

**ST. XAVIER'S COLLEGE (AUTONOMOUS)  
PALAYAMKOTTAI - 627 002**

*Affiliated to Manonmaniam Sundaranar University  
Tirunelveli*

**SYLLABUS**



**Preserve this copy of the syllabus until you complete the course, as it is an important document of your present course of study.**

**B.SC. PHYSICAL EDUCATION**

**(w.e.f. June 2023)**

### **Vision of the Department**

- ❖ Holistic development through physical activity and sport

### **Mission of the Department**

- ❖ To improve the standard of living to living with high standard of fitness and wellness.
- ❖ To create quality based outcome through Physical Education.
- ❖ Providing a concrete platform for wholesome development of students and enable them to perform their duties and excel in professional activities.
- ❖ Creating a scientific scenario to the learners to be physically and mentally sound by changing behavioural patterns.
- ❖ To induce the feel of sports as a base of life.

### **Learning Outcomes-Based Curriculum Framework**

The learning outcomes-based curriculum framework for a B.Sc. degree in Physical Education is intended to provide a broad framework within which Physical Education programme responds to the needs of students and requirements. The framework is expected to assist in the maintenance of standard and uniformity of Physical Education degrees across the country. This will also help in periodic programme review within a broad framework of agreed expected graduate attributes, qualification descriptors, programme learning outcomes and course-level learning outcomes. The framework does seek to bring about uniformity in syllabi for a programme of study in Physical Education, teaching-learning process as well as learning assessment procedures. However, the framework is also intended to allow flexibility and innovation in programme design.

### **Nature and extent of the B.Sc. degree programme**

Physical Education is normally referred to as the science that aims to develop all-inclusive aspects of human personality through physical and sports activities. Physical education is a multidisciplinary subject that cannot be studied in seclusion under the scope of one or two subjects. The scope of Physical Education as a subject is very broad. It caters to the need for developing capability of the students on physical, mental and social aspects. The key areas of study within the Physical Education are 'Exercise Physiology, Sports Psychology, Sports Sociology, Sports Management, Sports Journalism, Kinesiology-Biomechanics, Sports Training, Sports Medicine, Kinanthropometry etc.

Degree program in Physical Education covers topics that overlap with the areas outlined above and that address the interfaces of Physical Education with other subjects such as Physiology, Bio- Chemistry, Physics, Physiotherapy, Psychology, Management and Sociology along with training pedagogy employed for enhancing the functional status of individuals with varied needs. As a part of the effort, to enhance the employability of graduates of Physical Education, programs include learning experiences that offer opportunities in various spheres of human existence.

### **Programme Outcomes (POs)**

The programme aims the student to:

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

### **Program Specific Out comes (PSOs)**

This would lead the students to understand historical concept of physical education and relationship between Philosophy, Education and Physical Education. The student would further understand the theoretical implications of philosophies of physical education with modern development and social aspects of Physical Education.

- ❖ The curriculum would provide insightful knowledge to identify the hidden talents among the children for various sports and games.
- ❖ The curriculum would empower the pass out to orient the children in schools with the approach of developing fundamental motor skills.

- ❖ The pass out shall be able to distinguish the specific training program for every participants in sports activities.
- ❖ The curriculum shall cater to the intellectual approach towards organizing and administrating sports events of all level.
- ❖ The curriculum would enable the pass out students to be entrepreneur (to start their own fitness centre, gym, spa etc.), yoga trainer, sports trainer, fitness trainer and Physiotherapist.
- ❖ The curriculum would provide sufficient knowledge to the pass out to engage the special children and physically challenged peoples.

### **Course-level learning outcomes**

- ❖ The undergraduate degree program of Physical education will be of three years with six semesters. The Course-level learning outcomes for each course within B.Sc. degree programme in Physical Education are given below with content matter (detail syllabus of five units) to be taught in each unit and semester for three years.

### **Eligibility for Admission to the Course**

Eligibility for Admission to the B.Sc. Physical Education programme (3 Years)

Applicants should have passed the +2 examination of the Government of Tamil Nadu or any other equivalent examination recognized by the Government of Tamil Nadu or approved by the concerned University.

School representation in any game or sports is preferred for the applicants. The procedure followed for the selection of B.P.Ed. Degree should be followed for B. Sc., Physical Education Degree candidates.

The candidates should not have completed 21 years of age as on 1stJuly. However, relaxation of 3 years may be given for SC/ST.

Admission shall be made on the basis of ranking for a total of 150 marks as detailed below:

1.	Qualifying Examination	25 marks
2.	Participation in Sports and Games	25 marks
3.	Games skill test	50 marks
4.	Track and Field Skill test	50 marks
<b>Games and Sports participation:</b>		<b>(Maximum Marks:25)</b>
1.	Representation for the Country/National placing	25 marks
2.	State Representation (Form II/IV in games/Sports)	20 marks
3.	Inter Division (Participation) BDS/RDS Inter District (Participation)/CBSC CLUSTER	15 marks
4.	District (BDS/RDS)	10 marks
5.	Inter-School Representation	05 marks

All other quota system and rule of reservation of the Government of Tamil Nadu shall be followed.

### **Medical Certificate**

All applicants should submit along with the application a latest Medical Certificate issued by a Government Doctor not below the rank of a Civil Surgeon to the effect that the candidate is fit to undergo strenuous activities.

## PROGRAMME PATTERN

Sem	Part	Status	Course Code	Title of the Course	Hrs	Cdt	
<b>I</b>	I	Lang.	23UGTL11	General Tamil-1	6	3	
			23UGHL11	Hindi -1			
			23UGFL11	French -1			
	II	Lang.	23UGEL11	General English -1	6	3	
	III	Core - T1	23UPEC11	Fundamentals of Physical Education	5	5	
		Core - P1	23UPEC12	Practical: Traditional Games	3	3	
		EC - T1	23UPEE11	Anatomy, Physiology and Movement Education in Sports	4	3	
				Adapted Physical Education			
	EC - P1	23UPEE12	Practical: Kinanthropometry and Movement Education in Sports	2	2		
	IV	SEC - 1	23UPEN11	Fitness and Wellness (NME)	2	2	
		FC	23UPER11/ 23UPEE11	Religion / Ethics	2	2	
<b>Total</b>					<b>30</b>	<b>23</b>	
<b>II</b>	I	Lang.	23UGTL21	General Tamil- 2	6	3	
			23UGHL21	Hindi -2			
			23UGFL21	French -2			
	II	Lang.	23UGEL21	General English -2	6	3	
	III	Core - T2	23UPEC21	Theories of Games - I (Badminton, Ball Badminton, Cricket, Handball and Volleyball)	5	5	
		Core - P2	23UPEC22	Practical: Games - I (Badminton, Ball Badminton, Cricket, Handball and Volleyball)	3	3	
		EC - T2	23UPEE21	Computer Application in Physical Education	4	3	
				Fundamentals of Fitness and Wellness			
	EC - P2	23UPEE22	Practical: Computer Application in Physical Education	2	2		
	IV	SEC - 2	23UPEN21	Science of Nutrition (NME)	2	2	
		SEC - 3	23UHEI21	Integrated Personality Development	2	2	
	<b>Total</b>					<b>30</b>	<b>23</b>

Sem	Part	Status	Course Code	Title of the Course	Hrs	Cdt
III	I	Lang.	23UGTL31	General Tamil-3	6	3
			23UGHL31	Hindi -3		
			23UGFL31	French -3		
	II	Lang.	23UGEL31	General English - 3	6	3
	III	Core - T3	23UPEC31	Theories of Games - II (Basketball, Football, Hockey, Table Tennis and Tennis)	5	5
		Core - P3	23UPEC32	Practical: Games - II (Basketball, Football, Hockey, Table Tennis and Tennis)	3	3
		EC - T3	23UPEE31	Athletic Care and Rehabilitation	4	3
				Sports Management		
	EC - P3	23UPEE32	Practical: First Aid and Sports Massage	2	2	
	IV	SEC - 4	23UHEL31	Life Issues & Entrepreneurial Skill Development	2	2
SEC - 5		23UPEN31	Introduction of Yoga (NME)	2	2	
<b>Total</b>					<b>30</b>	<b>23</b>
IV	I	Lang.	23UGTL41	General Tamil- 4	6	3
			23UGHL41	Hindi – 4		
			23UGFL41	French - 4		
	II	Lang.	23UGEL41	General English - 4	6	3
	III	Core - T4	23UPEC41	Theories of Track and Field	4	4
		Core - P4	23UPEC42	Practical: Track and Field	3	3
		EC - T4	23UPEE41	Sports Biomechanics and Kinesiology	3	3
				Principles of Physical Literacy		
	EC - P4	23UPEE42	Practical: Sports Biomechanics and Kinesiology	2	1	
	IV	SEC - 6	23UPEN41	Fundamentals of Health Education (NME)	2	2
		SEC - 7	23UPES41	Health Education, Safety Education and Sports Nutrition	2	2
		EVS	23EVSE41	Environmental Studies	2	2
	<b>Total</b>					<b>30</b>

Sem	Part	Status	Course Code	Title of the Course	Hrs	Cdt
V	III	Core - T5	23UPEC51	Methods in Physical Education	5	5
		Core - T6	23UPEC52	Physiology of Exercise	5	5
		Core - P5	23UPEC53	Practical: Teaching Practice	5	3
		Core - P6	23UPEC54	Practical: Physiology of Exercise	5	3
		EC - T5	23UPEE51	Foundation of Yoga	4	3
				Basic Statistics in Physical Education		
	EC - P5	23UPEE52	Practical: Foundation of Yoga	4	3	
	IV	VE	23UVEH51	Human Rights & Social Analysis	2	2
		Internship	23UPEI55	Internship	-	2
<b>Total</b>					<b>30</b>	<b>26</b>
VI	III	Core - T7	23UPEC61	Test and Measurement in Physical Education	5	4
		Core - T8	23UPEC62	Science of Sports Training and Gymnastics	5	4
		Core - P7	23UPEC63	Practical: Test and Measurement in Physical Education	4	2
		Core - P8	23UPEC64	Practical: Game of Specialization and Gymnastics	4	2
		Project	23UPEC65	Project and Viva Voce	6	3
		EC - T6	23UPEE61	Sports Psychology and Sociology	4	3
	Sports Journalism and Mass Media					
	IV	SEC8	23UPES61	Sports Entrepreneurship	2	2
	V	Extension Activity		STAND	-	1
<b>Total</b>					<b>30</b>	<b>21</b>
<b>Grand Total</b>					<b>180</b>	<b>140</b>



### Extra Credits Courses

<b>Sem</b>	<b>Course Code</b>	<b>Title of the Course</b>	<b>Credits</b>
I	23UPEEC1	Olympic Movement	4
II	23UPEEC2	Personal Fitness Training	4
III	23UPEEC3	Obesity and Weight Loss Management	4
IV	23UPEEC4	Principles of Motor Development	4
V	23UPEEC5	Sports Technology	4
VI	23UPEEC6	Research Methodology in Physical Education	4

### Certificate Courses

<b>Sem</b>	<b>Course Code</b>	<b>Title of the Course</b>
1.	23UPECC1	NPTL/ MOOC
2.	23UPECC2	Yoga Education
3.	23UPECC3	Gym Management
4.	23UPECC4	Aerobics Instructor

### Add-on Courses

<b>Sem</b>	<b>Course Code</b>	<b>Title of the Course</b>
1.	23UPEAO1	Exercise Therapy
2.	23UPEAO2	Sports Nutrition
3.	23UPEAO3	Obesity & Weight Management

### Semester I

Title: <b>Core Theory - 1</b>	<b>Fundamentals of Physical Education</b>	Course Code	<b>23UPEC11</b>
Class	I B.Sc. Physical Education	Hours	<b>75</b>
Semester	I	Credit	<b>05</b>
<b><u>Course Outcome</u></b>			
CO 1: To study and understand the fundamental concepts of Physical Education.			
CO 2: To attain the knowledge of history of Physical Education.			
CO 3: Understand the basic competence and confidence to face the different challenges.			
CO 4: To acquire knowledge about scope and future of Physical education.			
CO 5: To elaborate about the sports competition's categories			
<b>Unit</b>	<b>Content</b>	<b>No. of Hours</b>	
<b>I</b>	<b>Introduction of Physical Education</b> Meaning and Definition of Education and Physical Education - Need, Nature and Scope of Physical Education - Physical training and Physical culture.	<b>15</b>	
<b>II</b>	<b>Basis of Physical Education</b> Scientific basis of Physical Education and Sports - Contribution of Allied Sciences: Anatomy - Physiology - Kinesiology - Biomechanics - Psychology and Physiotherapy.	<b>15</b>	
<b>III</b>	<b>Historical development of Physical Education</b> History of Physical Education in Sparta and Athens - Origin of Olympic Games - Ancient and Modern - Organization and conduct of the game - Olympic Flag, Torch, Oath, emblem and Motto.	<b>15</b>	
<b>IV</b>	<b>Recent development of Physical Education</b> Recent developments in India: SAI, NSNIS, LNIPE - Awards and Scholarships: Arjuna Award, Dhronocharya Award, Rajiv Gandhi Khel Ratna Award - International and National Competitions: Asian Games, Commonwealth Games, SAF, SGFI and AIU	<b>15</b>	
<b>V</b>	<b>Traditional Games</b> Introduction, Meaning and definition, Aims and objectives, Importance and scope of Traditional games - Traditional sports in Tamilnadu - Regional sports of Tamilnadu.	<b>15</b>	
<b>Books for Reference</b>	<ol style="list-style-type: none"> <li>1. Kamlesh, M. L. (1988). Physical Education: Facts and Foundations.</li> <li>2. Sharma, O.P., (1998). History of Physical Education. New Delhi: Khel Shitya Kendra.</li> <li>3. Bucher, Charles A. (1986). Foundations of Physical Education, St. Louis: The C.V. Mosby Company.</li> <li>4. Shekar, K. C., (2004). Foundation of Physical Education &amp; Sports (1st ed.,).New Delhi: Khel Sahitya Kendra Publications.</li> <li>5. Yadvinder, S., (2005). Physical Education and Sports Science (5th ed.,).New Delhi: Sports Publications.</li> <li>6. Edwards, K. (2017). Indigenous traditional games-planning resource.</li> </ol>		

Title: <b>Core Practical - 1</b>	Practical: <b>Traditional Games</b>	Course Code	<b>23UPEC12</b>
Class	I B.Sc. Physical Education	Hours	<b>45</b>
Semester	I	Credit	<b>03</b>

**Course Outcome**

CO 1: Helps to identify Symbolic Significance of Traditional Sports and Games.

CO 2: Develops lot of professional and personal skills and gains more environment friendly values

CO 3: To provide a reliable framework for enjoyable play, as well as

CO 4: Opportunities for creativity and exploration.

CO 5:

Unit	Content	No. of Hours
<b>I</b>	<b>Approval Games:</b> Kabaddi, Kho - Kho, Silambam, Ottam, Malyuththam, Kusthi, Malkhambu, Swimming, Val Santai.	<b>9</b>
<b>II</b>	<b>Festival Games:</b> Pattil Thannir Nirapputhal, Lucky karnar, Balloon Udaiththal, Kayiru Eluthal, Isainaarkali, Paanai Udaiththal, Sakku Ottam, Kolap pootti.	<b>9</b>
<b>III</b>	<b>Men Games:</b> Ilavattakal, Pamparam, Kittippullu, Paramapatham, Thanniril Siththu Sappa, Thavalai Ottam, Eripanthu, Pacchakuthirai, Uppu muttai, Koli, Elukal.	<b>9</b>
<b>IV</b>	<b>Women Games:</b> Pallankuzhi, Thayakkattai, Kulai Kulaiyay Munthirikkay, Olinthu Pidiththal, Ucinool korththal, Skipik, Thattankal, Oru kudam thanni oothi, Undi parathal vilaiyattu.	<b>9</b>
<b>V</b>	<b>Other Games:</b> Number Solli Vilaiyaduthal, Kalla - Manna, Kannamucchu, Odi Pidiththal, Olinthu Pidiththal, Nondi, Kilithattu, Nila Kummi, Nadu piriththal, Kattam pottu vilaiyaduthal.	<b>9</b>
<b>Books for Reference</b>	<ol style="list-style-type: none"> <li>1. Crawford, Chris (2003). Chris Crawford on Game Design. New Riders.</li> <li>2. John Arlott (1975), The Oxford Companion to World Sports and Games, Oxford University Press,</li> <li>3. Soubeyrand, Catherine (2000). "The Royal Game of Ur". The Game Cabinet.</li> <li>4. Njaa &amp; Thevaneya Paavaanar (1954) Tamilnaattu Vilaiyaattukkal, Saiva Sithaantha Nurpathippu Kalakam Veliyeedu.</li> <li>5. DaakdarA.Pichai (1983) Thamilar Panpaattil Vilaiyaattukal, Ulaka Thilaaraaychi Niruvanar Veliyeedu</li> </ol>	

Title: <b>Elective Course Theory - 1</b>	<b>Anatomy, Physiology and Movement Education in Sports</b>	Course Code	<b>23UPEE11</b>
Class	I B.Sc. Physical Education	Hours	<b>60</b>
Semester	I	Credit	<b>03</b>
<b><u>Course Outcome</u></b>			
CO 1: Realize the general anatomical concepts			
CO 2: To learn about the concept to Exercise Physiology			
CO 3: To understand the various physiological effects on human body during exercise.			
CO 4: To study how functional constraints are affect motor skill development and learning			
CO 5: To understand the components of fundamental motor skills			
<b>Unit</b>	<b>Content</b>	<b>No. of Hours</b>	
<b>I</b>	<b>Introduction of Anatomy and Physiology</b> Meaning, Definition and Importance of Anatomy and Physiology in the field of Physical Education & Sports - Brief introduction of Cell, Tissue, Organ and Systems.	<b>12</b>	
<b>II</b>	<b>General Anatomical Concepts in Physical Education</b> Skeletal System - Muscular System - Circulatory System - Respiratory System - Digestive System -Nervous System - Endocrine System.	<b>12</b>	
<b>III</b>	<b>General Physiological concepts in Physical Education</b> Vital Capacity - Second Wind - Oxygen Debt - Fatigue - Types of Fatigue - Blood Pressure.	<b>12</b>	
<b>IV</b>	<b>Introduction of Movement Education</b> Meaning, Definition and Importance of Movement Education in the field of sports.	<b>12</b>	
<b>V</b>	<b>Fundamental Movement Skills</b> Development of human Locomotion: Crawling, Walking and Running - Development of Ballistic Skills: Throwing, Kicking, Punting and Striking - Development of Manipulative Skills: Grasping, Reaching, catching and anticipation.	<b>12</b>	
<b>Books for Reference</b>	<ol style="list-style-type: none"> <li>1. Tortora, G. J., &amp; Derrickson, B. H. (2018). Principles of anatomy and physiology. John Wiley &amp; Sons.</li> <li>2. Jenkins, G., &amp; Tortora, G. J. (2016). Anatomy and physiology. John Wiley &amp; Sons.</li> <li>3. Nathial, M. S. (2020). Anatomy and Physiology of Physical Education. Friends Publications (India).</li> <li>4. Nathial, M. S. (2020). Anatomy and Physiology of Physical Education. Friends Publications (India).</li> <li>5. Cratty, B. J. (1975). Movement Behaviour and Motor Learning, Philadelphia: Lea and Febiger. 1973.</li> <li>6. Haywood, K. M., &amp; Getchell, N. (2009). Lifespan Motor Development.(5th edn) Human Kinetics. <i>Champaign, IL.</i></li> </ol>		

<b>Title: Elective Course Theory - 1</b>	<b>Adapted Physical Education</b>	Course Code	<b>23UPEE11</b>
Class	I B.Sc. Physical Education	Hours	<b>60</b>
Semester	I	Credit	<b>03</b>
<b><u>Course Outcome</u></b>			
CO 1: To know about basics of adapted physical education			
CO 2: To understand the role of Phy. Edu. Teacher in special children.			
CO 3: To identify the motor development of special children.			
CO 4: To aware the special learning disability.			
CO 5: To acquire knowledge about role of sports for special children.			
<b>Unit</b>	<b>Content</b>	<b>No. of Hours</b>	
<b>I</b>	Meaning, Definition and Importance of Adapted Physical Education and Sports - Purpose, Aims and Objectives of Adapted Physical Education and Sports - Adapted Sports - Para Olympics and other Opportunities.	<b>12</b>	
<b>II</b>	The student with a disability - Components and Development of IEP - Principles of Adapted Physical Education and Sports - Role of Physical Education teacher.	<b>12</b>	
<b>III</b>	Motor development - Perceptual Motor development-Early childhood and Adapted Physical Education - Teaching style, method and approach in teaching Adapted Physical Education	<b>12</b>	
<b>IV</b>	Behavioural and Special learning disability - Visual Impaired and Deafness.	<b>12</b>	
<b>V</b>	Health Impaired students and Physical Education - HRPF and its development for Individual with unique need - Role of sports and games in Adapted Physical Education	<b>12</b>	
<b>Books for Reference</b>	<ol style="list-style-type: none"> <li>1. Beverly, N.(1986).Moving and Learning. Times Mirror/ Mosby College Publishing.</li> <li>2. Cratty, B.J.(2005).Adapted Physical Education in the Mainstream (4<sup>th</sup>ed.). Love Publishing Company.</li> <li>3. Winnick.J &amp; David L. Porretta (2021). Adapted Physical Education and Sports (6<sup>th</sup> Ed.). Champaign, IL: Human Kinetics.</li> <li>4. Martin.E.B.,(2021).A Teacher's Guide to Adapted Physical Education: Including Students with Disabilities in Sports and Recreation. Champaign, IL: Human Kinetics.</li> <li>5. Michael Horvat, Luke E. Kelly, Martin E. Block, Ron Croce. (2018). Developmental and Adapted Physical Activity Assessment. Champaign, IL: Human Kinetics</li> </ol>		

<b>Title: Elective Course Practical - 1</b>	<b>Practical: Kinanthropometry and Movement Education in Sports</b>	<b>Course Code</b>	<b>23UPEE12</b>
Class	I B. Sc. Physical Education	Hours	<b>30</b>
Semester	I	Credit	<b>02</b>
<b><u>Course Outcome</u></b>			
CO 1: To attain the knowledge about Kinanthropometry			
CO 2: To reach the knowledge about Human body measurements			
CO 3: Identification and location of body parts			
CO 4: To understand different levels of movement			
CO 5: To Awareness of body movements			
<b>Unit</b>	<b>Content</b>	<b>No. of Hours</b>	
<b>I</b>	Body Weight - Standing Height - BMI - Head Circumference - Limb Measurements - Waist Circumference - Arm Span - Arm Length - Thigh girth - Calf Girth.	<b>6</b>	
<b>II</b>	Systolic Blood Pressure - Diastolic Blood Pressure - Heart Rate - Lung Capacity.	<b>6</b>	
<b>III</b>	Jogging - Running - Hopping - Leaping - Rolling - Throwing and catching - Running in pair while holding hands Playing chain Three-legged race Tossing the coin - ball - shuttle cock - tennikoit ring - Frisbee Taking decision about choosing head or tail and deciding.	<b>6</b>	
<b>IV</b>	Hand pull / push - Line pull / push - Back to back pull push - Wall-push.	<b>6</b>	
<b>V</b>	Forward roll - Backward roll - Forward roll - Leg split -Backward roll - leg split and Cartwheel.	<b>6</b>	
<b>Books for Reference</b>	<ol style="list-style-type: none"> <li>1. Nathial, M. S. (2020). Anatomy and Physiology of Physical Education. Friends Publications (India).</li> <li>2. Cratty, B. J. (1975). Movement Behaviour and Motor Learning, Philadelphia: Lea and Febiger. 1973.</li> <li>3. Haywood, K. M., &amp; Getchell, N. (2009). Lifespan Motor Development.(5th edn) Human Kinetics. <i>Champaign, IL</i>.</li> <li>4. Wuest, D. A., Bucher, C. A., &amp; Fisetete, J. (2003). Foundations of physical education, exercise science, and sport.</li> <li>5. Larsson, H. (Ed.). (2020). Learning Movements: New Perspectives of Movement Education. Routledge.</li> </ol>		

Title: <b>SEC - 1</b>	<b>Fitness and Wellness</b>	Course Code	<b>23UPEN11</b>
Class	To other major I year students	Hours	<b>30</b>
Semester	I	Credit	<b>02</b>
<b><u>Course Outcome</u></b>			
CO 1: To know the basics of Physical fitness and its components			
CO 2: To overcome fitness barriers and involve in physical activity			
CO 3: To understand the basic method of conditioning			
CO 4: Know the procedure to assess the fitness			
CO 5: To acquire knowledge about the wellness			
<b>Unit</b>	<b>Content</b>	<b>No. of Hours</b>	
<b>I</b>	<b>Fitness:</b> Meaning - Physical Fitness and Mental fitness - General and Specific fitness - Need and importance of Physical fitness – Types of Physical Fitness.	<b>6</b>	
<b>II</b>	<b>Health related Physical Fitness Components:</b> Cardio Respiratory Endurance - Muscular Strength - Muscular Endurance - Flexibility - body Composition and development activities.	<b>6</b>	
<b>III</b>	<b>Performance related Physical Fitness Components:</b> Speed - Strength - Endurance - Agility - Power and Flexibility	<b>6</b>	
<b>IV</b>	<b>Assessment of Physical Fitness:</b> Body Mass Index - Cardio Respiratory Endurance - Muscular Strength - Muscular Endurance and Flexibility	<b>6</b>	
<b>V</b>	<b>Wellness:</b> Meaning - Aging - Factors influencing Aging - Healthy aging.	<b>6</b>	
<b>Books for Reference</b>	<ol style="list-style-type: none"> <li>1. Hoeger, Werner, W.K., &amp; Hoeger, Sharon, A. (1990). Fitness and Wellness. Englewood: Morton publishing Company.</li> <li>2. Hazedine, (1985). Fitness for Sports. Ramsburg: The Crowood Ress Ltd.</li> <li>3. James &amp; Hart, L., (1983). 100% Fitness, NewDelhi: Goodwill Publishing House.</li> <li>4. Anspaugh, D.J., Hamrick, M.H., &amp; Rosato, F.D. (1991). Wellness: Concepts and applications. New York: Mc Graw - Hill.</li> <li>5. Arumugam, S., &amp; Sivagnanam, P. (2019). Fitness and Wellness. Madurai: Shanlax Publications.</li> </ol>		

Title: <b>ECC - 1</b>	<b>Olympic Movement</b>	Course Code	<b>23UPEEC1</b>
Class	I B.Sc. Physical Education	Credit	<b>04</b>
Semester	I		
<b><u>Course Outcome</u></b>			
CO 1: To provide basic knowledge of Olympic movement			
CO 2: To analyse the values and significance of Olympics.			
CO 3: To study the ancient and modern Olympics games.			
CO 4: To explain the different Olympics games.			
CO 5: To discuss about the various committees in Olympic Games			
<b>Unit</b>	<b>Content</b>		
<b>I</b>	<b>Origin of Olympic Movement:</b> Philosophy of Olympic movement - The early history of the Olympic movement - The values and significance in the development of the modern Olympic movement - Olympic Ideals, Olympic Rings, Olympic Flag - Marathon run.		
<b>II</b>	<b>Ancient and Modern Olympic Games:</b> Ancient and modern Olympics - Olympic protocol for member countries - Olympic code of Ethics - Olympics in action - Sports for all.		
<b>III</b>	<b>Different Olympic Games:</b> Origin, hosted nations & cities and list of sports discipline in Para Olympic Games, Summer Olympics, Winter Olympics and Youth Olympic Games - Doping - WADA		
<b>IV</b>	<b>Committees of Olympic Games:</b> International Olympic Committee - Structure and Functions - National Olympic Committees and their role in Olympic movement, Summer Olympic medal winners of India - International Para Olympic committee.		
<b>V</b>	List of Sports and Games approved by IOC, AIU and SGFI		
<b>Books for Reference</b>	1. Singh, Ajmer., et. al. (2005). Essential of Physical Education. New Delhi: Kayani Publication. 2. Burbank, J.M., Andranovich, G.D. & Heying Boulder, C.H. (2001). Olympic dreams: the impact of mega-events on local politics: Lynne Rienner. 3. Anand, Shyam. (2013). Upkar's UGC NET/JRF/SET Physical Education. Agra: Upkar Prakashan. 4. Osborne, M.P (2004). Magic tree house fact tracker: Ancient Greece and the Olympic: A non-fiction companion to magic tree house: hour of the Olympic. New York: Random House Books for Young Readers. 5. Burbank, M., Andranovich, G., & Heying, C. H. (2001). Olympic dreams: The impact of mega-events on local politics. Lynne Rienner Publishers.		



## Semester II

Title: <b>Core Theory - 2</b>	<b>Theories of Games - I (Badminton, Ball Badminton, Cricket, Handball and Volleyball)</b>	Course Code	<b>23UPEC21</b>
Class	I B.Sc. Physical Education	Hours	<b>75</b>
Semester	II	Credit	<b>05</b>
<b><u>Course Outcome</u></b>			
CO 1: To know the markings of selected games.			
CO 2: To discuss about the rules and regulations of selected games.			
CO 3: To demonstrate the basic skills of various games.			
CO 4: To elaborate the mechanics of officiating in selected games.			
CO 5: To train on coaching, officiating and marking in selected sports discipline.			
<b>Unit</b>	<b>Content</b>	<b>No. of Hours</b>	
<b>I</b>	<b>Badminton:</b> Origin and Development - Layout and marking of court - Rules and Regulation - Fundamental skills - Mechanism of Officiating - Scoring System.	<b>15</b>	
<b>II</b>	<b>Ball Badminton:</b> Origin and Development - Layout and marking of court - Rules and Regulation - Fundamental skills - Mechanism of Officiating - Scoring System.	<b>15</b>	
<b>III</b>	<b>Cricket:</b> Origin and Development - Layout and marking of court - Rules and Regulation - Fundamental skills - Mechanism of Officiating - Scoring System.	<b>15</b>	
<b>IV</b>	<b>Handball:</b> Origin and Development - Layout and marking of court - Rules and Regulation - Fundamental skills - Mechanism of Officiating - Scoring System.	<b>15</b>	
<b>V</b>	<b>Volleyball:</b> Origin and Development - Layout and marking of court - Rules and Regulation - Fundamental skills - Mechanism of Officiating - Scoring System	<b>15</b>	
<b>Books for References</b>	1. Sharma, A., & Sharma, O.P., (2012). Rules of Games. New Delhi: Sports Publication. 2. Mariayyah, P. (2006). Sports and Games. Coimbatore: Sports Publications. 3. Dhanaraj, V. Hubert, (1991). Volleyball – A Modern Approach. Patiala: Sainsoris 4. Part, Davic, (1979) Better Badminton Learn in yourself Book. London : Orient Paper Books. 5. Karikalan, I., (2017). Handbook on Play Field Manual. Tuticorin: Shree Publications 6. Book of rules of games and sports, (2005). New Delhi: National council of Y.M.C.A of India 7. Colberk A.L. (1966). Modern Badminton-A Fundamental Analysis of Skills and Tactics. London: Nicholas Kaya.		

Title: <b>Core Practical - 2</b>	Practical: <b>Theories of Games - I (Badminton, Ball Badminton, Cricket, Handball and Volleyball)</b>	Course Code	<b>23UPEC22</b>
Class	I B. Sc. Physical Education	Hours	<b>45</b>
Semester	II	Credit	<b>03</b>
<b><u>Course Outcome</u></b>			
CO 1: To Know the fundamental skills on selected games			
CO 2: To acquire the knowledge about various techniques in selected games.			
CO 3: To learn the procedures and tactics in selected games.			
CO 4: To train on coaching, officiating and marking in selected sports discipline.			
CO 5: To obtain the experience in Skills, strategy, tactics and advance skills.			
<b>Unit</b>	<b>Content</b>	<b>No. of Hours</b>	
<b>I</b>	General and Specific Conditioning Exercises	<b>9</b>	
<b>II</b>	Fundamental Skills (Offensive Skills, Defensive Skills)	<b>9</b>	
<b>III</b>	Coaching strategy - Tactics	<b>9</b>	
<b>IV</b>	Lead up games -System of play	<b>9</b>	
<b>V</b>	Method of officiating - playfield and equipment specifications - scoring	<b>9</b>	
<b>Books for Reference</b>	<ol style="list-style-type: none"> <li>1. Sharma, A., &amp; Sharma, O.P., (2012). Rules of Games. New Delhi: Sports Publication.</li> <li>2. Mariayyah, P. (2006). Sports and Games. Coimbatore: Sports Publications.</li> <li>3. Dhanaraj, V. Hubert, (1991). Volleyball – A Modern Approach. Patiala: Sainsoris.</li> <li>4. Anand. R.L. (1986). Play field manual, Patiala: NIS publication.</li> <li>5. Book of rules of games and sports, (2005). New Delhi: National Council of Y.M.C.A of India.</li> </ol>		

Title: <b>Allied Theory - 2</b>	<b>Computer Application in Physical Education</b>	Course Code	<b>23UPEE21</b>
Class	I B. Sc. Physical Education	Hours	<b>60</b>
Semester	II	Credit	<b>03</b>
<b><u>Course Outcome</u></b>			
CO 1: To understand and use MS word processor			
CO 2: To understand and MS Excel Spread sheet			
CO 3: To understand and use MS Power point Presentation programme			
CO 4: To access the internet			
CO 5: To learn the Application Software in Physical Education			
<b>Unit</b>	<b>Content</b>	<b>No. of Hours</b>	
<b>I</b>	<b>MS Word</b> i) Formatting Text - Font Style, Font Size, Colour, Bold, Italic, Underline, Sub/ Super Script - Alignment ii) Insert of Page Numbering - Word Art - Clip Art - Print Option	<b>12</b>	
<b>II</b>	<b>MS Excel</b> i) Addition - Subtraction - Multiplication - Division - Row and Column wise - Calculate Average and Percentage ii) Input same number - Alternative Number - continuous numbering spread sheet - input and editing graph and table - concept of inserting various formulas.	<b>12</b>	
<b>III</b>	<b>MS Power Point</b> i) New Slide Creating - Slide deleting - Slide Rearrangement - Slide Formatting and Slide Design ii) Insert table - image - clip art at the slide - slide animation - slide show.	<b>12</b>	
<b>IV</b>	<b>Internet</b> Networks - Internet Explorer - components: Www - working, browsing, searching, saving - Bookmark - favorite - create, delete - Printing a web page - email - creating, receiving, reading and sending messages	<b>12</b>	
<b>V</b>	<b>Application Software in Physical Education</b> Use of computer and software in Match Analysis and Coaching - Instrumentation technology - Sports Surfaces and Facilities - Apparel - Protection Equipment and Sports Implements - Training Gadgets	<b>12</b>	
<b>Books for Reference</b>	<ol style="list-style-type: none"> <li>1. Jaiswal A (2003), Fundamental of Computers &amp; Information Technology - Delhi Dreamtech Publisher.</li> <li>2. Steve Sagman Addison (2001), Ms – office 2000 for Windows, Delhi Wesley publication.</li> <li>3. Taxali. R.K. (2003), PC Software for windows, Made Simple – Delhi</li> <li>4. Tata Mcgraw Hill publishing company limited.</li> <li>5. Sinha, P.K. (1980). Introduction to Computer</li> <li>6. Subramanian.(1890). Introduction to Computers, Tata McGraw Hill.</li> <li>7. Kumar, S.K. (2004)Computer Education Patiala: Twenty First Century Publishers</li> </ol>		

Title: <b>Elective Course Theory - 2</b>	<b>Fundamentals of Fitness and Wellness</b>	Course Code	<b>23UPEE21</b>
Class	I B.Sc. Physical Education	Hours	<b>60</b>
Semester	II	Credit	<b>03</b>
<b><u>Course Outcome</u></b>			
CO 1: Realize the essentials of lifelong wellness			
CO 2: Understand the essentials of Physical fitness			
CO 3: Overcome fitness barriers and involve in physical activity			
CO 4: Know the procedure to assess the fitness			
CO 5: To learn the assessment of fitness			
<b>Unit</b>	<b>Content</b>	<b>No. of Hours</b>	
<b>I</b>	<b>Introduction</b> Definition - Meaning - Concept of Fitness and Wellness - Need for and importance of Fitness and Wellness.	<b>12</b>	
<b>II</b>	<b>Aging Process</b> Aging - Factors influence Aging - Healthy aging - Wellness - Sports as a hobby and Stress management through exercise.	<b>12</b>	
<b>III</b>	<b>Types of Fitness and Wellness</b> Physical fitness - Physiological fitness - Functional fitness - Mental fitness - Social Fitness	<b>12</b>	
<b>IV</b>	<b>Management of Obesity and Diabetes</b> Obesity - Causes of Obesity - Weight Management - Diabetes - causes of diabetes	<b>12</b>	
<b>V</b>	<b>Assessment of Fitness</b> Test for Endurance - Strength - Flexibility and Speed (Only one test from each category)	<b>12</b>	
<b>Books for Reference</b>	<ol style="list-style-type: none"> <li>1. Hoeger, Werner, W. K., &amp; Hoeger, Sharon, A. (1990). Fitness and Wellness. Englewood: Morton publishing Company.</li> <li>2. Hazedine, (1985). Fitness for Sports. Ramsburg: The Crowood Ress Ltd.</li> <li>3. James &amp; Hart, L., (1983). 100% Fitness, New Delhi: Goodwill Publishing House.</li> <li>4. Anspaugh, D. J., Hamrick, M. H., &amp; Rosato, F. D. (1991). Wellness: Concepts and applications. New York: McGraw-Hill.</li> <li>5. Arumugam, S., &amp; Sivagnanam, P. (2019). Fitness and Wellness. Madurai: Shanlax Publications.</li> </ol>		

Title: <b>Allied Theory - 2</b>	Practical : <b>Computer Application in Physical Education</b>	Course Code	<b>22UPEE22</b>
Class	I B. Sc. Physical Education	Hours	<b>30</b>
Semester	II	Credit	<b>02</b>
<b><u>Course Outcome</u></b>			
CO 1: To understand and use MS word processor			
CO 2: To understand and MS Excel Spread sheet			
CO 3: To understand and use MS Power point Presentation programme			
CO 4: To access the internet			
CO 5: To learn the Application Software in Physical Education			
<b>Unit</b>	<b>Content</b>		<b>No. of Hours</b>
<b>I</b>	<b>MS Word</b> i) Formatting Text- Font Style, Font Size, Colour, Bold, Italic, Underline, Sub/ Super Script, Alignment ii) Insert of Page Numbering - Word Art -Clip Art- Print Option.		<b>6</b>
<b>II</b>	<b>MS Excel</b> i) Addition, Subtraction, Multiplication, Division,- Row and Column wise - Calculate Average & Percentage ii) Input same number - Alternative Number - continuous numbering spread sheet - input and editing graph and table - concept of inserting various formulas.		<b>6</b>
<b>III</b>	<b>MS Power Point</b> i) New Slide Creating - Slide deleting - Slide Rearrangement- Slide Formatting, Slide Design ii) Insert table, image, clip art at the slide, slide animation, slide show.		<b>6</b>
<b>IV</b>	<b>Internet</b> Networks - Internet Explorer - components; www- working, browsing - searching - saving - Bookmark - favorite - create - delete - Printing a web page - email - creating - receiving - reading and sending messages.		<b>6</b>
<b>V</b>	<b>Application Software in Physical Education</b> Instrumentation technology - Sports Surfaces and Facilities - Apparel - Protection Equipment - Sports Implements and Training Gadgets.		<b>6</b>
<b>Books for Reference</b>	1. Peter Norton, "Introduction to computers". 7 <sup>th</sup> edition, Tata McGraw Hill education private limited. 2. Introduction to Computers - Peter Norton, Tata McGraw-Hill. 3. Microsoft 2003 - Jennifer Ackerman Kettel, Guy Hat-Davis, Curt Simmons, Tata McGraw-Hill 4. Introduction to computer science, ITI education solution Ltd, Pearson education. 5. Anita Goal, "computer fundamentals". Pearson education, 2 <sup>nd</sup> edition, 2019 6. E. Balagurusamy, "fundamentals of computer" Me Graw Hill education, 2009.		

Title: <b>SEC - 2</b>	<b>Science of Nutrition</b>	Course Code	<b>23UPEN21</b>
Class	To other major I year students	Hours	<b>30</b>
Semester	II	Credit	<b>02</b>
<b><u>Course Outcome</u></b>			
CO 1: Understand the classification of foods and nutrition			
CO 2: To analyse fluid intake required for physical activity			
CO 3: To explain about the nutrients: ingestion to energy metabolism			
CO 4: To discuss about the balance diet for players			
CO 5: To discuss about the diet analysis.			
<b>Unit</b>	<b>Content</b>	<b>Hours</b>	
<b>I</b>	<b>Introduction to Nutrition Food and Nutrition:</b> Classification of foods - Meaning and definition of Sports Nutrition - Basic Nutrition guidelines - Role of nutrition in sports.	<b>6</b>	
<b>II</b>	<b>Nutrients Component:</b> Carbohydrates- Protein- Fat- Vitamins- Minerals- Water- daily caloric requirement and expenditure.	<b>6</b>	
<b>III</b>	<b>Food and Macro - Nutrients:</b> Functions of food - Nutritional, Emotional, Social, and Classification of food - Sources-Functions-Deficiency and excess effects of carbohydrates-protein-fat and water.	<b>6</b>	
<b>IV</b>	<b>Balance Diet:</b> Definition - Balanced Diet - Principles of preparing the balanced diet- Malnutrition and Adulteration of food.	<b>6</b>	
<b>V</b>	<b>Diet Analysis:</b> Diet analysis and planning - Fluid intake during exercise - Nutrition for Special Population.	<b>6</b>	
<b>Books for Reference</b>	<ol style="list-style-type: none"> <li>1. Srilakshmi, B. (2012) Nutrition science. Delhi: New Age International (p) Limited Publishers.</li> <li>2. Srilakshmi, B. (2015) Human Nutrition (For B.Sc., Nursing students) Delhi: New Age</li> <li>3. International (p) Limited Publishers.</li> <li>4. Bessesen, D.H. (2008). Update on obesity. J Clin Endocrinol Metab.93 (6), 2027-2034.</li> <li>5. Butryn,M .L., Phelan , S., &amp; Hill, J.O. (2007). Consistent self- monitoring of weight: a key component of successful weight loss maintenance. Obesity (Silver Spring).15 (12), 3091-3096.</li> <li>6. DeMaria, E.J. (2007). Bariatric surgery for morbid obesity. N Engl J Med, 356(21),2176- 2183.</li> </ol>		

Title: <b>ECC-2</b>	<b>Personal Fitness Training</b>	<b>Course Code</b>	<b>23UPEEC2</b>
Semester	II	Credit	<b>04</b>
<b><u>Course Outcome</u></b>			
CO 1: To understand the concept of warm up and warm down.			
CO 2: To know the importance of Endurance training.			
CO 3: To familiarize with the speed training			
CO 4: To know the importance of upper body fitness.			
CO 5: To recognize the lower body fitness.			
<b>Unit</b>	<b>Content</b>		
<b>I</b>	<b>Warming up Exercises</b> Warm down Exercises - Stretching Exercises - Strength - Training - Weight Training.		
<b>II</b>	<b>Endurance Training</b> Continuous Training - Slow Continuous - Fast Continuous - Repetition Method - Interval Training - Fartlek Training.		
<b>III</b>	<b>Speed Training</b> Repetition Method - Plyometric Training-Sprint Training- Agility Training		
<b>IV</b>	<b>Upper Body Fitness</b> Abdominal conditioning - Lower and Upper Abdominal - Shoulder Fitness - Back Strengthening Exercises		
<b>V</b>	<b>Lower Body Fitness</b> Thigh Muscle Strengthening - Calf Muscle Strengthening - Ankle Strengthening and Knee Strengthening.		
<b>Books for Reference</b>	1. K.O. Bosen.1997, "Teaching in Athletics", NSNIS, Patiala. 2. Stephen Ralph, E& Som Bell.1978, "Track and Field", John Witley & Sons, INC,Canada. 3. J. Bunn.1994, "Scientific Principles of Coaching" 4. L. Matreyer. 1992, "Fundamentals of Sports Training" 5. Hardayal Sing. 1992, "Sports Training" –NSNIS, Patiala.		

### Semester- III

Title: <b>Core Theory - 3</b>	<b>Theories of Games - II (Basketball, Football, Hockey, Table Tennis and Tennis)</b>	Course Code	<b>23UPEC31</b>
Class	II B.Sc. Physical Education	Hours	<b>75</b>
Semester	III	Credit	<b>05</b>
<b><u>Course Outcome</u></b>			
CO 1: To know the markings of selected games.			
CO 2: To discuss about the rules and regulations of selected games.			
CO 3: To demonstrate the basic skills of various games.			
CO 4: To elaborate the mechanics of officiating in selected games.			
CO 5: To train on coaching, officiating and marking in selected sports discipline.			
<b>Unit</b>	<b>Content</b>	<b>No. of Hours</b>	
<b>I</b>	<b>Basketball:</b> Origin and Development - Layout and marking of court - Rules and Regulation - Fundamental skills - Mechanism of Officiating - Scoring System.	<b>15</b>	
<b>II</b>	<b>Football:</b> Origin and Development - Layout and marking of court - Rules and Regulation - Fundamental skills - Mechanism of Officiating - Scoring System.	<b>15</b>	
<b>III</b>	<b>Hockey:</b> Origin and Development - Layout and marking of court - Rules and Regulation - Fundamental skills - Mechanism of Officiating- Scoring System.	<b>15</b>	
<b>IV</b>	<b>Table Tennis:</b> Origin and Development - Layout and marking of court - Rules and Regulation - Fundamental skills - Mechanism of Officiating- Scoring System.	<b>15</b>	
<b>V</b>	<b>Tennis:</b> Origin and Development - Layout and marking of court - Rules and Regulation - Fundamental skills - Mechanism of Officiating - Scoring System.	<b>15</b>	
<b>Books for Reference</b>	<ol style="list-style-type: none"> <li>1. Rose. H. Lee (2004). The Basketball Handbook. Human kinetics, USA.</li> <li>2. Bill Beswick. (2010). Focused for Soccer. 2nd Edition, Human Kinetics</li> <li>3. Bertagna Joe. (2015). The Hockey Coaching Bible, Human Kinetics.</li> <li>4. Jain Anoop (2017). Table Tennis Rule Book Sports Publication.</li> <li>5. Marty Smith, (2017). Absolute Tennis: The Best and Next Way to Play the Game, New Chapter Press</li> </ol>		



<b>Title: Core Practical - 3</b>	<b>Practical: Games - II (Basketball, Football, Hockey, Table Tennis and Tennis)</b>	<b>Course Code</b>	<b>23UPEC32</b>
Class	II B.Sc. Physical Education	Hours	<b>45</b>
Semester	III	Credit	<b>03</b>
<b><u>Course Outcome</u></b>			
CO 1: To Know the fundamental skills on selected games			
CO 2: To acquire the knowledge about various techniques in selected games.			
CO 3: To learn the procedures and tactics in selected games.			
CO 4: To train on coaching, officiating and marking in selected sports discipline.			
CO 5: To obtain the experience in Skills, strategy, tactics and advance skills.			
<b>Unit</b>	<b>Content</b>	<b>No. of Hours</b>	
<b>I</b>	General and Specific Conditioning Exercises	<b>9</b>	
<b>II</b>	Fundamental Skills (Offensive Skills, Defensive Skills)	<b>9</b>	
<b>III</b>	Coaching strategy - Tactics	<b>9</b>	
<b>IV</b>	Lead up games - System of play	<b>9</b>	
<b>V</b>	Method of officiating - playfield and equipment specifications - scoring	<b>9</b>	
<b>Books for Reference</b>	<ol style="list-style-type: none"> <li>1. Rose. H. Lee (2004). The Basketball Handbook. Human kinetics, USA.</li> <li>2. Thomas Reilly &amp; Mark Williams. (2003). Science and Soccer. Routledge London</li> <li>3. Tennis Association, (2006) Tennis (Know the game) A and C Black Publishers Ltd</li> <li>4. Priyanka, (2016) Teach Yourself Table Tennis, Sports publication</li> <li>5. Wein, Horts, (1979). The Science of Hockey. London: Pelham Books.</li> </ol>		

<b>Title: Elective Course Theory - 3</b>	<b>Athletic Care and Rehabilitation</b>	<b>Course Code</b>	<b>23UPEE31</b>
Class	II B. Sc. Physical Education	Hours	<b>60</b>
Semester	III	Credit	<b>03</b>
<b><u>Course Outcome</u></b>			
CO 1: To understand the Sports medicine and Physiotherapy.			
CO 2: To know the electricity and conductor.			
CO 3: To identify the therapeutic modalities.			
CO 4: To do the therapeutic exercises for rehabilitation.			
CO 5: To gain the knowledge of massage.			
<b>Unit</b>	<b>Content</b>	<b>No. of Hours</b>	
<b>I</b>	Meaning - Need and Importance - Nature and Scope of Sports Medicine in Physical Education and Sports - Meaning - Nature - Need and Importance of Physiotherapy - Role of Physiotherapy in Sports and Games.	<b>12</b>	
<b>II</b>	Electricity and Conductor - Short wave diathermy - Microwave diathermy, Diapulse Diathermy - Ultra Sound Waves - Infra-red rays - Ultra-violet rays - Sources - Effect and uses - Techniques for infra-red and ultra violet irradiation.	<b>12</b>	
<b>III</b>	Therapeutic Modalities: Cold Modalities - Icepack - Ice Massage - Ice Immersion - Cryo stretch - Cryo kinetics - Moist Heat Packs - Paraffin Wax Bath - Whirlpool Bath - Contrast Bath.	<b>12</b>	
<b>IV</b>	Meaning - Need and importance of Rehabilitation-Scope and Methods of Rehabilitation –Therapeutic Exercise: Meaning, Classifications–Passive range of motion–Active Range of Motion.	<b>12</b>	
<b>V</b>	Massage Therapy - Brief History of Massage, Points to be considered in giving massage - classification of the Manipulations used in massage - The Technique - the Effect – uses - Indication and contra-Indications of all manipulations.	<b>12</b>	
<b>Books for Reference</b>	<ol style="list-style-type: none"> <li>1. Mishra, B.K., “Sports Medicine” Sports Publications, New Delhi,2013.</li> <li>2. Dreeben and Olga, “Introduction to Physical Therapist Assistant”, Jones and Burtlet Publishers, NewDelhi,2006.</li> <li>3. Vermaand Hemant, “First Aid”, Sports Publications, New Delhi, 2013.</li> <li>4. Rajeevkumar,,“SportsMedicineandExercisePhysiology”,SportsPublication,New Delhi, 2015.</li> <li>5. Gardiner, M.D., “The Principles of Exercise Therapy”, First Edition, CBS Publishers Ltd., New Delhi, 2005.</li> </ol>		

Title: <b>Elective Course Theory - 3</b>	<b>Sports Management</b>	Course Code	<b>23UPEE31</b>
Class	II B.Sc. Physical Education	Hours	<b>60</b>
Semester	III	Credit	<b>03</b>
<b><u>Course Outcome</u></b>			
CO 1: To incorporate the knowledge of management principles.			
CO 2: To know about manpower			
CO 3: To impart the knowledge of organization.			
CO 4: To knowing about the guidance and public relation.			
CO 5: To understand the information about the finance and budget.			
<b>Unit</b>	<b>Content</b>	<b>No. of Hours</b>	
<b>I</b>	<b>Introduction</b> Meaning - Sports management: Meaning, Importance and its functions - Historical Background and Guiding	<b>12</b>	
<b>II</b>	<b>Principles of Sports Management</b> Interpersonal Roles in Manpower planning - Recruitment - Sports management services.	<b>12</b>	
<b>III</b>	<b>Programme Organization</b> Types of Programme - Factors influencing Programme - planning Programme - Time Table - Types of Physical Education Periods - Records and Registers - Budget and Finance - Preparation of Budget sources - Income and Expenditure	<b>12</b>	
<b>IV</b>	<b>Supervision</b> Meaning of Supervision - Need of Supervision in Physical Education - Principles of Supervision - Supervisor - Qualities of Supervisor - Qualifications of Supervisor - Inspection - Need of Inspection - Difference between Inspection and Supervision in Physical Education	<b>12</b>	
<b>V</b>	<b>Public Relations</b> Need of Public Relations - Physical Education and Public relations.	<b>12</b>	
<b>Books for Reference</b>	<ol style="list-style-type: none"> <li>1. Singh.B., "Organization and Administration in Physical Education", Sports Publication, New Delhi, 2009.</li> <li>2. Chakraborty, S., "Sports Management", Sports Publication", New Delhi, 2009. Rathore, Vishan Singh., "Administration and Organization in Physical Education", First Edition, Sports Publication, New Delhi, 2013.</li> <li>3. Shanmuganathan,D., "Methods of Administration and Organization in Physical Education", Lakshay Publication, New Delhi, 2012.</li> <li>4. Singh,Y., "Sports Management", First Edition, Lakshay Publication, NewDelhi,2005.</li> <li>5. Verma,H., "Methods and Management of Physical Education", Sports Publication,NewDelhi,2012.</li> </ol>		

Title: <b>Elective Practical -3</b>	<b>First Aid and Sports Massage</b>	Course Code	<b>23UPEE32</b>
Class	II B.Sc. Physical Education	Hours	<b>30</b>
Semester	III	Credit	<b>02</b>
<b><u>Course Outcome</u></b>			
CO 1: To understand the basics concepts of First Aid.			
CO 2: To understand the basics concepts of Sports Massage.			
CO 3: To learn the skills and techniques for first aid			
CO 4: Able to understand the sports injuries and techniques for Sports Massage			
CO 5: Equipping them-selves to control the emergency situations			
<b>Unit</b>	<b>Content</b>	<b>No. of Hours</b>	
<b>I</b>	<b>Resuscitation techniques</b> a. Basic life support (ABCs) b. Breathing c. Procedure of Artificial Ventilation	<b>6</b>	
<b>II</b>	<b>Dressings and Bandages</b> a. Types of dressing b. General rules for applying Dressing c. General rules for applying bandages d. Types of bandages <b>Haemorrhage or Bleeding</b> a. Type of haemorrhage b. Special forms of bleeding	<b>6</b>	
<b>III</b>	<b>Sport Injuries</b> a. First aid in muscle injury, joint injury and ligament injury b. Knee, c. Jumper's Knee d. Bursitis, e. Shin pain f. Tennis leg, g. Plantar Fastitis h. Blisters, i. Eye, Ear, Dental, Maxilofacial, Nasal injuries	<b>6</b>	
<b>IV</b>	<b>Effleurage Pressure Manipulation:</b> Petrissage Kneading (Finger, Kneading, Circular) ironing Skin Rolling Percussion manipulation:	<b>6</b>	
<b>V</b>	Tapotement, Hacking, Clapping, Beating, Pounding, Slapping, Cupping, Poking, Shaking, Vibration	<b>6</b>	
<b>Books for Reference</b>	<ol style="list-style-type: none"> <li>1. Agrawal, K.C., (2001). Environmental biology. Bikaner: Nidhi publishers Ltd.</li> <li>2. Bensley, R. J., &amp; Fisher, J. B., (2009). Community Health Education Methods. Massachusetts: Jones and Bartlett Publishers.</li> <li>3. Edward, J. T., (2006). Health and Disease. New Delhi: Sports Publication.</li> <li>4. Anspaugh, D. J., &amp; Ezell, G., (2003). Teaching Today's Health. USA: Allyn &amp; Bacon.</li> <li>5. McKenzie, J. F., &amp; Smeltzer, J. L., (2001). Planning, Implementing, and Evaluating Health Promotion Programs. A Primer, USA: Allyn&amp; Bacon.</li> <li>6. St. John Ambulance (1997), etc., First Aid Manual: St. John Ambulance, London,</li> </ol>		

Title: <b>SEC-5</b>	<b>Introduction of Yoga</b>	<b>Course Code</b>	<b>22UPEN31</b>
Class	To other major II year students	Hours	<b>30</b>
Semester	III	Credit	<b>02</b>
<b><u>Course Outcome</u></b>			
CO1: To Know the Concept of yoga.			
CO2: To comprehend the standing and sitting position of asanas			
CO 3: To understand the Prone and Supine positions of asanas.			
CO 4: To realize the concept of pranayama.			
CO 5:			
<b>Unit</b>	<b>Content</b>	<b>No. of Hours</b>	
<b>I</b>	<b>Yoga:</b> Meaning - Definition - History of Yoga - Aim and Objectives of Yoga.	<b>6</b>	
<b>II</b>	Systems of Yoga - Eight limbs of Yoga - General guidelines for practicing Yoga.	<b>6</b>	
<b>III</b>	<b>Asanas:</b> Meaning - Surya Namaskar - Standing Posture - Long Sitting Posture - Prone Posture.	<b>6</b>	
<b>IV</b>	Supine Posture - Kneeling Posture - Procedures and benefit of Asanas - Differences between Asanas and Physical Exercises.	<b>6</b>	
<b>V</b>	<b>Pranayama:</b> Meaning - Phases of Pranayama - Puraka - Kumbhaka - Rechaka - ratio of pranayama Types of Pranayama - Procedures and benefit of Pranayama.	<b>6</b>	
<b>Books for Reference</b>	1. Iyengar, B.K.S.(2005)“Lighton Yoga”, Thirty Second Editions, Harper Colling Publications, London. 2. Chandrasekaran, K.(1999) Sound Health through Yoga, Sedapatti, Prem Kalyan Publications. 3. Publications. 4. Brown, Yeats F (2018) “How to use Yoga”, Sports Publications, New Delhi. 5. Gore, C.S (2011) “Yoga and Health”, Sports Publications, New Delhi. 6. Pramanik,T.N.(2013) “Yoga for Healthy Body”, Sports Publications, NewDelhi. 7. Qureshi, S.S. (2013) “Yoga Cures Diabetes” Sports Publications, New Delhi. 8. Srivastava, A.K. (2010) “Health and Yoga”, Sports Publications, New Delhi.		

Title: <b>ECC-3</b>	<b>Obesity and Weight loss Management</b>	Course Code	<b>23UPEEC3</b>
Semester	III	Credit	<b>04</b>
<b><u>Course Outcome</u></b>			
CO 1: To know the basics of Obesity and its types.			
CO 2: To understand the various methods of Obesity assessment.			
CO 3: To understand methods of weight management			
CO 4: To realize the Planning of Weight Management			
CO 5: To Establish Desirable body weight:			
<b>Unit</b>	<b>Content</b>		
<b>I</b>	<b>Obesity:</b> Introduction - Definition - Types of Obesity - Android Obesity - Gyneoid obesity - Pathophysiology of obesity - Complications of obesity.		
<b>II</b>	<b>Assessment of obesity:</b> Health related Quality of life assessment - Body composition Assessment - skin fold measurements - Circumference measurements - Skin fold measurement techniques - Sites of measurement - Calculation of Body percent Fat.		
<b>III</b>	<b>Weight Management:</b> Meaning - Concept of Weight Management in the Modern Era - Factors affecting Weight Management and Values of Weight Management - Maintaining a Healthy Life Style - Body Mass Index (BMI)		
<b>IV</b>	<b>Planning of Weight Management:</b> Determination of Desirable Body Weight - Daily Caloric Intake and Expenditure - Balanced Diet for Indian School Children		
<b>V</b>	<b>Establish Desirable body weight:</b> Best way to weight loss - unhealthy approaches to weight loss - Causes and Solution for overcoming Obesity - Dieting and Exercise for Weight Control		
<b>Books for Reference</b>	<ol style="list-style-type: none"> <li>1. Edward T. Howley B. (2003) Don Franks, Health Fitness Instructors Handbook, Human Kinetics, Canada.</li> <li>2. Satyanarayana V (2018) Sports Nutrition &amp; Weight Management, Sports Publication, New Delhi.</li> <li>3. Colin Waine &amp; Nick Bosanquet (2008) Obesity and Weight Management in Primary Care, Wiley-Blackwell.</li> <li>4. Thomas, P. R. (Ed.). (1995). Weighing the options: criteria for evaluating weight-management programs.</li> <li>5. Wadden, T. A., &amp; Bray, G. A. (Eds.). (2018). Handbook of obesity treatment. Guilford Publications.</li> </ol>		

### Semester IV

Title: <b>Core Theory - 4</b>	<b>Theories of Track and Field</b>	Course Code	<b>23UPEC41</b>
Class	II B.Sc. Physical Education	Hours	<b>60</b>
Semester	IV	Credit	<b>04</b>
<b><u>Course Outcome</u></b>			
CO 1: To disseminate the Field events			
CO 2: To know the Marking procedures of Field events			
CO 3: To identify the techniques of Field events			
CO 4: To develop the coordination skills to participate Field events			
CO 5: To understand the rules of throw events			
<b>Unit</b>	<b>Content</b>	<b>No. of Hours</b>	
<b>I</b>	<b>History</b> Origin and development of track and field events.	<b>12</b>	
<b>II</b>	<b>Marking</b> Layout and markings of 200 and 400 metres track - Marking for field events.	<b>12</b>	
<b>III</b>	<b>Rules and Regulation</b> Rules and their interpretations of all track and field events including Combined events, Steeple chase and Cross country.	<b>12</b>	
<b>IV</b>	<b>Mechanics of Officiating</b> Duties of officials - official signals - score sheet - all track and field events including Combined events - Steeple chase and Cross country.	<b>12</b>	
<b>V</b>	<b>Sports Federation / Association</b> Organizational setup of International, National and State level Federations / Association - Marathon race - Major competitions - World and Olympic records.	<b>12</b>	
<b>Books for Reference</b>	<ol style="list-style-type: none"> <li>1. Anand. (1990). Play Field Manual Patiala Nis Publication</li> <li>2. American Sports Education Program. (2008) Coaching Youth Track and Field Human Kinetics. Edmondson and Burn Up. (1979). Basic Athletics. London; Bell and Hyman.</li> <li>3. Ekta Gothi.(2000) Manual Of Track And Field. Delhi: Sports Publication</li> <li>4. H.C. Buck (1992). Rules Of Games And Sports Madras: Y.M.C.A Publication</li> <li>5. Harold Abranoms and Jack Crump. (1958). Athletics Kings Wood Surrey: The Naloret Press. Thani .V. (2003) Encyclopedia of Track And Field. New Delhi; Khel Shhityakendre.</li> <li>6. Vivek Thani. (1996) New Encyclopedia of Track and Field Delhi Khel Sahitya Kandra.</li> </ol>		

Title: <b>Core Practical - 4</b>	Practical: <b>Track and Field</b>	Course Code	<b>23UPEC42</b>
Class	II B.Sc. Physical Education	Hours	<b>45</b>
Semester	IV	Credit	<b>03</b>
<b><u>Course Outcome</u></b>			
CO 1: To disseminate the Field events			
CO 2: To know the Marking procedures of Field events			
CO 3: To identify the techniques of Field events			
CO 4: To develop the coordination skills to participate Field events			
CO 5: To understand the rules of throw events			
<b>Unit</b>	<b>Content</b>	<b>No. of Hours</b>	
<b>I</b>	<b>Fundamental and Advance Skills:</b> 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 - Fundamental and advance skills - techniques - drills and lead-up games for jumps - throw - combined events.	<b>9</b>	
<b>II</b>	<b>Performance:</b> 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 - Assessment of performance - jumps - throws and combined events - Specific conditioning / training for above said events.	<b>9</b>	
<b>III</b>	<b>Marking:</b> 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 - Markings of jumps - throws and combined events - Specific marking for jumps - throws and combined events - Equipment's and their specifications.	<b>9</b>	
<b>IV</b>	<b>Officiating:</b> 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 - Rules and interpretations - duties of the officials - official signals and score sheet for jumps - throwing and combined events.	<b>9</b>	
<b>V</b>	<b>Record Note:</b> Preparation of record for Sprints - Middle distance - Long distances - Relays - Steeple chase - Walking races - Hurdles and Cross-country events - 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 and Olympic records and other major competitions.	<b>9</b>	
<b>Books For Reference</b>	<ol style="list-style-type: none"> <li>1. Book of rules of games and sports, (2005). New Delhi: National Council of Y.M.C.A of India.</li> <li>2. Bosen, Ken O. (1994). Track &amp; Field Fundamental Techniques, Patiala: MS Publication.</li> <li>3. Joseph, Rogers L. (2000) USA Track &amp; Field Coaching Manual. Champaign: Human Kinetics Publications</li> <li>4. Mariayyah,P., (2005). Track and Field, Coimbatore: Teachers publication.</li> <li>5. Perinbaraj, S.B., &amp; et al. (2009). Play field: Dimensions and its requirements, Karaikudi: Vinis publication</li> </ol>		



Title: <b>Elective Course Theory - 4</b>	<b>Sports Biomechanics and Kinesiology</b>	Course Code	<b>23UPEE41</b>
Class	II B.Sc. Physical Education	Hours	<b>45</b>
Semester	IV	Credit	<b>03</b>

**Course Outcome**

- CO 1: To acquire knowledge about the Kinesiology and Biomechanics  
CO 2: To analyze the fundamental movements of joints in human body.  
CO 3: To understand the linear kinematics and bio-mechanical principles.  
CO 4: To know the concept of Levers.  
CO 5: To learn the biomechanical principles and Force.

<b>Unit</b>	<b>Content</b>	<b>No. of Hours</b>
<b>I</b>	<b>Introduction of Biomechanics</b> Bio mechanics: meaning - aim - objectives - importance - Types of motion: linear motion - angular motion.	<b>9</b>
<b>II</b>	<b>Kinematics and Kinetics</b> Meaning of Kinematics and Kinetics - Types- Linear and Angular - Speed - Velocity - Acceleration - Distance - Displacement-Types- Linear and Angular – Mass - Weight - Force - Momentum and Pressure.	<b>9</b>
<b>III</b>	<b>Introduction of Kinesiology</b> Meaning, Definitions - Aims - Objective - Importance of Kinesiology for games and sports - Fundamental concepts: centre of gravity - area and plans of motion	<b>9</b>
<b>IV</b>	<b>Location &amp; Action of Muscles:</b> i) Upper extremity - Shoulder Joint - Elbow Joint ii) Lower extremity - Hip joint - Knee Joint	<b>9</b>
<b>V</b>	<b>Posture:</b> Centre of gravity - Criteria for good Posture - causes for poor posture - Postural deformities correction for Lordosis - Kyphosis - Scoliosis - Application of kinesiology to motor skills and Daily living.	<b>9</b>
<b>Books for Reference</b>	1. Dhanajoy.S (2000) “Mechanical Basics of Biomechanics”, First edition, Sports Publication Chennai. 2. Anderson, T.M. (2003) “Biomechanics of Human Motion”, First edition, Sports Publication Chennai. 3. Dhanajoy.S. (2005) “Pedagogic of Kinesiology”, Sports Publication, Chennai 4. Vijayalakshmi, L, (2005). Biomechanics of Body movements in Sports (1St ed.,). Chennai: Sports Publication. 5. Bijlani. R., & Manchanda, S.K., (2002). The Human Machine(1St ed.,). New Delhi: National Book Trust India. 6. Dhanajoy, S., (2000). Mechanical Basics of Biomechanics(1St ed.,). Chennai: Sports Publication Chennai. 7. Anderson, T.M., (2003). Biomechanics of Human Motion(1St ed.,). Chennai: Sports Publication.	

Title: <b>Elective Course Theory - 4</b>	<b>Principles of Physical Literacy</b>	Course Code	<b>23UPEE41</b>
Class	II B.Sc. Physical Education	Hours	<b>45</b>
Semester	IV	Credit	<b>03</b>
<b><u>Course Outcome</u></b>			
CO 1: Understand the basic concept of Movement Education and Physical Literacy			
CO 2: Know about motor skills and movement pattern			
CO 3: Learn about the movement concepts			
CO 4: Understand the concept of personal and social development.			
CO 5: Understand and apply the concept of participation in Physical Activity			
<b>Unit</b>	<b>Content</b>	<b>No of Hours</b>	
<b>I</b>	<b>Introduction:</b> Definition - Meaning and Importance of Movement Education - Physical Literacy-Concept of developmentally appropriate Physical Activities.	<b>9</b>	
<b>II</b>	<b>Motor Skill and Movement Pattern:</b> Classification of Motor Skills: Fundamentals of Motor Skills- Locomotor, Non-locomotors, Manipulative Skill - Specialized Manipulative - Rhythmic Movement - Game& Sport Skills.	<b>9</b>	
<b>III</b>	<b>Movement concepts:</b> Introduction to Movement Concepts - Development of Movement Concepts: Space Awareness - Effort Concepts - Relationships - Long Term Athlete Development.	<b>9</b>	
<b>IV</b>	<b>Personal Development:</b> Self-concept - Cognitive Functioning and Motivational outcomes - Social Development: Altruism - Controlling Aggression - Cooperation - Group development.	<b>9</b>	
<b>V</b>	<b>Sport for Development:</b> Sport for Education - Economic - Gender - Health and Peace.	<b>9</b>	
<b>Books for Reference</b>	<ol style="list-style-type: none"> <li>1. Abels, K. &amp; Bridges, J.M. (2010) Teaching Movement Education: Foundations for Active Lifestyles. Champaign, IL: Human Kinetics Publishers.</li> <li>2. Lund,J.,Tannehill &amp; Lund, Jacalyn.(2010).Standards</li> <li>3. Based Physical Education Curriculum Development, 2<sup>nd</sup> Edition. Jones &amp; Barlett Learning.</li> <li>4. Frank, A.M (2003). Sports and Education: A Reference Handbook (Contemporary Education Issues), ABC-CLIO.</li> <li>5. Ciccomascolo, L.E. &amp; Sullivan, E.C.(2013). The Dimensions of Physical Education. Jones &amp; Barlett Learning.</li> </ol>		

Title: <b>Elective Course Practical - 4</b>	Practical: <b>Sports Biomechanics and Kinesiology</b>	Course Code	<b>23UPEE42</b>
Class	II B.Sc. Physical Education	Hours	<b>30</b>
Semester	IV	Credit	<b>01</b>
<b><u>Course Outcome</u></b>			
CO 1: To acquire knowledge about the Kinesiology and Biomechanics			
CO 2: To analyze the fundamental movements of joints in human body.			
CO 3: To understand the linear kinematics and bio-mechanical principles.			
CO 4: To know the concept of Levers.			
CO 5: To learn the biomechanical principles and Force.			
<b>Unit</b>	<b>Content</b>	<b>No. of Hours</b>	
<b>I</b>	<b>Body Movements</b> Flexion - Extension - Abduction - Adduction - Rotation- Circumduction - Supination - Pronation.	<b>6</b>	
<b>II</b>	<b>Axis</b> Sagittal axis - Frontal axis - Vertical axis.	<b>6</b>	
<b>III</b>	<b>Planes</b> Sagittal plane - Frontal plane - Transverse plane.	<b>6</b>	
<b>IV</b>	<b>Posture</b> Postural deformities correction for Lordosis - Kyphosis - Scoliosis.	<b>6</b>	
<b>V</b>	<b>Types of Application in Sports</b> Lever - Equilibrium - Centre of Gravity - Force - Balance.	<b>6</b>	
<b>Books for Reference</b>	<ol style="list-style-type: none"> <li>1. Dhanajoy.S. (2005) "Pedagogic of Kinesiology", Sports Publication, Chennai</li> <li>2. Vijayalakshmi, L, (2005). Biomechanics of Body movements in Sports (1St ed.,). Chennai: Sports Publication.</li> <li>3. Bijlani. R., &amp; Manchanda, S.K., (2002). The Human Machine (1St ed.,). New Delhi: National Book Trust India.</li> <li>4. Dhanajoy, S., (2000). Mechanical Basics of Biomechanics (1St ed.,). Chennai: Sports Publication Chennai.</li> <li>5. Anderson, T.M., (2003). Biomechanics of Human Motion (1St ed.,). Chennai: Sports Publication.</li> </ol>		

Title: SEC-6	<b>Fundamentals of Health Education</b>	Course Code	<b>23UPEN41</b>
Class	To other major II year students	Hours	<b>30</b>
Semester	IV	Credit	<b>02</b>
<b><u>Course Outcome</u></b>			
CO 1: To know about the health and mental health.			
CO 2: To acquire knowledge about the diseases.			
CO 3: To understand the value of safety education.			
CO 4: To analyze fluid intake required for various levels and types of physical activity.			
CO 5: To explain about the nutrients: ingestion to energy metabolism			
<b>Unit</b>	<b>Content</b>	<b>No. of Hours</b>	
<b>I</b>	<b>Introduction to Health Education</b> Meaning and definition of Health Education Aim - Scope of Health Education - role of International Organizations - National - State Level Health Organizations.	<b>6</b>	
<b>II</b>	<b>Mental Health</b> Meaning of mental health - Factors of mental health - Mental health problem of college student - Principles of mental health - Characteristics of a health personality	<b>6</b>	
<b>III</b>	<b>Communicable Diseases</b> Meaning- Malaria-Cholera- Typhoid- Tuberculosis - Dengue - Zika - Ebola - Covid 19	<b>6</b>	
<b>IV</b>	<b>Lifestyle disorders</b> Meaning - Obesity - Diabetics - Heart Attack - Back Pain - Sleeplessness - Ulcer – Cancer – Addiction: Meaning - Smoking - Alcohol - Drug – Internet.	<b>6</b>	
<b>V</b>	<b>Weight Management:</b> Meaning - Concept of Weight Management in the Modern Era - Factors affecting Weight Management and Values of Weight Management - Maintaining a Healthy Life Style	<b>6</b>	
<b>Books for Reference</b>	<ol style="list-style-type: none"> <li>Wellgoose. (1977). Health Teaching in secondary Carl. E. Schools: W.B. Saunders.</li> <li>Wilson, Kathleen J. W. (1987). Anatomy and Physiology, Health and illness. 6th Edition. Churchill Livingstone Edinburgh.</li> <li>Anderson.T. Mc. Clerg, (1961). Human Kinetics and Analyzing Body Movements, London: William Heinman Medical Books Ltd.</li> <li>Frank, H. &amp;Walter, H., (1976). Turners school health education. Saint Louis: The C.V. Mosby Company.</li> <li>Srilakshmi, B. (2015) Human Nutrition (For B.Sc., Nursing students) Delhi: New Age International (p) Limited Publishers</li> </ol>		

Title: SEC -7	<b>Health Education, Safety Education and Sports Nutrition</b>	Course Code	<b>23UPES41</b>
Class	II B.Sc. Physical Education	Hours	<b>30</b>
Semester	IV	Credit	<b>02</b>
<b><u>Course Outcome</u></b>			
CO 1: To know about the health and mental health.			
CO 2: To acquire knowledge about the diseases.			
CO 3: To understand the value of safety education.			
CO 4: To analyze fluid intake required for various levels and types of physical activity.			
CO 5: To explain about the nutrients: ingestion to energy metabolism			
<b>Unit</b>	<b>Content</b>	<b>No. of Hours</b>	
<b>I</b>	<b>Introduction to Health Education</b> Meaning and definition of Health Education Aim - Scope of Health Education - role of International Organizations - National - State Level Health Organizations.	<b>6</b>	
<b>II</b>	<b>Mental Health</b> Meaning of mental health - Factors of mental health - Mental health problem of college student - Principles of mental health - Characteristics of a health personality	<b>6</b>	
<b>III</b>	<b>Safety Education</b> Definition of Safety Education - Factors affecting Safety Education - Need and Importance of Safety Education - Safety in Play fields, Swimming pool, Gymnasium	<b>6</b>	
<b>IV</b>	<b>Introduction to Nutrition</b> Food and 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.	<b>6</b>	
<b>V</b>	<b>Diet Analysis</b> Pre-Competition - Competition and Post Competition meals - Diet analysis and planning - Fluid intake during exercise - Nutrition for Special Population.	<b>6</b>	
<b>Books for Reference</b>	<ol style="list-style-type: none"> <li>1. Wellgoose. (1977). Health Teaching in secondary Carl. E. Schools: W.B. Saunders.</li> <li>2. Wilson, Kathleen J. W. (1987). Anatomy and Physiology, Health and illness. 6th Edition. Churchill Livingstone Edinburgh.</li> <li>3. Anderson.T. Mc. Clerg, (1961). Human Kinetics and Analyzing Body Movements, London: William Heinman Medical Books Ltd.</li> <li>4. Frank, H. &amp;Walter, H., (1976). Turners school health education. Saint Louis: The C.V. Mosby Company.</li> <li>5. Srilakshmi, B. (2015) Human Nutrition (For B.Sc., Nursing students) Delhi: New Age International (p) Limited Publishers</li> </ol>		

Title: <b>ECC-4</b>	<b>Principles of Motor Development</b>	Course Code	<b>23UPEEC4</b>
Semester	IV	Credit	<b>04</b>
<b><u>Course Outcome</u></b>			
CO 1: Understand the basic Motor development			
CO 2: Know about physical growth, maturation and aging			
CO 3: Understand and study the motor skills and movement concepts			
CO 4: Understanding the concept of Constraints in Motor Development.			
CO 5: To explain about Perceptual Motor Development and Constraints			
<b>Unit</b>	<b>Content</b>	<b>No. of Hours</b>	
<b>I</b>	<b>Introduction</b> Definition: Motor Development - Motor Learning - Motor Control - Theoretical perspectives of Motor Development- Concept of Physical Literacy - Age classification	<b>9</b>	
<b>II</b>	<b>Physical Growth and Aging</b> Physical growth - Maturation and Aging - Types of Motor Skills - Movement milestones in children - Long Term Athlete Development.	<b>9</b>	
<b>III</b>	<b>Motor Skills</b> Classification of Motor Skills: Fundamental Movement Skills - Specialized Manipulative skill - Rhythmic Movement - Game and Sport Skills	<b>9</b>	
<b>IV</b>	<b>Movement Concepts</b> Development of Movement Concepts - Space Awareness - Effort Concepts - Relationships - Postural control and balance.	<b>9</b>	
<b>V</b>	<b>Perceptual Motor Development and Constraints</b> Sensory - Perceptual development - Perception in Motor development - Social and Psychosocial constraints.	<b>9</b>	
<b>Books for Reference</b>	<ol style="list-style-type: none"> <li>1. Kathleen M.Haywood., &amp; Nancy Getchell., (2009). Life Span motor Development(5th Ed.), Champaign, IL: Human Kinetics,</li> <li>2. Robert M. Malina., Claude Bouchard &amp;oded Bar-Or., (2004). Growth, Maturit and Physical Activity(2nd Ed.), Champaign, IL: Human Kinetics</li> <li>3. NAPSE., (2005). Physical Education for Lifelong Fitness(2nd Ed.), Champaign, IL: Human Kinetics.</li> <li>4. Allen W. Jackson., James R. Morrow., Jr.David W. Hill &amp; Rod K. Dishman., (2004). Physical Activity for Health and Fitness, Champaign, IL: Human Kinetics.</li> <li>5. Cratty Bryant, J. (1975). Movement Behaviour and Motor Learning. Philadelphia Lea &amp;Febiger.</li> </ol>		

## Semester – V

Title: <b>Core Theory–5</b>	<b>Methods in Physical Education</b>	Course Code	<b>23UPEC51</b>
Class	III B.Sc. Physical Education	Hours	<b>75</b>
Semester	V	Credit	<b>05</b>
<b><u>Course Outcome</u></b>			
CO 1: To familiarize the Subject matter, Scientific Principles and Presentation techniques of method of physical education			
CO 2: To aware the class management and teaching aids.			
CO 3: To write the lesson plan for physical Education			
CO 4: To Know the methods of physical activities			
CO 5: To apply the games rules and organize Tournaments			
<b>Unit</b>	<b>Content</b>	<b>No. of Hours</b>	
<b>I</b>	<b>Introduction:</b> Meaning and scope of teaching methods in physical education - Factors that influence methods of teaching in physical education - Principles of teaching - Subject matter - Past experience of the pupils - Time and material at the disposal of the Teacher.	<b>15</b>	
<b>II</b>	<b>Methods of Teaching:</b> Introduction - Different methods of teaching physical activities - Teaching Aids - Meaning - Purpose and criteria for audio visual aids - Types of audio-visual aids.	<b>15</b>	
<b>III</b>	<b>Class management:</b> Introduction - Principles of class management - Factor influencing class management - Steps in class management - Principles of lesson plan - Types of lesson plan - Advantages of lesson plan.	<b>15</b>	
<b>IV</b>	<b>Intramural and Extramural Competition:</b> Intramural and Extramural: Introduction - Meaning - Advantages - Objectives - Organization - Principles of inter institutional competition.	<b>15</b>	
<b>V</b>	<b>Tournaments:</b> Introduction - Meaning of tournament - Types of competition - Methods of drawing fixtures on knock-out tournament - Round robin tournament - Consolation tournament - Combination tournament - Sports meet.	<b>15</b>	
<b>Books for Reference</b>	<ol style="list-style-type: none"> <li>1. M.L.Kamalesh,(2012) “Methods in Physical Education”, Friends Publications, NewDelhi.</li> <li>2. Arumugam, S., (2018). Physical Education: Organization and Administration Methods. Madurai: Shanlax Publications</li> <li>3. Verma ,H., (2012). Methods and Management of Physical Education (1st Ed.). Chennai: Sports Publications</li> <li>4. Bevinson Perinbaraj (2000). Methods of Physical Education and History of Physical Education, Karaikudi</li> <li>5. Rajesh Tripathi (2010) “Methods of Physical Education”, Sports Publication, NewDelhi.</li> <li>6. Saket Raman Tiwari, Chhotelalrathor &amp; Yogesh Kumar Singh (2012) Teaching Methods in Physical Education” Surjeet Publications, NewDelhi..</li> </ol>		

Title: <b>Core Theory–5</b>	<b>Physiology of Exercise</b>	Course Code	<b>23UPEC52</b>
Class	III B.Sc. Physical Education	Hours	<b>75</b>
Semester	V	Credit	<b>05</b>
<b><u>Course Outcome</u></b>			
CO 1: Understand the meaning, nature and scope of exercise physiology.			
CO 2: Analyse the effects of exercise physiology on various systems of the body.			
CO 3: Understand the properties structure and functions of voluntary muscles.			
CO 4: Analyse the physiological concepts of physical fitness.			
CO 5: Understand the physiological factors affecting motor abilities			
<b>Unit</b>	<b>Content</b>	<b>No. of Hours</b>	
<b>I</b>	<b>Introduction:</b> Definition of Physiology and Exercise Physiology - Need and importance of Exercise Physiology - Historical aspects of Exercise Physiology - Acute and chronic responses to Exercise.	<b>15</b>	
<b>II</b>	<b>Energy System:</b> Introduction to energy system - Aerobic and anaerobic energy – ATP and ADP - Relationship between nutrition and energy - Sliding filament theory.	<b>15</b>	
<b>III</b>	<b>Muscle and Nervous Physiology:</b> Effect of exercise on Muscular, Skeletal and Nervous System - Muscle tone - Types of Muscular contraction.	<b>15</b>	
<b>IV</b>	<b>Metabolism and Environment:</b> Metabolism - Aerobic and Anaerobic Metabolism - Exercise risks at Cold, Hot and High Altitude.	<b>15</b>	
<b>V</b>	<b>Physiological Factors affecting Motor Ability:</b> Physiological factors affecting skills and motor ability - Warming up - Fatigue - Oxygen debt - Second wind - Doping and its influences on Physiology.	<b>15</b>	
<b>Books for Reference</b>	<ol style="list-style-type: none"> <li>1. Kenney, W. L., Wilmore, J. H., &amp; Costill, D. L. (2012). Physiology of sport and exercise. Champaign, IL: Human kinetics.</li> <li>2. Shaver, L. G. (1981). Essentials of Exercise Physiology: Burgess publishing company.</li> <li>3. Fox, E. L., Bowers, R. W., &amp; Foss, M. L. (1981). The physiological basis of physical education and athletics. William C Brown Pub.</li> <li>4. Wilmore, Jack H and Costill, David L. (1994). Physiology of Sports and Exercise</li> <li>5. Bahrke, M. S., &amp; Yesalis, C. (2002). Performance-enhancing substances in sport and exercise. Champaign, IL: Human kinetics.</li> </ol>		



Title: <b>Core Practical - 5</b>	<b>Practical: Teaching Practice</b>	Course Code	<b>23UPEC53</b>
Class	III B.Sc. Physical Education	Hours	<b>75</b>
Semester	V	Credit	<b>03</b>
<b><u>Course Outcome</u></b>			
CO 1: To help them understand varied responsibilities of a teacher			
CO 2: To understand the concept and physical activities of callisthenic exercise.			
CO 3: To help them understand with and without exercise equipment & its effective use in the teaching process.			
CO 4: To help them understand the teaching skills on major games. General lesson Plan and Particular Lesson Plan.			
CO 5: To help them understand general lesson plan and particular lesson plan & its effective use in the teaching process.			
<b>Unit</b>	<b>Content</b>	<b>No. of Hours</b>	
<b>I</b>	<b>Lesson Plan</b> General Lesson Plan - Particular Lesson Plan.	<b>15</b>	
<b>II</b>	<b>Introduction:</b> Assembly and roll call - Class handling - Assembly and disposal - March past.	<b>15</b>	
<b>III</b>	<b>Callisthenic Exercise:</b> Sitting exercises- Standing exercises - Bending exercises - Stepping exercises- Moving exercises - Lunging exercises - Clapping exercises.	<b>15</b>	
<b>IV</b>	<b>Exercise with and without Equipment:</b> Exercise with Equipment's: Dumbbells - Indian clubs - Wands - Scoop - Pole drill - Lazim - Exercise without Equipments: Baithaks - Dands - Minor games.	<b>15</b>	
<b>V</b>	<b>Teaching skills on Major Games:</b> Teaching skills on major games and athletic events: Demonstration - Teaching - Correcting the mistakes - Lead up activities.	<b>15</b>	
<b>Books for Reference</b>	<ol style="list-style-type: none"> <li>1. Bevinson Perinbaraj, S. (2013) Methods in Physical Education, Third Edition, Vinsi Agencies, Karaikudi.</li> <li>2. Athicha Pillai A. (2006) Hand Book on Indigenous Activities, First Edition, Karaikudi.</li> <li>3. Arya &amp; Sushanth, K. (2013) Methods in Physical Education, First Edition, Sports Publications, New Delhi.</li> <li>4. Gopalakrishnan, R.W. (2021) Teaching Methods of Physical Education, Sports Publications, New Delhi.</li> <li>5. Mojumdar &amp; Mohum, R. (2009) Methods in Physical Education, Sports Publications, New Delhi, 2009.</li> <li>6. Verma, H. (2012) Methods and Management of Physical Education, First Edition, Sports Publications, Chennai, 2012.</li> </ol>		

Title: <b>Core Practical-6</b>	Practical: <b>Physiology of Exercise</b>	Course Code	<b>23UPEC54</b>
Class	III B. Sc. Physical Education	Hours	<b>75</b>
semester	V	Credit	<b>03</b>
<b><u>Course Outcome</u></b>			
CO 1: Understand about the exercise physiology and structure and types of muscles Understand the bioenergetics and muscles contraction			
CO 2: Understand the effect of Conditioning and Training on circulatory and respiratory Systems			
CO 3: Understand the acclimatization conditions to sports performance			
CO 4: Design and monitor exercise prescriptions and fitness programming			
CO 5: Demonstrate knowledge of show ability to carry out the research process in a collaborative environment.			
<b>Unit</b>	<b>Content</b>	<b>No. of Hours</b>	
<b>I</b>	Video presentation and introduction of muscles contraction - Measuring Blood Pressure	<b>15</b>	
<b>II</b>	Measurements of Lungs volume and Lung Capacity	<b>15</b>	
<b>III</b>	Haemoglobin test	<b>15</b>	
<b>IV</b>	Exercise, Resting Heart Rate and Body Composition test	<b>15</b>	
<b>V</b>	VO2 Max test and Anthropometric test	<b>15</b>	
<b>Books for Reference</b>	1. Murray, R., & Kenney, W. L. (2016). Practical guide to exercise physiology. Human Kinetics. 2. Ehrman, J. K., Kerrigan, D., & Keteyian, S. (2018). Advanced Exercise Physiology: Essential Concepts and Applications. Human Kinetics. 3. Sandhya Tiwaji. (1999). Exercise Physiology. Sport Publishers 4. Kenney, W. L., Wilmore, J. H., & Costill, D. L. (2021). Physiology of sport and exercise. Human kinetics. 5. David, L Costill, (2004). Physiology of Sports and Exercise. New Jersey: Human Kinetics		

Title: <b>Elective Theory -5</b>	<b>Foundation of Yoga</b>	Course Code	<b>23UPEE51</b>
Class	III B. Sc. Physical Education	Hours	<b>60</b>
Semester	V	Credit	<b>03</b>
<b><u>Course Outcome</u></b>			
CO 1: To enable the student to have good health.			
CO 2: To practice mental hygiene.			
CO 3: To possess emotional stability.			
CO 4: To integrate moral values.			
CO 5: To attain higher level of consciousness to practice mental hygiene.			
<b>Unit</b>	<b>Content</b>	<b>No. of Hours</b>	
<b>I</b>	<b>Introduction:</b> Meaning - Definition - History of Yoga - Aim and Objectives of Yoga - Systems of Yoga - Eight limbs of Yoga - General guidelines for practicing Yoga.	<b>12</b>	
<b>II</b>	<b>Asanas:</b> Meaning - Surya Namaskar - Standing Posture - Long Sitting Posture - Prone Posture - Supine Posture - Kneeling Posture - Procedures and benefit of Asanas - Differences between Asanas and Physical Exercises.	<b>12</b>	
<b>III</b>	<b>Pranayama:</b> Meaning - Phases of Pranayama: Purka - Kumbhaka - Rechaka - ratio of pranayama - Types of Pranayama - Procedures and benefit of Pranayama.	<b>12</b>	
<b>IV</b>	<b>Bandha, Mudras and Nadis:</b> Bandhas: Meaning - Types - Procedures and benefit - Mudras: Meaning - Types - Procedures and benefit - Nadis: Meaning - Types - Procedures and benefit.	<b>12</b>	
<b>V</b>	<b>Kriyas:</b> Meaning - Types - Procedures and benefit - Meditation: Meaning - Techniques of meditation.	<b>12</b>	
<b>Books for Reference</b>	<ol style="list-style-type: none"> <li>1. Iyengar, B. K. S. (2000). Light on Yoga. New Delhi: Harper Collins Publishers.</li> <li>2. Yogic Therapy – Its basic principle methods. New Delhi: Govt of India, Central Health Education and Bureau.</li> <li>3. Kenghe. C.T. (1976). Yoga as Depth-Psychology and para-Psychology (Vol-I): Historical Background, Varanasi: Bharata Manishai.</li> <li>4. Swami Sivananda. (1971). The Science of Pranayama. India: A Divine Life Society Publication,</li> <li>5. Tiwari. O .P. (1998). Asanas-Why and How. Lonavla: Kaivalyadhama</li> </ol>		

Title: Core Theory-6	<b>Basic Statistics in Physical Education</b>	Course Code	<b>23UPEE52</b>
Class	III B.Sc. Physical Education	Hours	<b>60</b>
Semester	V	Credit	<b>03</b>
<b><u>Course Outcome</u></b>			
CO 1: To understand the basics concept in statistics in physical education			
CO 2: To achieve the knowledge to measure the central tendency in data			
CO 3: To discuss about relative position and variability in data			
CO 4: To summarize the data which is correlation with respect to data			
CO 5: To understand the basics concept of statistics in physical education			
<b>Unit</b>	<b>Content</b>	<b>No. of Hours</b>	
<b>I</b>	<b>Introduction to Statistics:</b> Meaning and Definition of Statistics - Nature - Need and Importance of Statistics - Types of Statistics - Data - Quantitative data and Qualitative data.	<b>12</b>	
<b>II</b>	<b>Measure of Central Tendency</b> Frequency Distribution – Measure of Central Tendency, Mean, Median and Mode Definition- Computation of mean, median and mode from the ungrouped data - Specific characteristics and use of measure of Measure of Central Tendency	<b>12</b>	
<b>III</b>	<b>Measure of Variability:</b> 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.	<b>12</b>	
<b>IV</b>	<b>Measure of Relative Position:</b> 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.	<b>12</b>	
<b>V</b>	<b>Measure of Relationship:</b> Meaning and definition of correlation - computation of product movement correlation from the ungrouped data - rank order correlation.	<b>12</b>	
<b>Books for Reference</b>	<ol style="list-style-type: none"> <li>1. David, C. H., &amp; Clarke, H. H., (1984). Research Processes in Physical Education, Eaglewood Cliffs: Prentice Hall INC.</li> <li>2. Gupta, (1982). Advanced Practical Statistics, New Delhi: S.S Chand &amp; Co.</li> <li>3. Rothstein, Anne,L. Research Design &amp; Statistics for Physical Education.</li> <li>4. Wilks, S.S., (1984). Elementary Statical Analysis. Calcutta: Deford &amp; IBH publishing Co., Calcutta.</li> <li>5. Mishra, Research &amp; Statistics in Physical Education, Sports Publication, NewDelhi, 2017</li> </ol>		

Title : <b>Elective Practical - 2</b>	Practical: <b>Foundation of Yoga</b>	Course Code	<b>23UPEE52</b>
Class	III B. Sc. Physical Education	Hours	<b>60</b>
Semester	V	Credit	<b>03</b>
<b><u>Course Outcome</u></b>			
CO 1: To Know the Concept of yoga.			
CO 2: To comprehend the standing and sitting position of asanas			
CO 3: To understand the Prone and Supine positions of asanas.			
CO 4: To realize the concept of pranayama			
CO 5: To recognize the importance of kriyas and meditation.			
<b>Unit</b>	<b>Content</b>	<b>No. of Hours</b>	
I	Surya Namaskar - <b>Standing Posture:</b> Tadasana - Trikonasana - Vriksasana - Utkatasana <b>Long Sitting Posture:</b> Padmasana - Pascimottasana - Vajrasana - Vakarasana.	<b>12</b>	
II	<b>Prone Posture:</b> Bhujangasana - Dhanurasana - Salabhasana - Makarasana <b>Supine Posture:</b> Chakrasana - Sarvangasana - Halasana - Shavasana <b>Kneeling Posture:</b> Bakasana, Mayurasana, Sirasana, Ustrasana.	<b>12</b>	
III	<b>Pranayama:</b> Nadisudhi - Nadisodhana - suryabedhana-chandrabedhana - ujjayi - shitkari - Sheetali - brahmari - Bhastrika.	<b>12</b>	
IV	<b>Bandhas:</b> Jalandharabandha - uddiyanabandha Moolabandha - mahabandha <b>Mudras:</b> Chin mudra, chinmayamudra - Linga mudra - Gnanamudra <b>Nadis:</b> Ida nadi - Pingalanadi.	<b>12</b>	
V	<b>Kriyas:</b> Neti - Dhauti - Bast - Nauli - Trataka - Kapalabhati - Vasti <b>Meditation:</b> Focused - Mantra.	<b>12</b>	
<b>Books for Reference</b>	<ol style="list-style-type: none"> <li>1. Iyengar, B.K.S. (2005) Lighton Yoga, Thirty Second Editions, Harper Colling Publications, London.</li> <li>2. Chandrasekaran, K. (1999) Sound Health through Yoga, Sedapatti, Prem Kalyan Publications.</li> <li>3. Brown, Yeats F. (2018) How to use Yoga, Sports Publications, New Delhi.</li> <li>4. Gore, C.S. (2011) Yoga and Health, Sports Publications, New Delhi.</li> <li>5. Pramanik, T.N. (2013) Yoga for Healthy Body, Sports Publications, New Delhi.</li> <li>6. Qureshi, S.S. (2013) Yoga Cures Diabetes, Sports Publications, New Delhi.</li> <li>7. Srivastava, A.K. (2010) Health and Yoga, Sports Publications, New Delhi.</li> </ol>		

<b>ECC - 5</b>	<b>Sports Technology</b>	<b>Course Code</b>	<b>23UPEEC5</b>
Semester	V	Credit	<b>04</b>
<b><u>Course Outcome</u></b>			
CO 1: To understand the fundamental concepts of technology using in Sports.			
CO 2: To know the science of sports materials used in sports and games.			
CO 3: To attain the knowledge of playfield surface.			
CO 4: To know the various modern equipment.			
CO 5: To gain the steps and stages of training gadgets.			
<b>Unit</b>	<b>Content</b>		
I	<b>Technology in Sports:</b> Meaning - Importance - General Principles and purpose of instrumentation in sports - Technological impacts on sports.		
II	<b>Science of Sports Materials:</b> Adhesives - Nano glue - Nano Moulding Technology - Nano turf - Foot wear production - Factors and applications in sports - Constraints - Foams - Polyurethane - Polystyrene - Styrofoam - closed cell and open-cell foams - Neoprene - Foam - Smart Materials: Shape Memory Alloy - Thermo chromic film - High - density modeling foam.		
III	<b>Surfaces of Playfields:</b> Modern surfaces for playfields - Construction and installation of sports surfaces - Types of materials: synthetic - wood - polyurethane - Artificial turf - Modern technology in the construction of indoor and outdoor facilities - Use of computer and software in Match Analysis and Coaching.		
IV	<b>Modern Equipments:</b> Playing Equipments - Balls: Types - Materials and Advantages - Bat / Stick / Racquets: Types - Materials and Advantages - Clothing and shoes: Types - Materials and Advantages - Measuring equipments: Running - Throwing and Jumping Events - Protective Equipment: Types - Materials and Advantages - Sports equipment with Nano technology and Advantages.		
V	<b>Training Gadgets:</b> Basketball: Ball Feeder - Mechanism and Advantages - Cricket: Bowling Machine - Mechanism and Advantages - Tennis: Serving Machine - Mechanism and Advantages - Volleyball: Serving Machine - Mechanism and Advantages - Lighting Facilities: Method of erecting Flood Light and measuring luminous - Video Coverage: Types - Size - Capacity - Place and Position of Camera in Live coverage of sporting events - Use of computer and software in mater analysis and coaching		
<b>Books for Reference</b>	1. Brar, R.S. et al. (2008) Teaching Methodology and Educational Technology in Physical Education, Kalyani Publisher: New Delhi. 2. Bosco, James S. (1983). Sports Technology, New Jersey, Prentice Hall Inc. 3. Hoover, Kenneth H. (1972) The Professional Teachers Handbook, Boston, Allyn and Bacon. 4. Krik, David (1988). Physical Education and Curriculum Study, Kent, Croom Helm. 5. Mohanty, J.(1992) Educational Technology, New Delhi.		

### Semester VI

Title : <b>Core Theory– 7</b>	<b>Test and Measurement in Physical Education</b>	Course Code	<b>22UPEC61</b>
Class	III B.Sc. Physical Education	Hours	<b>75</b>
Semester	VI	Credit	<b>04</b>
<b><u>Course Outcome</u></b>			
CO 1: To understand the concept of test, measurement and Evaluation			
CO 2: To know the criteria of good test.			
CO 3: To gain the knowledge of components in physical fitness.			
CO 4: To provide the thorough knowledge on testing for physical fitness.			
CO 5: To able to evaluate the standardized skills in some major games.			
<b>Unit</b>	<b>Content</b>	<b>No. of Hours</b>	
<b>I</b>	<b>Introduction of Test, Measurement and Evaluation:</b> Meaning and definition of Test, Measurement and Evaluation in Physical Education-Need and importance of Test, Measurement and Evaluation in Physical Education.	<b>15</b>	
<b>II</b>	<b>Test classification and administration:</b> 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 and Administrative feasibility.	<b>15</b>	
<b>III</b>	<b>Physical Fitness Test:</b> Strength - Bend knee sit ups test - Flexibility - Sit and reach test-Speed - 50 mts run - Cardio respiratory Endurance - Cooper 12 minutes Run / Walk test - Explosive strength - Standing broad jump and Agility - T test.	<b>15</b>	
<b>IV</b>	<b>Motor Fitness Test:</b> AAHPERD Youth Fitness test - JCR test - Barrow motor ability test - Harward step test and New York State Physical Fitness Test.	<b>15</b>	
<b>V</b>	<b>Sports Skill Test:</b> Johnson Basketball ability test - McDonald soccer test - Russel Lange Volleyball Test - Harban Singh Hockey Skill Test - French Badminton Short Service Test and Broer-Miller Tennis Test.	<b>15</b>	
<b>Books for Reference</b>	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. Prentice Hall 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		

Title: <b>Core Theory - 8</b>	<b>Science of Sports Training and Gymnastics</b>	Course Code	<b>22UPEC62</b>
Class	III B.Sc. Physical Education	Hours	<b>75</b>
Semester	VI	Credit	<b>05</b>
<b><u>Course Outcome</u></b>			
CO 1: To understand the fundamental concepts of sports training.			
CO 2: To know the training methods.			
CO 3: To educate the development of motor components in training			
CO 4: To Prepare the Planning and Periodization for the competition.			
CO 5: To develop the technical and tactical preparation for high performance in competition			
CO 6: To able to identify the History of Gymnastics and Competitions			
<b>Unit</b>	<b>Content</b>	<b>No. of Hours</b>	
<b>I</b>	<b>Sports training and Training Load:</b> 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.	<b>15</b>	
<b>II</b>	<b>Training Methods:</b> Principles of training concern to fitness and sports - Types of different training method - Circuit training - Fartlek training - Interval training - Weight training - Plyometric training - Muscle Contraction - Isometric - Isotonic and Isokinetic.	<b>15</b>	
<b>III</b>	<b>Development of Motor Components:</b> Definition - Importance - Classification and methods of development - Strength - Endurance - Speed - Flexibility - Coordinative abilities.	<b>15</b>	
<b>IV</b>	<b>Planning and Periodization:</b> Meaning and importance of planning - Types of Plan: Short term - Medium term and long term training programme - Periodization: Meaning and importance - Types of Periodization - Warming up and cooling down.	<b>15</b>	
<b>V</b>	<b>Gymnastics:</b> History of Gymnastics - Competitions - Rules - Officiating - Equipments and their specification - Maintenance of Equipments - Specific Exercises for Gymnasts-Floor Exercises for Men and Women - Exercises and Techniques on Pommel Horse - Vaulting - Roman Rings - Parallel Bar - Horizontal bar - Balance Beam - Asymmetric Bar.	<b>15</b>	
<b>Books for Reference</b>	<ol style="list-style-type: none"> <li>1. Dick, W. F. (1980). Sports training principles. London: Lepus Books.</li> <li>2. Harre, D. (1982).Principles of sports training. Berlin: Sporulated.</li> <li>3. Jensen, R. C. &amp; Fisher, A. G. (1979).Scientific basis of athletic conditioning. Philadelphia: Lea and Fibiger, 2ndEdn.</li> <li>4. Matvyew, L. P. (1981). Fundamental of sports training. Moscow: Progress Publishers.</li> <li>5. Singh, H. (1984). Sports training, general theory and methods. Patiala: NSNIS.</li> <li>6. Uppal, A. K., (1999).Sports Training. New Delhi: Friends Publication</li> </ol>		



Title: <b>Core Practical - 7</b>	<b>Practical - Test and Measurement in Physical Education</b>	Course Code	<b>23UPEC63</b>
Class	III B. Sc. Physical Education	Hours	<b>60</b>
Semester	VI	Credit	<b>02</b>
<b><u>Course Outcome</u></b>			
CO 1: To practice the strength, flexibility and speed test.			
CO 2: To practice the endurance, strength and agility test.			
CO 3: To practice Cardio respiratory Endurance Test:			
CO 4: To practice the motor fitness test.			
CO 5: To practice the sports skill test			
<b>Unit</b>	<b>Content</b>	<b>No. of Hours</b>	
<b>I</b>	<b>Physical Fitness Test:</b> Strength - Bend knee sit ups test - Flexibility - Sit and reach test - Speed - 50 mts run.	<b>12</b>	
<b>II</b>	<b>Fitness Test:</b> Harward step test and New York State Physical Fitness Test.	<b>12</b>	
<b>III</b>	<b>Cardio respiratory Endurance Test:</b> Cooper 12 minutes Run / Walk test - Explosive strength - Standing broad jump and Agility - T test	<b>12</b>	
<b>IV</b>	<b>Motor Fitness Test:</b> AAHPERD Youth Fitness test - JCR test and Barrow motor ability test.	<b>12</b>	
<b>V</b>	<b>Sports Skill Test:</b> Johnson Basketball ability test - McDonald soccer test - Russel Lange Volleyball Test - Harban Singh Hockey Skill Test and French Badminton Short Service Test and Broer-Miller Tennis Test.	<b>12</b>	
<b>Books for Reference</b>	<ol style="list-style-type: none"> <li>1. Sharma, J.P., "Test and Measurement in Physical Education", Khel Sahitya Kendra, New Delhi, 2011.</li> <li>2. Karad, P.L., "Test measurement and Evaluation in Physical Education", Khel Sahitya Kendra, New Delhi, 2011.</li> <li>3. Verma, H, "Test and Measurement in Physical Education", Sports Publications. NewDelhi, 2013.</li> <li>4. Srivastava, A.K., "Evaluation in Test and Measurement", Sports Publications, New Delhi, 2013.</li> </ol>		

Title: <b>Core Practical - 8</b>	<b>Practical: Game of Specialization and Gymnastics</b>	Course Code	<b>23UPEC64</b>
Class	III B.Sc. Physical Education	Hours	<b>60</b>
Semester	VI	Credit	<b>03</b>
<b><u>Course Outcome</u></b>			
CO 1: Practice the fundamental skills, Techniques and tactics, system of play and lead up activities of game of specialization.			
CO 2: To assess the playing ability of game of specialization.			
CO 3: To practice the court/field marking of game of specialization.			
CO 4: Demonstrate the officiating in game of specialization.			
CO 5: To prepare the record note of game of specialization.			
<b>Unit</b>	<b>Content</b>	<b>No. of Hours</b>	
<b>I</b>	<b>Fundamental and Advance Skills:</b> Techniques - Tactics - Drills and lead-up games in game of specialization.	<b>12</b>	
<b>II</b>	<b>Playing Ability:</b> Assessment of playing ability - Skill test - Specific training for game of specialization.	<b>12</b>	
<b>III</b>	<b>Marking:</b> Layout and markings of court/field in game of specialization	<b>12</b>	
<b>IV</b>	<b>Officiating:</b> Rules and interpretations - duties of the officials - official signals - system of officiating - equipment specifications and score sheet for game of specialization.	<b>12</b>	
<b>V</b>	<b>Gymnastics:</b> Floor Exercises - Pommel Horse - Parallel Bar - Horizontal Bar - Roman Rings	<b>12</b>	
<b>Books for Reference</b>	<ol style="list-style-type: none"> <li>1. Coaching Volleyball Technical &amp; Tactical Skills (Technical and Tactical Skills Series) by American Sport Education Program(May 18,2011)</li> <li>2. BerndVolkerBrahms,BadmintonHandbook,Meyer&amp;Meyer,Aachen2010,John W.Bynn</li> <li>3. Coaches corner.(Basketball competitions): An article from: Coach and Athletic Director by Gale Reference Team (Oct31,2006)</li> <li>4. Football Techniques &amp;Tactics by Claire Mitchell Taverner. ISBN: 0-7360-5437-5.2005.</li> <li>5. ABC "Origin, History and Development of Kabaddi".</li> <li>6. <a href="http://www.kabaddiikf.com/history.htm">http://www.kabaddiikf.com/history.htm</a>.Retrieved2008-04-20.</li> </ol>		

Title: <b>Project</b>	<b>Project and Viva Voce</b>	Course Code	<b>23UPEC55</b>
Class	III B.Sc. Physical Education	Hours	<b>90</b>
Semester	V	Credit	<b>03</b>
<b><u>Course Outcome</u></b>			
<p>CO 1: Relate the experiment in connection with the projects undertaken.</p> <p>CO 2: Plan for literature survey, experimental work and documentation of results.</p> <p>CO 3: Analyze the compounds using instruments effectively</p> <p>CO 4: Defend the questions raised in <i>viva voce</i> examination.</p> <p>CO 5: Develop the experiments independently in the thrust areas of Physical Education and Sports.</p>			
<b>RULES GOVERNING THE EVALUATION OF PROJECT AND VIVA VOCE</b>			
<ol style="list-style-type: none"> <li>1. Students can select a topic of their choice pertaining to their course, individually or in group (not exceeding three) in consultation with the Head of the Department.</li> <li>2. The project report should be submitted on or before the last working day of the fifth semester to the Controller of Examinations (U.G) through the Head of the Department.</li> <li>3. If a student fails to submit the project report within the stipulated time, the candidate can submit the same after paying the late fee prescribed by the Principal.</li> <li>4. Each student has to submit two copies of his / her project report for evaluation, if it is an individual project. In case of group project, each student has to submit one copy of his /her project report for evaluation.</li> <li>5. The project report shall contain a minimum of 20 pages excluding bibliography and appendices.</li> <li>6. The project report will be valued for a total of 80 marks out of which the external examiner and guide share 40 marks each. The sum of marks awarded by both the examiners will be considered to be the final mark. For a pass in the project report, the student should secure minimum of 32 marks. If a student fails to secure 32 marks in the evaluation of project report, he/ she may be permitted to resubmit his/her project report once again after incorporating the necessary correction as suggested by the Examiners within a period of six months from the date of publication of the results of the Examinations.</li> <li>7. For those candidates who have qualified in the evaluation of the project report, there will be a viva voce on the above. The viva voce carries a maximum of 20 marks and it will be conducted jointly by the guide and the external examiner. The student should secure minimum of 8 marks in the viva voce failing which he/she shall be required to reappear for the viva voce after a month from the date of viva voce already conducted but within a period of three months for which he/she will have to pay a fee as prescribed by the Principal.</li> <li>8. For a pass in this paper as a whole, a student should secure a minimum of 40 marks in Project report and viva voce put together.</li> </ol>			

Title: <b>Elective Theory - 6</b>	<b>Sports Psychology and Sociology</b>	Course Code	<b>23UPEE61</b>
Class	III B.Sc. Physical Education	Hours	<b>60</b>
Semester	VI	Credit	<b>03</b>
<b><u>Course Outcome</u></b>			
CO 1: To understand the psychological aspects.			
CO 2: To know the concept to motivation.			
CO 3: To gain the knowledge of sports personality.			
CO 4: To know the importance of leadership qualities of sports.			
CO 5: To influence of society in sports and games.			
<b>Unit</b>	<b>Content</b>	<b>No. of Hours</b>	
<b>I</b>	<b>Sports Psychology:</b> Meaning, scope and importance of Sports Psychology - Types of psychology - Motor learning - factors that effect on motor learning - stages of learning theories - Perception: Definition - Theories of Perception - Wrong perception - Role of perception in physical education and sports	<b>12</b>	
<b>II</b>	<b>Motivation:</b> Meaning - Types of Motivation - Factors influencing motivation - Motivational techniques and its impact on sports performance - Mental Preparation Strategies: Preparatory arousal - Attention focus - Self-talk - Relaxation and Imaginary training.	<b>12</b>	
<b>III</b>	<b>Anxiety, Stress and Personality:</b> Definition and Meaning of Anxiety - nature of anxiety - Types of anxiety - Definition and meaning of stress - nature of stress - Types of stress - Anxiety - Stress and their effects on sports performance - Personality: Meaning - Measuring the personality - Personality and Sports performance - Athletic versus Non-Athletic Personality.	<b>12</b>	
<b>IV</b>	<b>Leadership:</b> Meaning - Types - Need and importance - Qualities - Character - Leadership in Sports and Sports Ethics Emotional Effects - Tension - Aggression and Sports.	<b>12</b>	
<b>V</b>	<b>Introduction to Sociology:</b> Meaning, Scope and nature of Sociology - Social Factors influencing in Sports - Types of audience - Spectator management.	<b>12</b>	
<b>Books for Reference</b>	<ol style="list-style-type: none"> <li>1. Sharma, P., &amp; Singh, V. (2013). "Sports Psychology", Sports Publications, New Delhi, 2013.</li> <li>2. Jain, (2013) Sports Psychology, 1<sup>st</sup> Ed, Sports Publications, New Delhi, 2013.</li> <li>3. Deshmukh, Sanjay, V., (2013) Philosophical, Sociological, Historical and Recreational in Physical Education, Sports Publication, New Delhi.</li> <li>4. Shekar,C., (2005) Aspects of Psychology in Physical Education and Sports", Sports Publications.</li> <li>5. Wankahde &amp; Santosh, (2013) Sports Sociology, First Edition, Sports Publications, New Delhi.</li> <li>6. Kamalesh M.L. (1988) Psychology in Physical Education and Sports, New Delhi: Metropolitan, 1988.</li> </ol>		

Title: <b>Elective Theory - 6</b>	<b>Sports Journalism and Mass Media</b>	Course Code	<b>23UPEE61</b>
Class	III B.Sc. Physical Education	Hours	<b>60</b>
Semester	VI	Credit	<b>03</b>
<b><u>Course Outcome</u></b>			
CO 1: To Understand the importance and needs of Sports Journalism			
CO 2: To discuss about the principles of general news reporting and Sport reporting			
CO 3: To explain about the learn techniques of proof reading			
CO 4: To improve the skills of commentary skills			
CO 5: To develop the skills of organization and advertising techniques			
<b>Unit</b>	<b>Content</b>	<b>No. of Hours</b>	
<b>I</b>	<b>Introduction:</b> Meaning and Definition of Journalism - Ethics of Journalism - Sports Ethics and Sportsmanship - Reporting Sports Events - National and International Sports News Agencies.	<b>12</b>	
<b>II</b>	<b>Basic Principles of Sports reporting:</b> Basic Principles of sports reporting - Difference between general news reporting and Sport reporting - source of sports news - Sports spot news - Advanced story and flash back - Follow up story - Basic of Athletic reporting - Basics of Games Reporting - Interviews - Photos - News - Tit-bits.	<b>12</b>	
<b>III</b>	<b>Editing:</b> Editing - Techniques - Editor - Sub Editors - Copy reading and handling sports news - Design and makeup of the sports page - Typography and various process of printing newspaper styles and slant news structure.	<b>12</b>	
<b>IV</b>	<b>Commentary:</b> Radio and TV Commentary - Differences between Radio and TV Commentary - Experts comments - Sports reviews for the radio and TV	<b>12</b>	
<b>V</b>	<b>Advertising:</b> Advertising and Newspaper Management - Radio and TV - Organization and management of newspaper circulation - Ethics and Responsibilities of Sport Journalists.	<b>12</b>	
<b>Books for Reference</b>	1. Ahiya B.N. (1988). Theory and Practice of Journalism. Delhi: Surjeet Publications 2. Ahiya B.N., &Chobra S.S.A. (1990). Concise Course in Reporting. New Delhi: Surjeet Publication. 3. Bhatt S.C. (1993). Broadcast Journalism Basic Principles. New Delhi. Haranand Publication. 4. Joshi, D., (2010). Value Education in Globjal Perspective. New Delhi: Lotus Press. 5. Kannan, K., (2009). Soft Skills, Madurai: Madurai: Yadava College Publication 6. Chakrabarti, M., (2008). Value Education: Changing Perspective, New Delhi: Kanishka Publication.		

Title: <b>SEC 8</b>	<b>Sports Entrepreneurship</b>	Course Code	<b>23UPES61</b>
Class	<b>II B.Sc. Physical Education</b>	Hours	<b>30</b>
Semester	<b>VI</b>	Credit	<b>02</b>
<b><u>Course Outcome</u></b>			
CO 1: To educate the sport entrepreneurship opportunities			
CO 2: To start own entrepreneurship in the field of fitness			
CO 3: To encourage as an entrepreneurship in sports marketing			
CO 4: To make the entrepreneurship in Sports wears production.			
CO 5: To educate the students to be an entrepreneurship in sports management organizations.			
<b>Unit</b>	<b>Content</b>	<b>Hours</b>	
<b>I</b>	Meaning and Definition of Entrepreneurship - Concept and characteristics of Entrepreneurship - Need and Importance of entrepreneurship in sports - Understanding Sports Business industry.	<b>6</b>	
<b>II</b>	Understanding the entrepreneurial process - Types of Entrepreneurs - Risk and Rewards in entrepreneurship - Leading sports companies and media channels.	<b>6</b>	
<b>III</b>	Identifying the areas of business - Understanding financial aspects of the business - Government and private Organizations supporting entrepreneurships in India - Generating / arranging funds for the business	<b>6</b>	
<b>IV</b>	Entrepreneurship in the sports Goods / Equipment - Entrepreneurship in Sports wears.	<b>6</b>	
<b>V</b>	Entrepreneurship in Sports management - Event management - Entrepreneurship in Sports software -fitness - Nutrition.	<b>6</b>	
<b>Books for Reference</b>	<ol style="list-style-type: none"> <li>1. Peter Thiel, Zero to One: Notes on Start Ups, or How to Build the Future, 0804139296 (ISBN13: 9780804139298).</li> <li>2. Guy Kawasaki (2004), The Art of the Start: The Time-Tested, Battle-Hardened Guide for Anyone Starting Anything, 1591840562 (ISBN13: 9781591840565)</li> <li>3. Roger Cowdrey, Creating an Entrepreneurial Mindset-Failure IS an Option.</li> <li>4. Blair, R. D. (2011). Sports economics. Cambridge: Cambridge University Press.</li> <li>5. Gruneau, R. S. (1983). Class, sport and social development. Amherst, MA: University of Massa- chusetts Press</li> <li>6. Guttmann, A. (2004). From ritual to record: The nature of modern sports. New York, NY: Columbia University Press</li> </ol>		

Title: <b>ECC-6</b>	<b>Research Methodology and Statistics in Physical Education</b>	Course Code	<b>23UPEEC6</b>
Semester	VI	Credit	<b>04</b>
<b><u>Course Outcome</u></b>			
CO 1: To understand the concept to Research.			
CO 2: To know the various types of research.			
CO 3: To identify various sources of information review for detain formation enable to write the research Proposal			
CO 4: To introduce the statistical tools for research.			
CO 5: To able to correlate the related things			
<b>Unit</b>	<b>Content</b>		
<b>I</b>	Meaning and Definition of Research - Nature and Characteristics of Research- Need and Importance of Research in Physical Education - Criteria in selecting the Research problem.		
<b>II</b>	Types of Research - Basic Research - Applied Research - Action Research- Hypothesis - Types of Hypotheses - Experimental Research - Meaning and Nature - Experimental Variables - Historical Research - Steps - Sources - Criticism.		
<b>III</b>	Preparation of Research Report - Research Proposal - Introduction - Review- Methodology - Bibliography - Abstract - Introduction - Main Body of Report- Conclusion - Organization of thesis report - Mechanism of writing Footnote and bibliography.		
<b>IV</b>	Statistics - Meaning - Types - Need and Importance of Statistics in Physical Education - Constructing a Frequency Table - Range of Scores - Number of Intervals - Size of Interval - Tabulation - Frequency Polygon - Histogram.		
<b>V</b>	Measures of Central Tendency - Mean - Median and Mode - Measures of Variability - Range, Standard Deviation - Correlation with Ungrouped data - t-ratio.		
<b>Books for Reference</b>	<ol style="list-style-type: none"> <li>1. K. Suresh Kutty.,2015,“Research Methods in Physical Education” Sports Publication, New Delhi.</li> <li>3. Clarke, David Hand H. Harrison Clarke, 2005, “Research Process in Physical Education”, Indeed Prentice, Inc,. New Jersey.</li> <li>4. Rothstein, Anne,L. Research Design &amp; Statistics for Physical Education.</li> <li>5. Moses, R. Amritta Kumar. Thesis Writing Format, Madras, Poompugar Pathipagam,1995.</li> <li>6. Kothari C.R. Research Methodology, New Delhi:Wiley Fasern Ltd.2000.</li> </ol>		