious instincts. Individual and society – Desire for recognition and responses, social groups and their significance – Family community school, state – nations. Democratic thinking – leader and followers – respect of personality – equality, national integration.

**UNIT-IV Psychological Foundation of Physical Education.**

1. An introduction to Educational Psychology :
2. Introduction – What is Psychology – its scope theory.
3. Basic features – Heredity and environment personality, types of personality.
4. the individual – His origin
5. Neuro – sensory system – sensory – motor – are.
6. Intelligence – IQ, Individual differences feeble minded – Morons – Imbeciles and Idiots Instincts and emotions.
7. Learning process – motivation

**Theories of Learning:**

1. Imitation 2. Conditioned response 3. Trial and Error 4. Insight.

**Laws of Learning:**

1. Readiness, 2. Exercise, 3. Effect, 4. Frequency, 5. Recency 6. Intimacy **Types of Learning:** Primary, Associate and concomitant learning – learning curve.

Transfer of learning with special reference to physical skill.

**UNIT-V THEORIES OF TRANSFER OF LEARNING**

1. Theory of formal mental discipline
2. Theory of identical elements
3. Theory of generalization
4. Theory of conscious ideals
5. Theory of faculty.

**REFERENCES:****PART – A**

- 1) Foundation of Physical Education, Charles the C.V Nosby Co.
- 2) Foundation of Physical Education, Charles A. BuchesTheC.N.Mosby Company.

**PART - B**

- 1) Sports Psychology – by John D.Lauther, Prentice Hall Inc. Eaglewood Cliffs, N.J.

- 2) Motor learning and Human performance – by RoberN.Swiger, The Macmillan Co.New York, Collier London.

\*\*\*\*\*

### **CORE COURSE XIII - U12PE15**

#### **PRACTICAL VI-SILAMBAM, FENCING, TEAKWONDO**

**Semester: VI**

**Core Course: XIII**

**Instruction Hours/Week: 6**

**Credit: 6**

#### **UNIT – I-SILAMBAM**

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.

Evolution of stick fencing – Silambam Locks.  
Different techniques – Stance – Attack.

#### **UNIT-II**

Teaching and Coaching – Silambam.

Contemporary Society – Need for protection for girls – Women of self defence. Association – International Silambam Fencing Association (INSFA)

Research Studies – Promotion of Silambam as an International Game of Sport.

#### **UNIT-III-FENCING**

Foot Work: advances, retreats, lunges, ballestras, and fleches. Blade Work: en garde, extension, lunge, parries, riposte, disengage, feints, beat, press. Strength Work: legs, arm, fingers. Balance: feet, back (posture), center of gravity, getting “stuck”.

#### **UNIT-IV-CONCEPT OF FENCING**

Distance: feet, blade, your distance vs. your opponent’s. Right of Way: point in line, hand/body moving forward, searching for the blade. Timing: attack/counter, attack in preparation, simultaneous attacks, mid-step. Deception: telegraphing, small motions, quick motions, repetition (habits), set-up. Tournaments: fencing them, and winning them!

#### **UNIT-V- TEAKWONDO**

- a) Sparring
- b) Self defense
- c) Terminology
- d) Stance

#### **BOOKS FOR REFERENCE**

- 1) History of Silambam fencing – An Indian Martial Art – Dr.J.David Manual Raj Nov 19, 1993.
- 2) Our Physical Activities (Kandivilli, Bombay Old Students Association Training Institute for Physical, 1962).
- 3) J.David Manual Raj ‘Silambam Fencing from India
- 4) D.C.MajumdarEncyclopaedia of Indian Physical culture, (Reopura, Baroda, India : Good Companies, 1950).
- 5) K.Rajagopalan, A Brief History of Physical Education in India (Delhi – 6, Army Publishers, 1962)
- 6) Ball with Pabe”, London, Sidney, Toronto.

\*\*\*\*\*

**Elective Course III – U12PE16E****TEACHING PRACTICE****Semester : VI****Elective Course : III****Instruction Hours/Week : 5****Credit : 4**

\*\*\*\*\*

**HISTORY OF PHYSICAL EDUCATION I – U13APE-1****Semester : I****First Allied Course: 1****Instruction Hours/Week: 5****Credit: 3****UNIT – I**

Physical Education in ancient Greece – Sparta – Athens

Origin and development of Ancient and Modern

Olympics Physical Education in ancient Rome.

Physical Education in Ancient India Puranic age Epic age – Philosophic age, Mohammedian Period, influence of great Britain, U.S.A.

**UNIT – II**

YMCA and its contribution to Physical Education in India – All India Council of Sports – Coaching Scheme – RajkumariAmrithKaur Coaching Scheme.

**UNIT – III**

National Physical Efficiency Drive – National Discipline Scheme – national fitness Corps – National and International Tournaments and competitions. National Cadet Corps – Auxiliary Cadet Corps, Scouts and guides.

**UNIT - IV**

Indian Olympic Association, National and State Level Associations and federations of Sports and Games.

**UNIT – V**

National school games federation – Inter University Borad of Sports – Asian games Davis Cup tournament – Wimbledon Tournament World Championship International Olympic Committee.

**REFERENCE BOOK**

- 1) Thirunarayanan, C., and Hariharan, S., History of Physical Education, Karaikudi, S. India Press, 1969.
- 2) Dr.Kamalesh, M.L., Principles and History of Physical Education.

\*\*\*\*\*

**ANATOMY AND PHYSIOLOGY – U13APE2****Semester: I & II****First Allied Course: II****Instruction Hours/Week:6****Credit: 3****UNIT –I : Introduction**

- a) Need and importance of anatomy and physiology for the students of Physical Education
- b) Descriptive terms used to describe the human body.
- c) Definition of cell, Tissue, Organ and System.
- d) Microscopic structure of the Cell.
- e) Classification, Structure and functions of various types of tissues.

**UNIT II:**

Skeletal systems: Names of the human bones, classification of joints, Definitions of the skeletal system.

Blood: Function of blood, composition of blood, lymph and its functions.

**Cardiovascular system:**

Structure of the heart, Systematic pulmonary, coronary circulation.

**UNIT III:**

Respiratory System: Definition of respiration, structure and functions of respiratory system, mechanism for respiration lung volumes.

System: Structure and functions of kidney and Urinary tract, formation of Urine.

Brief account of Reproductive system.

**UNIT IV:**

Nervous Systems: Structure and functions of brain, spinal cord and reflex arc.

Digestive Systems: Structure and functions of alimentary canal Accessory organs of digestive liver, pancreas, gallbladder.

**UNIT V:**

System: Pituitary, Thyroid, parathyroid, adrenal, pancreas and sex glands.

Organs of special senses: Eye, ear, nose, tongue, skin and regulation of body temperature.

**REFERENCE BOOKS**

- 1) Pearce, Evelyn, B., Anatomy and Physiology for Nurses, London Faber and Faber Ltd. 1962.
- 2) Pearce, J.W., Anatomy for students and Teachers of Physical Education, London, Edward Arnold and Co., 1959.
- 3) Murugesh, N., Anatomy Physiology and Health Education, Madurai, Sathiya Publishers, Ed. 1990.
- 4) "DhekathaiTheerindhuKoluom", by Dr.NavarajChelliah, S., RajmohanPathippagam, Madras – 600 017, 1989.

\*\*\*\*\*

**ALLIED PRACTICAL YOGA II – U13APE3P**

**Semester : II**

**Instruction Hours/Week: 5**

**First Allied Course: III**

**Credit: 3**

**YOGA :-**

**UNIT – I**

**ASANAS :-**

- |                          |                 |                  |                  |
|--------------------------|-----------------|------------------|------------------|
| i) Swastikasana          | ii)Padmasana    | iii)Vajrasana    | iv)Samasana      |
| v). Bhujangasana         | vi)Dhanurasana  | vii)Matsyasana   | ix)Salabhasana   |
| x) Halasana              | xi)Pachimotasan | xii)Yoga Mudra   | xiii)Vakrasana   |
| xiv) ArdhanatsYendiasana | xv)Vibaratkaran | xvi)Sarvangasana | xvii)Shirshanana |
| xviii) Mayurasana        | xix)Vrikshasana | xx)Tadasana      | xxi)Makarasana   |
| xxii)Shavasana           |                 |                  |                  |

**UNIT-II - Kriyas**

Jalaneti, Nauli, Uddyan, Kapalabhatti

**UNIT-III - Pranayama**

Nadi Suddhi, Nadi Shodana, Kapalabi, Sitali, Sitakari, Bhastrika,

**UNIT-IV**

Techniques and Practice of Yogasanas - Important facts and Precautions, Warming up and Preliminary Exercises for Neck, Eyes, Shoulders, Back, Abdominal Muscles, Legs, Feet and Hands - Technique of Yogasana posture - Do's and Don't's.

**UNIT-V**

Beneficial Effects of Yogasana - Time Schedule for Practising Yogasanas and Pranayama Yoga Stretching and Pranayama for competitive players - Physiological Aspects - Physical and Mental Relaxation - Guide to practice Contemplation - Mediation - Concentration Exercises.

**REFERENCE BOOKS**

- 1) Erling Peterson, 'Yoga step by step'
- 2) Indra Devi, 'Yoga for you'
- 3) Rasalind Widdowson, 'Yoga made Easy'
- 4) M. Rajan, 'Yoga Stretching and Relaxation for Sportsmen'
- 5) M. Narayana Menon, 'Yogasanas For Health and Longevity'
- 6) Rameshwar Dass Gupta, 'Daily Yog

\*\*\*\*\*

**HEALTH EDUCATION AND FIRST AID -U13APE4**

**Semester : III**

**Second Allied Course : I**

**Instruction Hours/Week :5**

**Credit : 3**

**UNIT – I**

Health – Definition – meaning and concept – factors influencing health. Health determinants, Heredity and Environment.

**UNIT – II**

Meaning scope aim and objectives of first aid • Importance of first aid in physical education and sports • Types of First Aid • First aid box and its articles

**UNIT – III**

- a. Personal Hygiene: Desirable Hygienic habits, health requirements.
- b. Causes of sports injuries • Principles of First Aid • Qualities and functions of First Aider
  - First Aid and emergency treatment of various cases-drowning, dislocation, fracture, burns, electric shock, snake bite& poison

**UNIT – IV**

- a) Infection: Causes of diseases – Mode of Infection. Spread of Infection Public health measures to combat Infection – Public Health Administration – Sanitation – Water supply.
  - Immunity – ProphylacticImmunity – Programmes : AIDs.
- b) Communicable diseases, Malaria, Typhoid, Cholera, Dysentery, Leprosy, Tuberculosis, STD, Polio, Tetanus.
- c) Drug Abuse – Alcohol, Smoking
- d) Family Welfare : Sex Education

**UNIT – V**

- a) Safety at Home – Environment and structure. Electrical connections, Bathrooms and Lavatory, storing articles, kitchen and fire place, storing medicines. Principles of movements in daily living.

- b) Safety at School structure and Environment, furniture and fixtures, school procedures and policies, Precautionary and Emergency equipment, collection of information (address of parents, hospitals and doctors, police, fire station, ambulance service)

#### **BOOKS FOR REFERENCE**

- a. Foundation of health, Harper and Bros.
- b. Moss and others, Health Education, National Educational Annual U.S.A.
- c. Neiniah, School Health Education, Harper & Bros.
- d. J.E.Park, Text Book of Preventive and school medicine.
- e. Dr.S.K.Mangal and Dr.P.C.Chadha Health and Physical Education Ludhiana, R.D.Tandon Brothers, 1979.

\*\*\*\*\*

### **SPORTS MANAGEMENT -U13APE5**

**Semester: IV**

**Second Allied Course: III**

**Instruction Hours/Week :5**

**Credit : 3**

#### **UNIT – I INTRODUCTION**

Introduction to concept of Sports Management.Meaning of organisation and Administration – Guiding Principles of organization.Levels of management & span of control, facilities and standards for outdoor activities in educational institution.

#### **UNIT – 2 PROGRAMME PLANNING**

Types of programmes – intramurals – Extramurals. Preparation of Time Table – Types of Physical Education periods.

#### **UNIT – 3 CLASS AND OFFICE MANAGEMENT**

Principles of good class Management – Finance and Budget source of Income – Approved items of expenditure – Rules for the utilization of games fund or physical education fund, preparation and administration of a Budget and accounting.

#### **UNIT – 4 METHODS AND IMPORTANCE OF METHODS**

Meaning and factors influencing method – presentation techniques – selection and teaching of activities.

#### **UNIT – 5 COMPETITION AND TOURNAMENT**

Tournament and leagues – Meaning and types of tournaments – knock out and elimination tournaments – sports meet – group competition – play days.

#### **BOOKS REFERENCE:**

- 1) Administration of school Health and Physical Bucher Education, Charles ,C.V.Mosy& Co.
- 2) Organisation of Physical Education, Dr.P.M.Joseph, Old Student Association MPE Kandivilli Bombay.
- 3) Organisation of Physical Education Curriculum Design in Physical Education Methods in Physical Education ,Dr.J.P.ThomasCowel&Huzeltow C. Thirumurugan&S. Hanharur , Gnanodaya Press, Madra I Prentice Hall Inc. M.S.C.T & S.H. Karaikudi – 4.
- 4) Methods & Material for Secondary Schools, Physical Education Sports Management , Boucher, Koenig&BarnheedDr.Chelladurai , C.V.Mosby& Co.,

\*\*\*\*\*



**ALLIED PRACTICAL GYMNASTICS &  
GAMES AND SPORTS- U12APE6P**

**Semester: III &IV**

**Second Allied Course : III**

**Instruction Hours/Week :2+3**

**Credit : 3**

**FLOOR EXERCISE (COMPULSORY)**

1. Forward Roll
2. Backward Roll
3. Hand Stand Forward Roll
4. Cart Wheel
5. Round off
6. Jump forward to Roll forward
7. Head Spring
8. Hand Spring
9. Standing scales

**Any one - apparatus in the following:**

**POMMEL HORSE**

1. a) Front Support
  - b) Rear Support
  - c) Straddle Leg support
  - d) Split Leg support
  - e) Feint Support
2. a) Single Leg Circle Clockwise Right Leg.
  - b) Single Leg Circle Clockwise left Leg.
  - c) Single Leg Circle anticlockwise Right Leg.
  - d) Single Leg Circle anticlockwise left Leg.
3. Double leg circle
4. Scissors

**PARALLEL BAR**

1. Perfect swing
2. Straddle Seat
3. L-Support
4. Forward Roll
5. Backward Roll
6. Shoulder stand
7. Hand Stand
8. Dismount

**HORIZONTAL BAR**

1. Perfect swing
2. Free hip circle
3. Mill circle Forward
4. Mill circle Backward
5. Dismount

**ROMAN RINGS**

1. Perfect swing

2. Invested Hang
3. Rear Hang
4. Upstart
5. L-support
6. Shoulder Stand
7. Dismount Exercises on vault, Asymmetric Bars, Balance beam are for women.

**BOOK REFERENCE:**

- 1) Code of Points Trampoline Gymnastics, Federation Int. De Gymnasics,2005.
- 2) Federation International Gymnastics, Federtion Int. De Gymnasics,2006.
- 3) Jain, R,Play and Learn Gymnastics, Khel Sahitaya Kendra,2005.
- 4) Pearson, D.Play The Game Gymnastics, Britain : Ward Lock, 1991.

\*\*\*\*\*

**OFFICE AUTOMATION - U13SBE1****Semester: I****Skill Based Elective Course- I****Instruction Hours/Week: 2****Credit: 2****Unit - I**

MS- Word- Introduction to Computers - Hardware - Software, Operating System: Windows XP - MS-Paint, Notepad, WordPad, Introduction to MS-Word, Creating, Editing and Formatting Document - Working with Drawing objects - Text Manipulation

**Unit-II**

Working with Tables – Columns – Labels - Plotting, editing and Filling drawing objectsBookmark – Header & Footer - Checking and Correcting a document - Creating Labels – Envelops – Mail Merge – Formatted output and Report generation Printing Documents, Working with Internet.

**Unit-III**

Ms – Excel - Ms – Excel: Introduction – Data Entry – Cell Formatting - Plotting Graphs – Workbook Features – Library Functions.

**Unit-IV**

Conditional Functions and Data Sorting – Limit the data on a worksheet - Data Validation –Data consolidation - Chart creation - Checking and Correcting Data - Tracking and Managing Changes- Advanced Features.

**Unit-V**

Ms – PowerPoint- Introduction - Creating, Editing and Formatting Presentation – Applying Transition and Animation Effects - Applying Design Templates - Viewing and Setting up a Slide Show - Navigating among Different Views - Ms Outlook: Introduction to Folder List – Address

**Book References**

- 1) Jill Murphy, Microsoft Office Word- Comprehensive Course, Labyrinth Publications, 2003.
- 2) McGraw-Hill/Irwin-Deborah Hinkle, Microsoft Office 2003 PowerPoint: A Professional Approach, Comprehensive w/ Student CD, New Delhi, 2003.
- 3) Nellai Kannan, C., MS-Office, Nels Publications, Tamil Nadu, 2002.

\*\*\*\*\*

**DESKTOP PUBLISHING - U13SBE2****Semester: III****Skill Based Elective Course: II****Instruction Hours/Week: 2****Credit: 2**

**PHOTOSHOP****UNIT – I****Photoshop Tools:**

Move, Type, Marquee, Lasso, Crop, Shapes, Healing, Brush, Patch, Cloning Stamp, Eraser, Gradient, Blur, Smudge, Dodge, Pen, Eye Dropper, Patch selection and Zoom tool.

**Layer:**

New layer, Layer set, Duplicate layer, Rasterize and Merge down

**Layer Styles:**

Drop shadow, inner shadow, outer glow & inner glow, Bevel and Emboss, Gradient overlay, Stroke. Text formatting.

**UNIT – II****File:**

Save, File formats, Page set up.

**Edit:**

Check spelling, Copy merged, Fill, Transform, Define pattern.

**Image:**

Motion blur, Twirl, lens flare, Glowing edges, lighting effects, solarize, water paper, Stained glass, Mosaic Tiles.

**Window:**

Character and Paragraph settings.

**UNIT – III****Drawing Tools:**

Pick, Shape, Knife, eraser, Smudge, Roughen brush, free transform, Zoom ,hand, Free hand, Bezier, Artistic, Pen, Poly line, Point, Interactive connective, Spiral tool.

**Colour Tool:**

Paint Bucket Tool, Eye Dropper, Fill Tools. Fill Options, Stroke Options.

**UNIT – IV****Special Effects:**

3D effects, Add perspective, Blend, Contour, Artistic media, lens, and Power clip.

**Shaping Options:**

Weld, trim, Intersect.

**Text Effects:**

Format text, bullet, and fit text to path, align and straighten, spell check.

**File Menu:**

Save, Save as, Import, Page set Up.

**PAGE MAKER: UNIT – V****Page Maker Tools:**

Pointer, Rotate, Line, Rectangle, Ellipse, Polygon, Hand, Text, Crop, and Rectangle frame tools.

**Text layout, Style and Objects:**

Alignments, Styles, fill, frame options, Stroke, Group, Lock, unlock, mask, polygon settings character and paragraph settings.

**Text Editing:**

Edit story: Undo, Redo, Cut, Copy, Paste, paste Special, Spelling check and Find.

**File:**

Page set up, save, Save as.

**Reference Book:****CorelDraw**

CorelDraw IN Simple Steps – Shalini Gupta Corel DRAW Bible - DEBORAH MILLER

**Photoshop**

Teach Yourself Adobe Photoshop – Rose Carla Adobe Photoshop Cs Classroom in a Book by  
Adobe Press

**PageMaker**

Using Microsoft Word - Asmita Bhatt Pagemaker In Easy Steps - Scott Basham Ctoa Material By  
Genesis.

\*\*\*\*\*

**OFFICE AUTOMATION  
& DESKTOP PUBLISHING LAB - U13SBE3P**

**Semester: III**

**Skill Based Elective Course : III**

**Instruction Hours/Week: 2**

**Credits: 2**

**Unit – I- (Office Automation)****Ms – Word :**

Text Formatting, Mail Merge,

**Ms – Excel:**

Implement the Statistical & Mathematical Function

(Using Min ,Max, Median, Average, Standard Deviation, Correlation, Logical 'if' Condition ) for  
the given data, Prepare a Chart for a given Data using Pie diagram / Histogram

**Unit – II**

(Photoshop)

1. Design a College Broacher / Birthday Card.
2. Cropping, rotating and overlapping the image.
3. Create a single image from multiple image.
4. Creating an image with multilayers.

**Unit – III**

(Corel Draw)

1. Design a Visiting Card \ Greeting Card using Draw & Text tools
2. Create a logo for a Company \ College.

**Unit – IV**

(Page Maker)

1. Type and format a letter using text tool.
2. Prepare a Invitation for College Day \ Sports Day.

\*\*\*\*\*

**ENVIRONMENTAL STUDIES - U13ES**

**Semester: II**

**Environmental Studies Course**

**Instruction Hours/Week: 2**

**Credits: 2**

**Unit 1 :**

Environment and Natural Resources: Definition, scope, importance of Environmental Studies -  
Need for public awareness. Natural resources — classification - Associated problems

- a) Forest resources: Use and over-exploitation, deforestation, case studies.  
Timber extraction, mining, dams and their effects on forest and tribal people.
1. Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams-benefits and problems.
2. Mineral resources: Use and exploitation, environmental effects of extracting and using mineral resources, case studies.
- d) Food resources: World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity, case studies.
- e) Energy resources: Growing energy needs, renewable and non renewable energy sources, use of alternate energy sources. Case studies.
- f) Land resources: Land as a resource, land degradation, man induced landslides, soil erosion and desertification.
- Role of an individual in conservation of natural resources.
  - Equitable use of resources for sustainable lifestyles.

### **Unit 2: Ecosystems**

- Concept of an ecosystem.
- Structure and function of an ecosystem.
- Producers, consumers and decomposers.
- Energy flow in the ecosystem.
- Ecological succession.
- Food chains, food webs and ecological pyramids.
- Introduction, types, characteristic features, structure and function of the following ecosystem:
  - a. Forest ecosystem
  - b. Grassland ecosystem
  - c. Desert ecosystem
  - d. Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries)

### **Unit 3: Biodiversity and its conservation**

- Introduction — Definition: genetic, species and ecosystem diversity.
- Biogeographically classification of India
- Value of biodiversity: consumptive use, productive use, social, ethical, aesthetic and option values
- Biodiversity at global, National and local levels.
- India as a mega-diversity nation
- Hot-spots of biodiversity.
- Threats to biodiversity: habitat loss, poaching of wildlife, man-wildlife conflicts.
- Endangered and endemic species of India
- Conservation of biodiversity In-situ and Ex-situ conservation of biodiversity.

### **Unit 4: Environmental Pollution Definition**

- Cause, effects and control measures of a. Air pollution b. Water pollution c. Soil pollution d. Marine pollution e. Noise pollution f. Thermal pollution g. Nuclear hazards
- Solid waste Management: Causes, effects and control measures of urban and industrial wastes.
- Role of an individual in prevention of pollution.
- Pollution case studies.

- Disaster management floods, earthquake, cyclone and landslides.

#### **Unit 5 : Social Issues and the Environment**

- From Unsustainable to Sustainable development
- Urban problems related to energy
- Water conservation, rain water harvesting, watershed management
- Resettlement and rehabilitation of people; its problems and concerns. Case Studies
- Environmental ethics: Issues and possible solutions.
- Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust.

#### **Case Studies**

- Wasteland reclamation.
- Consumerism and waste products.
- Environment Protection Act.
- Air (Prevention and Control of Pollution) Act.
- Water (Prevention and control of Pollution) Act
- Wildlife Protection Act
- Forest Conservation Act
- Issues involved in enforcement of environmental legislation.
- Public awareness.

#### **REFERENCE**

- a) Agarwal, K.C. 2001 Environmental Biology, Nidi Pubi. Ltd. Bikaner.
- b) Sharucha Erach, The Biodiversity of India, Mapin Publishing Pvt. Ltd., Ahmedabad — 380 013, India, Email:mapin@icenet.net (R)
- c) Brunner R.C., 1989, Hazardous Waste Incineration, McGraw Hill Inc. 480p
- d) Clark R.S., Marine Pollution, Clarendon Press Oxford (TB)
- e) Cunningham, W.P. Cooper, T.H. Gorhani, E & Hepworth, M.T. 2001, Environmental Encyclopedia, Jaico Publ. House, Mumbai, 1196p
- f) De A.K., Environmental Chemistry, Wiley Eastern Ltd.
- g) Down to Earth, Centre for Science and Environment (R)
- h) Gleick, H.P. 1993. Water in crisis, Pacific Institute for Studies in Dev., Environment & Security. Stockholm Env. Institute Oxford Univ. Press. 473p
- i) Hawkins R.E., Encyclopedia of Indian Natural History, Bombay Natural History Society, Bombay (R)
- j) Heywood, V.H & Waston, R.T. 1995. Global Biodiversity Assessment. Cambridge Univ. Press 1140p.
- k) Jadhav, H & Bhosale, V.M. 1995. Environmental Protection and Laws. Himalaya Pub. House, Delhi 284 p.
- l) McKinney, M.L. & School, R.M. 1996. Environmental Science systems & Solutions, Web enhanced edition. 639p.
- m) Mhaskar A.K., Matter Hazardous, Techno-Science Publication (TB)
- n) Miller T.G. Jr. Environmental Science, Wadsworth Publishing Co. (TB)
- o) Odum, E.P. 1971. Fundamentals of Ecology. W.B. Saunders Co. USA, 574p
- p) Rao M N. & Datta, A.K. 1987. Waste Water treatment. Oxford & IBH Pubi. Co. Pvt. Ltd. 345p.
- q) Sharma B.K., 2001. Environmental Chemistry. Geol Pubi. House, Meerut\

- r) Survey of the Environment, The Hindu (M)  
 s) Townsend C., Harper J, and Michael Begon, Essentials of Ecology, Blackwell Science (TB)  
 t) Trivedi R.K., Handbook of Environmental Laws, Rules Guidelines, Compliances and Standards, Vol I and II, Enviro Media (R)  
 u) Trivedi R. K. and P.K. Goel, Introduction to air pollution, Techno-Science Publication (TB)  
 v) Wanger K.D., 1998 Environmental Management. W.B. Saunders Co.Philadelphia, USA 499p  
 (M) Magazine (R) Reference (TB) Textbook

\*\*\*\*\*

### VALUE EDUCATION - U13VE

**Semester: V**

**Value Education Course**

**Instruction Hours/Week: 2**

**Credit: 2**

#### UNIT 1: PHILOSOPHY OF LIFE

Human Life on Earth ( Kural 629), Purpose of Life ( Kural 46) Meaning and Philosophy of Life( Kural 131, 226) The Law of Nature (Kural 374) Glorifying All form of Life in this Universe (Kural 322, 327) – Protecting Nature /Universe (Kural 16, 20, 1038)

#### UNIT 2: INDIVIDUAL QUALITIES

Basic Culture (Kural 72, 431) Thought Analysis (Kural 282, 467, 666) Regulating desire (Kural 367), Guarding against anger (Kural 158, 305, 306, 314), To get rid of Anxiety (Kural 629), The Rewards of Blessing (Kural 3), Benevolence of Friendship (Kural 786), Love and Charity (Kural 76), Self – tranquility/Peace (Kural 318)

#### UNIT 3: SOCIAL VALUES (INDIVIDUAL AND SOCIAL WELFARE)

Family (Kural 45), Peace in Family (Kural 1025), Society (Kural 446), The Law of Life (Kural 952), Brotherhood (Kural 807) , The Pride of Womanhood (Kural 56) Five responsibilities/duties of Man : a) to himself, b) to his family, c) to his environment, d) to his society, e) to the Universe in his lives (Kural 43, 981), Thriftness (Thrift)/Economics (Kural 754), Health (Kural 298), Education (Kural 400), Governance (Kural 691), People’s responsibility/ duties of the community (Kural 37), World peace (Kural 572)

#### UNIT 4: MIND CULTURE

Mind Culture (Kural 457) Life and Mind - Bio - magnetism, Universal Magnetism (God – Realization and Self Realization) - Genetic Centre – Thought Action – Short term Memory – Expansiveness – Thought – Waves, Channelising the Mind, Stages - Meditation (Kural 261, 266, 270), Spiritual Value (Kural 423)

#### UNIT 5: TENDING PERSONAL HEALTH

Structure of the body, the three forces of the body, life body relation, natural causes and unnatural causes for diseases (Kural 941), Methods in Curing diseases (Kural 948, 949) The Five units, simple physical exercises.

#### Books for Reference:

- 1) Philosophy of Universal Magnetism (Bio-magnetism, Universal Magnetism) The World Community Service Centre Vethatri Publications (for Unit IV)]
- 2) Pope, G.U., Dr. Rev., Thirukkural with English Translation, Uma Publication, 156, Serfoji Nagar, Medical College Road, Thanjavur 613004 (for All Units)
- 3) Value Education for Health, Happiness and Harmony, The World Community Service Centre Vethatri Publications Rs 35/- (for All Units)

\*\*\*\*\*

**SOFT SKILLS - U13SS****Semester: V****Soft Skills Instruction****Hours/Week: 2****Credit: 2****Learning objective**

Today's world is all about relationship, communication and presenting oneself, one's ideas and the company in the most positive and impactful way. This course intends to enable students to achieve excellence in both personal and professional life.

**Unit I**

Know thyself / Understanding Self Introduction to soft skills self discovery – Developing positive attitude – Improving perceptions – Forming values.

**Unit II**

Interpersonal Skills/ Understanding Others Developing interpersonal relationship –Team building –group dynamics –Net working- Improved work relationship

**Unit III**

Communication Skills/ Communication with others Art of Listening –Art of reading –Art of speaking –Art of writing –Art of writing emails-e mail etiquette

**Unit IV**

Corporate Skills/ Working with Others Developing body language –Practising etiquette and mannerism – Time management – Stress management.

**Unit V**

Selling Self/ Job Hunting Writing resume /cv-interview skills – Group discussion –Mock interview Mock GD –Goal setting –Career planning

**TEXT BOOKS**

- 1) Meena. K and V.Ayothi (2013) A Book on Development of Soft Skills (Soft Skills: A Road Map to Success) P.R. Publishers & Distributors, No, B-20 &21, V.M.M Complex, Chatiram Bus Stand, Tiruchirapalli -620 002. (Phone No: 0431-2702824: Mobile No: 94433 70597, 98430 7442)
- 2) Alex K. (2012) Soft Skills – Know Yourself & Know the World, S.Chand & Company LTD, Ram Nagar, New Delhi -110 055. Mobile No: 94425 14814(Dr.K.Alex)

**REFERENCE BOOKS**

- (i) Developing the leader within you John C Maxwell
- (ii) Good to Great by Jim Collins
- (iii) The Seven habits of highly effective people Stephen Covey
- (iv) Emotional Intelligence Daniel Goleman
- (v) You can Win Shive Khera
- (vi) Principle centred leadership Stephen Covey

\*\*\*\*\*



**GENDER STUDIES - U13GS****Semester: VI****Gender Studies Course****Instruction Hours/Week:1****Credit: 1****Objectives**

To make boys and girls aware of each other strengths and weakness To develop sensitivity towards both genders in order to lead an ethically enriched life. To promote attitudinal change towards a gender balanced ambience and Women empowerment

**Unit-I Concepts of Gender:**

Sex-Gender-Biological Determinism- Patriarchy- Feminism -Gender Discrimination -Gender Division of Labour -Gender Stereotyping-Gender Sensitivity - Gender Equity —Equality-Gender Mainstreaming Empowerment

**Unit-II**

Women's Studies Vs Gender Studies: UGC's Guidelines - VII to XI Plans- Gender Studies: Beijing and CEDAW-Exclusiveness and Inclusiveness

**Unit III**

Areas of Gender Discrimination: Family Sex Ratio-Literacy -Health -Governance Religion Work Vs Employment- Market - Media - Politics Law Domestic Violence — Sexual Harassment — State Policies and Planning

**Unit-IV**

Women Development and Gender Empowerment: Initiatives International Women's Decade - International Women's Year - National Policy for Empowerment of Women - Women Empowerment Year 2001- Mainstreaming Global Policies.

**Unit-V**

Women's Movements and Safeguarding Mechanism:— In India National / State Commission for Women (NCW) - All Women Police Station Family Court- Domestic Violence Act - Prevention of Sexual Harassment at Work Place Supreme Court Guidelines - Maternity Benefit Act - PNDT Act - Hindu Succession Act 2003 Eve Teasing Prevention Act - Self Help Groups 73 and 74 Amendment for PRIS.

**References**

- a. Bhasin Kamala, Understanding Gender: Gender Basics, New Delhi: Women Unlimited 2004
- b. Bhasin Kamala, Exploring Masculinity: Gender Basics, New Delhi: Women Unlimited, 2004
- c. Bhasin Kamala, What is Patriarchy? : Gender Basics, New Delhi: Women Unlimited, 1993
- d. Pernau Margrit Ahmad Imtiaz, Reifeld Hermut (ed.,) Family and Gender: Changing Values in Germany and India, New Delhi: Sage Publications, 2003 Agarwal Bina, Humphries Jane and Robeyns Ingrid (ed.,)Capabilities, Freedom, and Equality: Amartya Sen's Work from a Gender Perspective, New Delhi: Oxford University Press, 2006
- e. Rajadurai.S.V, Geetha.V, Themes in Caste Gender and Religion, Tiruchirappalli: Bharathidasan University, 2007
- f. Misra Geetanjali, Chandiramani Radhika (ed.,) Sexuality, Gender and Rights: Exploring Theory and Practice in South and Southeast Asia, New Delhi: Sage Publication, 2005
- g. Rao Anupama (ed.,) Gender &Caste: Issues in Contemporary Indian Feminism, New Delhi: Kali for Women, 2003

- h. Saha Chandana, Gender Equity and Gender Equality: Study of Girl Child in Rajasthan, Jaipur: Rawat Publications,
- i. Krishna Sumi,(ed.,) Livelihood and Gender Equity in Community Resource Management New Delhi: Sage Publication, 2004
- j. Wharton .S Amy, The Sociology of Gender: An Introduction to Theory and Research, USA: Blackwell Publishing, 2005.
- k. Mohanty Manoranjan (ed.,) Class, Caste, Gender: Readings in Indian Government and Politics- 5, New Delhi: Sage Publications,2004.
- l. Arya Sadhna, Women, Gender Equality and the State, New Delhi: Deep & Deep Publications,2000.

\*\*\*\*\*