B.SC.,
PHYSICAL EDUCATION

SYLLABUS

FROM THE ACADEMIC YEAR

2023-2024

TAMILNADU STATE COUNCIL FOR HIGHER EDUCATION, CHENNAI – 600 005

LEARNING OUTCOMES-BASED CURRICULUM FRAMEWORK GUIDELINES BASED REGULATIONS FOR UNDER GRADUATE PROGRAMME	
Programme:	**B.Sc. PHYSICAL EDUCATION**
Programme Code:	
Duration:	**3 Years (UG)**
Programme Outcomes:	**PO1: Disciplinary knowledge:** Capable of demonstrating comprehensive knowledge and understanding of one or more disciplines that form a part of an undergraduate Programme of study **PO2: Communication Skills:** Ability to express thoughts and ideas effectively in writing and orally; Communicate with others using appropriate media; confidently share one's views and express herself/himself; demonstrate the ability to listen carefully, read and write analytically, and present complex information in a clear and concise manner to different groups. **PO3: Critical thinking:** Capability to apply analytic thought to a body of knowledge; analyse and evaluate evidence, arguments, claims, beliefs on the basis of empirical evidence; identify relevant assumptions or implications; formulate coherent arguments; critically evaluate practices, policies and theories by following scientific approach to knowledge development. **PO4: Problem solving: Capacity** to extrapolate from what one has learned and apply their competencies to solve different kinds of non-familiar problems, rather than replicate curriculum content knowledge; and apply one's learning to real life situations. **PO5: Analytical reasoning**: Ability to evaluate the reliability and relevance of evidence; identify logical flaws and holes in the arguments of others; analyze and synthesize data from a variety of sources; draw valid conclusions and support them with evidence and examples, and addressing opposing viewpoints. **PO6: Research-related skills**: A sense of inquiry and capability for asking relevant/appropriate questions, problem arising, synthesising and articulating; Ability to recognise cause-and-effect relationships, define problems, formulate hypotheses, test hypotheses, analyse, interpret and draw conclusions from data, establish hypotheses, predict cause-and-effect relationships; ability to plan, execute and report the results of an experiment or investigation **PO7: Cooperation/Team work:** Ability to work effectively and respectfully with diverse teams; facilitate cooperative or coordinated effort on the part of a group, and act together as a group or a team in the interests of a common cause and work efficiently as a member of a team **PO8: Scientific reasoning**: Ability to analyse, interpret and draw conclusions from quantitative/qualitative data; and critically evaluate ideas, evidence and experiences from an open-minded and reasoned perspective. **PO9: Reflective thinking**: Critical sensibility to lived experiences, with self awareness and reflexivity of both self and society. **PO10 Information/digital literacy:** Capability to use ICT in a variety of learning situations, demonstrate ability to access, evaluate, and use a variety of relevant information sources; and use appropriate software for analysis of data. **PO 11 Self-directed learning**: Ability to work independently, identify appropriate resources required for a project, and manage a project through to completion. **PO 12 Multicultural competence:** Possess knowledge of the values and beliefs of multiple cultures and a global perspective; and capability to effectively engage

	in a multicultural society and interact respectfully with diverse groups. **PO 13: Moral and ethical awareness/reasoning**: Ability toe mbrace moral/ethical values in conducting one's life, formulate a position/argument about an ethical issue from multiple perspectives, and use ethical practices in all work. Capable of demonstrating the ability to identify ethical issues related to one‟s work, avoid unethical behaviour such as fabrication, falsification or misrepresentation of data or committing plagiarism, not adhering to intellectual property rights; appreciating environmental and sustainability issues; and adopting objective, unbiased and truthful actions in all aspects of work. **PO 14: Leadership readiness/qualities:** Capability for mapping out the tasks of a team or an organization, and setting direction, formulating an inspiring vision, building a team who can help achieve the vision, motivating and inspiring team members to engage with that vision, and using management skills to guide people to the right destination, in a smooth and efficient way. **PO 15: Lifelong learning:** Ability to acquire knowledge and skills, including „learning how to learn‟, that are necessary for participating in learning activities throughout life, through self-paced and self-directed learning aimed at personal development, meeting economic, social and cultural objectives, and adapting to changing trades and demands of work place through knowledge/skill development/re skilling.
Programme Specific Outcomes:	On successful completion of Bachelor of Physics with Computer Applications programme, the student should be able to: **PSO1: Disciplinary Knowledge:** Understand the fundamental principles, concepts, and theories related to physics and computer science. Also, exhibit proficiency in performing experiments in the laboratory. **PSO2: Critical Thinking:** Analyse complex problems, evaluate information, synthesize information, apply theoretical concepts to practical situations, identify assumptions and biases, make informed decisions and communicate effectively **PSO3: Problem Solving:** Employ theoretical concepts and critical reasoning ability with physical, mathematical and technical skills to solve problems, acquire data, analyze their physical significance and explore new design possibilities. **PSO4: Analytical & Scientific Reasoning:** Apply scientific methods, collect and analyse data, test hypotheses, evaluate evidence, apply statistical techniques and use computational models. **PSO5: Research related skills:** Formulate research questions, conduct literature reviews, design and execute research studies, communicate research findings and collaborate in research projects. **PSO6: Self-directed & Lifelong Learning:** Set learning goals, manage their own learning, reflect on their learning, adapt to new contexts, seek out new knowledge, collaborate with others and to continuously improve their skills and knowledge, through ongoing learning and professional development, and contribute to the growth and development of their field.

PO/PSO	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
PO1	✓					
PO2		✓				
PO3			✓			
PO4				✓		
PO5					✓	
PO6						✓

2. Highlights of the Revamped Curriculum:

- Student-centric, meeting the demands of industry & society, incorporating industrial components, hands-on training, skill enhancement modules, industrial project, project with viva-voce, exposure to entrepreneurial skills, training for competitive examinations, sustaining the quality of the core components and incorporating application oriented content wherever required.
- The Core subjects include latest developments in the education and scientific front, advanced programming packages allied with the discipline topics, practical training, devising statistical models and algorithms for providing solutions to industry / real life situations. The curriculum also facilitates peer learning with advanced statistical topics in the final semester, catering to the needs of stakeholders with research aptitude.
- The General Studies and Statistics based problem solving skills are included as mandatory components in the 'Training for Competitive Examinations' course at the final semester, a first of its kind.
- The curriculum is designed so as to strengthen the Industry-Academia interface and provide more job opportunities for the students.
- The Statistical Quality Control course is included to expose the students to real life problems and train the students on designing a mathematical model to provide solutions to the industrial problems.
- The Internship during the second year vacation will help the students gain valuable work experience, that connects classroom knowledge to real world experience and to narrow down and focus on the career path.
- Project with viva-voce component in the fifth semester enables the student, application of conceptual knowledge to practical situations. The state of art technologies in conducting a Explain in a scientific and systematic way and arriving at a precise solution is ensured. Such innovative provisions of the industrial training, project and internships will give students an edge over the counterparts in the job market.
- State-of Art techniques from the streams of multi-disciplinary, cross disciplinary and inter disciplinary nature are incorporated as Elective courses, covering conventional topics to the latest DBMS and Computer software for Analytics.

Value additions in the Revamped Curriculum:

Semester	Newly introduced Components	Outcome / Benefits
I	**Foundation Course** To ease the transition of learning from higher secondary to higher education, providing an overview of the pedagogy of learning abstract Statistics and simulating mathematical concepts to real world.	• Instil confidence among students • Create interest for the subject
I, II, III, IV	**Skill Enhancement papers** (Discipline centric / Generic / Entrepreneurial)	• Industry ready graduates • Skilled human resource • Students are equipped with essential skills to make them employable
		• Training on Computing / Computational skills enable the students gain knowledge and exposure on latest computational aspects
		• Data analytical skills will enable students gain internships, apprenticeships, field work involving data collection, compilation, analysis etc.
		• Entrepreneurial skill training will provide an opportunity for independent livelihood • Generates self – employment • Create small scale entrepreneurs • Training to girls leads to women empowerment
		• Discipline centric skill will improve the Technical knowhow of solving real life problems using ICT tools
III, IV, V & VI	Elective papers- An open choice of topics categorized under Generic and Discipline Centric	• Strengthening the domain knowledge • Introducing the stakeholders to the State-of Art techniques from the streams of multi-disciplinary, cross disciplinary and inter disciplinary nature • Students are exposed to Latest topics on Computer Science / IT, that require strong statistical background • Emerging topics in higher education / industry / communication network / health sector etc. are introduced with hands-on-training, facilitates designing of statistical models in the respective sectors
IV	DBMS and Programming skill, Biostatistics, Statistical Quality Control, Official Statistics, Operations Research	• Exposure to industry moulds students into solution providers • Generates Industry ready graduates • Employment opportunities enhanced
II year Vacation activity	Internship / Industrial Training	• Practical training at the Industry/ Banking Sector / Private/ Public sector organizations / Educational institutions, enable the students gain professional experience and also become responsible citizens.

V Semester	Project with Viva – voce	• Self-learning is enhanced • Application of the concept to real situation is conceived resulting in tangible outcome
VI Semester	Introduction of Professional Competency component	• Curriculum design accommodates all category of learners; 'Statistics for Advanced Explain' component will comprise of advanced topics in Statistics and allied fields, for those in the peer group / aspiring researchers; • 'Training for Competitive Examinations' –caters to the needs of the aspirants towards most sought - after services of the nation viz, UPSC, ISS, CDS, NDA, Banking Services, CAT, TNPSC group services, etc.
Extra Credits: **For Advanced Learners / Honors degree**		• To cater to the needs of peer learners / research aspirants

Skills acquired from the Courses	Knowledge, Problem Solving, Analytical ability, Professional Competency, Professional Communication and Transferrable Skill

Consolidated Semester wise and Component wise Credit distribution

Parts	Sem I	Sem II	Sem III	Sem IV	Sem V	Sem VI	Total Credits
Part I	3	3	3	3	-	-	12
Part II	3	3	3	3	-	-	12
Part III	13	13	13	13	22	18	92
Part IV	4	4	3	6	4	1	22
Part V	-	-	-	-	-	2	2
Total	23	23	22	25	26	21	**140**

***Part I. II, and Part III components will be separately taken into account for CGPA calculation and classification for the under graduate programme and the other components. IV, V have to be completed during the duration of the programme as per the norms, to be eligible for obtaining the UG degree.**

Methods of Evaluation		
Internal Evaluation	Continuous Internal Assessment Test	25 Marks
	Assignments	
	Seminars	
	Attendance and Class Participation	
External Evaluation	End Semester Examination	75 Marks
	Total	100 Marks
Methods of Assessment		
Recall (K1)	Simple definitions, MCQ, Recall steps, Concept definitions	
Understand/ Comprehend (K2)	MCQ, True/False, Short essays, Concept explanations, Short summary or overview	
Application (K3)	Suggest idea/concept with examples, Suggest formulae, Solve problems, Observe, Explain	
Analyze (K4)	Problem-solving questions, Finish a procedure in many steps, Differentiate	
	between various ideas, Map knowledge	
Evaluate (K5)	Longer essay/ Evaluation essay, Critique or justify with pros and cons	
Create (K6)	Check knowledge in specific or offbeat situations, Discussion, Debating or Presentations	

B.Sc. PHYSICAL EDUCATION
Programme Structure

I SEMESTER									
Part	**Course Code**	**Courses**	**Title of the Paper**	**T/P**	**Cr.**	**Hrs./ Week**	**Max. Marks**		
							Int.	**Ext.**	**Total**
I	2311T	T/OL	**தமிழ் இலக்கிய வரலாறு**-I /other Language	T	3	6	25	75	100
II	2312E	E	General English-I	T	3	6	25	75	100
III	23BPE1C1	CC- 1	Theory–I: Foundation of Physical Education and Sports	T	4	5	25	75	100
	23BPE1C2	CC- 2	Theory - II: Anatomy and Physiology	T	4	4	25	75	100
	23BPEA1	Generic Elective (Allied)	Fitness and Wellness	T	3	3	25	75	100
	23BPEAP1		Practical –Fitness and Wellness	P	2	2	25	75	100
IV	23BPE1S1	SEC -I	Care and Prevention of Sports Injuries	T	2	2	25	75	100
	23BPE1FC	FC	History and Foundation of Physical Education	T	2	2	25	75	100
			Total	-	**23**	**30**	**200**	**600**	**800**
II SEMESTER									
I	2321T	T/OL	**தமிழ் இலக்கிய வரலாறு**-II /other Language-II	T	3	6	25	75	100
II	2322E	E	General English-II	T	3	6	25	75	100
III	23BPE2C1	CC-3	Organisation Administration and Methods in Physical Education	T	4	5	25	75	100
	23BPE2C2	CC-4	Track & Field - I (Ground marking)	T	4	4	25	75	100
	23BPEA2	AL - IB	Theories of Major Games – I (Basket Ball, Volley ball & Foot ball)	T	3	3	25	75	100
	23BPEAP2	AL - IB	Practical – Respective Allied Theory Course	P	2	2	25	75	100
IV	23BPE2S1	SEC -II	Recreation	T	2	2	25	75	100
	23BPE2S2	SEC -III	Sports Journalism	T	2	2	25	75	100
			Naan Mudhalvan Course						
			Total		**23**	**30**	**200**	**600**	**800**

III SEMESTER									
I	2331T	T/OL	**தமிழக வரலாறும் பண்பாடும்** / Other Languages-III	T	3	6	25	75	100
II	2332E	E	General English-III	T	3	6	25	75	100
III	23BPE3C1	CC-5	Yoga Education	T	3	3	25	75	100
	23BPE3C2	CC-6	Scientific Principles of Sports Training	T	4	4	25	75	100
	23BPE3C3	CC-7	Test and Measurement & Evaluation	T	4	4	25	75	100
	23BPEA3	AL -IIA	Theories of Major Games-II (Cricket, Hand Ball & Hockey) Track Events- II (Sprint, Middle, Distance, Long Distance, Relay, Hurdle)	T	3	3	25	75	100
	23BPEAP3	AL -IIA	Practical – Respective Allied Theory Course	P	2	2	25	75	100
IV	233AT/ 23BPE3S1	SEC -IV	Adipadai Tamil 1/Entrepreneurship	T	2	2	25	75	100
			Naan Mudhalvan Course						
			Total		**24**	**30**	**215**	**585**	**800**
IV SEMESTER									
I	2341T	T/OL	**தமிழும் அறிவியலும்** /Other Languages -IV	T	3	6	25	75	100
II	2342E	E	General English – IV	T	3	6	25	75	100
III	23BPE4C1	CC-8	Exercise Physiology	T	3	3	25	75	100
	23BPE4C2	CC-9	Theories of Major Games - III	T	3	3	25	75	100
	23BPE4P1	CC-10	Practical –III: Major Games (Kabbadi, Ball Badminton & Kno-Kho) Field- III Jumping Event (Long Jump, High jump, Triple Jump & Pole- vault)	P	3	3	25	75	100
	23BPEA4	AL - IIB	Sports Talent Identification	T	3	3	25	75	100
	23BPEAP4	AL - IIB	Practical – IV – Respective Allied Theory Course	P	2	2	25	75	100
IV	**234AT/ 23BPE4S1**	SEC - V	Adipadai Tamil 2/ Small Business Management	T	2	2	25	75	100
	23BES4	EVS	Environmental Studies	T	2	2	25	75	100
			Naan Mudhalvan Course						
			Total		**24**	**30**	**225**	**675**	**800**
V SEMESTER									
III	23BPE5C1	CC-11	Sports Biomechanics and Kinesiology	T	4	5	25	75	100
	23BPE5C2	CC-12	Sports Psychology and Sociology	T	4	5	25	75	100
	23BPE5C3	CC-13	Computer Application in Physical Education	T	4	5	25	75	100
	23BPE5C4	CC-14	Research and Elementary Statistics	T	4	5	25	75	100
IV	23BPE5E1	DSE 1	Sports Medicine and Physiotherapy	T	3	4	25	75	100
	23BPE5E2	DSE 2	Sports Nutrition	T	3	4	25	75	100
	23BVE5		Value Education	T	2	2	25	75	100
	23BPE5I/ 23BPE5IV/ 23BPE5FV		Internship/Industrial visit/Field Visit	PR	2	.	25	75	100
			Naan Mudhalvan Course						
			Total		**26**	**30**	**200**	**600**	**800**

VI SEMESTER									
III	23BPE6C1	CC - 15	Theory I: Sports Management	T	4	6	25	75	100
	23BPE6C2	CC-16	Theory II: Health Education and First Aid	T	4	6	25	75	100
	23BPE6C3	CC-17	Movement Education and Primary Physical Education	T	4	6	25	75	100
	23BPE6E1	DSE	Theory III: Theories of Major Games - IV (Badminton, Boxing & Tennis) Field Events IV -Throwing - (Shot-put, Discuses, Javelin)	T	3	5	25	75	100
	23BPE6EP	DSE	Practical IV : Theories of Major Games-IV(Badminton, Boxing & Tennis) Field Events IV -Throwing - (Shot-put, Discuses, Javelin)	P	3	5	25	75	100
IV	23BPE6S1	PCS	Essential Reasoning and Quantitative Aptitude	T	2	2	25	75	100
	23BEA6		Extension Activity	P	1	-	25	75	100
			Naan Mudhalvan Course						
					21	**30**	**175**	**525**	**700**
			Grand Total		**141**	**-**	**1215**	**3585**	**4800**

- TOL-Tamil/Other Languages,
- E – English
- CC - Core course –Core competency, critical thinking, analytical reasoning, research skill & teamwork
- Generic Elective (Allied)
- SEC-Skill Enhancement Course - Exposure beyond the discipline (Value Education , Entrepreneurship Course, Computer application for Science, etc.,
- FC-Foundation Course
- T- Theory, P-Practical

Chairperson Details: Dr.K.Usha Rani, Department of Physical Education and Health Science, Alagappa University, Karaikudi. Mobile No. 8220778095

Semester – I				
23BPE1C1	**CORE COUSE - I** **FOUNDATION OF PHYSICAL EDUCATION AND SPORTS**	**T/P**	**Credits**	**Hours**
		T	**4**	**5**
Unit-I	Meaning and Definition of Education and Physical Education – Need, Nature and Scopeof Physical Education – Physical Training and Physical Culture.			
Unit-II	Aim and Objectives of Physical Education – Development of Physical , Cognitive, Neuro-muscular, Affective, Social, Emotional, Spiritual and Recreational – Theories of Learning – Laws of Learning.			
Unit-III	Scientific basis of Physical Education – Contribution of Allied Sciences – Anatomy, Physiology, Biomechanics, Kinesiology, Sports Medicine, Psychology, Sociology and Computer Science.			
Unit-IV	History of Physical Education in Sparta and Athens – Olympic Games: Ancient, Modern – Origin – Organisation and conduct of the game – Olympic Flag, Torch, Oath, Emblem and Motto.			
Unit -V	Recent development in India: SAI, NSNIS, SNIPES,LNIPE, Sports Academics – Award and Scholarships: Arjuna Award, Dhronochariya Award, Rajiv Gandhi KhelaRatna Award – International and National Competitions: Asian Games, SAF, SGF, RDS and BDS.			

Books for References:

Bucher Charles A., *Foundations of Physical Education*, St. Louis the C.V. Mosby Company, 1983.

Kamlesh M.L., Physical Education : *Facts and Foundation*, New Delhi, P.B. Publications, 1988.

Thirunarayanan, C. and Hariharan, S., *Analytical History of Physical Education*, Karaikudi, C.T. & S.H., Publications, 1990.

Sharma, O.P., *History of Physical Education*, New Delhi, Khel Shitya Kendra, 1998.

Wakharkar D.G., *Manual of Physical Education in India*, Pearl Publicatons Pvt. Ltd., Bombay, 1967. Wuest, Deborah, A. and Charles A. Bucher, *Foundations of Physical Education and Sport*, New Delhi
: BL. Publication Pvt., Ltd.

Wellman and Cowell, *Philosophy and Principles of Physical Education*, A marvati: Suyog Prakasan.Jackson Sharman/ *Modern Principles of Physical Education*, New York: A.A.Barnes & Co.

Khan, Eraj Ahmed, *History of Physical Education*, Patna Scientific Book Co.

Semester - I				
23BPE1C2	**Core Course – I** **ANATOMY AND PHYSIOLOGY**	**T/P** **T**	**Credits** **4**	**Hours** **4**
Unit-I	Meaning of Anatomy and Physiology – Need and Scope of Anatomy and Physiology in Physical Education – Cell – Structure and Functions – Tisuues – Types and Function-Muscular System – Types of Muscles: Skeletal Muscle,Cardiac Muscle, and smooth muscle.			
Unit-II	Skeleton : Meaning and Functions – Bones: Classification and Functions – General Features of Various Bones: Vertebral Column, Pelvic Bone, Radius and Ulna, Sacbula, Femer and Bones of Skill – Joints: Definition and Classification of Joints			
Unit-III	Nervous System : Neuron – Central Nervous System(CNS): Brain and Spinal Cord – Peripheral Nervous System (PNS): cranial Nerves and Spinal Nerves – DigestiveSystem : Structure & Functions – Digestive Process – Liver, Pancreas – Functions			
Unit-IV	Respiratory System – Respiration – Respiratory Track – Alveoli – Lungs: Structure & Functions – Gas Exchange – Vital Capacity. Circulatory System – Heart: Structure & Functions – Cardiac Cycle, CardiacOutput, Stroke Volume.			
Unit -V	Endocrine Glands – Functions of Endocrine Glands: Pituitary, Thyroid,Para-Thyroid, Thymus, Pancreas, Adrenal & Sex – their role, in growth, development and regulations of body functions.			

Books for References:

Guyton A.C., 1969, *Functions of the Human Body*, London, W.B. Saunders Company,
Dr. V. Selvam *"Anatomy and Physiology"* Bodinayakanur.
Dr. N.M. MUTHAYYA *"Physiology"* J.J. Publications, Madurai.SEELEY
et. all *Anatomy and Physiology* Mc Graw Hill.
Srivastava et. 1976, All, Text Book of Practical Physiology, Calcutta Scientific Book Agency,

Semester - I				
23BPE1S1	**Skill Enhancement Course (SEC)** **CARE AND PREVENTION OF SPORTS INJURIES**	**T/P** **T**	**Credits** **2**	**Hours** **2**
Unit-I	**Types of Sports and Injuries** Definition and meaning of care and prevention of sports Injuries – Importance of care and prevention of sports Injuries – Types of Sports – Injuries - Posture - Normal curve of the spine and its utility –Kyphosis - Lordosis, Deviations in posture - Kypho - lordosis, Flat back – Scoliosis - Round shoulders - Knock knee - Bow leg - Flat foot - Causes of deviations –Curative Exercise			
Unit-II	**Corrective Physical Education** Definition and objectives of Corrective Physical Education - Posture and body mechanics - Standards of standing posture - Values of good posture - Drawbacks and causes of bad posture - Postural tests-Examination of the spine.			
Unit-III	**Therapeutic Exercise** Passive Exercise - Active Exercise - Assisted Exercise - Resisted exercise for Rehabilitation – Strengthening Exercise – With Equipment – Without Equipment			
Unit-IV	**Massage** Brief history of massage - Massage as an aid for relaxation - Points to be considered in giving massage – Physiological – Chemical - Psychological effects of massage - Indication/contra indication of massage - Classification of the manipulations used in massage and their specific uses on the human body - Stroking manipulation - Effleurage - Pressure manipulation - Petri sage Kneading (finger Kneading - circular) Ironing Skin Rolling - Percussion manipulation – Tapotement - Hacking Clapping – Beating – Pounding – Slapping - Cupping – Poking - Shaking Manipulation - Deep massage.			
Unit -V	**Sports Injuries Care and Treatment and Supports** Principles pertaining to the prevention of Sports injuries - Care and treatment of Exposed and unexposed injuries in sports - Principles of apply cold and heat - Infra red rays - Ultrasonic. Therapy- Short wave diotherapy - Principles and techniques of Strapping and Bandages.			

Books for References:

1. Dohenty .J. Meno.wetb, Moder D (2000)Track & Field, EngleWood Cliffs, Prentice Hal Inc.Lace, M.V.(1951) Massage and Medical Gymnastics, London: J & A Churchill Ltd. .
2. Mc Ooyand Young(1954) Test and Measurement, New York: Appleton century. Naro, C.L.(1967)
3. Manual of Massage and, Movement, London: Febra and Febra Ltd.Rathbome, J.I. (1965) Corrective Physical Education, London: W.B. Saunders &Co.
4. Staffordand Kelly,(1968) Preventive and Corrective Physica1 Education, New York. The Ronald Press Co.

FOUNDATION COURSE

Semester - I				
23BPE1FC	**HISTORY AND FOUNDATION OF PHYSICAL EDUCATION**	**T/P**	**Credits**	**Hours**
		T	**2**	**2**
Unit-I	**HISTORY AND FOUNDATION OF PHYSICAL EDUCATION** History Of Physical Education - Ancient Greece - Introduction and difference between Sparta, Athens - Olympic Games: Ancient and Modern - Asian Games - SAF Games, Commonwealth Games - Contribution of Y.M.C.A. - Sports Authority of India			
Unit-II	**FOUNDATION OF PHYSICAL EDUCATION** Meaning, Objectives & Aims of Physical Education - Relationship of Physical Education with general education - Relationship of Physical Education to Health Education & Recreation - Meaning of the terms: Physical culture, Physical Training.			
Unit-III	**BIOLOGICAL PRINCIPLE OF PHYSICAL EDUCATION** Concept of Growth and Development - Difference between Growth and Development - Meaning and Concept of Heredity and Environment - role of Heredity and Environment on Growth and Development - Chronological Anatomical and Physiological Ages - Difference between male and female structures and characteristics.			
Unit-IV	**PSYCHOLOGICAL BASIS OF PHYSICAL EDUCATION** Psycho - Physical unity of human organism - Definition, nature and Types of Learning – Meaning and Types of Transfer of Training - Importance of Transfer of Training in learning physical activities.			
Unit -V	**SOCIOLOGICAL BASIS OF PHYSICAL EDUCATION** Meaning and Definition of sociology and Sports Sociology - Importance of Physical education and Sports in society - Physical Education and sports as a social Institution – Sports and games enhance culture and heritage - Meaning and types of Group - behavior - Factors affecting group behavior			

Books for References:

1. Khan, E.A. History of Physical Education, Scientific Book Company. Patna, 1964
2. Barow, H.M. Man and His Movement-Principles of Physical Education, Philadelphia, Lea and Febiger, 1971.
3. Bucher, C.A. Foundations of Physical Education, St. Louis; C.V. Mosby Co., 1972.
4. Dalen, V. A World History of Physical Education, Prentice Hall Inc.

Semester - II				
Course Code 23BPE2C1	**Core Course – III** **ORGANIZATION ADMINISTRATION AND METHODS IN PHYSICAL EDUCATION**	**T/P** **T**	**Credits** **4**	**Hours** **5**
Unit-I	Meaning and Importance of Organization and administration – Scheme of Physical Education in: Schools, Colleges, Universities, Districts State and National Level.			
Unit-II	Facilities – Track, Play Grounds, Gymnasium, Swimming Pole – Layout of Play fields (Basketball, Kabbadi, Hockey, Volleyball, Cricket) Care and Maintenance of Play fields.			
Unit-III	Method in Physical Education – meaning – Factors influencing Method Presentation Technique – Teaching Aids – Principles of Class Management. Teaching of activities: Marching, Calisthenics, light apparatus(Wands, Hooks, Poles) Lezium, Folk dance – Minor Games – Lead up activities.			
Unit-IV	Teaching activities of minor games, major games track and field, Yogic Practice, Suryanamaskar, Calisthenics, Light apparatus, Rhythmic activities, Commands, Marching.			
Unit -V	Tournaments – Types of Tournament, Knock out, League, Combination Tournament, Methods of drawing Fixtures.			

Books for References:

Kamlesh M.L. Scientific "Art of Teaching Physical Education" New Delhi Metropolitan

1994. Thiru. Narayanan C and Harishara Sharma "Methods in Physical Education"

Karailkudi CJ and
S.H. 1989

Joseph. P.M. "Organization of Physical Education".

Semester - II				
Corse Code	**Core Course – III**	**T/P**	**Credits**	**Hours**
23BPE2C2	**Theory - TRACK & FIELD – I**	**T**	**4**	**4**
Track & Field – All Track and Field Events (Ground Marking)				
Unit-I	Layout of Standard Track – 400mts, Non standard Track – 200mts with all marking.			
Unit-II	Marking for sprint Event, Middle distance, Hurdle – Men and women.			
Unit-III	Marking for Long distance, Relay 4x100mts, 4x400mts,, walking, marathon, Mini marathon.			
Unit-IV	Marking for Field Events – Shot put - discuss – Javelin – Hammer through.			
Unit -V	Marking for jumps – High Jump – Long jump – Triple jump – Pole – vault.			

Books for References:

Conling David, Athletics, London, Robert Hale, 1980

Prabhakar Eric, The way to Athletic Gold, Madras East – West press Pct. Ltd., 1995

Dr.P.Mariayyah, Football, Sports Publications, Raja Street, Coimbatore.

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

Dr. P.Mariayyah, Volleyball, Sports Publications, Raja Street,

Coimbatore.

Dr. P.Mariayyah, Track and Field, Sports Publications, Raja Street, Coimbatore.

Thompson Ganagon, Play Better Soccer in all colour, W.B.Saubders Company, 1972.

DHanaraj V.Hubert, Volleyball – A Modern Approach, Patiala, Sainsoris, 1991.

Semester - II				
Course Code 23BPE2S1	**RECREATION**	**T/P**	**Credits**	**Hours**
		T	**2**	**2**
Unit-I	**INTRODUCTION TO RECREATION** Recreation: Definition, scope and significance- Philosophy and objective – Relationship of play, work and leisure - Theories of play and recreation - Types of recreation – indoor, outdoor.			
Unit-II	**HISTORICAL DEVELOPMENT OF RECREATION** Recreation - primitive culture – Greek period, Roman period and middle ages. Development of Recreation in U.S.A - Recreation in India since Independence			
Unit-III	**INFLUENCE OF RECREATION IN SOCIAL INSTITUTIONS** Various agencies which provide recreation in India. Family, Educational institutions, Community/ Cultural Religious organizations. Qualities & qualifications of a good recreation leader.			
Unit-IV	**PROGRAMME PLANNINGIN RECREATION** General Principles of programme construction. Types of Recreational activities – indoor and outdoor games Arts and Crafts.			
Unit -V	**Hobbies** Introduction to hobbies. Types of hobbies-drama, music, aquatics, dancing, nature study and hiking			

Books for References:

1. Kelly,JR(1982).*Leisure.*EnglwoodCliffsN.J:PrenticeHallInc.
2. Kran,R.G.(1964).*Recreationandtheschools.*NewYork:Macmeloncompany.

Recreationareas:TheirDesignandequipments.(1958)NewYork:RonalPress

Semester - II				
Course Code 23BPE2S2	**SPORTS JOURNALISM**	**T/P**	**Credits**	**Hours**
		T	**2**	**2**
Unit-I	Ethics of Journalism and sports Bulletins - Canons of Journalism - News, Informationand Ideas - Journalism and sports Education			
Unit-II	Structure of sports Bulletin - Compiling a bulletin - Types of Bulletin - Hourly bulletinand special bulletin - External bulletins of Recreation in U.S.A - Recreation in India since Independence			
Unit-III	Sports as an integral part of Physical Education - Sports organization and Sports journalism - General news reporting and Sports reporting			
Unit-IV	Brief review of Olympic Games, Asian Games, Common Wealth Games and Indian Traditional Games.			
Unit -V	Mass Media in Journalism - Radio and T.V Commentary - Running Commentary onthe radio - Sports experts comments - Sports reviews for the Radio and T.V.			

Books for References:

1. Kelly,JR(1982).*Leisure.*EnglwoodCliffsN.J:PrenticeHallInc.
2. Kran,R.G.(1964).*Recreationandtheschools.*NewYork:Macmeloncompany.

Recreationareas:TheirDesignandequipments.(1958)NewYork:RonalPress

Semester - III				
23BPE3C1	**Core Course – V** **YOGA EDUCATION**	**T/P** **T**	**Credits** **3**	**Hours** **3**
Unit-I	Yoga: Meaning, Definition – Concept of Yoga – Aim and Objectives of Yoga – History of Yoga – Systems of yoga : Bhakthi yoga – Jnana yoga – Hatha yoga – Karma yoga – Kundalini yoga – mantra yoga – Raja yoga – Ashtanga yoga : Yama – Niyama – Asana – Pranayama – Pratyahara – Dharana – Dhayana – Samathi.			
Unit-II	Asanas: Meaning and Definition – Classification of asanas: Meditative, Relaxative, Cultural – Guidelines for practicing asanas – Various types of asanas and their benefits – Difference between physical exercise and yogic asanas.			
Unit-III	Pranayama: Meaning and Definition – Concept of Pranayama – Nadis – Ida nadi – Pingala Nadi – Sushumna nadi – Controlling of breath: Puraka – Kumbhaka – Rechaka – Guidelines for practicing Pranayama – Benefits of Pranayama – Types of Pranayama: Nadi Suddhi – Nadi Shodhana – Surya Bhedana – Kapalabhati – Bhastrika – Sitkari – Sitali – Bhramari – Ujjayi. Bandhas: Meaning and Definition – Types: Jallandra – Uddiyana – Mula.			
Unit-IV	Kriyas – Types of Kriyas – Procedures and Benefits of: Kapalabhati – Tratakka – Neti (Jala neti, Sutra neti) – Dhauti; Vamana Dhauti – Vastra Dhauti – Nauli – Bhasti. Mudra: Meaning – Types : Chin Mudra – Chinmaya Mudra – Yoga Mudra – Brahma Mudra – Appana Mudra.			
Unit -V	Meditation: Meaning and Definition – Concept of meditation – Types of meditation – Physiological benefits of meditation – yoga and competition – Principles of yogic Diet – Integration of Yoga with modern education – yoga institutions in India and Abroad – General Yogic Schedule.			

Books for References:

Iyengar B.K.S. (1989), Light on Yoga. London: Unwin Publishers New Delhi.

Chandrasekaran K.(1999) Sound Health through Yoga, Sedapatti: Prem Kalyan

Publicaions.Moorthy, A.M. and S. Alagesan(2004), Yoga Therapy, Coimbatore

Swami Sivananda (1983), Practical Lessons I Yoga, Shivananda Nagar : The Devine LifeSociety.

Semester - III				
Course Code 23BPE3C2	**Core Course – VI SCIENTIFIC PRINCIPLES OF SPORTS TRAINING**	**T/P**	**Credits**	**Hours**
		T	**4**	**4**
Unit-I	Introduction–Meaning and Definition of Sports Training – Principles of Sports Training.			
Unit-II	Training Load and Recovery – Factors of Load – Load intensity, Load Volume – judgement of Load – Relationship between Load and Adaptation Over Load.			
Unit-III	Training of Motor qualities: Strength : Forms – Means and Methods to improve strength Speed : Forms – Means and Methods to improve speed Endurance : Forms – Means and Methods to improve Endurance Flexibility : Forms – Means and Methods to improve flexibility. Coordination : Forms – Means and Methods to Improve Coordination.			
Unit-IV	Training plan – Periodisation – stages of periodisation – Types of Periodisation – Preparatory period – Competition period – Transitional period – long term and shortterm plans – Cyclic process of training.			
Unit -V	Techniques preparation – Aims to techniques in sports – Fundamentals and methods for development of techniques in sports – stages of techniques development. Aims of Tactics – Methods of tactical development.			

Books for References:

Hardayal Singh(1991) Science of sports Training, New Delhi: DVS

Publications.John Bunn, Scientific Principles of Coaching.

Miler, Fundamental of Track and Field Coaching.

Semester - III				
Course Code 23BPE3C3	**Core Course – VII TEST AND MEASUREMENT & EVALUATION**	**T/P**	**Credits**	**Hours**
		T	**3**	**3**
Unit-I	Meaning of Test, Measurement and Evaluation – Brief History of Test, Measurement and Evaluation – Need and Importance of measurement and Evaluation in Physical.			
Unit-II	Classification of Test – Standardized and Teacher Made test - Object and subject Tests – construction of Knowledge's test and skill Test – Administration of Test– Dutiesduring testing – Duties after Testing.			
Unit-III	Criteria of test selection – Validity, reliability, Objectivity, Norms, Administrative feasibility – Strength test – Bend Knee sit ups test. Flexibility test – Sit and reach test – Speed test – 50 mts run – Cardio respiratory Endurance – Cooper 2 minute Run /Walk test. Explosive strength test – Standing Broad Jump.			
Unit-IV	AAHPERD Youth Fitness test.JCP test Barrow motor ability testHarward step test Magaia – Kalamen power test			
Unit -V	Test of Specific sport skills Badminton : French Short Serve Test Basketball : Johnson Basketball Ability test Hockey : Hendry Friedal Field Hockey test. Soccer : Mc Donald Volleying Soccer test.Tennis Boer : Miller Tennis test Volleyball : Helmen Volleyball test			

Books for References:

Safrit Margarat J Measurement in Physical Education and Exercises Science, St Louis Times Morror Mos by college publishing.

Bosco James Measurement and Evaluation in Physical Education and Sports New Jersy Prenstice Hall in 1983.

Barry L. Johnson, Jack K. Nelson and Measurement for Evaluation in Physical education the Surjeet Publications.

A.K.Gupta Tests&Measurement in Physical Education sports publication New Delhi – 52

A Practical applied to measurement in Physical Education – Horold M. Borrow.

Semester - IV				
Course Code 23BPE4C1	**Core Course –VIII EXERCISE PHYSIOLOGY**	**T/P**	**Credits**	**Hours**
		T	**3**	**3**
Unit-I	Metabolism and Energy Transfer :- Metabolism – Energy – Unit of measuring energy – Sources of energy – Adenosine Triphospate – Phosphagen system – Anacroble metabolism – Aerobic metabolism – Fat metabolism – protin metabolism – energy metabolism during rest, exercise and recovery – oxygen debt – oxygen deficit.			
Unit-II	**MORPHOLOGICAL FEATURE OF SKELETAL MUSCLE AND FUNCTION.** Structure of the skeletal muscle – Chemical composition – Sliding filament theory of muscular contraction – muscle fiber types – fiber distribution and performance – All or none principle – muscle tone – Types of muscular contraction – Staircase Phenomenon or treppe – Heat production in the muscle – Residual muscle soreness – Effect of Training on muscular system.			
Unit-III	**RESPIRATORY SYSTEM AND EXERCISE:** Mechanism of breathing – Pulmonary ventilation / minute ventilation during rest and exercise – control of ventilation – Lung volumes and capacities - Effect of exercise on Respiratory system.			
Unit-IV	**CARDIOVASCULAR SYSTEM AND EXERCISE:** Structure properties of the heart and cardiac cycle, cardiac output during rest and exercise Stroke volume and heart rate – control of heart rate – Heart rate response to exercise on stroke volume– Blood pressure – factors affecting blood pressure and heart rate – Regulation of blood flow – effect of exercise on circulatory system.			
Unit -V	**EXERCISE AND ENVIRONMENT:** Exercise and temperature regulations – Hot humid climate – Exercise and temperature regulations in cold climates – Effect of High altitude on Physical performance – Physiological adaptations to altitude – Physiological changes in under water conditions.			

Books for References:

William D.Mcarole. Frank.I Katch Victor.
Exercise Physiology Energy, Nutrition and Human performance Lea & Febiger Philade Richard

W.Bowers and Edward L. Fox – Sports Physiology Third Edition wm c Brown Publishers

Laurence E Morehouse Augustus T.Miller, JR Seventh Edition Physiology of Exercise The c.v. Mostly Company.

David H.Clarke Exercise Physiology prenties Hall, Inc: Englewood Cliffs, new jersey.Larry

G.Shaver Essentials of exercise Physiology surjeet publications.

Dr.Amrit Kumar R.Moses introduction to exercise physiology poompugar pathipagam.

Donald Health. David Reid Williams.
Man at high altitude second edition, Churchill livi gstone.

Semester - IV				
Course Code 23BPE4C2	**Core Course - IX** **THEORIES OF MAJOR GAMES – III** **(Major Games :Kabbadi, Ball Minton, Kho-Kho)** **FIELD – II Jumping Events (Long Jump, High Jump, Triple Jump and Pole vault**	**T/P** **T**	**Credits** **3**	**Hours** **3**
Unit-I	History and development of the Field Events: Field events – Jumping Events (Long Jump, High Jump, Triple Jump and Pole vault and Organizational set up in District, State and National and International level.			
Unit-II	Fundamental Skills – Lead-Up Games, Various Techniques – Selection of Athletes.			
Unit-III	Origin, History and development of the game Kabbadi, Ball Minton, Kho-Kho – International, National and State Level Organizations. Fundamental Skill – Lead Up Games – Various System of Play – Selection of Players.			
Unit-IV	Training: Warm-Up and Warm down – Technical Training – Tactical Training – Coaching Program. Rules and their Interpretation – Score Sheet – System of Officiating - Methods of Officiating - Duties of Officials.			
Unit -V	Layout of Playfield with all Measurement, Facilities and equipment and its specifications			

Books for References:

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

Conling David, Athletics, London Robert Hale 1980

Dr. P. Mariayyah Track & Field, Sports publication, Raja St. Coimbatore

Ken O. Bosen, "Track & Field Fundamental Techniques NIS Publications, Patiala.

Doherty, J. Mennath, "Modern Track & Field", Englewood cliffs, Prentice Hall. Inc., New Jersey.Wein

Harat "The Science of Hockey" London Pelham Books, 1979

Tyson Frank "The Cricket Coaching Manual", Calcutta, Rupa & Co, 1985

Semester - IV				
Course Code 23BPE4P1	**PRACTICAL – III** **THEORIES OF MAJOR GAMES – III** **(Major Games :Kabbadi, Ball Minton, Kho-Kho)** **TRACK &FIELD – II Jumping Events (Long Jump, High Jump, Triple Jump and Pole vault**	**T/P**	**Credits**	**Hours**
		P	**3**	**3**

Testing on:

1. Fundamental Skills
2. Technical Play/skill
3. Playing Ability/ skill ability / Performance
4. Officiating Techniques

Scheme of Assessment:

5. Fundamental Skill / Defensive and Offensive Skill - 35
6. Playing ability/Skill Ability / Performance - 20
7. Officiating Technique - 10
8. Record note - 10

TOTAL - 75

Books for Reference:

Conling David, Athletics, London, Robert Hale, 1980.

Prabhakar Eric, The way to Athletic Gold, Madras East – West press Pvt. Ltd., 1995.

Dr. P. Mariayyah, Football, Sports Publications, Raja Street, Coimbatore.

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

P. Mariayyah, volleyball, Sports Publication, Raja Street, Coimbatore.

Dr. P. Mariayyah, Track and Field, Sports Publications, Raja Street, Coimbatore.

Thompson William, Teaching Soccer, Delhi, Surjeet Publications 1996.

Carting Ganagon, Play Better Soccer in All Colour, W.B. Saubders Company,1972.

Dhanaraj V. Hubert, Volleyball – A Modern Approach, Patiala, Sainsoris, 1991.

Semester - V				
Course Code 23BPE5C1	**Core Course – X**	**T/P**	**Credits**	**Hours**
	SPORTS BIOMECHANICS & KINESIOLOGY	**T**	**4**	**5**
Unit-I	Meaning and Definition – aim, Need and Importance of Bio-Mechanics in the field of Physical education and sports – Types of motion-linear and angular motion – Function – air and Water resistance.			
Unit-II	Linear Kinematics – Distance and Displacement, Speed, Velocity and Acceleration and Projectile – Angular Kinematics – Angular distance and Displacement, Angular speed, Velocity and acceleration.			
Unit-III	Center of Gravity Equilibrium – Stages of equilibrium – Factors affecting – equilibrium. Centrifugal and Centripetal, Force-Direction-angle, Point of application – Lever – Principles and its types-Mechanical Advantage – Application of Levers in Physical Education & Sports.			
Unit-IV	Inertia-Mass and Weight – Force-Factors affecting force-Types of force – Work, Power and Energy-Impact and Elasticity – Newton's Law of motion.			
Unit -V	Use of the above scientific principles in: Track & Field events – Running, throwing, Jumping – Basketball, football, Volleyball.			

Book for References:

Greire millor, Paul & smith, Techniques for the analysis of Human movement lapse booksLondon 1975.

Bunn John W "Scientific Principles of coaching".

Charles "Fundamental of Sports Bio-Mechanics Techniques.Hay, James G "The Biomechanics of Sports".

T. Mc Clurg Anderson Bio Mechanics of Human Motion.

Semester - V				
Course Code 23BPE5C2	**Core Course – XI SPORTS PSYCHOLOGY & SOCIOLOGY**	**T/P**	**Credits**	**Hours**
		T	**4**	**5**
Unit-I	Meaning and Definition of Psychology and sports Psychology – Development of sports Psychology in India – Need and importance of sports Psychology in the field Physical Education and sports.			
Unit-II	Definition Motor Learning – Physical and Motor considerations – Body Build, Height and Weight, Strength, Muscular, Endurance, Flexibility, Balance Co-Ordination, Reaction time, Movement time and Reflex time Cognitive – Affeative – Psychomotor			
Unit-III	Definition of Perception – Theory of Perception Gestult Theory , Palror Theory and witkin's Theory emotional effects tension, anxiety and stress – its role in Physical education and sports.			
Unit-IV	Personality traits of sports person – composition of personality – Aggression – theoriesof Aggression – Psycho- regulative procedures. Autogenic training, yoga and Music's.			
Unit -V	Meaning , Nature and Scope of Sociology in Physical education and sports – social factors in sports – Leadership in sports spectators and fans group cohension social Integration.			

Book for References:

Alderman A.B. Psychology Behavior in sports W.B. Saundar company Saundar 1974.
Puni A.T. Sports Psychology Chanduga NIS.
Alderman Psychology Behavior

Cratty B.J. Psychology and Physical acivity. Singer
R.N. Coaching, Athletics and Physiology.

Semester - V				
Course Code 23BPE5C3	**Core Course – XII COMPUTER APPLICATION IN PHYSICAL EDUCATION**	**T/P**	**Credits**	**Hours**
		T	**4**	**5**
Unit-I	Introduction to Computer – History of Computers – Block diagram of a Computer – Input Devices, Keyboard and Monitor, Visual Display Terminal, Function Keys, Numeric Key pad, Light Pen and Mouse, Bar Codes – Out put Devices, Video Display unit – Dot Matrix Printers, Line Printers.			
Unit-II	Memory, Function of Memory, Read only Memory (ROM), Random Access Memory (RAM), Floppy Disk, Magnetic tape, Hard Disk – Central Processing Unit – Important characteristics of a computer.			
Unit-III	Software and Hardware, Machine Language, Assembly Language, High Level Language, Advantages of High Level Languages, Interpreters, Operating Systems, Basic Knowledge about different Software packages(Dbase, Spread Sheet, Word Processors)			
Unit-IV	Applications in windows – Application and document files, M.S.Dos. Clockand Calendar, Calculator, Paint, WordPad – Working with multiple applications.			
Unit -V	Practical – Windows ’98 Word PowerPoint and Excels – 100 Marks			

Book for References:

Cassel. P and Hart. M Windows 98, Techmedia , New Delhi, 1998

Norton. P, Complete Guide to Windows, BPB Publication, New Delhi, 1998Teach

Yourself Excel 97 for Windows, BPB Publication, New Delhi, 1998 Mastering

Power Point for Windows, BPB Publication New Delhi, 1996 Computer Basics,

BPBP Publications, New Delhi.

Computer Concepts and Facts, BPB Publication, New Delhi.Handbook

for Windows, Power Point and Excel.

National Institute for Computer Education, Chennai

Semester - V				
Course Code 23BPE5C4	**Core Course – XIII RESEARCH AND ELEMENTARY STATISTICS**	**T/P**	**Credits**	**Hours**
		T	**4**	**5**
Unit-I	**INTRODUCTION** Definition for Research – Need, importance and scope of research in Physical Education – Basic research – Applied research.			
Unit-II	**FORMULATION AND DEVELOPMENT OF RESEARCH PROBLEM** Location of research problem – Criteria in selecting the research problem – Hypothesis – Research proposal.			
Unit-III	**HISTORICAL RESEARCH** Definition of Historical research – Steps in historical research – Sources of Historical data-primary and secondary sources of data – Historical criticism and internal.			
Unit-IV	Definition and meaning of variables, constants, population, sample and parameter – Scales of Measurement - Nominal, Ordinal, Internal and Ratio – Definition and meaning of range, quartile deviation, mean deviation and standard Deviation – Computation of standard deviation and quartile deviation from ungrounded and grouped data- Characteristics and uses of measures of variability.			
Unit -V	Meaning and importance of percentiles – Computation of percentiles from ungrouped data and grouped and grouped data – Construction of percentiles scales – Computing percentiles in deciles and quartiles.			

References:

Clarke, David Hand Clarke H.Harrison Research process. In physical education (2nd edition) Englewood cliff, new jersey, prentice hall, Inc. 1984

Best John W.Research in Education, Englewood clifts, New jersey, prentice hall, Inc.1971

Semester - V				
Course Code 23BPE5E1	**DSE SPORTS MEDICINE AND PHYSIOTHERAPY**	**T/P**	**Credits**	**Hours**
		T	**3**	**4**
Unit-I	Common Athletic injuries and their treatment, Sprain, Strain. Types of fracture and their treatment			
Unit-II	Dislocation, Muscle cramp, Bleeding, Wound and its types, Contusion, Abrasion and Puncture wounds			
Unit-III	Meaning, Nature, Need and importance of Physiotherapy Short wave Diathermy, Microwave Diathermy, Diapulse Diathermy, Ultra Sound Waves, Infra red rays, Ultra violet rays.			
Unit-IV	Brief History of Message Classification of the Manipulations used in message the techniques and uses indication of all manipulation			
Unit -V	Rhumatic Conditions 1. Classification – Rhumatoid Arthritis 2. Spondylytis 3. A cute respiratory conditions 4. Chronic respiratory conditions 5. Conditions of the Nervous System. Introduction, Sign and Symptoms of neurological dis-orders likeParalegia, Hemiplegia, Cerebral Palsy.			

Book for References:

Thorndike, Athletic injuries.

I.B. Clayton, Text Book of Electro therapy and Action therapy.Edwin M.

Prasnet, Manual of message and Movements.

R. Foracks, Exercise Therapy.

M. V. Locs, Manual of Message.

Adish Luchwald, Physical Rehabilitation for Daily Living.

Semester - V				
Course Code 23BPE5E2	**DSE SPORTS NUTRITION**	**T/P**	**Credits**	**Hours**
		T	**3**	**4**

Unit-I	**INTRODUCTION TO NUTRITION** Definition – Meaning – Need of sports Nutrition – Essential nutrition – Energy nutrients minerals and vitamins – Water –basic four food plan - balanced diet – daily recommended allowances.
Unit-II	**CARBHOHYDRATES:** The nature of CHO – Kinds and sources of CHO – recommended intake of CHO – Role of carbohydrates in the body – energy sources – protein sparing – metabolicprimer Fuel for the central nervous system – CHO balance in exercise – Intense exercise – moderate and prolonged exercise – effect of diet on muscle glycogen – administration of oral glucose.
Unit-III	**FAT** Nature of fat – kinds and sources of fat – Recommended intake of fat – Role offat in the body – energy sources and reserve – protection and insulation – vitamin carrier and Hunger depressor – Fat Balance in Exercise – Role of fat in Glycogen Sparing – Fat rich foods. **PROTEIN** The nature of protein – kinds and sources of protein – recommended intake of protein Role of protein in the body – Protein balance in exercise – dynamics of proteinmetabolism – protein rich foods. **VITAMINS** The nature of vitamins – kinds of vitamins – Role of vitamins in the body – vitamins and exercise performance – Dietary sources – RDA – Vitamins and functions – vitamins deficiency diseases – vitamin rich foods.
Unit-IV	**MINERALS** The nature of minerals – kinds and sources of minerals – role of minerals in the body – Minerals and exercise performance – Recommended daily allowances – functions – deficiency – diseases – Dietary sources. **WATER:** Water in the body – water balance intake versus output – functions of body water – water requirement in exercise – Dehydration – Rehydration – Fluid facts for thirsty Athletes – Liquid meal.
Unit -V	**DIET PLANNING FOR SPORTS PERSON:** Diet planning – factors determining diet planning – The Athlete's diet – Nutrition before exercise – pre game meal carbo-loading for endurance exercise – Nutrition afterexercise – electrolytes and its function – sodium – Potassium Chlorine – Sodium Chloride(Salt) – Electrolyte replacement.

Book for References:

William D. Mc Arodle Frank I. Katch Victor L Katch Exercise Physiology Energy, Nutrition andHuman performance Lea & Febiger Philadelphia

Richard W. Bowers on Edward L. Fox sports Physiology Third Edition.WM. C. Brown Publishers.

Laurence E. Morehouse Augustus T. Miller, Jr. Seventh edition Physiology of exercise. The C.V.Mosby Company.

David H. Clarke exercise Physiology prentice – Hall, Inc. Englewood Cliffs, New Jersey.

Larry G. Shaver Essentials of Exercise Physiology subject publications.

Semester - VI				
Course Code 23BPE6C1	**Core Course-15 SPORTS MANAGEMENT**	**T/P**	**Credits**	**Hours**
		T	**4**	**6**
Unit-I	Meaning and Definition of Sports management – Scope of sports management – Basic principles of sports management – Functions of sports management.			
Unit-II	Personal management: Objectives – Personal policies – Personal Recruitment – Role of Personal manager. Programme management: Importance of programme development – Factors influencing programme development – Competitive sports programs.			
Unit-III	Sports marketing: Meaning – Factors involved in the marketing of sports – Market awareness – Developing a target market strategy – Quality and price of sportsproducts.			
Unit-IV	Supplies of sports Equipment: Guidelines for selection and supply of equipments – Equipment room, Equipment and supply manager – Guidelines forchecking, storing and issuing – Care and Maintenance of equipments.			
Unit -V	Accounting and Budgeting – Definition and role of accounting in sport and fitness enterprise Raising of funds – Types of Budget – Budget record maintenance – The accounting system.			

Book for References:

Bucher A. Charles (1993) Management of Physical Education and sports (10^{th} ed.,) St. Louis:Mobsy Publishing Company.

Chellaldurai. P(1999) Human Resource Management in sport and Recreation, Human kinetics.

Chakraborthy, Samiram (1988), Sports Management, Sports publications, New Delhi.

Lazer. W and Cultey. J Marketing Management. Boston Houghton Miffing Co.Ruben

Acosta Hernandez, Managing sport organizations, Human kinetics.

Semester - VI				
Course Code 23BPE6C2	**Core Course-16** **HEALTH EDUCATION AND FIRST AID**	**T/P** **T**	**Credits** **4**	**Hours** **6**
Unit-I	Meaning, Nature, Need and Scope of health Education. Factors influencing Health. State, National and International health organization. Meaning of wellness and Health – components of Health-Physical and Mental Health. Community health, Environment health, Occupational health. Personal hygiene School health programme.			
Unit-II	Communicable diseases – agent, causative organism, Incubation period-Mode of spread, sign and symptoms and preventive measure of typhoid, Cholera, Pulmonary Tuberculosis, Amoeniasus, Malaria, Tetanus, Poliomyneens, Non-Communicable diseases – Symptoms and Prevention of Peptic aulser, Maligrency, Cancer, Hyper tension, Diabetic mellius.			
Unit-III	Definition – Characterstics – Principles of Safety Education – Need for Safety Education in Physical Education. Factors affecting safety – Need and Importance of safety for preventinginjuries.			
Unit-IV	Definition and importance of first aid – first aid for Athletic injuries – sprain, strain – dislocation – cramp – fracture and its types.			
Unit -V	Sign, Symptoms and first aid for Poisoning, Drowning, Dog Bit and Burns. Types of Bleeding – Wound and its type – Contusion – Abrasion – Puncher wound – Laceration. Artificial respiration.			

Book for References:

Mangal SK and Chandra, P.C. (1979) Health and Physical Education, Ludhiana Tandon Brothers Publication.

Neiniah (1978) School Health Education, New York: Harper and Brothers

Royappa, Daisy Joseph and Govindarajulu, JK. (1972) Safety Education First

Aid to the Injured, New Delhi: St. John Ambulance Association

School Safety Policies, Washington: America Association for Health, Physical Education and Recreation.

Florio, A.E and Stafford, G.T., (1969) Safety Education, New York: Mc Graw Hill BookCompany.

William, Evans, A, (1952) Everyday Safety, Lyons and Carnahan

Miller, David. E, (1976) Occupational Safety, Health and Fire Index, New York: Marcel DekkerInc.

Semester - VI				
Course Code 2BPE6C3	**Core course- 17 Movement Education and Primary Physical Education**	**T/P**	**Credits**	**Hours**
		T	**4**	**6**
Unit-I	**Introduction to Movement Education** Meaning, Definition, Aim, Concept and Factors of Movement Education. Movement Education - Foundation for an active lifestyle, Innovative teaching ideas for movement **15** education. Fundamental Movements – Locomotor, Non- locomotor and manipulative skills of children.			
Unit-II	**Structure and Methods of Movement Education** Movement analysis - Body awareness, Spatial awareness, Qualities of Movement and Relationship of Movememts. Methods of teaching used in movement education: Direct method, Indirect method, Limitation method.			
Unit-III	**Primary Physical Education** Introduction, Aims and objectives of Primary PE, Scope and selection of activity, Principles and themes, Guidelines for good practices, Learning experiences, Promoting participation and activities			
Unit-IV	**Basic Structure and Terminology** Atheltics, Dance, Gymnastics, Games, Outdoor adventure activities, Aquatics. Developing understanding and Appreciation.			
Unit -V	**Approaches and methodologies** Variety of approaches: Direct teaching approach, Guided discovery approach. Organizing the PE lessons: Individual, peer group, team play and station teaching. Approaches to activities, suggested equipments for PE			

Book for References:

1. Polsgrove, Myles Jay, and Roch Lockyer. "Systems based model: A Holistic Approach to Developmental Movement Education." Journal of Bodywork and Movement Therapies(2018).

2. Lu, Chunlei, and Amanda De Lisio. "Specifics for generalists: Teaching elementary physical education." International Electronic Journal of Elementary Education 1.3 (2017):170-187.

3. Pope, Clive C., and Bevan C. Grant. "Student experiences in sport education."Waikato Journal of Education 2.1 (2017).

Semester - VI				
Course Code 23BPE6E1	**DSE - 3** **THEORIES OF MAJOR GAMES -IV** **(Major Games: Badminton, Boxing and Tennis)** **FIELD – IV – Throwing (Shot Put, Discuses, Javelin)**	**T/P** **T**	**Credits** **3**	**Hours** **5**
Unit-I	History of Field: Throws, Organizational set up in District, State and National level. Shot Put : Fundamental skills: Grip, Placement of shot, initial stance, Glide, Releasing, Reserve Hammer Throw: Initial stance – rotation – Releasing and Follow through. Javelin : Holding – Approach run – release – reverse.			
Unit-II	Fundamental Skills – Lead-Up Games, Various Techniques – Selection of Athletes.			
Unit-III	Origin, History and development of the game Badminton, Boxing and Tennis – International, National and State Level Organizations. Fundamental Skill – Lead Up Games – Various System of Play – Selection of Players.			
Unit-IV	Training: Warm-Up and Warm down – Technical Training – Tactical Training – Coaching Program. Rules and their Interpretation – Score Sheet – System of Officiating - Methods of Officiating - Duties of Officials.			
Unit -V	Layout of Playfield with all Measurement, Facilities and equipment and its specifications			

Books for References:

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

Conling David, Athletics, London Robert Hale 1980

Dr. P. Mariayyah Track & Field, Sports publication, Raja St. Coimbatore

Ken O. Bosen, "Track & Field Fundamental Techniques NIS Publications, Patiala.

Doherty, J. Mennath, "Modern Track & Field", Englewood cliffs, Prentice Hall. Inc., New Jersey.

Wein Harat "The Science of Hockey" London Pelham Books, 1979

Tyson Frank "The Cricket Coaching Manual", Calcutta, Rupa & Co, 1985

Semester - VI				
Course Code 23BPE6EP	**DSE - 4** **PRACTICAL- IV THEORIES OF MAJOR GAMES -IV** **(Major Games: Badminton, Boxing and Tennis)** **FIELD – IV – Throwing (Shot Put, Discuses, Javelin**	**T/P**	**Credits**	**Hours**
		P	**3**	5

GAME

General and specific conditioning exercise

Fundamental Skills

Drills for developing the skills

Team Tactics and Strategy

System of Play

Standardized skill test

Scouting of Performance

Rules

Officiating

ATHLETICS

General and specific conditioning exercise

Teaching of Skill

Practicing the Skills

Equipments

Scouting of Performance

Rules

Officiating techniques

Practicing the Skills

Equipments

Scouting of Performance

Rules

Officiating techniques

<table>
<tr><td colspan="2">Title of the Course</td><td colspan="6">ESSENTIAL REASONING AND QUANTITATIVE APTITUDE</td></tr>
<tr><td colspan="2">Paper Number</td><td colspan="6">Professional Competency Skill</td></tr>
<tr><td rowspan="2">Category</td><td rowspan="2">PCS</td><td>Year</td><td>III</td><td rowspan="2">Credits</td><td rowspan="2">2</td><td colspan="2" rowspan="2">Sub. Code
23BPE6S1</td></tr>
<tr><td>Semester</td><td>VI</td></tr>
<tr><td colspan="2" rowspan="2">Instructional Hours per week</td><td>Lecture</td><td colspan="2">Tutorial</td><td colspan="2">Lab Practice</td><td>Total</td></tr>
<tr><td>1</td><td colspan="2">1</td><td colspan="2">-</td><td>2</td></tr>
<tr><td colspan="2">Objectives of the Course</td><td colspan="6">• Develop Problem solving skills for competitative examinations
• Understand the concepts of averages , simple interest , compound interest</td></tr>
<tr><td colspan="2">UNIT-I:</td><td colspan="6">Quantitative Aptitude: Simplifications=averages-Concepts –problem-Problems on numbers-Short cuts- concepts –Problems</td></tr>
<tr><td colspan="2">UNIT-II:</td><td colspan="6">Profit and Loss –short cuts-Concepts –Problems –Time and work - Short –uts -Concepts -Problems.</td></tr>
<tr><td colspan="2">UNIT-III:</td><td colspan="6">Simple interest –compound interest- Concepts- Prolems</td></tr>
<tr><td colspan="2">UNIT-IV:</td><td colspan="6">Verbal Reasoning : Analogy- coding and decoding –Directions and distance –Blood Relation</td></tr>
<tr><td colspan="2">UNIT-V:</td><td colspan="6">Analytical Reasoning :Data sufficiency
Non-Verbal Reasoning : Analogy ,Classification and series</td></tr>
<tr><td colspan="2"></td><td colspan="6"></td></tr>
<tr><td colspan="2">Skills acquired from this course</td><td colspan="6">Studnets relating the concepts of compound interest and simple interest</td></tr>
<tr><td colspan="2">Recommended Text</td><td colspan="6">1.”Quantitative Aptitude” by R.S aggarwal ,S.Chand & Company Ltd 2007</td></tr>
<tr><td colspan="2"></td><td colspan="6"></td></tr>
<tr><td colspan="2">Website and e-Learning Source</td><td colspan="6">https://nptel.ac.in</td></tr>
</table>