

தமிழ்நாடு உடற்கல்வியியல் மற்றும் விளையாட்டுப் பல்கலைக்கழகம்

TAMIL NADU PHYSICAL EDUCATION AND SPORTS UNIVERSITY

Melakottaiyur, Chennai-127



CRITERION 2 – TEACHING LEARNING AND EVALUATION

2.6 – STUDENT PERFORMANCE AND LEARNING OUTCOMES

COs FOR ALL COURSES

**Registrar
Tamilnadu Physical Education
and
Sports University
Chennai - 600 127.**



**TAMILNADU PHYSICAL EDUCATION AND
SPORTS UNIVERSITY, CHENNAI**

DEPARTMENT OF
PHYSICAL EDUCATION

SYLLABUS, COURSE OUTCOMES AND MAPPING (CO's and PO's)

TAMILNADU PHYSICAL EDUCATION AND SPORTS UNIVERSITY

DEPARTMENT OF PHYSICAL EDUCATION

B.P.ED DEGREE PROGRAMME

BACHELOR OF PHYSICAL EDUCATION (B.P.Ed)

PROGRAM EDUCATIONAL OUTCOMES (PEOS)

- PEO-1) The Bachelor of Physical Education(B.P.Ed.) Programme is a professional Programme meant for preparing physical education teacher for high school (classes I to X) level.
- PEO-2) The curriculum and syllabus have been structured in such a way that each of the course meets one or more of the outcomes related to the skills, knowledge, and behaviors that students acquire as they progress through the program. Further, each course in the program spells out clear instructional objectives which are mapped to the student outcomes.

PROGRAMME OUTCOMES

- PO-1) Domain knowledge: Apply the knowledge of basic sciences that may be relevant and appropriate to physical education and sports sciences leading to solution of complex sports related issues and problems.
- PO-2) Problem analysis: Ability to Identify, define the actual requirements, formulate, research literature, and analyze complex physical education and sports sciences related problems to reaching substantiated conclusions.
- PO-3) Design/Development of Solutions: Ability to design, implement, and evaluate process or program to meet desired needs in the field of physical education and sport sciences.
- PO-4) Individual and team work: Ability to function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings to accomplish a common goal.
- PO-5) Ethics: Understanding of professional, ethical, legal, security, social issues and responsibilities in teaching, learning and evaluation.
- PO-6) Communication: Ability to communicate effectively among a range of audiences/ stakeholders
- PO-7) Impact: Ability to analyze the local and global impact of physical activities and sports and games on individuals, organizations and society.
- PO-8) Professional Development: Recognition of the need for and an ability to engage in continuing professional development.

PO-9) Identification of Needs: Ability to identify and analyze user needs and take them into account in the selection, creation, evaluation, and administration of physical education and sport sciences programs.

PO-10) Integration: Ability to incorporate effectively integrate Science/Technology/ IT-based solutions to applications

MAPPING OF PEO'S WITH PO'S

	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10
PEO-1	X	X	X	X	X	X	X	X	X	X
PEO-2	X			X	X			X	X	X

B15101	<p style="text-align: center;">HISTORY, PRINCIPLES AND FOUNDATIONS OF PHYSICAL EDUCATION</p> <p>Instruction : 4 Hours / Week Credits : 4 Assessment : 25+75</p>
1.	<p><u>SYLLABUS</u></p> <p style="text-align: center;">UNIT I</p> <p>Meaning and Definition of Education, Physical Education, Physical Training and Physical culture. Aims and Objectives of Physical Education. Role of Physical Education in General Education. Theories of Play. Development of Teacher Education in Physical Education. Professional Courses in Physical Education and Sports.</p> <p style="text-align: center;">UNIT II</p> <p>Physical Education in India: Pre Independence period :Vedic age, Epic age, Muslim period, British period. Contributions of YMCA College of Physical Education. Physical Education in Ancient Greece(Sparta – Athens). Physical Education in Rome, Germany, Sweden, Denmark and Russia. Origin and Developments of: Ancient Olympic Games - Modern Olympic Games – Asian Games – Common Wealth Games. National Sports Day.</p> <p style="text-align: center;">UNIT III</p> <p>Post Independence period: All India Council of Sports - National Discipline Scheme – NCC – NSO - NSS - Scouts and Guides - Sports Authority of India - Sports Development Authority of Tamil Nadu - School Games Federation of India - Association of Indian Universities - Indian Olympic Association. RDG-BDG-RDS. Awards: Arjuna award - Dronacharya award - Rajiv Gandhi Khel Rathna award.</p> <p style="text-align: center;">UNIT IV</p> <p>Biological Foundations: Biological foundations of physical education - Hereditary traits - Muscle tone -Athletic heart- Unsynchronised development - Reciprocal innervations-Reflex arc - Vital capacity. Growth and Development at various Levels of Childhood: Pre - Adolescence – Adolescence – Adulthood. Differences in boys and girls. Chronological Age- Physiological Age and Mental Age. Classification of body types: Sheldon – Krestchmer.</p> <p style="text-align: center;">UNIT V</p> <p>Learning: Meaning and Definition – Theories of Learning :Trial and Error theory, Conditioned Response theory, Insightful Learning. Laws of Learning: Law of readiness, Law of use and disuse, Law of effect, Law of Recency, Law of Frequency. Types of Learning : Primary, Associate, Concomitant; Transfer of Learning – Learning Curve .</p>

	Text Book <ol style="list-style-type: none">1. Baljit Singh (2009). Principles of Physical Education. New Delhi: Sports Publication.2. Bevinson Perinbaraj. S (2002). History of Physical Education. Karaikudi: Vinsi Publications. Bucher A.3. Charles. (1983). Foundations of Physical Education. St. Louis: Mosbyco.4. Charles A. Bucher. (1982). Foundations of Physical Education. USA: The C.V. Mosby company.5. Charles C. Cowell & William L. France.(1963). Philosophy and Principles of Physical Education. New Jersey: Prentice-Hall.																																																						
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B15102	<p align="center">ANATOMY, PHYSIOLOGY AND HEALTH EDUCATION</p> <p>Instruction : 4 Hours / Week Credits : 4 Assessment : 25+75</p>
1.	<p><u>SYLLABUS</u></p> <p align="center">UNIT I</p> <p>Meaning and Definition of Anatomy and Physiology. Cell: Structure and functions of Cell- Tissues-Organs. Skeletal System: Structure and functions of Skeletal System. Axial and Appendicular Skelton Joints: Definition - Classification of Joints, Types of Muscles.</p> <p align="center">UNIT II</p> <p>Cardio Respiratory System: Structure and Functions of Heart. Functions of Blood - Composition of Blood - Blood groups - Blood clotting. Cardiac Cycle, Types of Blood circulation. Respiratory System: Respiratory Passage, Structure and functions of Lungs, Exchange of Gases - Mechanism of respiration. Assessing and measuring Vital signs: Heart rate – Temperature – Respiratory rate – blood pressure.</p> <p align="center">UNIT III</p> <p>Digestive System: Structure and functions of Tongue, Teeth, salivary glands, Stomach, Small and Large Intestine, liver, gall-bladder and pancreas. Excretory system: Kidney, Parts of the urinary system - Urine-Normal contents, normal urine formation with basic structure of nephron, Structure and functions of Skin. Endocrine system: Location and functions of Endocrine glands- Pituitary, Thyroid, Parathyroid, Adrenalin and Sex glands.</p> <p align="center">UNIT IV</p> <p>Nervous System: Structure and functions of Neuron. Structure and functions of brain – Cerebrum – Cerebellum - Medulla oblongata – Spinal cord-Reflex action – Motor end Plates. Types of nervous system: Central, Autonomous, Sympathetic and Parasympathetic Nervous Systems. Structure and functions of Eye and Ear.</p> <p align="center">UNIT V</p> <p>Health Education: Meaning and Definition – Factors influencing Health: Heredity and Environment. Infection, Immunity and Immunization – Public health measures to combat infection. Common communicable Diseases: Definition – Causes, Symptoms, Mode of Transmission and Prevention : Malaria – Filariasis – Typhoid – Cholera - Measles - Mumps - Whooping Cough - Chicken Pox – Dysentery - Dengu - AIDS. Personal Hygiene – School health Programme – Health Instruction – Health Services – Health Supervision.</p>

	<p>Text Book</p> <ol style="list-style-type: none">1. Babsky. E., & Khodorov, B. (1970). Human Physiology. Moacow: MIR Publications. Chatterjee.,& Chandicharan. (1980). Human Physiology. Calcutta: Medical Allied Agency.2. Chaurasia, B. D. (1995). Human Anatomy. Delhi: CBS publishers.3. Evelyn, C. Pearce. (1993). Anatomy and Physiology for Nurses. New Delhi: Jay Pee Brothers.4. Ram Mohun Mojumdar. (2009). Anatomy and Physiology. New Delhi: Sports Publication.5. Ranganathan. T.S. (1983). A Textbook of Human Anatomy. New Delhi: S Chand and Company..																																																						
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B15103	<p style="text-align: center;">YOGA EDUCATION</p> <p>Instruction : 4 Hours / Week Credits : 4 Assessment : 25+75</p>
1.	<p><u>SYLLABUS</u></p> <p style="text-align: center;">UNIT I</p> <p>Yoga: Meaning and Definition. Origin and History – Yoga Sutra – Hatha yoga texts. Systems of Yoga: Karma yoga - Jnana yoga - Bhakthi yoga - Raja yoga. Eight limbs of yoga: Yama – Niyama – Asana – Pranayama – Pratyahara – Dharana – Dhyana – Samadhi. International Yoga Day – Yogic Diet.</p> <p style="text-align: center;">UNIT II</p> <p>Schools of yoga - Effect of yoga on various systems of the body: Muscular system – Circulatory system – Endocrine system – Respiratory system – Nervous system – Digestive system – Yoga for Physical Fitness, Yoga for Health and Wellness. Yoga for Diseases.</p> <p style="text-align: center;">UNIT III</p> <p>Loosening the joints - Suryanamaskar (Bihar school of yoga). Meaning of Asana – Classification – Guidelines for practicing asanas, Do's and Don'ts - differences between asanas and physical exercises - Techniques and benefits. Standing Asana: Vrksasana – Trikonasana – Padmahastasana. Seated Asanas: Siddhasana – Padmasana – Paschimottanasana. Inverted asanas: Sarvangasana – Halasana. Prone position: Mayurasana – Sirsasana. Back bend asanas: Bujangasana, Salabhasana, Dhanurasana, Ushtrasana. Supine position: Navasana, Suptavajrasana, Twisting: Vakrasana, Ardhamatsyendrasana, Kukutasana.</p> <p style="text-align: center;">UNIT IV</p> <p>Pranayama: Definition, Types and Benefits: Nadi Shodhana, Surya Bhedana, Chandra bhedana, Kapalabhati, Bhastrika, Sitakari, Sitali, Bhramari – Ujjai. Nadi: Ida, Pingala, Sushumna.</p> <p style="text-align: center;">UNIT V</p> <p>Techniques and Benefits of Shat kriyas: Neti (Jala, Sutra) Dhauti (Vamana, vastra) Bhasti, Nauli, Trataka, Kapalabhati, Yoga Nidra. Meditation: Meaning and b</p>

	Bandhas and Mudras : Meaning and benefits.																																																															
	Text Book 1. George Feuerstein. (1975).Text Book of Yoga. London: Motilal Bansaridass Publishers (P) Ltd. 2. Gore. (1990). Anatomy and Physiology of Yogac Practices. Lonavala: Kanchan Prkashan. 3. Iyengar, B. K. S. (2000). Light on Yoga. New Delhi: Harper Collins Publishers. 4. Moorthy .A.M & Alagesan. S. (2004).Yoga Therapy. Coimbatore: Teachers Publication House. 5. Swami Satyananda Saraswathi. (1984). Kundalini and Tantra. Bihar: Yoga Publications Trust. 6. Swami Kuvalayananda. (1998). Asanas. Lonavla: Kaivalyadhama. Publication.																																																															
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	CO-2	Apply the principles of Yoga to live healthy and active life style.																																																														
	CO-3	Promote the awareness of health through yoga																																																														
	CO-4	Analyze the techniques and of body posture to bring out healthy change.																																																														
	CO-5	Able to execute loosening exercise , Asanas, Pranayama and Shatkriyas.																																																														
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	SPORTS TRAINING
B15201	Instruction : 4 Hours / Week Credits : 4 Assessment : 25+75
1.	<p><u>SYLLABUS</u></p> <p style="text-align: center;">UNIT I</p> <p>Sports Training: Meaning, Definition, Characteristics and Principles – Training Load: External and Internal Load - Principles of Training Load – Overload: Symptoms and Tackling – Periodization : Types, Aims and Content of Various Periods – Preparatory, Competition and Transition – Plan : Short term and Long term</p> <p style="text-align: center;">UNIT II</p> <p>Warming Up: Definition – Types – Importance of Warming Up – Types of Sports Training and their Purpose: Weight Training (Free Weight and Machine Weights) – Circuit Training – Interval Training – Plyometric Training - Fartlek Training – Swiss Ball Training – Medicine Ball Training – Cross Training.</p> <p style="text-align: center;">UNIT III</p> <p>Strength - Definition of strength - Types of Strength: Maximum strength, explosive strength, strength endurance, general strength, specific strength, relative strength. Importance of strength- Factors determining strength- Training method for strength improvement - Loading procedure for strength training.</p> <p style="text-align: center;">UNIT IV</p> <p>Speed - Definition of speed - Forms of speed, reaction speed, movement speed, acceleration ability, loco-motor ability. Speed endurance - Factors determining speed performance - Training methods for increasing speed.</p> <p style="text-align: center;">UNIT V</p> <p>Endurance: Definition – Types – Importance – Training Methods for improving Endurance – Coordinative Abilities: Definition – Types and Training Methods for Improving Coordinative Abilities – Flexibility : Definition – Types - Methods for Improving Flexibility</p> <p>Text Book</p> <ol style="list-style-type: none"> 1. Arnheim D., & William E Prentice. (1978). Athletic Training. St. Louis: Mosby Year Book. 2. Authors Guide (2014) IAAF Competition Rules 2014-2015, Monaco Cedex: IAAF Publishing . 3. Authors Guide (2002) Rules of Games and Sports, New Delhi : YMCA Publishing House 4. Authors Guide (2000) FIBA Official Basket Rules : Munich. 5. Bonder, J.B (1984). How to be a Successful Coach. New York: Prentice Hall, Inc. 6. Breshahan, Tuttle., & Cretzmeyer. (1997). Track and Field Athletics. New Jersey: Prentice Hall, Inc 7. Hardayal Singh. (2005). Sports Training - General Theory and Methods. Patiala: NSNIS.

2.	COURSE OUTCOME students are able to										
	CO-1	Understand training as performance based science									
	CO-2	Explain different means and methods of various training									
	CO-3	Prepare training schedule for various sports and games									
	CO-4	Appraise types of periodization for performance development									
	CO-5	Create various training facilities and plans for novice to advance performers									
3.	MAPPING'S OF CO'S AND PO'S										
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B15202	<p style="text-align: center;">ORGANIZATION, ADMINISTRATION AND METHODS IN PHYSICAL EDUCATION</p> <p>Instruction : 4 Hours / Week Credits : 4 Assessment : 25+75</p>
1.	<p><u>SYLLABUS</u></p> <p style="text-align: center;">UNIT I</p> <p>Meaning of organization and administration. Importance of organization, administration, Guiding principles of organization. Organisation scheme and physical education in schools, Colleges, Universities, Districts, States. Teaching-load and teacher pupil ratio. Types and preparation of time table: Types of physical education periods, Types of records, registers and reports to be maintained in Physical Education.</p> <p style="text-align: center;">UNIT II</p> <p>Finance and budget: Sources of Income- Approved items of expenditure. Rules for the utilization of games fund or physical education fund. Preparation and administration of budget and accounting. Method: Meaning – Factors influencing method, Presentation techniques: Planning - Presentation – Steps in the way of presentation. Teaching aids – Class management – General – Specific – Principles to be adopted for good class management. Age Characteristics of pupils and selection of activities.</p> <p style="text-align: center;">UNIT III</p> <p>Lesson plan: Values. Types: General, Particular lesson plan and Coaching Lesson Plan. Command : Response Command – Rhythmic Command. Methods of Teaching Physical Activities: Command, Oral, Demonstration, Imitation, Dramatization, At-will, Set-drill, Part, Whole, Whole-Part-Whole methods.</p> <p style="text-align: center;">UNIT IV</p> <p>Tournaments – Meaning-Types. Method of drawing fixtures for knock out/ elimination - league/ Round Robin. Combination Tournament : Knock out – cum – knock out, knock out – cum – league, league – cum – league, league – cum – knock out . Challenge Tournament. Intramural – Extramural; Sports Meet: Standard sports meet – Non-standard sports meet . Play day - Games tour.</p> <p style="text-align: center;">UNIT V</p> <p>Qualities and Qualifications of Physical Education Personnel. Guiding principles of supervision: Qualities and qualification of a supervisor – Concept of techniques of Supervision. Techniques of Supervision: Visitation – Periodical – Surprise – Request- Social, Visitation procedure – Report on the visit – Individual and Group Meeting – Role of primary school teachers towards physical education programme. Functions of DIET / SCERT / NCERT / NCTE / Nehru Yuva Kendra</p>

	Text Book 1. Greyson Daughtrey. (1969). Methods in Physical Education and Health for Secondary Schools. London: W. B. Saunders Company. 2. Hughes, LW. and French, E. (1990) The Administration of Physical Education, Ronald Press Co., 3. Sharad Chandra Mishra. (2009). Methods of Physical Education. New Delhi: Sports Publication. 4. Thirunarayanan, C. & Hariharan, S (1969) Methods in Physical Education Karaikudi: South India press, 5. Thomas, J.P. (1969) Organisation and Administration of Physical Education, Chennai: 6. Williams, C. and Velter, B. (1987) Administration of Health. W.B. Saunders & Co.																																																						
2.	COURSE OUTCOME students are able to <table><tr><td>CO-1</td><td>Understand the principles and process of Administration and Management</td></tr><tr><td>CO-2</td><td>Administer physical education and sports programs in schools.</td></tr><tr><td>CO-3</td><td>Develop appropriate physical education curriculum, tools and budget to manage school programs</td></tr><tr><td>CO-4</td><td>Appraise and manage physical education facilities and personnel in school</td></tr><tr><td>CO-5</td><td>Design tournament fixtures and structures to organize competitions</td></tr></table>	CO-1	Understand the principles and process of Administration and Management	CO-2	Administer physical education and sports programs in schools.	CO-3	Develop appropriate physical education curriculum, tools and budget to manage school programs	CO-4	Appraise and manage physical education facilities and personnel in school	CO-5	Design tournament fixtures and structures to organize competitions																																												
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B15203	<p align="center">THEORIES OF SPORTS AND GAMES, COACHING AND OFFICIATING- PART I</p> <p>Instruction : 4 Hours / Week Credits : 4 Assessment : 25+75</p>
1.	<p><u>SYLLABUS</u></p> <p align="center">UNIT I</p> <p>History of Athletics: World and India. Marking and Measurements of Non Standard Track (200m). Marking and Measurements of Field Events</p> <p align="center">UNIT II</p> <p>Marking and Measurements of Standard Track (400m), Cross Country, Road Running, Ultra Running and Mountain Running</p> <p align="center">UNIT III</p> <p>Rules and Interpretation of Track and Field Events – Duties of Officials in Track and Field Events. Methods of arranging Seeding and Heats in Track and Field Events – Score Sheets for Track and Field Events, Combined Events (Triathlon – Pentathlon – Heptathlon - Decathlon)</p> <p align="center">UNIT IV</p> <p>World and Indian History, Rules and Interpretation, Marking and Measurements of Play Fields and Standard Equipments for the following games: Basketball, Football, Handball, Volleyball , Cricket and Hockey</p> <p align="center">UNIT V</p> <p>Coaching: Meaning and Definition. Teaching, Training and Coaching – Philosophy of Coaching – Qualification and Qualities of a Coach</p> <p>Text Book</p> <ol style="list-style-type: none"> 1. Arnheim, D., & William, E Prentice. (1991). Principles of athletic training. St. Louis: Mosby Year Book. 2. Arnheim D., & William E Prentice. (1978). Athletic Training. St. Louis: Mosby Year Book. 3. Authors Guide (2018) IAAF Competition Rules 2018-2019, Monaco Cedex: IAAF Publishing . 4. Authors Guide (2002) Rules of Games and Sports, New Delhi : YMCA Publishing House. 5. George Immanuel.(1997).Track and Field Event layout and Marking. Chennai: 6. Hardayal Singh. (2005). Sports Training - General Theory and Methods. Patiala: NSNIS. 7. Josse, P, Moprtensen., & John, M,Copper. (1998). Track and Field for Coach and Athlete. St.Louis: C.V.Mosphy Company.

2.	COURSE OUTCOME students are able to										
	CO-1	Able to mark Track and Field and Officiate									
	CO-2	Able to understand the rules of the games and sports									
	CO-3	Able to give seeding and Heats in Track and Field. Combined Events .									
	CO-4	Design and practice the new methods of technique of officiating									
3.	MAPPING’S OF CO’S AND PO’S										
	Course Outcomes	Programme Outcome									
		1	2	3	4	5	6	7	8	9	10
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		2				1		3		1	2
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	4.	MAPPING’S OF CO’S AND PSO’S									
COURSE OUTCOMES (CO)		PROGRAM SPECIFIC OUTCOMES (PSO)									
		1		2							
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		2		3							
		3									

B15301	<p style="text-align: center;">MEASUREMENT AND EVALUATION IN PHYSICAL EDUCATION</p> <p>Instruction : 4 Hours / Week Credits : 4 Assessment : 25+75</p>
1.	<p><u>SYLLABUS</u></p> <p style="text-align: center;">UNIT I</p> <p>Meaning and Definition of Test, Measurement and Evaluation. Need and Importance of Test and Measurement in Physical Education</p> <p style="text-align: center;">UNIT II</p> <p>Criteria and Administration Of test: Criteria of Test: Scientific Authenticity – Reliability, Objectivity, Validity, Availability of Norms, Administrative Feasibility and Education Application. Administration of Test :Duties of Advance Preparation – Duties during testing – Duties after testing</p> <p style="text-align: center;">UNIT III</p> <p>Physical Fitness Test : AAPHERD Health Related Fitness Battery (Revised in 1984) – Roger’s Physical Fitness Index. Cardio Vascular Test: Harvard Step Test, 12 Minutes Run /Walk Test, Multi Stage Fitness Test (Beep Test). Motor Fitness: Indiana Motor Fitness Test (for elementary and high school boys, girls and college men), JCR Test. SDAT World Beaters Battery Test for High School Boys and Girls.</p> <p style="text-align: center;">UNIT IV</p> <p>Sports Skill Test: Badminton: Miller Wall Volley Test – French Short Service Test, Basketball: Johnson Basketball Test – Leilich Basketball Test, Hockey: Firedal Field Hockey Test, Schimithal French Field Hockey Test.</p> <p style="text-align: center;">UNIT V</p> <p>Sports Skill Test: Football: Johnson Soccer Test – McDonald Soccer Test. Tennis: Dyer Tennis Test, Volleyball: Brady Volleyball Test – Rusel Lange Volleyball Test</p> <p>Text Book</p> <ol style="list-style-type: none"> 1. Barrow, H.M.. and McGee, R.,A (1964.) Practical Approach to Measurement in Physical Education, Lea and Febiger, Philadelphia. 2. Bovard, J.F., Cozens, F., W. and Hagman, P.E.(1949)Test and Measurements in Physical Education, W.B. Sanders Company, Philadelphia. 3. Hunsicker, P.A. and Montoye, H.J. (1953) Applied Test and Measurements in

	Physical Education, Prentice Hall Inc., New York. 4. Leger (1983), Testing Physical Fitness, Eurofit Experimental Battery Provisional Handbook, Strasbourg: UK 5. Meyers, C.R. and Belsh, E.T. (1962) Measurement in physical Education, The Ronald press Company. New York. sports, New Delhi: Friends Publications. 6. Wilgoose, C.E (1967) Evaluation in Health Education and physical Education, McGraw Hill Book Company, Inc, New York. 7. Yobu,A (2010), Test, Measurement and Evaluation in Physical Education Friends Publication, New Delhi .										
2.	COURSE OUTCOME students are able to										
	CO-1	Understand the basics of Test, Measurement and Evaluation in physical education, Health and Fitness.									
	CO-2	Know about the different types of test for different sports and games.									
	CO-3	Apply the tests in minor research areas									
	CO-4	Analyze the performance and movements in the field of sports.									
	CO-5	Evaluate the battery test and others tests prescribed by the government efficiently									
3.	MAPPING'S OF CO'S AND PO'S										
	Course Outcomes	Programme Outcome									
		1	2	3	4	5	6	7	8	9	10
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4.	MAPPING'S OF CO'S AND PSO'S										
	COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)									
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B15302	<p align="center">RESEARCH AND STATISTICS IN PHYSICAL EDUCATION</p> <p>Instruction : 4 Hours / Week Credits : 4 Assessment : 25+75</p>
1.	<p><u>SYLLABUS</u></p> <p align="center">UNIT I</p> <p>Meaning and Definition of Research - Need, Nature and Scope of research in Physical Education. Classification of Research: Basic Research, Applied Research, Action Research. Location of Research Problem - Criteria for selection of a problem. Qualities of a good researcher.</p> <p align="center">UNIT II</p> <p>Meaning and Definition of Hypothesis. Formulation of Hypothesis. Experimental Methods of Research: Meaning of variable - Types of Variables - Meaning and Nature of experimental Research. Types of Experimental Design: Single Group Design, Reverse Group Design, Repeated Measure Design, Static Group Comparison Design, Equated Group Design, Factorial Design.</p> <p align="center">UNIT III</p> <p>Report Writing: Front Materials, Body of Thesis – Back Materials. Method of Writing Research Proposal, Thesis / Dissertation: Method of Writing Abstract, Mechanics of Writing Research Report, Bibliography Writing.</p> <p align="center">UNIT IV</p> <p>Meaning and Definition of Statistics. Need and importance of Statistics. Types of Statistics. Meaning, uses and construction of frequency table. Meaning, Purpose, Calculation and advantages of Measures of central tendency -Mean, Median and Mode.</p> <p align="center">UNIT V</p> <p>Meaning, Purpose, Calculation and advantages of Range, Quartile Deviation, Mean Deviation, Standard Deviation., Probable Error. Meaning, Purpose, Calculation and advantages of Scoring scales: Sigma scale, Z Scale, Hull scale. Graphical Representation in Statistics: Line Diagram, Pie diagram, Bar diagram, Histogram, Frequency Polygon, Ogive Curve.</p> <p>Text Book</p> <ol style="list-style-type: none"> 1. Best, J.W. (1971) Research in Education, Englewood Cliffs,: Prentice Hall. 2. Clark, D.H. (1999) Research Problem in Physical Education 2nd edition, Eaglewood Cliffs:Prentice Hall, Inc. 3. Clarke David.H & Clarke H, Harrison (1984) Research processes in physical Education. 4. Craig Williams and Chris Wragg (2006) Data Analysis and Research for Sport and exercise science London : Routledge Press. 5. Jerry R Thomas & Jack K Nelson(2000) Research Methods in Physical Activities, Illinois Human Kinetics

	<div>6. Kamlesh, M.L. (1999) Research Methodology in Physical Education and Sports.</div> <div>7. New Moses, A.K..(1995) Thesis Writing Format. Chennai : Poompugar Pathippagam. Publications.</div> <div>8. Rothstain, A.(1985) Research Design and Statistics for Physical Education, Englewood Cliffs: Prentice Hall, Inc.</div>																																																						
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M15303	<p align="center">SPORTS MANAGEMENT, RECREATION AND CAMPING</p> <p>Instruction : 4 Hours / Week Credits : 4 Assessment : 25+75</p>
1.	<p><u>SYLLABUS</u></p> <p align="center">UNIT I</p> <p>Meaning and Definition of Sports Management – Scope of Sports Management – Progressive Concept of Sports Management – Essential Skills of Sports Management – Qualities and Competencies required for the Sports Manager - Event Management in Physical Education and Sports.</p> <p align="center">UNIT II</p> <p>Meaning and Definition of Leadership, Methods, Style, Elements – Forms of Leadership – Autocratic, Laissez – Faire, Democratic. Administrative Leader: Preparation and Qualities of Leadership and Organizational Performance – Professional Ethics.</p> <p align="center">UNIT III</p> <p>Sports Management – Planning of School, College and University Sports programme – Factors affecting Planning – Directing and Controlling of School College and University Sports Programme – Developing Performance Standard – Establishing a Reporting System - The Reward and Punishment System.</p> <p align="center">UNIT IV</p> <p>Recreation: Meaning, Definition, Aim, Objectives, Scope and Significance of Recreation. Agencies offering Recreation: Home, Governmental, Voluntary, Private, Commercial - Recreation in Rural, Urban, Community and Industrial – Areas, Facilities, Equipment and their Maintenance.</p> <p align="center">UNIT V</p> <p>Camping - Definition and Meaning – Scope and significance of Camping – Types of Camps – Selection and layout of campsites – organization and administration of camps – camp programmes and activities – Evaluation of camp work.</p> <p>Text Book</p> <p>1. Authors Guide (1986) Organization, Adminsitration and Recreation in Physical Education, Parkash brothers, Educational Publishers, Ludhiana.</p>

	<div>2. Ashton, D. (1968).Administration of Physical education for Women. New York: The Ronal Press Cl.</div> <div>3. Chakraborty & Samiran. (1998). Sports Management., New Delhi: Sports Publication.</div> <div>4. Charles, A, Bucher & March, L, Krotee. (1993). Management of Physical Education and Sports. St.Louis: Mosby Publishing Company.</div> <div>5. Chelladurai, P. (1999). Human Resources Management in Sports and Recreation. Human Kinetics.</div> <div>6. Williams, J.F. (2003). Principles of Physical Education. Meerut: College Book House.</div>																																																															
2.	COURSE OUTCOME students are able to																																																															
	CO-1	Know sports management and employ principles of strategic planning, and financial and human resource management.																																																														
	CO-2	Assess marketing needs and formulate short term and long term solutions.																																																														
	CO-3	Develop critical thinking in analysing sport management issues and in managerial planning and decision making.																																																														
	CO-4	Able to organize recreational camp and activities																																																														
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B15401	<p align="center">THEORIES OF SPORTS AND GAMES, COACHING AND OFFICIATING- PART II</p> <p>Instruction : 4 Hours / Week Credits : 4 Assessment : 25+75</p>
1.	<p><u>SYLLABUS</u></p> <p align="center">UNIT I</p> <p>World and Indian History – Marking and Measurements of Play Fields and Standard Equipment for the following games: Badminton, Ball Badminton, Lawn Tennis and Table Tennis.</p> <p align="center">UNIT II</p> <p>World and Indian History – Marking and Measurements of Play Fields and Standard Equipment for the following games: Kabaddi, Kho-Kho, Netball, Softball, Swimming.</p> <p align="center">UNIT III</p> <p>Rules and Interpretations: Duties of Officials, Methods of Breaking Ties, Mechanism and System of Officiating, Official signals of the following games and sports: Badminton, Ball Badminton, Lawn Tennis and Table Tennis.</p> <p align="center">UNIT IV</p> <p>Rules and Interpretations: Duties of Officials, Methods of Breaking Ties, Mechanism and System of Officiating, Official signals of the following games and sports: Kabaddi, Kho-Kho. Eligibility rules for Inter- School Tournaments: RDG, BDG, RDS and SGFI Tournaments. Eligibility Rules for Inter University and Inter Collegiate Tournaments.</p> <p align="center">UNIT V</p> <p>Rules and Interpretations: Duties of Officials, Methods of Breaking Ties, Mechanism and System of Officiating, Official signals of the following games and sports: Netball, Softball, Swimming.</p> <p>Text Book</p> <ol style="list-style-type: none"> 1. Anand, R.L (1987) Play Field Manual, Patiala : NIS Publication. 2. George Immanuel. (1997). Track and Field Event layout and Marking. Chennai: 3. Hardayal Singh. (2005). Sports Training - General Theory and Methods. Patiala: NSNIS. 4. Josse, P, Moprtsensen., & John, M,Copper. (1998). Track and Field for Coach and Athlete. St.Louis: C.V.Mosphy Company. 5. Krishna Murthy, J. (2007). Training of Physical Education Students. New Delhi: Verma Publication.

2.	COURSE OUTCOME students are able to											
	CO-1	Know the fundamental of all the games and sports										
	CO-2	Understand the rules of all the games and sports										
	CO-3	Preparing the students for the competition										
	CO-4	Classify the students accordingly for various games and sports										
	CO-5	Design and practice the new methods of technique and training.										
3.	MAPPING'S OF CO'S AND PO'S											
	Course Outcomes	Programme Outcome										
		1	2	3	4	5	6	7	8	9	10	
		1	1		3		1			2	1	2
		2		2	1					1		3
		3	1	3	1		1	1	2			2
4.	MAPPING'S OF CO'S AND PSO'S											
	COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)										
		1	2									
		1										
		2	1	3								
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B15402	<p style="text-align: center;">KINESIOLOGY AND BIOMECHANICS</p> <p>Instruction : 4 Hours / Week Credits : 4 Assessment : 25+75</p>
1.	<p><u>SYLLABUS</u></p> <p style="text-align: center;">UNIT I</p> <p>Introduction to Kinesiology and Sports Biomechanics: Meaning and Definition of Kinesiology and Sports Biomechanics. Importance of Kinesiology and Sports Biomechanics to Physical Education Teacher, Athletes and Sports Coaches. Terminology of Fundamental Movements. Fundamental concepts of following terms: Axes and Planes, Centre of Gravity, Equilibrium, Line of Gravity</p> <p style="text-align: center;">UNIT II</p> <p>Fundamental Concept of Anatomy and Physiology: Joints and Muscles, Types of Muscle Contractions. Posture: Meaning, Types and Importance of good posture. Fundamental concepts of following terms: Angle of Pull, All or None Law, Reciprocal Innervations.</p> <p style="text-align: center;">UNIT III</p> <p>Mechanical Concepts: Force - Meaning, definition, types and its application to sports activities. Lever - Meaning, definition, types and its application to human body. Newton's Laws of Motion – Meaning, definition and its application to sports activities. Projectile – Factors influencing projectile trajectory.</p> <p style="text-align: center;">UNIT IV</p> <p>Kinematics and Kinetics of Human Movement: Linear Kinematics – Distance and Displacement, speed and velocity, Acceleration Angular kinematics – Angular Distance and Displacement, Angular Speed and velocity, Angular Acceleration. Linear Kinetics – Inertia, Mass, Momentum, Friction. Angular Kinetics – Moment of inertia ,Couple, Stability.</p> <p style="text-align: center;">UNIT V</p> <p>Biomechanical Analysis: Biomechanical Analysis of following Track and Field Events: Running, Horizontal and Vertical Jumping, Throwing Events. Biomechanical Analysis of Skill of Major Games</p> <p>Text Book</p> <p>1. Bunn, J. W. (1972).<i>Scientific principles of coaching</i>. Englewood Cliffs, N.J.: Prentice Hall Inc.</p>

	2. Hay, J. G. & Reid, J. G.(1988). <i>Anatomy, mechanics and human motion</i> . Englewood Cliffs,N.J.: prentice Hall Inc. 3. Hay, J. G. (1970). <i>The biomechanics of sports techniques</i> . Englewood Cliffs, N.J.: Prentice Hall, Inc. 4. Simonian, C.(1911). <i>Fundamentals of sport biomechanics</i> . Englewood Cliffs, N.J.: Prentice Hall Inc.																																																															
2.	COURSE OUTCOME students are able to																																																															
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	CO-2	Understand mechanical principles can be applied to the analysis of human movement to assess and improve performance and reduce risk of injury.																																																														
	CO-3	Know effectiveness of human movement using mechanical principles.																																																														
3.	MAPPING'S OF CO'S AND PO'S																																																															
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B15403	<p align="center">SPORTS PSYCHOLOGY AND SOCIOLOGY</p> <p>Instruction : 4 Hours / Week Credits : 4 Assessment : 25+75</p>
1.	<p><u>SYLLABUS</u></p> <p align="center">UNIT I</p> <p>Meaning, Definition, Need and Importance of Sports Psychology. Motor Learning: Basic Considerations in Motor Learning – Motor Perception - Factors Affecting Perception – Perceptual Mechanism. Intelligent Quotient.</p> <p align="center">UNIT II</p> <p>Personality: Meaning, Definition, Structure, Types, Effects of Personality on Sports Performance. Motivation: Meaning and Definition, Types of Motivation: Intrinsic, Extrinsic. Achievement Motivation. Theories and Dynamic of Motivation in sports.</p> <p align="center">UNIT III</p> <p>Anxiety: Meaning and Definition, Nature, Causes, Competitive Anxiety and Sports Performance. Stress: Meaning and Definition, Causes. Stress and Sports Performance. Aggression: Meaning and Definition, Aggression and Sports Performance. Self Concept: Meaning and Definition</p> <p align="center">UNIT IV</p> <p>Sports Sociology: Meaning and Definition – Sports and Socialization of Individual, Sports as Social Institution. National Integration through Sports. Fans and Spectators: Meaning and definition, Advantages and disadvantages of Sports Performance. Leadership: Meaning, Definition, types. Leadership and Sports Performance.</p> <p align="center">UNIT V</p> <p>Group: Meaning and Definition, Group Size, Groups on Composition, Group Cohesion, Group Interaction, Group Dynamics. Current Problems in Sports and Future Directions – Sports Social Crisis Management - Women in Sports: Sports Women in our Society, Participation pattern among Women, Gender inequalities in Sports.</p> <p>Text Book</p> <ol style="list-style-type: none"> 1. John D Lauther (2000) Psychology of Coaching. Ner Jersy: Prenticce Hall Inc. 2. Jain. (2002), Sports Sociology, Heal Sahety Kendre Publishers. 3. John D.Lauther (1998) Sports Psychology. Englewood, Prentice Ha 4. Richard, J. Crisp. (2000). Essential Social Psychology. Sage Publications. 5. Robert N. Singer(2001). Motor Learning and Human Performance. New York: The Macmillan Co. 6. Whiting, K, Karman.,. Hendry L.B & Jones M.G..(1999) Personality and Performance in Physical Education and Sports. London:

2.	COURSE OUTCOME students are able to											
	CO-1	Explain group mechanisms and group psychology in a sports context										
	CO-2	Reflect upon motivational psychology as applied to sports activities										
	CO-3	Formulate relevant constructs of exercise psychology										
	CO-4	Demonstrate the ability to discuss sociological theories, concepts, and ideas in large and small groups and to express empirically as well as theoretically-based opinions.										
	CO-5	To apply core sociological theories to specific social problems in order to analyze social problems.										
3.	MAPPING'S OF CO'S AND PO'S											
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LIST OF DISCIPLINE SPECIFIC ELECTIVE

ODD SEMESTER

- A. Olympic Movement
- B .Gender Studies
- C. Sports Medicine, Physiotherapy and Rehabilitation.
- D. Contemporary Issues in Physical Education, Fitness and Wellness

EVEN SEMESTER

- A. Educational Technology and Computer Application in Physical Education
- B. Sports Nutrition and Weight Management
- C. Disability and Inclusive Education
- D. Research Project (IV Semester Only)

	<p style="text-align: center;">DISCIPLINE SPECIFIC ELECTIVE OLYMPIC MOVEMENT</p> <p>Instruction : 4 Hours / Week Credits : 4 Assessment : 25+75</p>
1.	<p><u>SYLLABUS</u></p> <p style="text-align: center;">UNIT I</p> <p>Origin of Olympic Movement: The early history of the Olympic Movement, Philosophy of Olympic Movement, Goals of the Olympic movement, Educational and cultural values of Olympic movement. Ancient Olympic Games: Significance of ancient Olympics – Rules of eligibility for competition – Conduct of games, Awards – Decline and Termination of the ancient Olympics. Modern Olympics: The significant stages in the development of the modern Olympic movement. Rules of Eligibility for Competition – Conduct of Games.</p> <p style="text-align: center;">UNIT II</p> <p>Olympic Ideals: Significance of Olympic Ideals, Olympic Symbol – Olympic Flag – Olympic Motto – Olympic Anthem – Olympic Emblem – Olympic flame and torches – Olympic Designations - Olympic protocol for member countries - Olympic Charter - Olympic code of Ethics - Olympism in action - Sports for All.</p> <p style="text-align: center;">UNIT III</p> <p>Different Olympic Games: The Organizational Structure, Aim, Objectives and Functions of Para Olympic Games, Summer Olympics, Winter Olympics, Youth Olympic Games. Election of host city – Location, sites and venues –Olympic Village – E Protocol (Use of Flag and Flame, Opening and Closing Ceremony – Victory, Medal, and Diploma ceremonies and Roll of Honour) – Disputes.</p> <p style="text-align: center;">UNIT IV</p> <p>Committees of Olympic Games: Governing Body: International Olympic Committee - Structure and Functions, National Olympic committees and their role in Olympic movement, Olympic commission and their functions, Rights and Eligibility for Competitors.</p> <p style="text-align: center;">UNIT V</p> <p>Achievements of India in Olympics: Pre Independence Period-Independence. Achievement of India in Team Games and Individual Sports-Achievements of India in Hockey. Olympic Medal winners of India. Indian Women in Olympics.</p>

	Text Book 1. Ajmeer Sing, Jagdish Bans, Jagtar Sing Gill , Rachpal Singh Brar and Nirmaljit Kaur Rathee (2004) Essentials of Physical Education, New Delhi: Kalyani Publisheres. 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. Osborne, M. P. (2004). Magictree House Fact T Olympics: A Nonfiction Companion To Magic Tree House: Hour of the Olympics. New york: random house books for young readers.																																																						
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	<p style="text-align: center;">DISCIPLINE SPECIFIC ELECTIVE GENDER STUDIES</p> <p>Instruction : 4 Hours / Week Credits : 4 Assessment : 25+75</p>
1.	<p><u>SYLLABUS</u></p> <p style="text-align: center;">UNIT I</p> <p>Social Construction of Gender: Gender vs. Biology, Equality vs. Difference, Women in the family: socialization, Nature vs. Gender, gender roles, private–public dichotomy, sexual division of labour.</p> <p style="text-align: center;">UNIT II</p> <p>Patriarchy as ideology and practice. Transgender: The Science Behind Transgender-Characteristics and Problems of Transgender- Role of Family and Society on Transgender. The Psychology of Sex Differences.</p> <p style="text-align: center;">UNIT III</p> <p>Emergence of Feminist Thought: Socio-historical perspective, Mapping various women’s movements, Emergence of women’s studies Gender based Division of Labour/Work Production vs. Reproduction.</p> <p style="text-align: center;">UNIT IV</p> <p>Household work, invisible work Women’s work and technology Development policies, liberalisation and globalisation and their impact on women.</p> <p style="text-align: center;">UNIT V</p> <p>Alternative conceptions of gender–caste and gender; class and gender. Gender Issues and problems in Sports.</p> <p>.</p> <p>Text Book</p> <ol style="list-style-type: none"> 1. Chodrow, Nancy. 1978. The Reproduction of Mothering. Berkeley: University of California Press. 2. Desai, Neera and M. Krishnaraj. 1987. Women and Society in India. Delhi: Ajanta. 3. Maccoby, Eleanor and Carol Jacklin. 1975. The Psychology of Sex Differences. Stanford: Stanford University Press.

2.	COURSE OUTCOME students are able to											
	CO-1	Able to explain and understand the concepts of gender studies										
	CO-2	Able to interpret and identify the gender issues and problems										
3.	MAPPING'S OF CO'S AND PO'S											
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	<p style="text-align: center;">DISCIPLINE SPECIFIC ELECTIVE SPORTS MEDICINE, PHYSIOTHERAPY AND REHABILITATION</p> <p>Instruction : 4 Hours / Week Credits : 4 Assessment : 25+75</p>
1.	<p><u>SYLLABUS</u></p> <p style="text-align: center;">UNIT I</p> <p>Sports Medicine: Meaning, Definition, Aims, Objectives, Modern Concepts and Importance. Athletic Care and Rehabilitation: Contribution of Physical Education Teachers and Coaches, Sports Injuries: Meaning, Importance, Prevention of Injuries in Sports.</p> <p style="text-align: center;">UNIT II</p> <p>Physiotherapy: Definition – Guiding Principles of Physiotherapy, Importance of Physiotherapy, Introduction and Demonstration of Treatments – Electrotherapy – Infrared Radiation Therapy– Ultraviolet Radiation Therapy – Short Wave Diathermy –Ultrasound Therapy.</p> <p style="text-align: center;">UNIT III</p> <p>Hydrotherapy: Introduction and demonstration of treatments of Cryotherapy, Thermotherapy, Contrast Bath, Whirlpool Bath – Steam Bath – Sauna Bath – Hot Water Fomentation – Massage – Classification of Manipulation (Sweedish System) Physiological Effect of Massage.</p> <p style="text-align: center;">UNIT IV</p> <p>Therapeutic Exercise: Definition and Scope – Principles of Therapeutic Exercise – Classification, Effects and Uses of Therapeutic Exercise – Passive Movements (Relaxed, Forced and Passive Stretching) – Active Movements: Assisted, Free Exercise, Assisted – Resisted, Resisted. Application of the Therapeutic Exercise: Free Mobility Exercise – Shoulder, Elbow, Wrist and Finger Joints – Hips, Knee, Ankle and Foot Joints – Trunk, Head and Neck.</p> <p style="text-align: center;">UNIT V</p> <p>Posture, First Aid and Sports Injuries Posture :Definition, Types, Postural Deformities: Kyposis, Lordosis and Scoliosis. s. First Aid –General Rules – First Aid Treatment – Shock, Sun Stroke → Fainting, Dog Bite, Snake Bite, Poisoning, Drowning, Bleeding. Common Sports Injuries – Diagnosis – First Aid Treatment: Abrasion – Laceration – Blisters – Contusion – Strain – Sprain – Fracture – Dislocation and Cramps. Bandages – Kinds of Bandages and Dressings – Strapping and Supports</p>

	Text Book 1. Christine, M. D., (1999). Physiology of sports and exercise.USA: Human Kinetics. 2. Conley, M. (2000). Bioenergetics of exercise training. In T.R. Baechle, & R.W. Earle, (Eds.), 3. Essentials of Strength Training and Conditioning (pp. 73-90). Champaign, IL: Human Kinetics. 4. David, R. M. (2005).Drugs in sports, (4th Ed). Routledge Taylor and Francis Group.																																																						
2.	COURSE OUTCOME students are able to <table><tr><td>CO-1</td><td>Understand the primary responsibilities the sports trainer has in preventing sports injuries and providing initial care for injured athletes.</td></tr><tr><td>CO-2</td><td>Demonstrate the basics of sport first aid during and after game situation.</td></tr><tr><td>CO-3</td><td>Recognise and appropriately treat common sports injuries and conditions from onset through rehabilitation.</td></tr><tr><td>CO-4</td><td>Identify and apply knowledge of anatomy to the design and execution of research studies.</td></tr></table>	CO-1	Understand the primary responsibilities the sports trainer has in preventing sports injuries and providing initial care for injured athletes.	CO-2	Demonstrate the basics of sport first aid during and after game situation.	CO-3	Recognise and appropriately treat common sports injuries and conditions from onset through rehabilitation.	CO-4	Identify and apply knowledge of anatomy to the design and execution of research studies.																																														
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	<p style="text-align: center;">DISCIPLINE SPECIFIC ELECTIVE EDUCATIONAL TECHNOLOGY AND COMPUTER APPLICATION IN PHYSICAL EDUCATION</p> <p>Instruction : 4 Hours / Week Credits : 4 Assessment : 25+75</p>
1.	<p><u>SYLLABUS</u></p> <p style="text-align: center;">UNIT I</p> <p>Introduction: Education and Education Technology- Meaning and Definitions. Types of Education- Formal, Informal and Non- Formal Education. Educative Process Importance of Devices and Methods of Teaching.</p> <p style="text-align: center;">UNIT II</p> <p>Teaching Technique: Teaching Technique – Lecture method, Command method, Demonstration method, Imitation method, Project method. Micro Teaching – Meaning, Types and steps of micro teaching. Simulation Teaching - Meaning, Types and steps of simulation teaching.</p> <p style="text-align: center;">UNIT III</p> <p>Teaching Aids : Teaching Aids – Meaning, Importance and its criteria for selecting teaching aids. Teaching aids – Audio aids, Visual aids, Audio – Visual aids, Verbal, Chalk board, Charts, Model, Slide projector, Motion picture. Team Teaching – Meaning, Principles and advantage of team teaching. Difference between Teaching Methods and Teaching Aid.</p> <p style="text-align: center;">UNIT IV</p> <p>Introduction to Computer and MS Word: Meaning, Need and Importance of Information and Communication Teaching (ICT) .Application of Computers in Physical Education. MS Word: Introduction to MS Word – Creating, Saving and Opening a Document – Formatting, Editing Features – Mail Merge -Drawing Table – Page Setup, Paragraph Alignment – Spelling and Grammar Check – Printing Option. Inserting: Page Number, Graph, Footnote and End Notes.</p> <p style="text-align: center;">UNIT V</p> <p>MS Excel and Power Point : Introduction to MS Excel, Creating, saving and opening spreadsheet, Creating formulas. Format and editing features adjusting columns width and row height understanding charts. MS Power Point: Introduction to MS Power Point, Creating, saving and opening a ppt. file, format and editing features slide show , design , inserting slide number, picture ,graph ,table, Preparation of Power point presentations.</p>

	<p>Text Book</p> <ol style="list-style-type: none">1. Irtegov, D. (2004). Operating System Fundamentals. Firewall Media.2. Marilyn, M.& Roberta, B.(n.d.).Computers in your Future. 2nd Edition, India: Prentice Hall.3. Milke, M.(2007). Absolute Beginner’s Guide to Computer Basics. Pearson Education Asia.4. Sinha, P. K. & Sinha, P..Computer Fundamentals. 4th edition, BPB Publication.																																																						
2.	<p>COURSE OUTCOME students are able to</p> <table><tr><td>CO-1</td><td>Perform and report on the exploratory analysis of data collected using sports technology</td></tr><tr><td>CO-2</td><td>Analyze sporting data of various types via astute use of statistical packages.</td></tr><tr><td>CO-3</td><td>Practice mathematics, statistics, information technology in sport technology related problems</td></tr><tr><td>CO-4</td><td>Support a conclusion based upon quantitative prediction, performance and analysis of a sporting team, code, or gaming environment</td></tr><tr><td>CO-5</td><td>Offer Hands on Knowledge in sports Technology</td></tr></table>	CO-1	Perform and report on the exploratory analysis of data collected using sports technology	CO-2	Analyze sporting data of various types via astute use of statistical packages.	CO-3	Practice mathematics, statistics, information technology in sport technology related problems	CO-4	Support a conclusion based upon quantitative prediction, performance and analysis of a sporting team, code, or gaming environment	CO-5	Offer Hands on Knowledge in sports Technology																																												
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	<p style="text-align: center;">DISCIPLINE SPECIFIC ELECTIVE DISABILITY AND INCLUSIVE EDUCATION</p> <p>Instruction : 4 Hours / Week Credits : 4 Assessment : 25+75</p>
1.	<p><u>SYLLABUS</u></p> <p style="text-align: center;">UNIT I</p> <p>Definition of Disabling Conditions - Benefits of Physical Education for persons with Disabilities - Recreational Sports Opportunities, Competition Opportunities - Special Olympics, Paralympics and Deaflympics.</p> <p style="text-align: center;">UNIT II</p> <p>Classification of Disability: Visual, Auditory, Neuromuscular, Orthopedic - Cardiovascular, Respiratory, Mental, Emotional. Adapted Physical Education Activities - Specific Guidelines for: Visual Impairment, Hearing Impairment, intellectually challenged, Orthopedically Handicapped.</p> <p style="text-align: center;">UNIT III</p> <p>Adaptation of Motor Activities – Principles for Adaptation of Motor Activities – Facilities and Equipment for different disabilities. Orientation on Facilities - Types of Equipment- Minimum equipment, Additional Equipment, Evaluation of Equipment. Leisure, Recreation and Sports Facilities for persons with disabilities.</p> <p style="text-align: center;">UNIT IV</p> <p>Adapted Games for Persons with Disability: Rules of Adapted games and Class Management – Adapted Games for the blind: Adapted Volleyball, Kabaddi, Tennis, Table Tennis and Adapted minor games and Track and Field events. Teaching methods to be adapted by the Special Educator in Sports, Recreation and Games. Kinesthetic – one on one teaching , group teaching, circular method of teaching. Unified Sports.</p> <p style="text-align: center;">UNIT V</p> <p>Inclusive Education : Meaning, Definition , Aim and Objectives. Strategies for including students. Steps for modifying and adaptation of the physical education curriculum. Methods of playing Inclusive games: Hula Contortion, Lasso, Pumpkin Fun, Snickers & Hoots, What Do You Like To Eat, Mr. & Mrs. Owl?, Toy soldier, Clean-up Your Own Back Yard, Parachute Activities, Freeze Tag Not!, Peace Release, Top Gun High Five's and Rock, Paper, Scissors, Dynamite.</p>

	Text Book 1. Jain, A. (2003). Adapted Physical Education. Delhi: Sports Publication. 2. Kassar, Susan (1995). Inclusive Games. Human Kinetics Champaign, IL. 3. Lau, D. S. (2001). Physical Education for the Physically Handicapped. Delhi: Khel Sahitya Kendra. 4. Mary E. Samples (2012) Camarillo, CA 93012, www.venturacountyselpa.com 5. Schiffer, M. (1971). The Therapeutic Play Group. London: George Allen and Unwin ltd. 6. Sharma, D. (2006), Adapted Physical Education. New Delhi: Friends Publication. 7. Sullivan, G. M. (1982), Teaching Physical Activities to Impaired Youth: An Approach to Mainstreaming. USA: Jhon Wilkey and Sons.																																																						
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	<p style="text-align: center;">DISCIPLINE SPECIFIC ELECTIVE</p> <p style="text-align: center;">SPORTS NUTRITION AND WEIGHT MANAGEMENT</p> <p>Instruction : 4 Hours / Week Credits : 4 Assessment : 25+75</p>
1.	<p><u>SYLLABUS</u></p> <p style="text-align: center;">UNIT I</p> <p>Introduction to Sports Nutrition – Nutrition, Sports Nutrition : Meaning and Definition – Basic Nutritional Guidelines – Role of Nutrition in Sports – Factors to be considered for developing Nutritional Plan.</p> <p style="text-align: center;">UNIT II</p> <p>Nutrients: Ingestion to Energy Metabolism: Carbohydrates, Protein, Fat – Meaning, Classification and its Functions. Role of Carbohydrates, Fat and Protein during Exercise. Vitamins, Minerals, Water : Meaning, Classification and its Function. Role of Hydration during Exercise, Water Balance.</p> <p style="text-align: center;">UNIT III</p> <p>Weight Management: 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)</p> <p style="text-align: center;">UNIT IV</p> <p>Planning of Weight Management: Determination of Desirable Body Weight – Daily Caloric Intake and Expenditure – Balanced Diet for Indian School Children – Weight Management Programme for Sporty Children – Role of Diet and Exercise in Weight Management – Diet Plan and Exercise Schedule for Weight Gain and Loss.</p> <p style="text-align: center;">UNIT V</p> <p>Obesity: Meaning – Definition – Types – Causes and Solution for overcoming Obesity. Myths of Spot Reduction and Weight Loss – Dieting and Exercise for Weight Control</p> <p>Text Book</p> <ol style="list-style-type: none"> 1. Bessesen, D. H. (2008). Update on obesity. J ClinEndocrinolMetab.93(6), 2027-2034. 2. Butryn, M.L., Phelan, S., & Hill, J. O. (2007). Consistent self-monitoring of weight: a key component of successful weight loss maintenance. Obesity (Silver Spring). 15(12), 3091- 3096. 3. Chu, S.Y. & Kim, L. J. (2007). Maternal obesity and risk of stillbirth: a metaanalysis Am J ObstetGynecol, 197(3), 223-228. 4. DeMaria, E. J. (2007). Bariatric surgery for morbid obesity. N Engl J Med, 356(21), 2176-2183.

2.	COURSE OUTCOME students are able to											
	CO-1	Restate the role of nutrients and caloric requirements										
	CO-2	Sketch the basic classification, functions and utilization of nutrients.										
	CO-3	Point out diet for various competitions and nutrient supplements for performance.										
	CO-4	Evaluate the factors affects weight management and solutions for obesity and Design caloric requirements for various sports and age groups.										
3.	MAPPING'S OF CO'S AND PO'S											
	Course Outcomes	Programme Outcome										
		1	2	3	4	5	6	7	8	9	10	
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4	MAPPING'S OF CO'S AND PSO'S											
	COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)										
		1				2						
		1				3						
		3				2						
		3										

	<p style="text-align: center;">DISCIPLINE SPECIFIC ELECTIVE CONTEMPORARY ISSUES IN PHYSICAL EDUCATION, FITNESS AND WELLNESS</p> <p>Instruction : 4 Hours / Week Credits : 4 Assessment : 25+75</p>
1.	<p><u>SYLLABUS</u></p> <p style="text-align: center;">UNIT I</p> <p>Concept of Physical Education and Fitness : Definition, Aims and Objectives of Physical Education, fitness and Wellness. Importance and Scope of fitness and wellness. . Modern concept of Physical fitness and Wellness. Physical Education and its Relevance in Inter Disciplinary Context.</p> <p style="text-align: center;">UNIT II</p> <p>Fitness, Wellness and Lifestyle ; Fitness – Types of Fitness and Components of Fitness. Understanding of Wellness. Modern Lifestyle and Hypo kinetic Diseases – Prevention and Management. Physical Activity and Health Benefits</p> <p style="text-align: center;">UNIT III</p> <p>Principles of Exercise Programme: Means of Fitness development – aerobic and anaerobic exercises. Exercises and Heart rate Zones for various aerobic exercise intensities. Concept of free weight Vs Machine, Sets and Repetition . Concept of designing different fitness training programme for different age group.</p> <p style="text-align: center;">UNIT IV</p> <p>Safety Education and Fitness Promotion: Health and Safety in Daily Life. First Aid and Emergency Care. Common Injuries and their Management. Modern Life Style and Hypo-kinetic Disease –Prevention and Management</p> <p style="text-align: center;">UNIT V</p> <p>Sports Nutrition: Diet for sports competition- supplementation to the daily diet. Vitamins, Minerals, Fluids. Electrolyte replacement, Carbohydrate loading, Protein loading, Calcium and iron supplement. Pre-event meal. Time for pre-event meal, Alternate eating pattern, Foods to avoid. Exercise and weight control, Crash dieting, Weight Control.</p> <p>Text Book</p> <ol style="list-style-type: none"> 1. Difiore, J.(1998). Complete guide to postnatal fitness. London: A & C Black,. 2. Giam, C.K & The, K.C. (1994). Sport medicine exercise and fitness. Singapore: P.G. Medical Book.

	3. McGlynn, G., (1993). Dynamics of fitness. Madison: W.C.B Brown. 4. Sharkey, B. J.(1990). Physiology of fitness, Human Kinetics Book. 5. William, D. Mc Aradle. (1996). Exercise Physiology, Performance. Philadelphia: Lippincott Williams Company.											
2.	COURSE OUTCOME students are able to											
	CO-1	Discuss research from a multidisciplinary perspective relative to current issues in physical activity and health.										
	CO-2	Apply qualitative research methods to explore and critically examine a variety of curricular topics.										
	CO-3	Demonstrate application of relevant research and theory to a contemporary issue in physical activity and exercise science.										
3.	MAPPING'S OF CO'S AND PO'S											
	Course Outcomes	Programme Outcome										
		1	2	3	4	5	6	7	8	9	10	
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4.	MAPPING'S OF CO'S AND PSO'S											
	COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)										
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		1		3								
		2		2								
		3										

	<p style="text-align: center;">DISCIPLINE SPECIFIC ELECTIVE EDUCATIONAL TECHNOLOGY IN PHYSICAL EDUCATION</p> <p>Instruction : 4 Hours / Week Credits : 4 Assessment : 25+75</p>
1.	<p><u>SYLLABUS</u></p> <p style="text-align: center;">UNIT I</p> <p>Nature and Scope: Educational technology-concept, Nature and Scope. Forms of educational technology: teaching technology, instructional technology, and behaviour technology; Transactional usage of educational technology: integrated, complementary, supplementary stand-alone (independent); programmed learning stage; media application stage and computer application stage.</p> <p style="text-align: center;">UNIT II</p> <p>Systems Approach to Physical Education and Communication: Systems Approach to Education and its Components: Goal Setting, Task Analysis, Content Analysis, Context Analysis and Evaluation Strategies; Instructional Strategies and Media for Instruction. Effectiveness of Communication in instructional system; Communication - Modes, Barriers and Process of Communication.</p> <p style="text-align: center;">UNIT III</p> <p>Instructional Design :Instructional Design: Concept, Views. Process and stages of Development of Instructional Design. Overview of Models of Instructional Design; Instructional Design for Competency Based Teaching: Models for Development of Self Learning Material.</p> <p style="text-align: center;">UNIT IV</p> <p>Audio Visual Media in Physical Education: Audio-visual media - meaning, importance and various forms Audio/Radio: Broadcast and audio recordings - strengths and Limitations, criteria for selection of instructional units, script writing, pre-production, post-production process and practices, Audio Conferencing and Interactive Radio Conference. Video/Educational Television. Use of Television and CCTV in instruction and Training, Video Conferencing,</p>

	SITE experiment, Use of animation films in Teaching Physical Activities.																																																															
	<div>UNIT V</div> <div>New Horizons of Educational Technology: Recent innovations in the area of ET interactive video - Hypertext, video-texts, optical fiber technology - laser disk, computer conferencing. Procedure and organization of Teleconferencing/ Interactive video-experiences of institutions, schools and universities. Computer Assisted Instruction/ Teaching in Physical Education and Sports.</div> <div>Text Book</div> <div><div>1. Bhatia and Bhatia (1959). The Principles and Methods of Teaching (New Delhi : Doaba House.</div><div>2. Dasgupta D.N, Communication and Education, Pointer Publishers Education and Communication for development, O. P. Dahama, O. P. Bhatnagar, Oxford (Page 68 of 71) IBH Publishing company, New Delhi</div><div>3. Sampath K, Pannirselvam A and S. Santhanam (1981) Introduction to Educational Technology New Delhi: Sterling Publishers Pvt. Ltd..</div><div>4. S.K. (1982)Methods and Techniques of Teaching (New Delhi, Jalandhar, Sterling Publishers Pvt. Ltd.</div></div>																																																															
2.	<div>COURSE OUTCOME students are able to</div> <table><tr><td>CO-1</td><td colspan="10">Plan, develop, communicate, implement, and evaluate technology-infused strategic plans.</td></tr><tr><td>CO-2</td><td colspan="10">Maintain and manage a variety of digital tools and resources for use in technology-rich learning environment</td></tr><tr><td>CO-3</td><td colspan="10">Design, develop, and implement technology-rich sports program that model of sports field and promote digital age best practices playing and assessment.</td></tr></table>										CO-1	Plan, develop, communicate, implement, and evaluate technology-infused strategic plans.										CO-2	Maintain and manage a variety of digital tools and resources for use in technology-rich learning environment										CO-3	Design, develop, and implement technology-rich sports program that model of sports field and promote digital age best practices playing and assessment.																														
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4.	MAPPING'S OF CO'S AND PSO'S		
	COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)	
		1	2
	1	2	3
	2	1	2
	3	1	3

Generic Elective

To successfully complete the BPED course the students must undergo and complete anyone of the generic elective (Open Elective) in the third Semester.

Generic Elective Courses

- 1. CONSTRUCTION AND MAINTENANCE OF PLAY FIELDS**
- 2. TOURISM MANAGEMENT IN INDIA**

	<p style="text-align: center;">GENERIC ELECTIVE COURSES CONSTRUCTION AND MAINTENANCE OF PLAY FIELDS</p> <p>Instruction : 4 Hours / Week Credits : 4 Assessment : 25+75</p>
1.	<p><u>SYLLABUS</u></p> <p style="text-align: center;">UNIT I</p> <p>Non Standard Track: Area Required, Calculation of RDR, CDR, Curve, Straight, line, Lane and Track method of calculation and Marking Procedure. Periodical Maintenance.</p> <p style="text-align: center;">UNIT II</p> <p>Standard Track as per IAAF: Area Required, Calculation of RDR, CDR, Curve, Straight , line, Lane and Track method of calculation and Marking Procedure. Periodical Maintenance.</p> <p style="text-align: center;">UNIT III</p> <p>Filed Events : Method of Marking and Construction of Throwing events: Shot-put, Hammer Discus and Javelin. Method of Marking and Construction of Jumping events: Long Jump, Triple Jump, High Jump, Pole Vault.</p> <p style="text-align: center;">UNIT IV</p> <p>Construction and Maintenance of Rectangular Play Fields: Basketball, Football, Hockey, Handball, Kabaddi, Kho- Kho, Volleyball,. Construction and Maintenance of Circular : Play Fields: Cricket.</p> <p style="text-align: center;">UNIT V</p> <p>Surface: Natural, Wooden, Artificial/ Synthetic fields. Turf for Indoor Stadium, Turf for Kabaddi. Advantages, and Method of Maintenance.</p> <p>Text Book</p> <ol style="list-style-type: none"> 1. Authors Guide (2002) Rules of Games and Sports, New Delhi : YMCA Publishing House. 2. Authors Guide (2019) FIBA Official Basket Rules : Munich.. 3. Chelliah, S.N (1990), Vilayattu Vithi Muraihal, Chennai: Raj Mohan Pathipagam. 4. Gangopaddhayoy, S. R. (2008). Encyclopaedia of Sports Training. New Delhi: Sport Publication. 5. Hardayal Singh. (2005). Sports Training - General Theory and Methods. Patiala: NSNIS. 6. Josse, P, Moprtsensen., & John, M,Copper. (1998). Track and Field for Coach and Athlete. St.Louis: C.V.Mosphy Company.

2.	COURSE OUTCOME students are able to										
	CO-1	Able to Mark and Maintain Track and Field									
	CO-2	Able to Mark and Maintain Play Field Marking									
	CO-3	Able to Understand the concept of surfaces of Play Fields									
3.	MAPPING’S OF CO’S AND PO’S										
	Course Outcomes	Programme Outcome									
		1	2	3	4	5	6	7	8	9	10
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		2	1	2		2					3
	3	1	1	2	1		1		3		1
4.	MAPPING’S OF CO’S AND PSO’S										
	COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)									
		1		2							
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	3		1								

	<p style="text-align: center;">GENERIC ELECTIVE COURSES TOURISM MANAGEMENT IN INDIA</p> <p>Instruction : 4 Hours / Week Credits : 4 Assessment : 25+75</p>
1.	<p><u>SYLLABUS</u></p> <p style="text-align: center;">UNIT I</p> <p>Geographical unit of India: Location, Position, Neighborhood, Climate, People and language. National Tourism Policy, Enhancing India's Competitiveness as a Tourism Destination.</p> <p style="text-align: center;">UNIT II</p> <p>Definition of Tourism, types of tourism. Basic components of tourism, Motivation of tourism. International tourist, Domestic tourist, Various kinds of tourism.</p> <p style="text-align: center;">UNIT III</p> <p>Accommodation: Definition of hotel types of hotel hotel terminology. Transport : Air transport, Rail transport, Water transport, Road transport.</p> <p style="text-align: center;">UNIT IV</p> <p>Organizations role of NTO, functions of NTO, role of WTO, role of TTDC- role of ITDC in promoting tourism.</p> <p style="text-align: center;">UNIT V</p> <p>UNESCO world heritage sites in India, Monuments, Ancient temple of India , Forts, Palaces, Museums.</p> <p>Text Book</p> <ol style="list-style-type: none"> 1. Prannath Seth, (1997) Successful tourism management, Sterling Publishers: New Delhi. 2. Satyender Singh Malik, (2006), Potential of Adventure Tourism in India,Akam Kala Prakashan Publisher. 3. Authors Guide (2002), National Tourism Policy, Ministry of Tourism , Government of India, New Delhi. 4. Bhatia A.K.,(2003) International-Tourism, Sterling Publishers Pvt Ltd, New-Delhi. 5. Bhatia A.K.,(2003) Tourism Development Principles and Practices, Sterling Publishers Pvt Ltd, New-Delhi.

2.	COURSE OUTCOME students are able to										
	CO-1	Able to understand the Geographical units of India.									
	CO-2	Able to understand the International and Domestic Tourism									
	CO-3	Able to understand and identify the UNESCO world heritage sites in India									
3.	MAPPING'S OF CO'S AND PO'S										
	Course Outcomes	Programme Outcome									
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		2		2	3			2		1	
	3				1	2			3	1	
4.	MAPPING'S OF CO'S AND PSO'S										
	COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)									
		1				2					
		2				1					
		1				3					
		3									

Ability and Skill Enhancement Courses:(Part IV)

To successfully complete the BPED course the students must under go the Ability and Skill Enhancement Courses under the sub headings of Ability Enhancement Compulsory Courses (AECC) , Skill Enhancement Courses and Co-Curricular course.

Ability Enhancement Compulsory Courses (AECC)

First Semester – **COMMUNICATION SKILLS**

Second Semester – a) **ENVIRONMENTAL STUDIES**

b) SOFT SKILLS

Skill Enhancement Courses (SEC)

Third Semester - (Any one paper from the basket of choices)

A) OBESITY AND WEIGHT MANAGEMENT

B) SPORTS FIRST AID

	<p style="text-align: center;">PART-IV-ABILITY ENHANCEMENT ELECTIVE COURSE COMMUNICATION SKILLS</p> <p>Instruction : 2 Hours / Week Credits : 2 Assessment : 50</p>
1.	<p><u>SYLLABUS</u></p> <p style="text-align: center;">UNIT I</p> <p>UNIT I</p> <p>Recap of Language Skills – Speech, Grammar, Vocabulary, Phrase, clause, sentence, Punctuation. Fluency building: What is fluency – Why is fluency important – Types of fluency – Oral fluency – Reading fluency – Writing fluency – Barriers of fluency – How to develop fluency.</p> <p>UNIT II</p> <p>Principles of communication: LSRW in communication. What is meant by LSRW Skills – Why it is important – How it is useful – How to develop the skills?. Oral – Speaking words, articulation, speaking clearly.</p> <p>UNIT III</p> <p>Written communication – Generating ideas/ gathering data organizing ideas, Setting goals, Note taking, Outlining, Drafting, Revising, Editing and Proof reading. Non verbal communication – Body language, Signs and symbols, Territory/Zone, Object language.</p> <p>UNIT IV</p> <p>Speaking Skills: Formal and Informal Conversation – Conversation in the work place – Interviews – Public. Speech – Lectures. Listening Skill: Comprehending – Retaining – Responding – Tactics – Barriers to Listening – Overcoming. listening barriers – Misconception about listening.</p> <p>UNIT V</p> <p>Reading Skill: Acquiring reading – Reading Development – methods teaching – Reading difficulties. Writing skill: Note-making – CV's – Report writing, copy writing, Agenda – Minutes – Circular – Essay writing on any current issues – paragraph – Essay writing, Writing Research papers – Dissertation.</p>

	Text Book 1. Book for South Asian Students. Reprint 2003. Cambridge University Press. New Delhi. 2. Hall and Shepherd. The Anti-Grammar Book: Discovery Activities for Grammar Teaching 3. Hewing, Martin. 1999. Advanced English Grammar: A Self-study Reference and practice 4. John, Seely The Oxford guide to writing and speaking. Oxford U P, 1998, Delhi. 5. SasiKumar. V and P.V. Dharmija. 1993. Spoken English: A Self-Learning Guide Conversation Practice. 34th reprint. Tata McGraw – Hill. New Delhi.																																																						
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	<p style="text-align: center;">PART-IV-ABILITY ENHANCEMENT ELECTIVE COURSE ENVIRONMENTAL STUDIES</p> <p>Instruction : 2 Hours / Week Credits : 2 Assessment : 50</p>
1.	<p><u>SYLLABUS</u></p> <p style="text-align: center;">UNIT I</p> <p>Environmental Science : Definition, Scope, Need and Importance of environmental studies. Concept of environmental education, Historical background of environmental education, Celebration of various days in relation with environment.</p> <p style="text-align: center;">UNIT II</p> <p>Plastic recycling & probation of plastic bag / cover. Role of school in environmental conservation and sustainable development.</p> <p style="text-align: center;">UNIT III</p> <p>Natural Resources and related environmental issues: Water resources, food resources and Land resources.</p> <p style="text-align: center;">UNIT IV</p> <p>Definition, effects and control measures of Air Pollution, Water Pollution, Soil Pollution, Noise Pollution, Thermal Pollution. Management of environment and Govt. policies , Role of pollution control board.</p> <p style="text-align: center;">UNIT V</p> <p>People and Environment: People and environment interactions, Sources of pollution, Pollutants and their impact on human life, exploitation of natural and energy resources, Natural hazards and mitigation.</p> <p>Text Book</p> <ol style="list-style-type: none"> 1. Agrawal, K.C. (2001). <i>Environmental biology</i>. Bikaner: Nidhi publishers Ltd. 2. Frank, H. & Walter, H., (1976). <i>Turners school health education</i>. Saint Louis: The C.V. Mosby Company. 3. Nemir, A. (n.d.). <i>The school health education</i>. New York: Harber and Brothers. 4. Odum, E.P. (1971). <i>Fundamental of ecology</i>. U.S.A.: W.B. Saunders Co.

2.	COURSE OUTCOME students are able to									
	CO-1	Able to promote good practice to promote and preserve environment								
	CO-2	Able to create awareness on health problems due to environmental pollution								
	CO-3	Able to explain importance of environment and to create good environment.								
3.	MAPPING'S OF CO'S AND PO'S									
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	<p style="text-align: center;">PART-IV-ABILITY ENHANCEMENT ELECTIVE COURSE</p> <p style="text-align: center;">SOFT SKILLS</p> <p>Instruction : 2 Hours / Week Credits : 2 Assessment : 50</p>
1.	<p><u>SYLLABUS</u></p> <p style="text-align: center;">UNIT I</p> <p>Soft Skills – Meaning, Definition, need and importance. Interview Skills – Preparing for an interview .Presentation Skills: Body Language - Speaking , Pronunciation , structuring of presentation, Group discussion :Skills in listening and expressing effectively.</p> <p style="text-align: center;">UNIT II</p> <p>Importance of Attitude: Meaning and Definition. Attitude and Success – Factors Determining Attitude . Benefits of Positive Attitude . Steps in Building Positive attitude. Comparison of Winners and Losers.</p> <p style="text-align: center;">UNIT III</p> <p>Success : Meaning and Definition. Qualities to make a person successful- Obstacles of Success- Methods to overcome Obstacles. Meaning and Definition- Values and Vision: Meaning and Definition –Judging value system – Change in value system- Character-Priceless-Life worth saving.</p> <p style="text-align: center;">UNIT IV</p> <p>Motivation: Meaning and Definition. Comparison of Inspiration and Motivation. Internal and External Motivation. Self Esteem: Meaning and Definition. Advantages of High Self Esteem. Causes of low self esteem. Building Confidence.</p> <p style="text-align: center;">UNIT V</p> <p>Inter- Personal Skills: Meaning and Definition. Life of Boomerang. Trust- Difference between ego and Pride. Steps in building Positive personality. Subconscious Mind and Habits: Meaning and Definition. Good Habits -Formation of Habits- Conditioning – Forming Positive habits. .</p>

	Text Book 1. Authors Guide (2014)‘ Soft Skills’ University of Madras, Chennai 2. Authors Guide (2014) ‘ Communication Skills,” University of Madras, Chennai 3. Mangal .S.K. (2002) , Advanced Educational Psychology, Prentice Hall of India, New Delhi. 4. Shiv Khera (2006), You Can Win, Macmillan: New Delhi.																																																						
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	<p style="text-align: center;">PART-IV- SKILL ENHANCEMENT COURSES OBESITY AND WEIGHT MANAGEMENT</p> <p>Instruction : 2 Hours / Week Credits : 2 Assessment : 50</p>
1.	<p><u>SYLLABUS</u></p> <p style="text-align: center;">UNIT I</p> <p>Obesity – Introduction – Definition – Epidemiology – Prevalence – Incidence – fax variance- Etiology of obesity – Psychological correlation – Genesis influence. Types of Obesity – Android Obesity – Gyneoid obesity, Pathophysiology of obesity-Compilations of obesity</p> <p style="text-align: center;">UNIT II</p> <p>Assessment of obesity – Health related Quality of life assessment - Body composition Assessment – Laboratory methods, fields method - Clinical evaluation of obesity. Basics of Body composition: Definition, Meaning and Need. Methods of measurements- skin fold measurements – Circumference measurements – Body composition Assessment and Report. Skin fold measurement techniques: Sites of measurement . Calculation of Body percent Fat.</p> <p style="text-align: center;">UNIT III</p> <p>Weight Management: 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)</p> <p style="text-align: center;">UNIT IV</p> <p>Planning of Weight Management: Determination of Desirable Body Weight – Daily Caloric Intake and Expenditure – Balanced Diet for Indian School Children – Weight Management Programme for Sporty Children – Role of Diet and Exercise in Weight Management – Diet Plan and Exercise Schedule for Weight Gain and Loss.</p> <p style="text-align: center;">UNIT V</p> <p>Establish Desirable body weight. Best way to loose weight – unhealthy approaches to loose weight. Causes and Solution for overcoming Obesity. Myths of Spot Reduction and Weight Loss – Dieting and Exercise for Weight Control</p>

	<p>Text Book</p> <p>1. Allsen, P.E. J.M.Harrison and B.Vance(1989). Fitness for life: An individualized Approach. Dubuque,IA:Wm.C.Brown,</p> <p>2. Edward T. Howley B. Don Franks (2003) Health Fitness Instructors Hand book, Human Kinetics, Canda.</p> <p>3. E.T. and Franks B.D. (1977) Health Fitness Instructor’s handbook. Third Edition. Human Kinetics, Champaign Illinois</p> <p>4. Rick Frey (Ed) (1995) Practical Body Composition Guide, Human Kinetics, Canada.</p> <p>5. W.K. Hoeger and Sharon A. Hoeger (1990) Fitness and Wellness, Morton Publishing Company, Canada.</p>																																											
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1.	<p><u>SYLLABUS</u></p> <p style="text-align: center;">UNIT I</p> <p>Principles and practice of first aid for sports injuries – PRICE - aims of first aid - the responsibility of the first aider - action at emergency. cardiopulmonary resuscitation - CPR for adults - CPR for children's – rules of first aid.</p> <p style="text-align: center;">UNIT II</p> <p>First aid techniques; dressing - types of dressing, application of dressing, bandages - types of bandages, tying the bandages - slings and its uses, different types of slings, applying the sling for different parts of the body according to the area.</p> <p style="text-align: center;">UNIT III</p> <p>First aid for different type of wounds, abrasions wound, incision wound, contused wound, lacerated wound, punctured wound and gun shot wound - Complications of wounds - Bleeding its types and its management - First aid for asphyxia.</p> <p style="text-align: center;">UNIT IV</p> <p>Fractures its types and its first aid management - First aid for fractures of spine, skull, collar bone, lower jaw, rib, humerus, forearm, hand, fingers, pelvis, femur, leg and foot - First aid for muscles and tendons injuries cramps, sprain and strain.</p> <p style="text-align: center;">UNIT V</p> <p>Care and prevention of sports injuries - protective equipments for sports - technical factors in overuse injuries. Emergency First aid Response, Emergency care of patient with suspected spinal cord injury.</p>

	Text Book 1. Authors Guide (2007) First aid to the injured, St.Johns Ambulance,Chennai. 2. Baker (2008): The Hughston Clinic Sports Medicine Book, 3. Williams ilkins Lillegard, Butcher & Rucker(2009) Handbook of Sports Medicine: A symptom Oriented Approach, Butterworth & Heinemann 4. Reed(2007) Sports Injuries – Assessment and Rehabilitation, 5. W.B.Saunders. Richard B. Birrer(2005) Sports Medicine for the primary care Physician, CRC Press																																																						
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**SYLLABUS, COURSE OUTCOMES AND MAPPING (CO's and PO's) &
(CO's and PSO's)**

TAMILNADU PHYSICAL EDUCATION AND SPORTS UNIVERSITY

DEPARTMENT OF PHYSICAL EDUCATION

M.P.ED DEGREE PROGRAMME

MASTER OF PHYSICAL EDUCATION (M.P.Ed)

PROGRAM EDUCATIONAL OUTCOMES (PEOS)

- PEO-1) The Master of Physical Education(M.P.Ed.) Programme is a professional Programme meant for preparing physical education teacher for high school (classes I to X) level.
- PEO-2) The curriculum and syllabus have been structured in such a way that each of the course meets one or more of the outcomes related to the skills, knowledge, and behaviors that students acquire as they progress through the program. Further, each course in the program spells out clear instructional objectives which are mapped to the student outcomes.

PROGRAMME OUTCOMES

- PO-1) Domain knowledge: Apply the knowledge of basic sciences that may be relevant and appropriate to physical education and sports sciences leading to solution of complex sports related issues and problems.
- PO-2) Problem analysis: Ability to Identify, define the actual requirements, formulate, research literature, and analyze complex physical education and sports sciences related problems to reaching substantiated conclusions.

- PO-3) Design/Development of Solutions: Ability to design, implement, and evaluate process or program to meet desired needs in the field of physical education and sport sciences.
- PO-4) Individual and team work: Ability to function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings to accomplish a common goal.
- PO-5) Ethics: Understanding of professional, ethical, legal, security, social issues and responsibilities in teaching, learning and evaluation.
- PO-6) Communication: Ability to communicate effectively among a range of audiences/ stakeholders
- PO-7) Impact: Ability to analyze the local and global impact of physical activities and sports and games on individuals, organizations and society.
- PO-8) Professional Development: Recognition of the need for and an ability to engage in continuing professional development.
- PO-9) Identification of Needs: Ability to identify and analyze user needs and take them into account in the selection, creation, evaluation, and administration of physical education and sport sciences programs.
- PO-10) Integration: Ability to incorporate effectively integrate Science/Technology/ IT-based solutions to applications

MAPPING OF PEO'S WITH PO'S

	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10
PEO-1	X	X	X	X	X	X	X	X	X	X
PEO-2	X			X	X	X		X	X	X

CORE PAPER - I

RESEARCH PROCESS IN PHYSICAL EDUCATION AND SPORTS SCIENCES

Learning Objectives

1. Gain knowledge about research in the field of physical education
2. To understand the concept of sample and population
3. To testing the existing theories/trainings methods
4. To develop systematic and scientific approach in finding solutions for the questions.

UNIT I

Meaning and Definition of Research - Need, Nature and Scope of research in Physical Education. Classification of Research: Basic Research, Applied Research, Action Research. Location of Research Problem - Criteria for selection of a problem. Qualities of a good researcher.

UNIT II

Meaning and Definition of Historical Research - Steps in Historical Research - Sources of Historical Research. Primary Data - Secondary Data - Historical Criticism: Internal Criticism, External Criticism. Descriptive Methods of Research: Survey Study - Case study - Normative Study.

UNIT III

Meaning and Definition of Hypothesis. Formulation, types and testing of Hypothesis. Experimental Methods of Research: Meaning of variable - Types of Variables - Nature and meaning of experimental Research. Types of Experimental

Design: Single Group Design, Reverse Group Design, Repeated Measure Design, Static Group Comparison Design, Equated Group Design, Factorial Design.

UNIT IV

Meaning and Definition of Sample and Population. Sampling – Process and techniques. Types of Sampling: Probability Methods : Systematic Sampling, Cluster sampling, Stratified Sampling. Area Sampling- Multistage Sampling. Non – Probability Methods: Convenience Sample, Judgment Sampling, Quota Sampling.

UNIT V

Chapterization of Thesis/ Dissertation: Front Materials, Body of the Thesis- Back materials. Method of Writing Research proposal, Thesis/ Dissertation. Method of writing abstract and full paper for presenting in a conference and to publish in journals. Mechanics of writing Research Report – Method of writing bibliography for books, journals, unpublished thesis and web resources.

Learning outcomes

1. Identify the research problem in the field of physical Education and sports
2. Know to Summarize the various research literature
3. Understand and apply the basics of statistics in research.
4. Organize the samples and sampling techniques which is relevant to the study.
5. Apply the systematic methods in writing research thesis

Peer Group Teaching and Discussion Concept

Group Discussion on Qualities of Good Researcher and Criteria for Selecting Good

Research. Discussion with Research Problem: Selection of Samples, Variables, Tools and

Report Writing.

REFERENCE

Best J. W (1971) Research in Education, New Jersey: Prentice Hall, Inc.

Clarke David.H& Clarke H, Harrison (1984) Research processes in Physical Education.

New Jersey : Prentice Hall Inc.

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Englewood Cliffs : Prentice Hall, Inc.

Subramanian.R, Thirumalai Kumar S &Arumugam.C(2010) Research Methods in

Health, Physical Education and Sports. New Delhi: Friends Publication.

2.	COURSE OUTCOME students are able to											
	CO-1	Know the origin and development of Physical Education										
	CO-2	Apply the knowledge of Olympism in organizing various sport activities										
	CO-3	Distinguish the functional operations on National and International Olympic Federations.										
	CO-4	Analyze the concepts and issues pertaining to Physical Education.										
	CO-5	Formulate the principles, philosophy and concepts about Physical Education										
3.	MAPPING'S OF CO'S AND PO'S											
	Course Outcomes	Programme Outcome										
		1	2	3	4	5	6	7	8	9	10	
		1	2		2	1	1		2	3		
		2	2			3		2	1		1	
	3	3		1		2		1		2		
4.	MAPPING'S OF CO'S AND PSO'S											

	COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)	
		1	2
	1	1	2
	2		
	3	2	3

CORE PAPER II

YOGIC SCIENCES

Learning Objectives

1. To understand and apply the underlying concepts of Yoga
2. To promote knowledge and awareness of skeletal alignment and body mechanics, emphasizing a safe and intelligent use of the body
3. To cultivate breath control, relaxation techniques and kinaesthetic awareness

UNIT I

Principles, Philosophy and scope of Yoga. Yogic practices for various age groups.

Yoga – Values – Spirituality, Yogic practices for personality development. Loosening exercises: Techniques and benefits. Suryanamaskar: Vivekananda kendra Method and benefits . Asanas : Types – Advanced asanas and Benefits. Pranayama: Aspects of Pranayama - Methods and benefits. Nadis and Chakras: Major Chakras - Benefits of clearing and balancing Chakras.

UNIT II

Shat Kriyas- Meaning, Techniques and Benefits of Neti-Dhauti- Kapalabhati-Trataka

- Nauli – Basti. Bandhas:Meaning, Techniques and Benefits of JalendraBandha, JihvaBandha, UddiyanaBandha, MulaBandha.

UNIT III

Mudras : Meaning, Techniques and Benefits of Hasta Mudras, Asamyuktahastam, Samyuktahastam, Mana Mudras, Kaya Mudras, Banda Mudras , Adhara Mudras . Meditation : Guidelines, Types:- Passive and active. Saguna Meditation and Nirguna Meditation, Techniques, Benefits.

UNIT IV

Yoga and Sports: Yoga Supplemental Exercises -Yoga Compensation Exercises-Yoga Regeneration Exercises- Power Yoga. Role of Yoga in Psychological Preparation of athlete: Mental Wellbeing, Anxiety, Stress, Depression, Concentration, Self Actualization.

UNIT V

Yoga for skill development, Yoga for performance enhancement of sports persons, Yoga management for sports injuries, Yoga for Leadership, Yogic Diet for Fitness and Hygiene.

Learning outcomes

1. Understand the basic Concepts of Yoga
2. Apply the principles of Yoga to live healthy and active life style.
3. Promote the awareness of health through yoga

Analyse the techniques and of body posture to bring out healthy change

5. Develop the knowledge through practice, participate and organize.

Peer Group Teaching and Discussion Concept

Group Discussion and Preparation for Yoga Day Celebration – Yoga Awareness Programme- Importance of Yogic Diet. Teaching Yogic Postures with simplified models developed by the students.

REFERENCE

Authors Guide (2015) , International Day of Yoga, Common Yoga Protocol, New Delhi: Ministry of AYUSH, Government of India.

George Feuerstein. (1975).Text Book of Yoga. London: MotilalBansaridass Publishers (P) Ltd.,

Gore. (1990). Anatomy and Physiology of Yogic Practices. Lonavala: KanchanPrkashan.

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ThirumalaiKumar. S and Indira .S(2011) Yoga in Your Life, Chennai: The Parkar Publication.

2.	COURSE OUTCOME students are able to	
	CO-1	Understand the basic principles of Anatomy, Physiology and Health Education
	CO-2	Apply the knowledge in the field of physical education and movement activity.
	CO-3	Analyze the practical knowledge during the practical situation.
	CO-4	Remember and recall the definition of anatomy and physiology and co-relate the principles of physiology.
	CO-5	Appraise the effects of health condition during the training and practical sessions

3.	MAPPING'S OF CO'S AND PO'S <table><tr><th rowspan="2">Course Outcomes</th><th colspan="10">Programme Outcome</th></tr><tr><th>1</th><th>2</th><th>3</th><th>4</th><th>5</th><th>6</th><th>7</th><th>8</th><th>9</th><th>10</th></tr><tr><td>1</td><td>2</td><td></td><td>1</td><td>1</td><td></td><td></td><td></td><td>3</td><td>2</td><td>1</td></tr><tr><td>2</td><td>1</td><td></td><td></td><td></td><td></td><td></td><td>2</td><td>3</td><td></td><td></td></tr><tr><td>3</td><td>2</td><td></td><td>3</td><td></td><td></td><td></td><td></td><td>1</td><td>2</td><td></td></tr></table>	Course Outcomes	Programme Outcome										1	2	3	4	5	6	7	8	9	10	1	2		1	1				3	2	1	2	1						2	3			3	2		3					1	2	
Course Outcomes	Programme Outcome																																																						
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CORE PAPER III

TESTS, MEASUREMENT AND EVALUATION IN PHYSICAL EDUCATION

Learning Objectives

1. Administer a variety of tests as they apply to physical education, health and fitness.
2. Analyse and evaluate various fitness movements
3. Conduct the research Study through test and measurement

UNIT I

Meaning and Definition of Test - Measurement and Evaluation. Need and Importance of Measurement and Evaluation. Criteria for Test Selection - Scientific Authenticity. Meaning, definition and establishing Validity, Reliability, Objectivity. Norms - Administrative Considerations.

UNIT II

Meaning and Definition of Motor Fitness. Test for Motor Fitness: Indiana Motor Fitness Test (For elementary and high school boys, girls, and College Men)- Oregon Motor Fitness Test (For boys and girls) –JCR Motor Fitness Test. Motor Ability : Meaning and Definition of Motor Ability, Barrow Motor Ability Test - Newton Motor Ability Test - Muscular Fitness : Kraus Weber Minimum Muscular Fitness Test.

UNIT III

Physical Fitness Test:AAHPERD Health Related Fitness Battery (revised in 1984), ACSM Health Related Physical Fitness Test, Roger's physical fitness Index. Cardio Vascular test: Harvard step test, 12 minutes run/walk test, Multi-stage fitness test (Beep test).

UNIT IV

Physiological Testing: Aerobic Capacity: The Bruce Treadmill Test Protocol, 1.5 Mile Run test for college age males and females. Anaerobic Capacity: Margaria-Kalamen Power test, Wingate Anaerobic Test, Anthropometric Measurements: Method of Measuring Height :

Standing Height, Sitting Height. Method of measuring Circumference: Arm, Waist, Hip, Thigh.

Method of Measuring Skin folds: Biceps, Triceps, Sub scapular, Suprailiac.

UNIT V

Specific Sports Skill Test: Badminton: Miller Wall Volley Test. Basketball: Johnson

Basketball Test, Harrison Basketball Ability Test. Cricket : Sutcliffe Cricket test. Hockey:

Friedel Field Hockey Test, Harban's Hockey Test. Volleyball: Russel Lange Volleyball Test,

Brady Volleyball Test. Football: Mor-Christian General Soccer Ability Skill Test Battery,

Johnson Soccer Test , MC-Donald Volley Soccer Test. Tennis: Dyer Tennis Test.

Learning outcomes

1. Understand the Test, Measurement and Evaluation in physical education, Health and Fitness.
2. Know about the different types of test for different sports and games.
3. Apply the tests in minor research areas.
4. Analyse the performance and movements in the field of sports.
5. Evaluate the battery test and others tests prescribed by the government efficiently.

Peer Group Teaching and Discussion Concept

Group Discussion on Duties of Test Administration. Role Play as Tester and Subjects.

Teaching the above tests in the practical setting with peer students under the supervision of Teacher.

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Wilmore JH and Costill DL. (2005) Physiology of Sport and Exercise: 3rd Edition. Champaign, IL: Human Kinetics.

Wilgoose, C.E (1967) Evaluation in Health Education and Physical Education, New York : McGraw Hill Book Company, Inc,

Yobu,A (2010), Test, Measurement and Evaluation in Physical Education and Sports, New Delhi: Friends Publications.

2.	COURSE OUTCOME students are able to																																																						
CO-1	Understand the basic Concepts of Yoga																																																						
CO-2	Apply the principles of Yoga to live healthy and active life style.																																																						
CO-3	Promote the awareness of health through yoga																																																						
CO-4	Analyze the techniques and of body posture to bring out healthy change.																																																						
CO-5	Able to execute loosening exercise , Asanas, Pranayama and Shatkriyas.																																																						
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Course Outcomes	Programme Outcome																																																						
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CORE PAPER V

APPLIED STATISTICS IN PHYSICAL EDUCATION AND SPORTS

Learning Objectives

1. Gain knowledge about statistics
2. To testing the existing theories/trainings and modifying
3. To develop systematic and scientific approach
4. Ability to interpret the data's

UNIT I

Meaning and Definition of Statistics. Function, need and importance of Statistics.

Types of Statistics. Meaning of the terms: Population, Sample, Data, Kinds of data.

Variables: Discrete and Continuous. Parametric and non parametric statistics.

UNIT II

Meaning, uses and construction of frequency table. Meaning, Purpose, calculation and advantages of Measures of central tendency -Mean, median and mode.

UNIT III

Meaning, Purpose, Calculation and advantages of measures of variability: Range, Quartile Deviation, Mean Deviation, Standard Deviation and Probable Error. Meaning, Purpose, and Calculation of Scoring scales: Sigma scale, Z Scale, Hull scale, T Scale.

UNIT IV

Normal Curve: Meaning of probability - Principles of normal curve - Properties of normal curve. Divergence from normality – Skewness and Kurtosis. Graphical Representation in Statistics: Line Diagram, Pie diagram, Bar diagram, Histogram, Frequency Polygon, Ogive Curve.

UNIT V

Tests of significance: Independent “t” test, Dependent “t” test - Chi - square test, level of confidence and interpretation of data. Meaning of Correlation - Co-efficient of Correlation - calculation of co-efficient of correlation by the product moment method and rank difference method . Concept of ANOVA and ANCOVA.

Learning outcomes

1. Understand and apply the statistics in research.
2. Organize the samples and sampling techniques which is relevant to the study.
3. Apply the statistics in research thesis for evaluation

Peer Group Teaching and Discussion Concept

Group Discussion on need and Importance of Statistics in Physical Education.

Discussion on application of apt statistical technique. Discussion on testing the Hypothesis.

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Best, J.W. (1971) Research in Education, Englewood Cliffs,: Prentice Hall.

Clark, D.H. (1999) Research Problem in Physical Education 2nd edition, Eaglewood Cliffs:Prentice Hall, Inc.

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2.	COURSE OUTCOME students are able to											
	CO-1	Understand training as performance based science										
	CO-2	Explain different means and methods of various training										
	CO-3	Prepare training schedule for various sports and games										
	CO-4	Appraise types of periodization for performance development										
	CO-5	Create various training facilities and plans for novice to advance performers										
3.	MAPPING'S OF CO'S AND PO'S											
	Course Outcomes	Programme Outcome										
		1	2	3	4	5	6	7	8	9	10	
	1	1	2	3				1	2	1	3	
	2		3	2	1	1	1					
	3	1	3	3	2			2		1	3	
	4.	MAPPING'S OF CO'S AND PSO'S										
COURSE OUTCOMES (CO)		PROGRAM SPECIFIC OUTCOMES (PSO)										
		1		2								
1		1		2								
2		2										
3		2		3								

CORE PAPER VI

SPORTS BIOMECHANICS AND KINESIOLOGY

Learning Objectives

1. Know the scientific principles of body movements
2. Know the mechanical analysis of sports
3. Know the importance of kinesiology and biomechanics to Physical Education teacher, athletes and coaches.

UNIT I

Meaning, nature, scope and role of Applied Kinesiology and Sports Biomechanics. Joints and their Movements - Planes and axes. Meaning of Dynamics, Kinematics (linear and angular), Kinetics, Statics Centre of gravity - Line of gravity, plane of the body and axis of motion, Vectors and Scalars.

UNIT II

Origin, insertion and action of muscles: Pectoralis major and minor, Deltoid, Biceps, Triceps (Anterior and Posterior), Trapezius, Serratus, Sartorius Rectus femoris, Rectus Abdominus, Quadriceps, Hamstring, Gastrocnemius. Posture, Postural deformation and Corrections. Muscular analysis of Motor Movements.

UNIT III

Meaning and definition of Motion. Types of Motion: Linear motion, angular motion, circular motion, uniform motion. Law of acceleration, Principles related to the law of Inertia, Law of acceleration, Law of counter force. Meaning and definition of force - Sources of force - Force components - Force applied at an angle - pressure - friction - Buoyancy, Spin - Centripetal force - Centrifugal force.

UNIT IV

Freely falling bodies - Projectiles - Equation of projectiles stability. Principles of Equilibrium, and force, spin and elasticity. Factors influencing equilibrium - Guiding principles for stability - static and dynamic stability. Meaning of work, power, energy, kinetic energy and potential energy. Leverage - classes of lever - practical application. Water resistance - Air resistance- Aerodynamics.

UNIT V

Analysis of Movement: Types of analysis: Kinesiological, Biomechanical. Cinematographic. Methods of analysis – Visual, Instrument. Mechanical Analysis of various sports activities: Walking, Running, Jumping, Throwing, Pushing, Pulling Lifting, Catching, Hitting, Spiking, Kicking,. Analysis of skill/ techniques of games: Basketball, Cricket, Football, Hockey, Volleyball, Track and Field , Swimming and Gymnastics.

Learning outcomes

1. Identify biomechanical, health, physiological, and psychological limitations to and interventions for improving physical performance.
2. Analyse and explain the mechanisms underlying biomechanical, physiological, and psychological changes that occur during after acute and chronic exercise.
3. Develop physical conditioning programs based on scientific principles designed to develop physical fitness and improve athletic performance.
4. Understand mechanical principles can be applied to the analysis of human movement to assess and improve performance and reduce risk of injury.
5. Know effectiveness of human movement using mechanical principles.

Peer Group Teaching and Discussion Concept

Preparation of Models fro teaching origin, insertion and actions of Muscle. Discussion on Biomechanical Principles involved in fundamental movements and Game Skill Variables.

REFERENCE

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Williams M (1982) Biomechanics of Human Motion, Philadeiphia: Saunders Co.

2.	COURSE OUTCOME students are able to											
	CO-1	Understand the principles and process of Administration and Management										
	CO-2	Administer physical education and sports programs in schools.										
	CO-3	Develop appropriate physical education curriculum, tools and budget to manage school programs										
	CO-4	Appraise and manage physical education facilities and personnel in school										
	CO-5	Design tournament fixtures and structures to organize competitions										
3.	MAPPING'S OF CO'S AND PO'S											
	Course Outcomes	Programme Outcome										
		1	2	3	4	5	6	7	8	9	10	
		1	1		3	1	1			3		2
		2	2	3	1			1	2			
		3	1		2				1		2	1

4.

MAPPING'S OF CO'S AND PSO'S

COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)	
	1	2
1	1	2
2	2	1
3	1	3

CORE PAPER VII

SPORTS PSYCHOLOGY AND SOCIOLOGY

Learning Objectives

1. To know and to understand the sportsmen behaviour.
2. To know the various psychological factors affecting sport performance.
3. To know the relationship of the sports person with society in various sports settings.

UNIT I

Meaning, Definition, History, Need and Importance of Sports Psychology. Present Status of Sports Psychology in India. Motor Learning: Basic Considerations in Motor Learning

– Motor Perception - Factors Affecting Perception – Perceptual Mechanism. Personality: Meaning, Definition, Structure – Measuring Personality Traits. Effects of Personality on Sports Performance.

UNIT II

Meaning, Method of Measuring of Achievement Motivation. Anxiety: Meaning and Definition, Nature, Causes, Method of Measuring Anxiety. Competitive Anxiety and Sports Performance. Stress: Meaning and Definition, Causes. Stress and Sports Performance. Aggression: Meaning and Definition, Method of Measurement. Aggression and Sports Performance. Self Concept: Meaning and Definition, Method of Measurement. Personality: Dimensions, theories. Personality and performance.

UNIT III

Goal Setting: Meaning and Definition, Process of Goal Setting in Physical Education and Sports. Relaxation : Meaning and Definition, types and methods of psychological relaxation. Psychological Tests: Types of Psychological Test: Instrument based tests: Pass-along test – Tachistoscope - Reaction timer - Finger dexterity board - Depth perception box - Kinesthesiometer board. Questionnaire: Sports Achievement Motivation, Sports Competition Anxiety. Psychological factors ,Stress, Anxiety, Tension and Aggression affecting Sports Performance.

UNIT IV

Sports Sociology: Meaning and Definition – Sports and Socialization of Individual Sports as Social Institution. National Integration through Sports. Sociological basis of Physical Education: Socialization process, Social nature of men and physical activity, sports

as cultural heritage of mankind, customs, traditions and sports, competition and cooperation. Leadership: Meaning, Definition, types. Leadership and Sports Performance.

UNIT V

Group: Definition and Meaning, Group Size, Groups on Composition, Group Cohesion, Group Interaction, Group Dynamics. Current Problems in Sports and Future Directions – Sports Social Crisis Management - Women in Sports: Sports Women in our Society, Participation pattern among Women, Gender inequalities in Sports. Sociometrics, economics and politics in sports

Learning outcomes

1. Explain group mechanisms and group psychology in a sports context
2. Reflect upon motivational psychology as applied to sports activities
3. Formulate relevant constructs of exercise psychology
4. Demonstrate the ability to discuss sociological theories, concepts, and ideas in large and small groups and to express empirically as well as theoretically-based opinions.
5. To apply core sociological theories to specific social problems in order to analyse social problems.

Peer Group Teaching and Discussion Concept

Group Discussion on Role of Sports Psychology. Role Play as Player, Coach, and Psychologist. Group Discussion on: Current Problems in Sports and Future Directions – Sports Social Crisis Management -Gender inequalities in Sports.

REFERENCE

Authors Guide (2013) National Library of Educational and Psychological Test (NLEPT) Catalogue of Tests, New Delhi: National Council of Educational Research and Training Publication.

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Whiting, K, Karman.,. Hendry L.B & Jones M.G..(1999) Personality and Performance in

2.	COURSE OUTCOME students are able to										
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	CO-2	Administer physical education and sports programs in schools.									
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	1	1		3	1	1			3		2
	2	2	3	1			1	2			
	3	1		2				1		2	1
4.	MAPPING'S OF CO'S AND PSO'S										
	COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)									
		1					2				
		1					2				
		2					1				
		3					3				

CORE PAPER IX

SPORTS MEDICINE, ATHLETIC CARE AND REHABILITATION

Learning Objectives

1. By learning the subject the students will be aware of the various injury in sports.
2. The students after learning will gain knowledge about the treatment of various injury in sports.
3. After completion of this subject the students will learn how to give rehabilitation.
4. This subject will also make the student learn about prevention of injuries.

UNIT I

Sports Medicine: Meaning and Definition. History, Need and Importance. Types of Exercises: Therapeutic exercise, coordination exercises, balance exercises, strength exercise, gym ball exercise and gait training and exercises. Principles to be followed for prescribing exercises. Sports Injuries: Definition, Types of Injuries, signs and symptoms. RICER and PRICER: Advantages and disadvantages. Aquatic therapy: Definition, benefits and uses. Posture: Definition, types of Abnormal posture: Lordosis, Scoliosis and Kyphosis. Corrective Exercise for Lordosis, Scoliosis and Kyphosis.

UNIT II

Rehabilitation: Meaning and Definition. Stretching: Definition, Types of Stretching: Static Stretching, Passive Stretching, Dynamic Stretching, Ballistic Stretching, Active Isolated (AI) Stretching, Isometric Stretching and Proprioceptive Neuromuscular Facilitation. PNF techniques, Pattern, Methods - Advantages of Stretching and Disadvantages of Stretching. Manual Muscle Testing: Muscular strength, Muscular endurance, Range of muscle work.

UNIT III

Head Injury: Explanation, causes, Types, Symptoms, Treatment for unconscious and conscious persons. Neck and Spine Injuries- causes. Cervical Fracture: Symptoms and signs, Classification of cervical Spinal injuries - Emergency First aid Response, Emergency care of patient with suspected spinal cord injury. Prevention of Cervical Fracture. Supportive and aids

for Head neck and spine injuries and its prevention. Massage Therapy Treatments Classification- Exercise for Neck and Back.

UNIT IV

Common Shoulder Injuries: Instability, Impingement, Rotator Cuff Injuries.-Common Elbow Injuries, Common wrist Injuries- Acute Traumatic Injuries, Chronic Injury.-Fractured rib- Definition, Signs & symptoms, Treatment- Breathing exercises. Relaxation Exercises to Reduce Stress, Anxiety, and Depression. Rotator Cuff and Shoulder Conditioning Program. Wrist and Elbow Strengthening and Stretching Exercises. Hand and Fingers Strengthening and Stretching Exercises. Supports for Upper Limb and Chest

UNIT V

Lower Limb and Abdomen Injuries. Mechanism of Injury, Signs & Symptoms and, Treatment of Hip -Adductor Stain- Hip joint dislocations- Knee-Medial collateral ligament injury-Lateral collateral ligament injury - Anterior cruciate ligament rupture-. Ankle- Lateral ankle ligament injuries- Medial ankle ligaments injuries- Lateral ankle ligaments injuries- Abdominal Wall Injuries - Rehabilitation of Abdominal Wall Injuries. Exercises to lower limb. Supporting and protecting aids to Lower limb. Sports Shoe- types. Importance and role of physiotherapy in sports.

Learning outcomes

1. Understand the primary responsibilities the sports trainer has in preventing sports injuries and providing initial care for injured athletes.
2. Demonstrate the basics of sport first aid during and after game situation.
3. Recognise and appropriately treat common sports injuries and conditions from onset through rehabilitation.
4. Identify and apply knowledge of anatomy to the design and execution of research studies.

Peer Group Teaching and Discussion Concept

Discussion on primary responsibilities the sports trainer has in preventing sports injuries and providing initial care for injured athletes. Role Play as Injured Athlete and Rehabilitation Facilitator under the supervision of Teacher.

REFERENCE

- Christopher M. Norris. (1993). Sports Injuries Diagnosis and Management for Physiotherapists. East Kilbride: Thomson Litho Ltd.
- James, A. Gould & George J. Davies. (1985). Physical Therapy. Toronto: C.V. Mosby company.
- Morris, B. Mellin. (1989). Sports Injuries and Athletic Problems. New Delhi: Surjeet Publication.
- Pande. (1998). Sports Medicine. New Delhi: KhelShitya Kendra
- The Encyclopedia of Sports Medicine. (1998). The Olympic Book of Sports Medicine. Australia: Tittel Blackwell scientific publications.

2.	COURSE OUTCOME students are able to										
	CO-1	Understand the basics of Test, Measurement and Evaluation in physical education, Health and Fitness.									
	CO-2	Know about the different types of test for different sports and games.									
	CO-3	Apply the tests in minor research areas									
	CO-4	Analyze the performance and movements in the field of sports.									
	CO-5	Evaluate the battery test and others tests prescribed by the government efficiently									
3.	MAPPING'S OF CO'S AND PO'S										
	Course Outcomes	Programme Outcome									
		1	2	3	4	5	6	7	8	9	10
		1	3		1			1	3	2	
		2	2	1		2		3	1		
		3		2	3			1		2	3

4.

MAPPING'S OF CO'S AND PSO'S

COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)	
	1	2
1		
2	2	1
3	1	2

CORE PAPER X

PHYSIOLOGY OF EXERCISE

Learning Objectives

1. Understand basic knowledge of Physiology of Human body
2. Implement the knowledge in the field of physical Education
3. Demonstrate practical knowledge of basic scientific facts and principles underlying normal body structure and function

UNIT I

Skeletal Muscle and Exercise: Structure of the Skeletal Muscle, Chemical Composition. Sliding Filament Theory of Muscular Contraction . Types of Muscle Fiber. Muscle Tone, Chemistry of Muscular Contraction – Heat Production in the Muscle. Physiology of Muscular Activity, Neurotransmission and Movement mechanism, Effect of exercises and training on the muscular system.

UNIT II

Cardiovascular System and Exercise: Heart Valves and Direction of the Blood Flow - Conduction System of the Heart - Blood Supply to the Heart - Cardiac Cycle - Stroke Volume - Cardiac Output - Heart Rate - Factors Affecting Heart Rate - Cardiac Hypertrophy - Effect of exercises and training on the Cardio vascular system.

UNIT III

Respiratory System and Exercise: Physiology of Respiration, Mechanism of Breathing - Respiratory Muscles and Training. Minute Ventilation - Ventilation at Rest and During Exercise. Diffusion of Gases - Exchange of Gases in the Lungs - Exchange of Gases in the Tissues - Control of Ventilation - Ventilation and the Anaerobic Threshold. Oxygen Debt - Lung Volumes and Capacities - Effect of exercises and training on the respiratory system.

UNIT IV

Metabolism and Energy Transfer: Metabolism - ATP - PC or Phosphogen System - Anaerobic Metabolism - Aerobic Metabolism - Aerobic and Anaerobic Systems During Rest and Exercise. Short Duration High Intensity Exercises - High Intensity Exercise Lasting Several Minutes - Long Duration Exercises. Glycolysis. Bioenergetics and recovery process

UNIT V

Climatic conditions and sports performance: Variation in Temperature and Humidity - Thermoregulation – Sports performance in hot climate, Cool Climate, high altitude. Factors influencing performance in Sports, Ergogenic aids and doping. Influence of Anabolic steroids, Androstenedione, Beta Blocker, Choline, Creatine, Human growth hormone on sports performance. Narcotic, Stimulants: Amphetamines, Caffeine, Ephedrine, Sympathomimetic amines. Stimulants and sports performance.

Learning outcomes

1. Understand the basic principles of physiology and Exercise Physiology
2. Apply the knowledge in the field of physical education and movement activity.
3. Analyze the practical knowledge during the practical situation.
4. Remember and recall the definition of physiology and co-relate the principles of physiology.
5. Appraise the effects during the training and practical sessions

Peer Group Teaching and Discussion Concept

Discussion on physiological adaption on various systems of the body due to exercises.
Discussion on Energy Transfer - Stimulants and sports performance.

REFERENCE

Amritkumar, R, Moses. (1995). Introduction to Exercise Physiology. Madras: PoompugarPathipagam.

Clarke, D.H. (1975). Exercise Physiology. New Jersey: Prentice Hall Inc., Englewood Cliffs.

David, L Costill. (2004). Physiology of Sports and Exercise. Human Kinetics.

SandhyaTiwaji. (1999). Exercise Physiology. Sports Publishers.

Fox, E.L., and Mathews, D.K. (1981). The Physiological Basis of Physical Education and Athletics. Philadelphia: Sanders College Publishing.

Guyton, A.C. (1976). Textbook of Medical Physiology. Philadelphia: W.B. Sanders co.

Richard, W. Bowers. (1989). Sports Physiology. WMC: Brown Publishers.

Shaver, L. (1981). Essentials of Exercise Physiology. New Delhi: Subject Publications.

Vincent, T. Murche. (2007). Elementary Physiology . Hyderabad: Sports Publication.

William, D. McAradle. (1996). Exercise Physiology, Energy, Nutrition and Human Performance. Philadelphia: Lippincott Williams and Wilkins Company.

2.	COURSE OUTCOME students are able to											
	CO-1	Identify the research problem in the field of physical Education and sports										
	CO-2	Know to Summarize the various research literature										
	CO-3	Understand and apply the basics of statistics in research.										
	CO-4	Organize the samples and sampling techniques which is relevant to the study										
	CO-5	Appraise the effects during the training and practical sessions										
3.	MAPPING'S OF CO'S AND PO'S											
	Course Outcomes	Programme Outcome										
		1	2	3	4	5	6	7	8	9	10	
		1	1		2	1			2	3		
		2	2		2		1	2		3		2
	3	1	2			1				2		
4.	MAPPING'S OF CO'S AND PSO'S											
	COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)										
		1					2					
		2					1					
		1					2					
	3											

CORE PAPER XI

SCIENTIFIC PRINCIPLES OF SPORTS TRAINING

Learning Objectives

1. Understand the scientific principles of sports training.
2. Fix and adopt the training load
3. Prepare the sports person for the competition

UNIT I

Sports training:Definition. Aim, Characteristics, Principles of Sports Training. Over Load: Definition, Causes of Over Load, Symptoms of Overload. Remedial Measures - Super Compensation- Altitude Training-Cross Training. Technical and Tactical Preparation for Sports.

UNIT II

Physical Fitness Components: Strength:Methods to improve Strength: Weight Training, Isometric, Isotonic, Circuit Training. Speed:Methods to Develop Speed: Repetition Method, Downhill Run, Parachute Running, Wind Sprints. Endurance:Methods to Improve Endurance: Continuous Method, Interval Method, Repetition Method, CrossCountry, Fartlek Training.

UNIT III

Flexibility:Methods to improve the Flexibility- Stretch and Hold Method, Ballistic Method. Special Type Training: Plyometric Training. Training for Coordinative Abilities:Methods to improve Coordinative abilities: Sensory Method, Variation in Movement Execution Method, Variation in External Condition Method, Combination of Movement Method. Types of Stretching Exercises.

UNIT IV

Training Plan:Macro Cycle, Meso Cycle, MicroCycle. Short Term Plan and Long Term Plans. Periodisation:Meaning, Single, Double and Multiple Periodisation.

Preparatory Period, Competition Period and Transition Period. Principles of Motor- Skill Acquisition, Transfer of Training Effects. Sports Talent Identification- process and Procedures.

UNIT V

Definition of Doping – Side effects of drugs- Dietary supplements - IOC list of doping classes and methods. Blood doping - The use of erythropoietin in blood boosting - Blood doping control- The testing programmes - Problems in drug detection - Blood testing in doping control - Problems with the supply of medicines subject to IOC regulation : over-the-counter drugs (OTC) - prescription only medicines (POMs)- Controlled drugs (CDs).Reporting test results.

Learning outcomes

1. Understand training as performance based science
2. Explain different means and methods of various training
3. Prepare training schedule for various sports and games
4. Appraise types of periodization for performance development
5. Create various training facilities and plans for novice to advance performers

Peer Group Teaching and Discussion Concept

Group Discussion on Training Load of Elite Athletes - Preparation of Training Schedules for Game of their Choice. Preparation of Exercise for Demonstration with Training Gadgets.

REFERENCE

- Bunn, J.N. (1998) Scientific Principles of Coaching. New Jersey: Engle Wood Cliffs. Prentice Hall Inc.
- Cart, E. Klafs. & Daniel, D. Arnheim.(1999) Modern Principles of Athletic Training. St.Louis: C.V. Mosphy Company.
- Daniel, D. Arnheim. (1991). Principles of Athletic Training. St.Louis: Mosby Year Book.
- David R.Mottram (1996) Drugs in Sport, School of Pharmacy. Liverpool: John Moores University.
- Gary, T. Moran. (1997). Cross Training for Sports. Canada: Human Kinetics.

Hardayal Singh. (1991). Science of Sports Training. New Delhi: DVS Publications.

Jensen, C.R., & Fisher, A.G. (2000) Scientific Basic of Athletic Conditioning. Philadelphia.

Ronald, P. Pefiffer. (1998). Concepts of Athletic Training, 2nd Edition. London: Jones and Bartlett Publications.

Yograj Thani. (2003). Sports Training. Delhi: Sports Publications.

2.	COURSE OUTCOME students are able to											
	CO-1	Know sports management and employ principles of strategic planning, and financial and human resource management.										
	CO-2	Assess marketing needs and formulate short term and long term solutions.										
	CO-3	Develop critical thinking in analysing sport management issues and in managerial planning and decision making.										
	CO-4	Able to organize recreational camp and activities										
3.	MAPPING'S OF CO'S AND PO'S											
	Course Outcomes	Programme Outcome										
		1	2	3	4	5	6	7	8	9	10	
		1	2		3		1	1	2		2	
		2	3			2			1	3	1	
	3		2	3	1				2	1		
4.	MAPPING'S OF CO'S AND PSO'S											
	COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)										
		1			2							
		2										
		3			1							
		2			1							

CORE PAPER XIII

INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) IN PHYSICAL EDUCATION

Learning Objectives

1. To know the necessity of information and communication technology in physical education
2. Helps to improves the computer assisted works in sports
3. Able use the applications of computer in sports

UNIT I

Communication and Classroom Interaction: Concept, Elements, Process and Types of Communication, Communication Barriers and Facilitators of communication, Communicative skills of English - Listening, Speaking, Reading and Writing, Concept and Importance of ICT Need of ICT in Education and Physical Education. Scope of ICT: Teaching Learning Process, Publication Evaluation, Research and Administration Challenges in Integrating ICT in Physical Education

UNIT II

Fundamentals of Computers :Characteristics, Types and Applications of Computers Hardware of Computer: Input, Output & Storage Devices .MS Office Applications: MS Word: Main Features & its Uses in Physical Education. MS Excel: Main Features &its Applications in Physical Education. MS Power Point: Preparation of Slides with Multimedia Effects. MS Publisher: Newsletter & Brochure

UNIT III

ICT Integration in Teaching Learning Process. Approaches to Integrating ICT in Teaching Learning Process. Project Based Learning (PBL). Co-Operative Learning. Collaborative Learning. ICT and Constructivism: A Pedagogical Dimension. E-Learning & Web Based Learning. E-Learning. Web Based Learning. Visual Classroom.

UNIT IV

Using Computers in Physical Education: Research, Biomechanics, Exercise Physiology, Motor Learning, Sports Psychology. – Analyzing the data using statistics in Spread Sheet: Concept and Calculation of Mean, Standard Deviation, “t” test, Correlation.

UNIT V

SPSS Package: Introduction, Feeding Data, Naming the variables, Grouping the Data. Computation of Descriptive Statistics, Correlated and Uncorrelated “t” ratio, Analysis of Variance, Co-efficient of Correlation.

Course Outcome

1. Understand concept of information and communication technology in physical education field
2. Analyse sporting data of various types via astute use of statistical packages.
3. Practice mathematics, statistics, information technology in sport technology related problems.
4. Offer Hands on Knowledge in information and communication Technology

Peer Group Teaching and Discussion Concept

Teaching the selected area of subject using the ICT gadgets – Discussion on Merits and Demerits of various methods of Teaching. Encouraged to Prepare Teaching Aids from Waste Products. Hand on experience in the ICT lab.

REFERENCE

- Ram B(2006), New Age International Publication, Computer Fundamental, Third Edition.
- Brain under IDG Book. India (p) Ltd Teach Yourself Office 2000, Fourth Edition-2001
- Douglas E. Comer (2005), The Internet Book, Purdue University, West Lafayette.
- Heidi Steel Low price Edition, Microsoft Office Word 2003- 2004.
- Research and Development Wing (2006) ITL Education Solution Ltd. Introduction to information Technology,
- Pradeep K. Sinha & Priti; (2006) Sinha, Foundations computing BPB Publications .

Rebecca (1999) Bridges Altman Peach pit Press, Power point for window.

Sanjay Saxena, (2006) Vikas Publication House, Pvt. Ltd. Microsoft Office for everone, Second Edition.

2.	COURSE OUTCOME students are able to											
	CO-1	Know the fundamental of all the games and sports										
	CO-2	Understand the rules of all the games and sports										
	CO-3	Preparing the students for the competition										
	CO-4	Classify the students accordingly for various games and sports										
	CO-5	Design and practice the new methods of technique and training.										
3.	MAPPING'S OF CO'S AND PO'S											
	Course Outcomes	Programme Outcome										
		1	2	3	4	5	6	7	8	9	10	
		1	1		3		1			2	1	2
		2		2	1					1		3
	3	1	3	1		1	1	2			2	
4.	MAPPING'S OF CO'S AND PSO'S											
	COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)										
		1				2						
		1				3						
		2										
	3				2					1		

CORE PAPER XIV

SPORTS MANAGEMENT AND CURRICULUM DESIGN IN PHYSICAL EDUCATION

Learning Objectives

1. To identify the basic principles of Sports Management.
2. To know about organizational management and leadership.
3. To identify important issues and future trends in the field of sports management
4. Understand curriculum according to the needs of the students
5. Construct the curriculum for various levels
6. Update the present need which is mandatory

UNIT I

Management: Concept and Principles of Management. Sports Management: Definition, Importance. Basic Principles and Procedures of Sports Management. Functions of Sports Management. Personal Management: Objectives of Personal Management, Personal Policies.

UNIT II

Management of infrastructure, equipment, finance and personnel. Programme Management: Factors influencing programme development. Organisation and Functions of Sports bodies. Competitive Sports Programs, Benefits, Management Guidelines for School, College Sports Programs, Management Problems in instruction programme, Community Based Physical Education and Sports program. Maintenance of Records and Registers as per Department of School Education requirements.

UNIT III

Purchase and Care of Supplies of Equipment: Guidelines for selection of Equipments and Supplies, Purchase of equipments and supplies, Equipment Room, Equipment and supply Manager. Guidelines for checking, storing, issuing, care and maintenance of supplies and equipments. Public Relations in Sports: Planning the Public Relation Program - Principles of

Public Relation - Public Relations in School and Communities - Public Relation and the Media. Professional Ethics.

UNIT IV

Curriculum: Meaning and Definition of Curriculum. Principles of Curriculum Construction: Students centred, Activity centred, Community centred, Forward looking principle, Principles of integration. Approaches to Curriculum : Subject centred, Learner centred and Community centred, Curriculum Framework. Application of Idealism, Naturalism, Realism, Pragmatism, Existentialism, Humanism in Physical Education. Course content for academic and professional courses.

UNIT V

Factors affecting curriculum: Sources of Curriculum materials – text books – Journals – Dictionaries, Encyclopedias, Magazines, Internet. Integration of Physical Education with other Sports Sciences – Curriculum research, Objectives of Curriculum research – Importance of Curriculum research. Method of Evaluation of Curriculum.

Course Outcome

1. Know sports management and employ principles of strategic planning, and financial and human resource management.
2. Assess marketing needs and formulate short term and long term solutions.
3. Conceive, plan, execute, and evaluate a sports event.
4. Introduce the teaching and curriculum objectives and course module design
5. Analyse the planning strategies, teaching, learning and assessment
6. Develop strategies to promote quality learning, practice marking and consider methods of course and self-evaluation

7. Evaluating learning intentions and the process that is guided through explicit and manageable criteria

Peer Group Teaching and Discussion Concept:

Discussion on strategic planning, and financial and human resource management.
Preparation of Curriculum and Syllabus for the modern Society. Discussion on Challenges and trends in Physical Education and Sports.

REFERENCE

- Aggarwal, J.C (1990). Curriculum Reform in India- World overviews, Doaba World Education Series-3 Delhi: Doaba House, Book seller and Publisher.
- Arora, G.L. (1984): Reflections on Curriculum , New Delhi: NCERT.
- Bonnie, L. (1991). The Management of Sports. St.Louis: Mosby Publishing Company, Park House.th
- Bucher A. Charles,(1993) Management of Physical Education and Sports (10 ed.,) St. Louis:
- Carl, E, Willgoose. (1982).Curriculum in Physical Education, London: Prentice Hall.
- Charles, A, Bucher & March, L, Krotee. (1993). Management of Physical Education and Sports. St.Louis: Mosby Publishing Company.
- Chelladurai, P. (1999). Human Resources Management in Sports and Recreation. Human Kinetics.
- McKernan, James (2007) Curriculum and Imagination: Process, Theory, Pedagogy and Action Research, . U.K: Routledge
- NCERT (2005). National Curriculum Framework-2005, New Delhi: NCERT.
- NCERT (2000). National Curriculum Framework for School Education, New Delhi: NCERT.

2.	COURSE OUTCOME students are able to											
	CO-1	Analyze and explain the mechanisms underlying biomechanical, physiological, and psychological changes that occur during after acute and chronic exercise.										
	CO-2	Understand mechanical principles can be applied to the analysis of human movement to assess and improve performance and reduce risk of injury.										
	CO-3	Know effectiveness of human movement using mechanical principles.										
3.	MAPPING'S OF CO'S AND PO'S											
	Course Outcomes	Programme Outcome										
		1	2	3	4	5	6	7	8	9	10	
		1	1		3		1	1	2		2	
		2	2			2			1	3	1	
		3		2	3	1				2	1	
4.	MAPPING'S OF CO'S AND PSO'S											
	COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)										
		1				2						
		2				3						
		2				1						
		3				2						

CORE PAPER XV

DISSERTATION

1. The student shall have dissertation for M.P.Ed in IV Semester. The title and proposal shall be approved by the Guide and Head of Department/ Principal of the College.
2. The dissertation must be submitted on or before the last theory examination of the IV Semester duly signed by Guide and Head of Department / Principal of the College.

3. The format Prescribed by the University shall be followed.

LIST OF DISCIPLINE SPECIFIC ELECTIVE

ODD SEMESTER

Physical Fitness and Wellness

Sports Technology

Sports Engineering

Professional Preparation for SLET/NET in Physical Education

EVEN SEMESTER

Sports Journalism and Mass Media (or)

Health Education and Sports Nutrition

Value and Environmental Education (or)

Educational Technology in Physical Education

DISCIPLINE SPECIFIC ELECTIVE

PHYSICAL FITNESS AND WELLNESS

Learning Objectives

1. Promote the knowledge of physical fitness and wellness
2. Create fitness awareness among youth, various health problems and its impacts
3. Able understand the importance of physical fitness and to create good health.

UNIT I

Physical Fitness: Meaning and Definition, Concepts, Techniques and Principles. Types and Components of Fitness : Health Related Fitness-Motor and Skill Related Fitness - Current trends in fitness and conditioning, components of total health fitness and the relationship between physical activity and lifelong wellness. Meaning and Definition of Wellness – Components of wellness.

UNIT II

Nutrients: Nutrition labeling information, Food Choices, Food Guide Pyramid, Influences on food choices-social, economic, cultural, food sources, Comparison of food values. Weight Management-proper practices to maintain, lose and gain. Eating Disorders, Proper hydration. Body Image- Factors influencing body Image.

UNIT III

Aerobic Exercise :Cardio respiratory Endurance Training; proper movement forms, : correct stride, arm movements, body alignment; proper warm-up, cool down, and stretching, monitoring heart rates during activity. Assessment of cardio respiratory fitness and set goals to maintain or improve fitness levels. Cardio respiratory activities including: power walking, pacer test, interval training, incline running, distance running, aerobics and circuits.

UNIT IV

Anaerobic Exercise: Resistance Training for Muscular Strength and Endurance; principles of resistance training, Safety techniques (spotting, proper body alignment, lifting techniques, spatial, awareness. and proper breathing techniques). Weight training principles and concepts; basic resistance exercises (including free hand exercise, free weight exercise, weight machines, exercise bands and tubing. medicine balls, fit balls) Advanced techniques of weight training

UNIT V

Flexibility Exercise: Flexibility Training, Relaxation Techniques and Core Training. Safety techniques (stretching protocol; breathing and relaxation techniques) types of flexibility exercises (dynamic, static), Develop basic competency in relaxation and breathing techniques. Pilates, Yoga.

Course Outcome

1. Explain the history and philosophy of public physical fitness as well as its core values, concepts, and functions across the globe and in society.
2. Identify the methods, and tools of public health data collection, use, and analysis
3. Relate the underlying science of wellness and disease to opportunities for promoting and protecting health across the life course.
4. Identify the socio-economic, behavioural, biological, environmental, and other factors that impact physical fitness and contribute to health disparities.
5. Apply the principles of training and maintain a physical fitness.

Peer Group Teaching and Discussion Concept

Group Discussion on . Modern concept of Physical fitness and Wellness. . Role Play as Trainer and Client to calculate Exercise Intensity. Discussion on Diet for sports competition, eating pattern, Foods to avoid.

REFERENCE

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

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

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

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

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

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

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

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

2.	COURSE OUTCOME students are able to	
	CO-1	Explain group mechanisms and group psychology in a sports context
	CO-2	Reflect upon motivational psychology as applied to sports activities
	CO-3	Formulate relevant constructs of exercise psychology
	CO-4	Demonstrate the ability to discuss sociological theories, concepts, and ideas in large and small groups and to express empirically as well as theoretically-based opinions.
	CO-5	To apply core sociological theories to specific social problems in order to analyze social problems.

3.	MAPPING’S OF CO’S AND PO’S <table><tr><th rowspan="2">Course Outcomes</th><th colspan="10">Programme Outcome</th></tr><tr><th>1</th><th>2</th><th>3</th><th>4</th><th>5</th><th>6</th><th>7</th><th>8</th><th>9</th><th>10</th></tr><tr><td>1</td><td>1</td><td></td><td>3</td><td></td><td>1</td><td></td><td></td><td>2</td><td>1</td><td>2</td></tr><tr><td>2</td><td></td><td>2</td><td>1</td><td></td><td></td><td></td><td></td><td>1</td><td></td><td>3</td></tr><tr><td>3</td><td>1</td><td>3</td><td>1</td><td></td><td>1</td><td>1</td><td>2</td><td></td><td></td><td>2</td></tr></table>	Course Outcomes	Programme Outcome										1	2	3	4	5	6	7	8	9	10	1	1		3		1			2	1	2	2		2	1					1		3	3	1	3	1		1	1	2			2
Course Outcomes	Programme Outcome																																																						
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4.	MAPPING’S OF CO’S AND PSO’S <table><tr><th rowspan="2">COURSE OUTCOMES (CO)</th><th colspan="2">PROGRAM SPECIFIC OUTCOMES (PSO)</th></tr><tr><th>1</th><th>2</th></tr><tr><td>1</td><td>1</td><td>3</td></tr><tr><td>2</td><td></td><td>2</td></tr><tr><td>3</td><td>1</td><td></td></tr></table>	COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)		1	2	1	1	3	2		2	3	1																																									
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DISCIPLINE SPECIFIC ELECTIVE

SPORTS TECHNOLOGY

Learning Objectives

1. To understand the procedure of selection and use of various sports technologies.
2. To learn the method of construction and installation of sports surface
3. Help to improve knowledge about modern playing equipment

UNIT I

Sports Technology: Meaning, definition, purpose, advantages and applications. General principles and purpose of instrumentation in sports, Workflow of instrumentation and business aspects, Technological impacts on sports.

UNIT II

Science of Sports Materials: Adhesives- Nano glue, nanomoulding technology, Nano turf. Foot wear production, Factors and application in sports, constraints. Foams-Polyurethane, Polystyrene, Styrofoam, closed-cell and open-cell foams, Neoprene, Foam. Smart Materials - Shape Memory Alloy (SMA), Thermo chromic film, High-density modeling foam.

UNIT III

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. Technology in manufacture of modern play equipments- electronic equipments. Use of computer and software in Match Analysis and Coaching.

UNIT IV

Modern equipments: Playing Equipments: Balls : Types, Materials and Advantages. Bat/Stick/ Racquets: Types, Materials and Advantages. Clothing and shoes: Types, Materials and Advantages. Measuring equipments: Throwing and Jumping Events. Protective equipments: Types, Materials and Advantages. Sports equipment with nano technology, Advantages.

UNIT V

Training gadgets: 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.

Learning outcomes

1. Plan, develop, communicate, implement, and evaluate technology-infused strategic plans.
2. Maintain and manage a variety of digital tools and resources for use in technology-rich sports environment

3. Design, develop, and implement technology-rich sports program that model of sports field and promote digital age best practices in teaching, playing and assessment.
4. Find out how successful were the teachers' efforts in contributing to the realization of the fundamental objectives of sports.
5. Assessments which learning experiences were effective in promoting and enhancing learning, which teaching methods and techniques are effective in the realization of the sports objectives.

Peer Group Teaching and Discussion Concept

Group Discussion on need and Importance of Sports Technology in Physical Education.

Modern Training Equipments. Discussion on Playing Surfaces and its merits and demerits.

REFERENCE

Books

Charles J.A. Crane, F.A.A. and Furness , J.A.G. (1987) “ Selection of Engineering Materials” UK : Butterworth Heiremann.

Finn, R.A. and Trojan P.K.(1999) “ Engineering Materials and their Applications” UK:

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John Mongillo,(2001), “Nano Technology 101 ” New York : Green wood publishing group.

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www.dvice.com/archives/2008/08/10-new-technolo.php

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[Www.ulster.ac.uk/science in society/technologyinsport.html](http://Www.ulster.ac.uk/science%20in%20society/technologyinsport.html)

2.	COURSE OUTCOME students are able to											
	CO-1	Understand the Educational and cultural values of Olympic movement.										
	CO-2	Analyze the Modern Olympic Games and Rules of Eligibility for Competition.										
	CO-3	Know about The organizational structure and functions of Para Olympic Games										
	CO-4	Analyze the Achievement of India in Team Games and Individual Sports.										
3.	MAPPING'S OF CO'S AND PO'S											
	Course Outcomes	Programme Outcome										
		1	2	3	4	5	6	7	8	9	10	
		1	2		1					3		
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4.	MAPPING'S OF CO'S AND PSO'S											
	COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)										
		1					2					
		2					3					
		1					3					
		1					2					

DISCIPLINE SPECIFIC ELECTIVE

SPORTS JOURNALISM AND MASS MEDIA

Learning Objectives

1. To promote the awareness of sports through journalism
2. To learn the techniques to sports organization through media
3. To know about Sports journalism and mass media contribution in sports field

UNIT I

Meaning and Definition of Journalism. Ethics of Journalism - Canons of journalism- Sports Ethics and Sportsmanship - Reporting Sports Events. National and International Sports News Agencies.

UNIT II

Sports Bulletin :Journalism and sports education - Structure of sports bulletin - Compiling a bulletin- Types of bulletin . Role of Journalism in the Field of Physical Education: Sports as an integral part of Physical Education - Sports organization and sports journalism- General news reporting and sports reporting.

UNIT III

Mass Media in Journalism : Radio and T.V. Commentary - Running commentary on the radio - Sports experts comments. Role of Advertisement in Journalism. Sports Photography: Equipment- Editing –Publishing. Media and Sports.

UNIT IV

Brief review of Olympic Games, Asian Games, Common Wealth Games World Cup, National Games and Indian Traditional Games. Preparing report of an Annual Sports Meet for Publication in News paper. Organization of Press Meet.

UNIT V

Sports organization and Sports Journalism – General news reporting and sports reporting. Methods of editing a Sports report. Evaluation of Reported News. Interview with an elite Player and Coach.

Learning outcomes

1. Understand the basic Journalism and Mass Media in Journalism.
2. Apply the media in sports field for promotion.
3. Promote the awareness of Sports organization and Sports Journalism.
4. Develop the knowledge through Journalism and Mass Media, participate and organize.

Peer Group Teaching and Discussion Concept

Group Discussion on Role of Journalism and Mass Media in Physical Education. Role Play as Journalist Player and Coach. Group Discussion on: Current Problems in Sports

REFERENCE

Ahiya B.N. (1988) Theory and Practice of Journalism: Set to Indian context Ed3. Delhi :Surjeet Publications

Ahiya B.N. &Chobra S.S.A. (1990) Concise Course in Reporting, New Delhi: Surjeet Publications

Bhatt S.C. (1993) Broadcast Journalism Basic Principles, New Delhi. Haranand publication

Varma A.K. (1993) Advanced Journalism New Delhi: Haranand publication.

Rangasam, Parthasarathy (1991) Journalism in India from the Earliest Times to the President Sterling publication Pvt. Ltd.

2.	COURSE OUTCOME students are able to											
	CO-1	Able to explain and understand the concepts of gender studies										
	CO-2	Able to interpret and identify the gender issues and problems										
3.	MAPPING’S OF CO’S AND PO’S											
	Course Outcomes	Programme Outcome										
		1	2	3	4	5	6	7	8	9	10	
		1	2		1				2		1	3
		2			3					2	1	3
4.	MAPPING’S OF CO’S AND PSO’S											
	COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)										
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		2		2								
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DISCIPLINE SPECIFIC ELECTIVE
HEALTH EDUCATION AND SPORTS NUTRITION

Learning Objectives

1. Identify dietary carbohydrate and protein sources, Identify proper hydration principles and discuss the importance of hydration for physical performance
2. Demonstrate knowledge of a healthy diet for physical performance and demonstrate an ability to utilize this knowledge to complete a self-diet critique.

3. Demonstrate an understanding of health and to develop determination and values of desirable body weight

UNIT I

Health Education: Concept, Dimensions, Spectrum and Determinants of Health Definition of Health, Health Education, Health Instruction, Health Supervision Aim and objective of Physical Education, Health Education and Recreation. Guiding Principles of Health and Health Education. Health Service and guidance instruction in personal hygiene.

UNIT II

Health Problems in India: Communicable and Non Communicable Diseases Obesity, Malnutrition, Adulteration in food, Environmental sanitation, Explosive, Population, Personal and Environmental Hygiene for schools, Objective of school health service, Role of health education in school Health Services - Care of Skin, Nails, Eye Health Service, Nutritional Service, Health Appraisal, Health Record, Healthful School Environment, first- aid and emergency care. Signs, Symptoms and prevention of communicable Diseases: Malaria, Small Pox, Dysentery, Mumps, Typhoid and AIDS.

UNIT III

Hygiene and Health: Meaning of Hygiene, Type of Hygiene, Dental Hygiene, Effect of Alcohol on Health, Effect of Tobacco on Health, Life Style Management, Management of Hypertension, Management of Obesity, Management of Stress. Balanced Diet

UNIT IV

Introduction to Sports Nutrition: Meaning and Definition of Sports Nutrition, Role of nutrition in sports, Basic Nutrition guidelines. Misuse of Drugs in Sports. Nutrients: Ingestion to energy metabolism: Carbohydrate, Protein and Fat, Role of carbohydrates, Fat and protein during exercise. Nutrition and Dietary Manipulations. Chief Minister's Mid day meals Scheme.

UNIT V

Nutrition and Weight Management :Concept of Body mass index (BMI), Obesity and its hazard, Dieting versus exercise for weight control Maintaining a Healthy Lifestyle, Weight management program for sporty child, Role of diet and exercise in weight management, Design diet plan and exercise schedule for weight gain and loss.

Learning outcomes

1. Restate the role of nutrients and caloric requirements
2. Sketch the basic classification, functions and utilization of nutrients.
3. Point out diet for various competitions and nutrient supplements for performance.
4. Evaluate the factors affects health and solutions for wellness.
5. Design caloric requirements for various sports and age groups.

Peer Group Teaching and Discussion Concept

Discussion on role of nutrients and caloric requirements ,Classification, functions and utilization of nutrients. Discussion and Teaching on various competitions and nutrient supplements for performance.

REFERENCE:

Bucher, Charles A. "Administration of Health and Physical Education Programme".

Hanlon, John J. "Principles of Public Health Administration" 2003.

Turner, C.E. "The School Health and Health Education".

Moss and et. At. "Health Education" (National Education Association of U.T.A.)

Nemir A. "The School Health Education" (Harber and Brothers, New York).

Nutrition Encyclopedia, edited by Delores C.S. James, The Gale Group, Inc. Boyd-

Eaton S. et al (1989) The Stone Age Health Programme: Diet and Exercise as

Nature Intended. Angus and Robertson.

Terras S. (1994) Stress, How Your Diet can Help: The Practical Guide to Positive Health Using Diet, Vitamins, Minerals, Herbs and Amino Acids, Thorons.

2.	COURSE OUTCOME students are able to																																																															
	CO-1	Understand the primary responsibilities the sports trainer has in preventing sports injuries and providing initial care for injured athletes.																																																														
	CO-2	Demonstrate the basics of sport first aid during and after game situation.																																																														
	CO-3	Recognise and appropriately treat common sports injuries and conditions from onset through rehabilitation.																																																														
	CO-4	Identify and apply knowledge of anatomy to the design and execution of research studies.																																																														
3.	MAPPING'S OF CO'S AND PO'S																																																															
	<table><tr><td rowspan="2">Course Outcomes</td><td colspan="10">Programme Outcome</td></tr><tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td></tr><tr><td>1</td><td>3</td><td></td><td>1</td><td></td><td></td><td></td><td>1</td><td>3</td><td>2</td><td></td></tr><tr><td>2</td><td>2</td><td>1</td><td></td><td>2</td><td></td><td></td><td>3</td><td>1</td><td></td><td></td></tr><tr><td>3</td><td></td><td>2</td><td>3</td><td></td><td></td><td>1</td><td></td><td></td><td>2</td><td>3</td></tr></table>										Course Outcomes	Programme Outcome										1	2	3	4	5	6	7	8	9	10	1	3		1				1	3	2		2	2	1		2			3	1			3		2	3			1			2	3
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4.	MAPPING'S OF CO'S AND PSO'S																																																															
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DISCIPLINE SPECIFIC ELECTIVE

SPORTS ENGINEERING

Learning Objectives

1. To understand the procedure of selection and use of various sports engineering and technologies.
2. To learn the mechanics of engineering materials in sports field
3. Help to improve knowledge about building and maintain playing surface.

UNIT I

Introduction to sports engineering and Technology: Meaning of sports engineering, human motion detection and recording, human performance, assessment, equipment and facility designing and sports related instrumentation and measurement.

UNIT II

Mechanics of engineering materials: Concept of internal force, axial force, shear force, bending movement, torsion, energy method to find displacement of structure, strain energy. Biomechanics of daily and common activities –Gait, Posture, Body levers, ergonomics. Sports Dynamics: Introduction to Dynamics, Kinematics to particles – rectilinear and plane curvilinear motion coordinate system. Kinetics of particles.

UNIT III

Building and Maintenance: Sports Infrastructure- Gymnasium, Pavilion, Swimming Pool, Indoor Stadium, Out-door Stadium, Play Park, Academic Block, Administrative Block, Research Block, Library, Sports Hostels

UNIT IV

. Requirements: Air ventilation, Day light, Lighting arrangement, Galleries, Store rooms, Office, Sound System (echo-free), Internal arrangement according to need and nature of activity to be performed, Corridors and Gates for free movement of people. Emergency provisions of lighting, fire and exits, Eco-friendly outer surrounding. Maintenance staff, financial consideration.

UNIT V

Building process:- design phase (including brief documentation), construction phase functional (occupational) life, Re-evaluation, refurbish, demolish. Maintenance policy, preventive maintenance, corrective maintenance. Facility life cycle costing: Basics of theoretical analysis of cost, total life cost concepts, maintenance costs, energy cost, capital cost and taxation.

Learning outcomes

1. Plan, develop, communicate, implement, and evaluate technology-infused strategic plans.
2. Maintain and manage a variety of digital tools and resources for use in technology-rich sports environment
3. Design, develop, and implement technology-rich sports program that model of sports field and promote digital age best practices playing and assessment.
4. Find out how successful were the teachers' efforts in contributing to the realization of the fundamental objectives of sports.

Peer Group Teaching and Discussion Concept

Group Discussion on need and Importance of Sports Engineering in Physical Education. Modern Training Equipments. Discussion on Playing Structure and its merits and demerits.

REFERENCE

Franz K. F. (2013) Editor, Routledge Handbook of Sports Technology and Engineering :Routledge.

Steve Hake, Editor, The Engineering of Sport (CRC Press, 1996) Franz K.

F(2007) Editor The Impact of Technology on Sports II, CRC. Helge N

(2009) Sports Aerodynamics (Springer Science & Business Media.

Youlin Hong, (2013) Editor Routledge Handbook of Ergonomics in Sport and Exercise: Routledge.

Jenkins M.,(2003) Editor Materials in Sports Equipment, Volume I :Elsevier.

Colin White, Projectile Dynamics in Sport: Principles and Applications Eric C.

(2010) Editor Sports Facility Operations Management :Routledge.

2.	COURSE OUTCOME students are able to										
	CO-1	Perform and report on the exploratory analysis of data collected using sports technology									
	CO-2	Analyze sporting data of various types via astute use of statistical packages.									
	CO-3	Practice mathematics, statistics, information technology in sport technology related problems									
	CO-4	Support a conclusion based upon quantitative prediction, performance and analysis of a sporting team, code, or gaming environment									
	CO-5	Offer Hands on Knowledge in sports Technology									
3.	MAPPING'S OF CO'S AND PO'S										
	Course Outcomes	Programme Outcome									
		1	2	3	4	5	6	7	8	9	10
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		2		2	3		1			1	3
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4.	MAPPING'S OF CO'S AND PSO'S										

	COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)		
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	1	3	2	
	2	1	3	
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DISCIPLINE SPECIFIC ELECTIVE

VALUE AND ENVIRONMENTAL EDUCATION

Learning Objectives

1. Promote the knowledge of value and environmental education.
2. Create health awareness among youth, various health problems and its impacts
3. Able understand the importance of environment and to create good environment

UNIT I

Values: Meaning, Definition, Concepts of Values. Value Education: Need, Importance and Objectives. Moral Values: Need and Theories of Values. Value Systems: Meaning and Definition, Personal and Communal values, Corporate values, Consistency, Internally consistent, Internally inconsistent, Judging Value System, Commitment, Commitment to values.

UNIT II

Concept and development of Self Confidence, Positive Thinking, Goal Setting, Interpersonal relationship, Love and Truthfulness, Integrity and Character, Peace and Nonviolence, Universal Brotherhood and Social harmony, Learning from Nature. National Integration and Value Education.

UNIT III

Value Education in the Present Scenario. Attitude: Meaning and Importance of Attitude. Self Esteem: Meaning and Importance of Self Esteem. Interpersonal Skills: Meaning and Importance of Interpersonal Skills. Subconscious Mind and Habits: Forming Positive Habits, Preparing Sub conscious Mind.

UNIT IV

Definition, Scope, Need and Importance of environmental studies., Concept of environmental education, Historical background of environmental education, Celebration of various days in relation with environment, Plastic recycling and prohibition of plastic bag /

cover, Role of school in environmental conservation and sustainable development, Pollution free ecosystem.

UNIT V

People and Environment: People and environment interaction. Sources of pollution.

Pollutants and their impact on human life. Exploitation of natural and energy resources.

Natural hazards and mitigation. Occupational Hazards.

Learning Outcome

1. Explain the role of values, concepts, and functions across the globe and in society.
2. Able to explain Value Education- Goal Setting- Self Efficacy and Self Esteem
- 3 Apply the principles of project implementation, including planning, assessment, and evaluation in organizational and community initiatives.

Peer Group Teaching and Discussion Concept

Group Discussion on Waste Management . Preparation for Wealth out of Waste (WoW)

Initiatives. Awareness Camping on Pollution control, Say No to Plastic and similar concepts.

REFERENCE

Dhananjay Joshi (2010) Value Education in Global Prespective. New Delhi : Lotus Press .

Kannan.K (2009) Soft Skills, Madurai: Yadava College Publication

MohitChakrabarti (2008): Value Education: Changing Perspective, New Delhi : Kanishka Publication.

Padmanabhan. A &Perumal .A (2009), Science and Art of Living, Madurai: Pakavathi Publication

Shiv Khera (2002), You Can Win, NewDelhi: Macmillan India Limited.

Venkataiah. N (2009)Value Education. - New Delhi: APH Publishing Corporation.

Miller T.G. Jr., Environmental Science (Wadsworth Publishing Co.)

Odum, E.P. (1971) Fundamentals of Ecology (U.S.A.: W.B. Saunders Co.

Rao, M.N. &Datta, A.K. (1987)Waste Water Treatment (Oxford & IBH Publication Co. Pvt. Ltd.).

Townsend C(1995), Essentials of Ecology (Black well Science)

Heywood, V.H. and Watson V.M., Global biodiversity Assessment (U.K.: Cambridge University Press).

Jadhav, H. and Bhosale, V.M. (1995) Environmental Protection and Laws (Delhi: Himalaya Pub. House).

Mc Kinney, M.L. and Schoel, R.M (1996). Environmental Science System and Solution (Web enhanced Ed.).

Miller T.G. Jr., Environmental Science (Wadsworth Publishing Co.)

2.	COURSE OUTCOME students are able to										
	CO-1	Understand about classification of Disabilities.									
	CO-2	Understand adopted games for disability persons.									
	CO-3	Known the benefits of exercise for disability persons.									
3.	MAPPING'S OF CO'S AND PO'S										
	Course Outcomes	Programme Outcome									
		1	2	3	4	5	6	7	8	9	10
		1	2		1				3		
		2	1	2		2				3	
	3	1	1	2	1		1		3		1
4.	MAPPING'S OF CO'S AND PSO'S										
	COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)									
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		1		1							
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DISCIPLINE SPECIFIC ELECTIVE
EDUCATIONAL TECHNOLOGY IN PHYSICAL EDUCATION

Learning Objectives

1. To understand the procedure of selection and use of various educational technologies.
2. To learn the method of Instructional Design
3. Help to improve new horizons of educational technology

UNIT I

Nature and Scope: Educational technology-concept, Nature and Scope. Forms of educational technology: teaching technology, instructional technology, and behaviour technology; Transactional usage of educational technology: integrated, complementary,

supplementary stand-alone (independent); programmed learning stage; media application stage and computer application stage.

UNIT II

Systems Approach to Physical Education and Communication: Systems Approach to Education and its Components: Goal Setting, Task Analysis, Content Analysis, Context Analysis and Evaluation Strategies; Instructional Strategies and Media for Instruction. Effectiveness of Communication in instructional system; Communication - Modes, Barriers and Process of Communication.

UNIT III

Instructional Design :Instructional Design: Concept, Views. Process and stages of Development of Instructional Design. Overview of Models of Instructional Design; Instructional Design for Competency Based Teaching: Models for Development of Self Learning Material.

UNIT IV

Audio Visual Media in Physical Education: Audio-visual media - meaning, importance and various forms Audio/Radio: Broadcast and audio recordings - strengths and Limitations, criteria for selection of instructional units, script writing, pre-production, post-production process and practices, Audio Conferencing and Interactive Radio Conference. Video/Educational Television. Use of Television and CCTV in instruction and Training, Video Conferencing, SITE experiment, Use of animation films in Teaching Physical Activities.

UNIT V

New Horizons of Educational Technology: Recent innovations in the area of ET interactive video - Hypertext, video-texts, optical fiber technology - laser disk, computer conferencing. Procedure and organization of Teleconferencing/ Interactive video-experiences of institutions, schools and universities. Computer Assisted Instruction/ Teaching in Physical Education and Sports.

Learning outcomes

1. Plan, develop, communicate, implement, and evaluate technology-infused strategic plans.
2. Maintain and manage a variety of digital tools and resources for use in technology-rich learning environment
3. Design, develop, and implement technology-rich learning program that model principles of learning and promote digital age best practices in teaching, learning and assessment.

Peer Group Teaching and Discussion Concept

Teaching the selected area of subject using the ICT gadgets – Discussion on Merits and Demerits of various methods of Teaching. Encouraged to Prepare Teaching Aids from Waste Products. Hand on experience in the ICT lab.

REFERENCE

- Amita Bhardwaj (2003), New Media of Educational Planning”.Sarup of Sons, New Delhi.
- Bhatia and Bhatia (1959). The Principles and Methods of Teaching (New Delhi : Doaba House.
- .Dasgupta D.N, Communication and Education, Pointer Publishers Education and Communication for development, O. P. Dahama, O. P. Bhatnagar, Oxford (Page 68 of 71) IBH Publishing company, New Delhi
- Sampath K, Pannirselvam A and S. Santhanam (1981) Introduction to Educational Technology New Delhi: Sterling Publishers Pvt. Ltd..
- Kochar, S.K. (1982)Methods and Techniques of Teaching (New Delhi, Jalandhar, Sterling Publishers Pvt. Ltd.
- Kozman, Cassidy and k Jackson, (1952). Methods in Physical Education (W.B. Saunders Company,Philadelphia and London.

2.	COURSE OUTCOME students are able to											
	CO-1	Restate the role of nutrients and caloric requirements										
	CO-2	Sketch the basic classification, functions and utilization of nutrients.										
	CO-3	Point out diet for various competitions and nutrient supplements for performance.										
	CO-4	Evaluate the factors affects weight management and solutions for obesity and Design caloric requirements for various sports and age groups.										
3.	MAPPING'S OF CO'S AND PO'S											
	Course Outcomes	Programme Outcome										
		1	2	3	4	5	6	7	8	9	10	
		1	2	1	3			2		3	1	1
		2	2			1				3	2	1
		3		1	1		2			3		
4.	MAPPING'S OF CO'S AND PSO'S											
	COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)										
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		2					1					
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ABILITY ENHANCEMENT COMPULSORY COURSES (AECC) HUMAN RIGHTS

Learning Objective

1. To impart the basic ideas about human rights at post-graduation level.
2. To provide different aspects of human rights which includes children and women.
3. To learn not only the basic rights but also can understand the duties to be carried out in the days to come.

UNIT I

Introduction to Human Rights: Human rights: Meaning-Definition-origin and growth of human rights in the world- need and types of human rights- UNHRC (united nations human rights commission)- human rights in India.

UNIT II

Classification of Human Rights: Right to liberty – Right to life Right to equality – Right to Dignity – Right against Exploitation – Educational Rights – Cultural Rights – Educational Rights – Economic Rights – Political Rights – Social Rights.

UNIT III

Women and Children: Rights of Women – Female feticide and Infanticide and selective abortion – Physical assault and Sexual harassment – Domestic Violence – Violence at work place – Remedial Measures. Rights of Children – Protection rights, survival rights – Participation rights – development rights – Role of UN on conversation on rights of children.

UNIT IV

Multi-Dimensional Aspects of Human Rights:Labour rights – Bodend labour-

Child labour – Contract labour –Migrant labour – Domestic Women labour – Gender equity – Rights of Ethnic refugees– Problems and remedies – Role of trade union in protecting the unorganized labourers

UNIT V

Grievance and Redressal Mechanism: Redressal mechanism at national and international levels – Structure and functions of National and State level Human Rights Commission – constitutional remedies and directive principles of state policy.

REFERENCE

Baradat Sergio and SwaronjaliGlosh. Teaching of human rights. Dominant Publishers and distributors, New Delhji, 2009.

Roy A. N. Human Rights Achievements and challenges: Vista international Publishing house, Delhi, 2005.

Asish Kumar das and Prasant Kumar Mohanty. Human Rights in India: Sarup and Sons. New Delhi, 2007.

BaniBorgihain. Human Rights Social Justice and Political Challenge. Kansika Publishers and distributors New Delhi, 2007.

Velan, G. Human Rights and Development Issues: The associated publishers, Ambalacantt, 2008.

Meena , P.K. human Rights theroryand practice: MuraliLal and Sons, New Delhi, 2008.

Bhavani Prasad Panda. Human rights Development and environmental law: Academic excellence, Delhi, 2007.

Viswanathan, V.N Human Rights – Twenty First Century Challenges: Kalpaz Publications, New Delhi, 2008.

Ansari, M.R. Protecting Human Rights: Max Ford Books, New Delhi, 2006.

Rao, M.S.A. Social Movements in India – Social Movements and Social Transformation in India Vol.1 & 2: Manohar Publications, New Delhi, 1978.

2.	COURSE OUTCOME students are able to										
	CO-1	Discuss research from a multidisciplinary perspective relative to current issues in physical activity and health.									
	CO-2	Apply qualitative research methods to explore and critically examine a variety of curricular topics.									
	CO-3	Demonstrate application of relevant research and theory to a contemporary issue in physical activity and exercise science.									
3.	MAPPING'S OF CO'S AND PO'S										
	Course Outcomes	Programme Outcome									
		1	2	3	4	5	6	7	8	9	10
	1	3		2		1			2		2
	2	1		2	1			2		3	1
	3		2		1		1		1		3
4.	MAPPING'S OF CO'S AND PSO'S										
	COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)									
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	1	1		2							
	2	2		1							
	3										

ABILITY ENHANCEMENT COMPULSORY COURSES (AECC)

PERSONALITY DEVELOPMENT AND LIFE COPING SKILLS

Learning Objective

1. To impart the basic ideas about personality development.
2. To impart the basic ideas about life coping skills
3. To frame the concepts of Goal Setting

UNIT I

Personality – Definition and Meaning - Dimensions of Personality Stress Management

The Nature of Stress – A wellness Lifestyle – Distress symptoms: emotional distress, cognitive distress, Behavioural distress, physical distress symptoms – managing stress : exercise, nutrition, sleep, healthy pleasures – self talk and stress.

UNIT II

Relaxation Definition and Meaning. Methods: breathing techniques, meditation techniques, visualization techniques – self hypnosis- muscle relaxation techniques – Physical Activity and Sports Participation- Using social support. Maintaining Trust Developing and maintaining trust – being trusting and trustworthy – building interpersonal trust – re-establishing trust after it has been broken – trusting appropriately – trust and friendship.

UNIT III

Emotional Intelligence Definition and Meaning. Components of Emotional Intelligence and emotional competence - components of emotional intelligence Importance of Attitude: Meaning and Definition. Attitude and Success – Factors Determining Attitude . Benefits of Positive Attitude . Steps in Building Positive attitude.

UNIT IV

Goal Setting: Importance of Goal- SMART- Goals: Balanced- Quality not Quantity- Health- Social Responsibilities- Consistent with values- Activity and accomplishment- Meaningless Goals. Managing Time The basis of effective goals – steps to be followed to obtain optimum results from goal setting – Identifying the reasons for procrastination – guidelines to overcome procrastination – priority management at home and college

UNIT V

Life-coping Skills: Life-coping skills: Communication, Computer, Accounts and Arithmetic/Statistics, Analyzing Skills : Rational Thinking, Decision Making, Problem Solving and Reasoning) Personal Skills: Responsibility, Integrity/Honesty, Self-Management & Social Engagement. The dearth of personal skills: Corruption, Violence and Social conflicts. Resolving Interpersonal Conflicts Understanding conflicts of Interests- conflict strategies – negotiating to win – negotiating to solve the problems – steps for effective problem solving negotiating – refusal skills.

Learning Outcomes

1. Understand and develop the individuals' personality development.
2. Empower the individuals in life coping skills
3. Able to frame the concepts of Goal Setting

REFERENCE

Johnson, D.W. (1997). Reaching out – Interpersonal Effectiveness and Self Actualization. 6th ed. Boston: Allyn and Bacon.

Robbins, S. P. and Hunsaker, Phillip, L. (2009). Training in Interpersonal skills. Tips for managing people at work. 5th ed. New Delhi: PHI Learning.

Sherfield, R. M. ; Montgomery, R.J. and Moody, P, G. (2010). Developing Soft Skills. 4th ed. New Delhi: Pearson.

Shiv Khera (2006), You Can Win, Macmillan ; New Delhi.

2.	COURSE OUTCOME students are able to	
	CO-1	Plan, develop, communicate, implement, and evaluate technology-infused strategic plans.
	CO-2	Maintain and manage a variety of digital tools and resources for use in technology-rich learning environment
	CO-3	Design, develop, and implement technology-rich sports program that model

		of sports field and promote digital age best practices playing and assessment.																																																															
3.	MAPPING’S OF CO’S AND PO’S																																																																
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4.	MAPPING’S OF CO’S AND PSO’S																																																																
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SKILL ENHANCEMENT COURSES

SPORTS TOURISM IN INDIA

Learning Objective

1. To impart the basic ideas about Sports Tourism in India
2. To impart the basic ideas the avenues in the area of Sports Tourism in India

UNIT I

Definition of tourism, types of tourism, basic components of tourism, motivation of tourism international tourist domestic tourist various kinds of tourism.

UNIT II

Cultural tourism in India, Indian handicrafts, Customs of India, Fairs and festivals of Indian Music and dance of India.

UNIT III

Definition of sports tourism, Classification of sports tourism, types of sports tourism, benefits of sports tourism.

UNIT IV

Adventure Sports Tourism, Definition, types of adventure sports tourism adventure sports tourism destinations in India. Institutional Structure of Indian Sports.

UNIT V

Impacts of sports tourism, Economic impacts, social cultural impacts, role of government in promoting sports tourism in India. Opportunities and Challenge

Learning Outcomes:

1. The student able to understand challenges and trends in Sports Tourism in India
2. The student able to understand avenues and job opening in Sports Tourism in India

REFERENCE

Authors Guide (2014), India China Economic and Cultural Council , Sports Tourism in India, China National Tourist Office, China

Bhatia A.K.,(2003) International-Tourism, Sterling Publishers Pvt Ltd, New-Delhi

Bhatia A.K.,(2003) Tourism Development Principles and Practices, Sterling Publishers Pvt Ltd, New-Delhi

Prannath Seth, (1997) Successful tourism management, Sterling Publishers Pvt Ltd, New Delhi

Satyender Singh Malik, (2006), Potential of Adventure Tourism in India, Akam Kala Prakashan Publisher

Simon Hudson (2006) ,Sports and Adventure Tourism, Viva Book Private Ltd New Delhi.

Thandavan and revathy,(2005) Grish Tourism Poduct,Volume-1,Dominant-Publishers,Delhi.

2.	COURSE OUTCOME students are able to										
	CO-1	Able to Mark and Maintain Track and Field									
	CO-2	Able to Mark and Maintain Play Field Marking									
	CO-3	Able to Understand the concept of surfaces of Play Fields									
3.	MAPPING'S OF CO'S AND PO'S										
	Course Outcomes	Programme Outcome									
		1	2	3	4	5	6	7	8	9	10
		1	2	1					3		
		2	1	2		2				3	
		3	1	1	2	1		1		3	

4.	MAPPING'S OF CO'S AND PSO'S		
	COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)	
		1	2
	1		1
	2	1	2
	3	1	3

SKILL ENHANCEMENT COURSES

SOFTWARE BASED APPLIED STATISTICS

UNIT I

Introduction to Software in Statistics- Benefits of Software in Statistics- Introduction and Basic Arithmetical Operation in MS Excel- Introduction to the basics of SPSS.

UNIT II

Measures of Central Tendency : Mean, Median and Mode . Computation of Mean, Median and Mode through MS Excel. Computation of Mean, Median and Mode through SPSS.

UNIT III

Measures of Dispersion : Range – Mean Deviation- Quartile Deviation- Standard Deviation . Computation of Standard Deviation through MS Excel. Computation of Standard Deviation through SPSS.

UNIT IV

Correlation: Pearson Product Moment Correlation –Spearman Rank order Correlation. Computation of Pearson Product Moment Correlation –Spearman Rank order Correlation. Computation of Bi-variate Correlation through SPSS .

UNIT V

Comparison of Mean: Independent ‘t’ Test - Dependent ‘t’ Test - ANOVA. Computation of Independent ‘t’ Test - Dependent ‘t’ Test - ANOVA Deviation through MS Excel. Computation of Independent ‘t’ Test - Dependent ‘t’ Test - ANOVA through SPSS

REFERENCE

- Best, John W. and Kalm James, V.(1980) Research in Education, New Delhi: Prentice Hall of India.
- Clarke David.H and Clarke H, Harrison (1984) Research processes in Physical Education, New Jersey : Prentice Hall Inc.,
- Clarke, H. Harrison and Clarke David H. (1972) Advanced Statistics, New Jersey: Prentice Hall Inc.
- Craig Williams and Chris Wragg(2006) – Data Analysis and research for sport and exercise science, London Routledge Press
- Garret Henry E and Woodworth,R.S (1958) Statistics in Psychology and Education, Bombay : Allied publication pvt.Ltd.
- Jerry R Thomas and Jack K Nelson(2000) Research Methods in Physical Activities, Illinois : Human Kinetics;
- Paul R kinnear and Colin D Gray (2006) –SPSS 14 Made Simple , New York: Psychology Press.
- Thirumalaisamy (1998) Statistics in Physical Education, Karaikudi: Senthilkumar publishers.
- Thomson AL,(1986) The Art of Using Computers, Boyd & Frasher Boston: Publishing Co.,

2.	COURSE OUTCOME students are able to											
	CO-1	Able to understand the Geographical units of India.										
	CO-2	Able to understand the International and Domestic Tourism										
	CO-3	Able to understand and identify the UNESCO world heritage sites in India										
3.	MAPPING'S OF CO'S AND PO'S											
	Course Outcomes	Programme Outcome										
		1	2	3	4	5	6	7	8	9	10	
		1	2		1				1	3		
		2		2	3			2		1		2
		3				1	2			3	1	
4.	MAPPING'S OF CO'S AND PSO'S											
	COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)										
		1	2									
		1										
		2	1 2									
		3	2 1									

GENERIC ELECTIVE COURSE

RECREATIONAL AND INCLUSIVE GAMES

UNIT I

Recreation: Meaning, Definition and Need. Recreational Games: Types of Recreational Games: Methods for Conducting Relays: Simple File Relay Method. Relay Races: Simple Running Relay - Backward Running Relay- Hopping Relay- One Leg Relay - Jumping on Both Feet Relay - Jump the “Ditch” Relay- Sore-Toe Relay- Lamé-Dog Relay

9. Elephant Walk Relay- Crab Relay- Frog-Jumping Relay - Leap Frog Relay- Leap Frog Spoke Relay- Kangaroo - Jumping Relay - Zig - zag Relay - Tunnel Relay - All-up Relay (Change the Club Relay) -. All-up and All-down Relay - Giddy Giddy Relay - Jump-the Stick Relay- Pony-Express Relay Ball Pass Vs Team Running Relay .

UNIT II

Tag Games : Meaning of Tag Games. Tag Games : Simple Tag (Ordinary Tag)- Whip Tag - Hopping Tag (Nondi Tag) - Sore-Spot Tag - Squat Tag- OstrichTag - Namaskar Tag- Chain Tag- Three Deep - Two Deep- Crows and Cranes - Streets and Alleys - Cat and Mice -Policeman and Thief- Mid-night- Magic Wand.

UNIT III

Goal Games : Good Morning - Squirrels In Trees- Snatch a Club - Come with Me- . Get Your Partner - Merry-Go-Round- Form Twos, Threes, Fours - Fire in the Mountain, Run, Run, Run (Fire Warden) -. Fruit Basket - Postman - Circle Snatch (Circle Rush)- . Musical Rush - Guard the Treasure- Circle Attention- Snatch the Handkerchief- Miscellaneous Games: Spud - Poison Circle- Dodge ball - Luggage Van - . Find the Leader-In the Pond on the Bank.

UNIT IV

Inclusive Games: Meaning, Definition and Need. Preschool Inclusive Activities: Airplane Fly- Body Bowling- Doughnut Delivery- Sticky Marshmallow- Turrey Pluck-Apple Picking- Mystery Search- Ice Cream Cone Creators- Beams and Ladders- Bulldozer Blast- Feed the Animals- Flying High.

UNIT V

Primary Inclusive Activities: Car Rally- Skittle ball- Toy Soldier- Octopus Tag-Puppy Dog Tails- Rolling Red Light- Duck Hunt- Fill the Basket- Marbles- Ponies in the Barn- Roll Over. Advanced Activities: Centipede- Pin Ball - The Giants Gum Ball- Happy Landings- Strike Back- Across the Great Divide - Gym Invaders- The Tortoise and The Hare . Adapted Sports Activities: Baseball –Football.

REFERENCE

Baneroff, Jessie H. Games New York: The Macmillan Company, 1959

Edmundson, Joseph. The Best Party Games. London Pan Books Ltd. 1968

Geri, Frank H. Illustrated Games Rhythms and Stunts for children New Jersey: Engle-Wood Clifts, Printice- Hall, 1957

Hindman, Drawin A. Hand Book of Indoor Games and contest, London: Nicholas Kaye Ltd, 1957

Lichtman, B. (1993). Innovative games. Champaign, IL: Human Kinetics.

Mason, Bernard S. And Michell Elmer D. Social Games for Recreation New York A. S. Barnes and company. 1935

Mason, Bernard S. And Mitchell Elmer D. Active Games and contests, New York: A. S Barnes and company, 1946

Morris, G. S., & Stiehl, J. (1989). Changing kids games. Champaign, IL: Human Kinetics.

Pangrazi, R. P. & Dauer, V. P., (1994). Dynamic physical education for elementary school children (11th ed). New York: Macmillan.

Poppen, J. D., & Jacobson, S. A. (1982). Games that come alive. Puyallup, WA: Action Productions.

Smith, Charles F. Games and Games Leadership New York: Dodd Mead and Company, 1953

Susan L. Kasser.() Inclusive Games. Champaign, IL: Human Kinetics.

The National Fitness Corps Hand Book Ministry of Education Government of India, 1965

Thomas Mathew, (1984) 150 Selected Minor Games, Alagappa University College of Physical Education, Karaikudi. Thomas, J. P. Physical Education Lessons. Madras, Gnanodaya Press, 1967

2.	COURSE OUTCOME students are able to									
	CO-1	Able to communicate better								
	CO-2	Able to create awareness among youth the need and importance of communication skills.								
	CO-3	Understands the need and importance of communication skills.								
3.	MAPPING'S OF CO'S AND PO'S									
	Course Outcomes	Programme Outcome								
		1	2	3	4	5	6	7	8	9
	1	2						3	1	
	2		2	3		1		2	1	
	3	2		1	1		2			
4.	MAPPING'S OF CO'S AND PSO'S									
	COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)								
		1					2			
	1	2				1				
	2	1				3				
	3	2				3				

GENERIC ELECTIVE COURSE

SPECIAL OLYMPICS

UNIT I

Foundation of Special Olympics: mission of special Olympics - Special Olympics philosophy- Special Olympics vision - Special Olympics athlete's oath - official logo - goal of Special Olympics - founding principles of special Olympics - history and growth of special Olympics - worldwide structure of Special Olympics - accredited program structure – special Olympics Bharat (India) structure.

UNIT II

Definition of intellectual disability - General statement of eligibility - Eligibility for participation in special Olympics : General statement of eligibility - Age requirements - degree of disability. Identifying persons with intellectual disabilities. registration of athletes. participation by individuals with down syndrome who have Atlanto-Axial instability.

UNIT III

Selection procedure in special Olympics : Individual sports- team sports. divisioning in special Olympics. Responsibility of the competitor – coaches code of conduct. honest effort rule.

UNIT IV

Special Olympics and volunteers. orientation to volunteer. volunteer opportunities . official sports : official summer sports- official winter sports – recognised sports. Medical and safety standards. Coaching Special Athletes. organising training session : warm- up-main part-cool-down.

UNIT V

Sports Specific Coaching : Coaching and teaching basic sport skills - Fundamental skill development. Levels of instruction - General rule and modification of rules: Track events –Field events – Basketball - Cricket – Football – Volleyball.

REFERENCE

Authors Guide (2008) Special Olympics Bharat , Trainer Manual, First Edition, New Delhi India.Pp-No: 1-392.

Authors Guide (2012) Special Olympics Bharat, Master Trainer Handbook , Ministry of Youth Affairs & Sports Government of India, Scheme of Sports and Games for the Disabled, Fourth Edition. New Delhi- India. Pp.-No: 1-487.

Authors Guide (1937) American Association of Intellectually and Development Disabilities (AAIDD), New York, America.

Authors Guide (2007) World Health Organization, Global Resources for Persons with Intellectual,ISBN: 978 92 4 156350 5.

Siperstein, G. N., Harada, C. M., Parker, R. C., Hardman, M. L., & McGuire, (2005).Comprehensive National Study of Special Olympics Programs in the United States. A special report. University of Massachusetts Boston. Washington, DC: Special Olympics, Inc.

Saperstein, G.N., Norins, J., Corbin, S., & Shriver, T. (2003). Multinational Study of attitudes toward individuals with intellectual disabilities. Washington, DC: Special Olympics, Inc.

Trainer Manual (2009), Special Olympics, Bharat. India: Published by Special Olympic National Office, New Delhi India.

2.	COURSE OUTCOME students are able to										
	CO-1	Able to promote good practice to promote and preserve environment									
	CO-2	Able to create awareness on health problems due to environmental pollution									
	CO-3	Able to explain importance of environment and to create good environment.									
3.	MAPPING'S OF CO'S AND PO'S										
	Course Outcomes	Programme Outcome									
		1	2	3	4	5	6	7	8	9	10
		1	2						3	1	
		2		2	3		1		2	1	
	3	2		1	1		2				
4.	MAPPING'S OF CO'S AND PSO'S										
	COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)									
		1		2							
		1		1							
		2		3							
	3		3								

**TAMIL NADU PHYSICAL EDUCATION AND
SPORTS UNIVERSITY, CHENNAI
Department of Physical Education
M.Phil in Physical Education (Regular)**

**Choice Based Credit System (CBCS)
Subject matter and Evaluating System
Norms, Rules and Regulations**

1. PREAMBLE :

The Master of philosophy in Physical Education (M.Phil) programme is meant for candidates desirous of pursuing Research programme in Physical Education and Sports and for preparing a professional cadre of Physical Education Teacher/ Educators and Directors in colleges and university departments.

2. REGULATIONS

The syllabus for one year M.Phil Degree programme under CBCS system - Regular) will be implemented from the academic year 2009 – 10 onwards.

3. ELIGIBILITY FOR ADMISSION:

A Candidate shall be admitted to the M.Phil degree in Physical Education if he / she produces satisfactory evidence to the effect that he/she has successfully completed Master's Degree in Physical Education, M.P.Ed., or its equivalent Degree approved by the syndicate of the Tamil Nadu Physical Education and Sports University, Chennai.

For securing admission to the M.Phil Programme, candidates must have secured 55 % of marks in the respective PG Degree programme or any equivalent programme in the case of inter – disciplinary subjects. However, the minimum marks for the SC/ ST candidates would be 50 % . For all the candidates, who have completed their PG Degree on or before 1991. The minimum eligible marks for admission to M.Phil would be 50 % .

4. SCHEME OF SELECTION :

As Entrance test and interview would be administered for all the applicants, the performance in that would be taken into account along the marks scored in the PG programme. The written Test would comprise objective Questions for 75 marks and the interview would carry 25 marks. The Rank list will be prepared accordingly.

5. COURSE OF STUDY:

M.Phil, Programme shall be of a duration of one Academic year with two semesters. A student should complete the M.Phil Programme within three years after registration. The Total working days of each semester shall be 90 days exclusive of the period of the admission and examination etc., The medium of Instruction and examination shall be English.

6. SEMESTERS:

An Academic year is of two semesters.

First Semester – July to November

Second Semester - December to April

In each semester, the courses are taught for 18 weeks with each week having 5 working days.

7. CHOICE BASED CREDIT SYSTEM (CBCS):

The CBCS in M.Phil, programme would have the following components and the minimum credit requirements for each component to be completed in one year are:

Core Courses - 20 Credits

Dissertation - 8 Credits

VPP - 2 Credits

Total 30 Credits

8. COURSE WEIGHT:

Courses will be designed with weightage depending upon the content, duration and specialization.

9. CREDIT DISTRIBUTION

SEMESTER – I (First Year)					
Subject Code	Title of the Paper	L	T	P	C
03101	Research Methodology and statistics in Physical Education	5	0	0	5
03102	Area of specialization	5	0	0	5
(Any One of the Following)					
03102 A	Science of Sports Training & Coaching				
03102 B	Applied Yoga				
03102 C	Sports Medicine				
03102 D	Exercise Physiology & Nutrition				
03102 E	Sports Psychology				
03102 F	Sports Sociology				
03102 G	Sports Management				
03102 H	Sports Biomechanics				

03102 I	Sports Technology				
03102 J	Test, Measurement and Evaluation *				
03102 K	Fitness and Wellness*				
Total		10	0	0	10
SEMESTER II (Second Year)					
Subject Code	Title of the Paper	L	T	P	C
03201	Area of Dissertation	5	0	0	5
03202	Computer Operations Communication & Educational skills (pedagogical skill includes practical Training in teaching)	5	0	0	5
03203	Dissertation	0	6	6	6
03204	Viva - Voce		2	2	2
03204	Village Placement Programme	0	2	2	2
Total		10	10	10	20
Grand Total(Semester I & II)		20	10	10	30

L- Lecture Hour T- Tutorial Hour P – Practical Hour C- Credits

10. ASSESSMENT

Assessment of the students is consisting of continuous Internal Assessment (CIA) and End Semester Examination (ESE). The ratio between CIA and ESE will normally be 40 : 60.

11. CONTINUOUS INTERNAL ASSESSMENT (CIA)

- a) The CIA marks shall be awarded based on the following:

Theory	Marks
Best Scores of two tests out of three tests	20
Model Exam	10
Seminar	10
Total	40

12. END SEMESTER EXAMINATION (ESE)

Except in the case of project-work and exclusively practical/field placement courses, the ESE will consist of a written examination of three hours duration for a maximum score of 60. Standard practical examination for 60 marks will be conducted with external examiner.

13. EVALUATION

The following procedure will be followed for evaluation

- a) The answer scripts are evaluated by both internal and external examiners (Double valuation)
- b) If there is 10% difference between the two examiners, a third revaluation is conducted, which will be final.
- c) Theory papers : Duration Three Hours – External
 - Part A (10 x 1) - 10 (Question type)
 - Part B (5 x 4) - 20 (either or type)
 - Part C (3 x 10) - 30 (Essay type – 5 questions)

60 marks

- d) For a pass in each paper, the candidate is required to secure at least 50% in the semester Examinations .

14. THE AWARD OF GRADES IS AS FOLLOWS.

Marks	Grade	Description	Grade Points
90 and above	S	Superior	9.0 – 10.0
80 to 89	A	Very Good	8.0 – 8.9
70 to 79	B	Good	7.0 – 7.9
60 to 69	C	Very Fair	6.0 – 6.9
50 to 59	D	Satisfactory	5.0 - 5.9
Less than 50	F	Failure	

If a student has any grievance relating to his/her CIA, he/She may, within seven working days of the declaration of the Scores/thereof, prefer an appeal through his/her class Advisor to appear committee, which will consists of the HOD, class Advisor and course teacher. The Appeals committee will review/peruse the student's records work. Any appeal should be made along with an appeal fee of Rs.200/- per course /paper. The decision of the appeals committee shall be final. Double valuation system will be adopted for ESE valuation and therefore revaluation is not permitted whereas retotaling can be done by paying a fee of Rs.300/- per paper. Within in 15 days from the publication of results.

**15. SCHEME OF EXAMINATIONS :
MARKS DISTRIBUTION**

SEMESTER – I (First Year)				
Subject Code	Title of the Paper	Internal	External	Total
03101	Research Methodology and Statistics in Physical Education	40	60	100
03102	Area paper of specialization	40	60	100
(Any One of the Following)				
03102 A	Science of Sports Training & Coaching			
03102 B	Applied Yoga			
03102 C	Sports Medicine			
03102 D	Exercise Physiology & Nutrition			
03102 E	Sports Psychology			
03102 F	Sports Sociology			
03102 G	Sports Management			
03102 H	Sports Biomechanics			
03102 I	Sports Technology			
03102 J	Test, Measurement and Evaluation *			
03102 K	Fitness and Wellness*			
Total		80	120	200
SEMESTER- II (Second Year)				
Subject Code	Title of the Paper	Internal	External	Total
03201	Area of Dissertation	40	60	100
03202	Computer Operations Communication & Educational skills (pedagogical skill includes practical Training in teaching)	40	60	100
03203	Dissertation	40	60	100
03204	Viva – Voce	---	50	50
03205	Village Placement Programme	50	---	50
Total		170	230	400
Grand Total(Semester I & II)		250	350	600

SYLLABUS, COURSE OUTCOMES AND MAPPING (CO's and PO's)

TAMILNADU PHYSICAL EDUCATION AND SPORTS UNIVERSITY DEPARTMENT OF PHYSICAL EDUCATION M. Phil DEGREE PROGRAMME

MASTER OF PHILOSOPHY (M.Phil)

PROGRAM EDUCATIONAL OUTCOMES (PEOS)

PEO-1) The Master of philosophy in Physical Education (M.Phil) programme is meant for candidates desirous of pursuing Research programme in Physical Education and Sports and for preparing a professional cadre of Physical Education Teacher/Educators and Directors in colleges and university departments.

PEO-2) The curriculum and syllabus have been structured in such a way that each of the course meets one or more of the outcomes related to the skills, knowledge, and behaviors that students acquire as they progress through the program. Further, each course in the program spells out clear instructional objectives, which are mapped to the student outcomes.

PROGRAMME OUTCOMES

- PO-1) Domain knowledge: Apply the knowledge of basic sciences that may be relevant and appropriate to physical education and sports sciences leading to solution of complex sports related issues and problems.
- PO-2) Problem analysis: Ability to Identify, define the actual requirements, formulate, research literature, and analyze complex physical education and sports sciences related Problems to reaching substantiated conclusions.
- PO-3) Design/Development of Solutions: Ability to design, implement, and evaluate process or program to meet desired needs in the field of physical education and sport sciences.
- PO-4) Individual and team work: Ability to function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings to accomplish a common goal.

- PO-5) Ethics: Understanding of professional, ethical, legal, security, social issues and responsibilities in teaching, learning and evaluation.
- PO-6) Communication: Ability to communicate effectively among a range of audiences/ stakeholders
- PO-7) Impact: Ability to analyze the local and global impact of physical activities and sports and games on individuals, organizations and society.
- PO-8) Professional Development: Recognition of the need for and an ability to engage in continuing professional development.
- PO-9) Identification of Needs: Ability to identify and analyze user needs and take them into account in the selection, creation, evaluation, and administration of physical education and sport sciences programs.
- PO-10) Integration: Ability to incorporate effectively integrate Science/Technology/ IT-based solutions to applications

MAPPING OF PEO'S WITH PO'S

	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10
PEO-1	X	X	X	X	X	X	X	X	X	X
PEO-2	X		X	X	X			X	X	X

03101
RESEARCH METHODOLOGY AND
STATISTICS IN PHYSICAL EDUCATION

UNIT I Research: Criteria of locating and selecting a research problem. Hypothesis meaning, types, formulation, and research hypothesis. Variables and its types. Fixing the level of significance and degrees of freedom for a research problem. Construction and standardization of questionnaire. Recent research trends in Physical Education.

UNIT II Research Design: Meaning, types, significance and criteria for selecting a suitable research design: Quasi experiment – Cross sectional design – longitudinal design – Double blind placebo design – repeated measures design – rotated group design – Independent factorial design – mixed factorial design. Descriptive Research: Case study, survey method.

UNIT III Mechanism of writing research proposal: report and synopsis. Method of writing abstract and full paper for presenting in a conference and to publish in journals. Chapterization and thesis format. Criteria for establishing research laboratories for specialized subjects

UNIT IV Statistical concepts : Data – Normality of Data - Normal curve , Meaning, purpose, calculation Type I, II, III & IV errors and advantages of “ t ”ratio – simple analysis of variance (one way ANOVA) – Factorial design – two way and three way factorial design – repeated measures ANOVA- Two way ANOVA with one factor repeated ANOVA – post hoc tests. Application of MS Excel and SPSS for statistical calculations.

UNIT V Analysis of Covariance: Meaning, purpose, calculation and advantages. Pearson Product Moment Correlation, Rank order correlation – Biserial Correlation – Partial and Multiple Correlation prediction and wherry do little method – Phi Correlation - Chi square, Contingency coefficient. Concept and calculations of Mann Whitney U test, Kruskal Wallis H test - Concepts of multivariate ANOVA and ANCOVA (MANOVA, MANOCOVA) - concept of Factor Analysis.

Reference:

- 1) Clarke David.H and Clarke H, Harrison (1984) Research processes in Physical Education, New Jersey : Prentice Hall Inc.,
- 2) Best, John W. and Kalm James, V.(1980) Research in Education, New Delhi: Prentice Hall of India.
- 3) Clarke, H. Harrison and Clarke David H. (1972) Advanced Statistics, New Jersey: Prentice Hall Inc.

- 4) Garret Henry E and Woodworth, R.S (1958) Statistics in Psychology and Education, Bombay : Allied publication pvt.Ltd.,
- 5) Thirumalaisamy (1998) Statistics in Physical Education, Karaikudi: Senthilkumar publishers.
- 6) Thomson AL,(1986) The Art of Using Computers, Boyd & Frasher Boston: Publishing Co.,
- 7) Jerry R Thomas and Jack K Nelson(2000) Research Methods in Physical Activities, Illinois : Human Kinetics;
- 8) Craig Williams and Chris Wragg(2006) – Data Analysis and research for sport and exercise science, London Routledge Press.
- 9) Paul R kinnear and Colin D Gray (2006) –SPSS 14 Made Simple , New York: Psychology Press.

COURSE OUTCOME students are able to	
CO-1	Apply the knowledge in the field of physical education and movement activity
CO-2	Knowing design about physical education.
CO-3	Giving research report about Physical education.
CO-4	Learning about ANOVA
CO-5	Learning about ANOVA and ANCOVA (MANOVA, MANOCOVA)

MAPPING'S OF CO'S AND PO'S

Course Outcomes	Programme Outcome									
	1	2	3	4	5	6	7	8	9	10
1		1	1	1		1		2	3	2
2	2		3		2		1		2	
3		2		2	3	2		3		1

MAPPING'S OF CO'S AND PSO'S

COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)	
	1	2
1	2	3
2	2	1
3	1	3

* * * * *

03102
Area of Specialization
03102 A
SCIENCE OF SPORTS TRAINING AND COACHING

UNIT – I Training : Definition – Aims – Principles of Sports Training – Training load – Principle of load – Components of load – Over load – Symptoms – causes – remedy – means of recovery .Techniques – Aim – Phases – Methods of technical training. Tactics : - Aim – Tactical Action – Principles of Tactical preparation.

UNIT – II Periodization:– Definition types – top form – Aim and content of different periods. Planning:– Definition – importance – types – principles - Formulation of yearly plan – training session .Talent Identification:– Definition principles – sports pedagogic– scientific approach on task analysis method of instruction – test – physical parameters fitness – skills – performance – reason for testing – Doping - Definition – Classes – Methods – WADA – Side affects.

UNIT - III Motor Abilities Strength: – Definition – Types – factors determining strength – methods of improvement of strength – organization of strength training - Exercise for specific strength – preventive measure in strength training .
Speed – Definition – Types – factors determining speed – methods of improvement of speed – speed Barrier. Flexibility : - Definition – Types – Importance – factors determining flexibility.

UNIT - IV Endurance : Definition – Importance – Types – Classifications – factors determining endurance – Methods of Improvement of Endurance - Carbohydrates loading.Co-ordinative abilities : Nature – Definition – Descriptions – Methods of improvement of Co-ordinative abilities .

UNIT - V Coaching : Principles Philosophy – Process. Management: Preparation for the competition – Pre, during and post competitions. Performance Analysis : Aim – Objectives – Methods . Psychological preparation : Stress management. Diet and performance.

Reference :

1. Frank.W.Dick(2006), “ Sports Training Principles”. New Delhi : Friends publications.
2. Harre.D (1988) “ Principle of sports training” , Berlin Sports verlag.
3. Matreyev L.. (1981) “Fundamentals of Sports Training”, Moscow :Sports verlag.
4. Singh H.:(1991), “Science of Sports Training” , New Delhi :D.V.S. Publication.
5. Scholisch, M.:(1988) “Circuit Training”, Berlin : Sports verlag,.
6. Hiroshi Toyoda (2000) “ Coaching course level II “ ,Lausanne : Federation Internation De Volleyball.
7. S.Subramanian, Richard Bate (1993) , “ Coaching manual” Football Confederation , Malaysia.

COURSE OUTCOME students are able to	
CO-1	Training about Practice, Ground activities, Physical education
CO-2	Periodization of planning WADA
CO-3	Motor Abilities Strength about exercise
CO-4	Endurance of Methods of improvement of Co-ordinative abilities
CO-5	Coaching Methods Psychological preparation

MAPPING'S OF CO'S AND PO'S

Course Outcomes	Programme Outcome									
	1	2	3	4	5	6	7	8	9	10
1	1		1	3	1		2	3		2
2	2			1		2	3		1	3
3	2		2		2		1	1	2	

MAPPING'S OF CO'S AND PSO'S

COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)	
	1	2
1	3	1
2	1	2
3	2	3

APPLIED YOGA

UNIT I Yoga : Aim, philosophy and scope of yoga –contributions of Bhagavad Gita, Yoga sutras and Thirumanthiram to yoga - The synthesis of schools of yoga for integrated personality and transcendence – Astanga yoga for total Education – Misconceptions and clarifications about yoga.

UNIT II Benefits of yogic practices: – Physical , physiological, mental, moral, emotional , social and spiritual benefits of yogic practices:- Kriyas, Asanas, Pranayamas,Mudras, Bandhas, Meditation - suitable yogic practices for children , Adolescents, Adulthood, old people, differentially abled people, yoga for women, yoga and sports.

UNIT III Yoga and Mind – Role of yoga on personality, Learning, perception, motivation, emotion, Intelligence, memory. Psychological qualities - yoga and psychological disorders – Existence of Nadis, Chakras and the nervous system, yogic practices for awakening chakras, curing diseases and imbalances in the nadis and chakras.

UNIT IV Principles of yogic diet :- yogic diet and Gunas Integrated approach of yoga therapy . Integrated yoga module for the promotion of positive health – yoga for wellness- - Shastra – Yoga and physiology and pathology in the yoga Shastras – Yoga and diseases – yoga and various systems of medicine – Therapeutic yoga – Alternative therapies.

UNIT V Yoga and spirituality : Yoga – Religions – spirituality - Role of yoga and Religion on spirituality – ethical, moral and social values in Religions and yoga - Divine virtues and powers – ways to inspire the values – yoga for pure consciousness.

References :

1. Iyengar (1989) Light on Yoga, London :” unwin paper backs.
2. Shivanantha Saraswati (1975) Yogic therapy, Ganhati : Brahmacharya yogeswar umachal yogashram
3. Rishi Vivekananda (2006) practical yoga psychology, munger : Yoga publications Trust.
4. Satyananda Saraswati Swami (2007) Kundalini Tantra, Munger : Yoga publication Trust

5. Mengal S.K. (1991) Psychological Foundations of Education, ludhana : Prakash brothers.
6. Visharadananda Swami (2007) , Human values, Bangalore : Swami Vivekanda yoga prakashana.
7. Dhyananda Saraswati swamy (2008), The value of vaues. Chennai : Arsha vidya centre.
8. Vivekananda Swami (2005) Hinduism Chennai : Sri Ramakrishna Math.
9. Mahajan Vidya Dhar (1976) History of India New Delhi : S.Chand & Co.,
10. Satyananda Saraswati Swami (2008)Asana, Pranayama Mudra Bandha Munger : Yoga publications Trust.
11. Chandrasekaran K (1999) sound health through yoga sedapatti : Prem kalyan publications.

COURSE OUTCOME students are able to	
CO-1	Learning about history of yoga
CO-2	About Kriyas, Asanas, Pranayamas, Mudras, Bandhas, Meditation
CO-3	Existence of Nadis, Chakras and the nervous system, yogic practices for awakening chakras
CO-4	Benefits of yoga diet, wellness, basics
CO-5	Yoga and spirituality

MAPPING'S OF CO'S AND PO'S

Course Outcomes	Programme Outcome									
	1	2	3	4	5	6	7	8	9	10
1		2	3	1		2	1		1	
2	1		1	3	2	1	2		3	2
3	2	3		2	1	3		2		1

MAPPING'S OF CO'S AND PSO'S

COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)	
1		
2	2	2
3	3	1

* * * * *

SPORTS MEDICINE

UNIT I Sports Injuries of Upper Limb : Fracture Clavicle, Humerus – Shoulder Dislocation – Impingement Syndrome - Rotator Cuff tendonitis – Supraspinatus tendonitis – Subacromion bursitis – Bicipital tendinitis – Adhesive Capsulitis – Tennis Elbow – Golfer’s Elbow – Thrower’s Elbow – Wrist ganglion cyst – Thumb Sprain – Mallet Finger – Finger sprain.

UNIT II Sports Injuries of Lower Limb : Groin Strain – Piriformis syndrome – Osteitis pubis – Quadriceps strain – Hamstring strain – Iliotibial band syndrome – MCL & LCL sprain – Meniscus tear – Jumper’s knee – Runner Knee – Tennis leg – Calf strain – Shin splint – Achilles tendinitis – Retrocalcaneal bursitis - Ankle sprain – Pott’s fracture – March fracture – Bunion – Hammer toe – Turf toe – plantar Fasciitis – Ingrown Toe nail.

UNIT III Sports Injuries of Head and Neck and Trunk : Head Injuries : Concussion – Contusion – Hemorrhage – Fracture. Neck Injuries : Strain – Fracture – Contusion- Cervical nerve stretch syndrome – Whiplast injury – Wry neck – Slipped Disc.

UNIT IV General Medical conditions: ,Definition ,causes, Clinical features, prevention and management of the following conditions : Coronary Heart Disease : Angina Pectoris – Myocardial Infarction . Diabetes Mellitus – Hypertension – Dyslipidemia – Obesity –COPD.

UNIT V Females Specific Sports Injuries – Sports Amenorrhea – Injury to female reproductive tract – Menstrual Synchrony – determination – Exercise and pregnancy – Eating disorders in athletes.

References:

1. Lars Peterson and Per Renström (2001) Sports Injuries – Their prevention and treatment Florida ,United States , Human Kinetics.
2. Richard B.Birrer (2004) ,Sports medicine for the primary care physician, Florida ,United States , Human Kinetics.
3. Ronald Bahr & Sverre Macallum (2004).Clinical Guide to Sports Injuries, Florida ,United States , Human Kinetics
4. Christopher M Norris (2004) , Sports injuries Diagnosis and Management.London Butterworth - Heinemann.

5. Bruckner and Karim Khan (2006), Clinical Sports medicine, Australia McGraw Hill.
6. David C Reid (2000) Sports injuries- Assessment and Rehabilitation, Allahabad Churcill livingstone..

COURSE OUTCOME students are able to	
CO-1	Learning about Sports Injuries of Upper Limb
CO-2	Learning about Sports Injuries of Lower Limb
CO-3	Sports Injuries of Head and Neck and Trunk
CO-4	General Medical conditions
CO-5	Females Specific Sports Injuries

MAPPING'S OF CO'S AND PO'S

Course Outcomes	Programme Outcome									
	1	2	3	4	5	6	7	8	9	10
1	2	2		3		3	1		1	
2	1	1		2	1	1		3		2
3		3	1		2	1	2	1	2	

MAPPING'S OF CO'S AND PSO'S

COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)	
	1	2
1	1	
2		1
3	3	2

* * * * *

EXERCISE PHYSIOLOGY AND NUTRITION

UNIT I Energy : Definition, Biological energy cycle, ATP – aerobic and anaerobic energy systems – during rest and exercise – Recovery from exercise - the oxygen debt – replenishment of energy stores during recovery. Muscle glycogen synthesis – liver glycogen replenishment – restoration of own stores – Measurement of energy, work and power definition of efficiency – cycle ergo meter – mechanical and electrical treadmill – step bench.

UNIT II Structure and functions of skeletal muscle – Sliding filament theory of muscular contraction – Nervous control of muscular movement – Basic structure and functions of the nerve. Neuro muscular junction different types of nervous system.

UNIT III Pulmonary Ventilation – Minute ventilation – ventilator mechanics – pressure change – gas exchange and transport – Blood flow and gas transports – cardiac output during exercise – circulating mechanics – changes in pressure and resistance during exercise – Cardio – respiratory control at rest and during exercise.

UNIT IV Physiological Effects of physical training – Training effects – factors influencing training effects – Exercise and training for health and fitness – causes and risk factors of cardio – vascular diseases – the exercise prescription – performance of altitude – Athletic performance at altitude – training and altitude – Heat balance and climatic condition – Temperature regulation and heat disorder – physiological responses to cold.

UNIT V Nutrition and exercise performance – Diet before activity, during activity, following activity exercise and weight control – Exercise and acid balance – acid base balance following heavy exercise – Exercise and endocrine system – Characters and mechanism of hormonal action, Hormonal responses to exercise and training – Effects of age and gender – Age and athletic performance, age and menstruation – exercise during pregnancy.

References:

1. Fox, Edward L and Mathews Donald K (1982) , “ The Physiological basis of physical education and athletics , New York : Sander College publishing.
2. Macrdle. Williams D et al : (1986), “ Exercise Physiology – Energy Nutrition and Human performance”, ed.2.Phildelphia, Lea and Febiger.

3. Karpovich and Sinning ,(1999) , “ Physiology of Muscular Activity”, Philadelphia London : W.B. Seunders company.
4. William D. Mcardle, Frack I Katch, Victor L Katch (1980), “ Exercise Physiology” Lea and Febigen Philadelphia.
5. David H Clarke ,(1995) , “ Exercise Physiology”,Englewood cliffs New Jersey: Printice Hall Inc.,
6. Morehouse and Miller “ Physiology and Nutrition” The C.V.. Mosby company.
7. Larry G Shaver, (1988), “ Essentials of Exercise Physiology”, Surjeet publications.

COURSE OUTCOME students are able to	
CO-1	Energy work and power definition of efficiency
CO-2	Structure and functions of skeletal muscle
CO-3	About Ventilation
CO-4	Exercise and training for health and fitness, Athletic performance at attitude
CO-5	Nutrition and exercise performance and diet activities for fitness

MAPPING'S OF CO'S AND PO'S

Course Outcomes	Programme Outcome									
	1	2	3	4	5	6	7	8	9	10
1	1	3		3	1		1	3	2	
2		2	1		2	3		2	3	2
3	2			2		1	2		1	

MAPPING'S OF CO'S AND PSO'S

COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)	
	1	2
1	1	3
2	3	
3	1	2

* * * * *

SPORTS PSYCHOLOGY

UNIT I Introduction: Meaning, Definition, Nature, Development and Scope of Sports Psychology – Facets of Sports Psychology: Developmental, Personality, Learning and Training, Social and Psychometrics.

UNIT II Motor Learning: Definition, Closed Vs Open Skills, Stages of Learning: Cognitive, Associative And Autonomous Skills – Practice – Feedback – Servo Mechanism, Memory: Stages and Types of Memory, Forgetting – Types and Theories of Forgetting.

UNIT III Cognitive Process in Sports: Cognition: Definition, Characteristics of Cognitive Process in Sports, Sensation: Definition, Role of Sensation, Characteristics of Sensation, Attention & Concentration: Definition, Dimensions, Perception: Definition, Characteristics of Perception, Importance of Perception in Sports.

UNIT IV Motivation : Confidence and Goal-Setting : Motivation: Definition , Types – Extrinsic, Intrinsic, Direct and Indirect, Athlete Need and Motivation - Need for stimulation , Need for Affiliation , Need for feel worthy, Theories of Motivation - Instinct theory, Drive Reduction, Need Hierarchy , Need for achievement theory , Confidence – Definition, Types and Theories: Self- Efficacy and Vealey's Theory of Confidence, Goal Setting – Types – Out come & performance , Goal Setting Training Program.

Unit V: Psychological Factors and Performance Excellence: Anxiety, Anger, Arousal, Aggression, Emotion, Frustration, Locus of Control, Personality and Stress , Psychological Skills Training (PST) - Definition, Importance of PST , Myths about PST.

References:

1. Rainer Martens (1987) - Coaches Guide to Sports Psychology , Illinois, United States, Human Kinetics.
2. Jack H. Llewellyn & Judy A. Blucker (1989) - Psychology of Coaching : Theory and Application, 2nd Edition, , United States , Burgess Publishing Company.
3. Robert S Weinberg & Daniel Gould (2003) – Foundations of Sport 3rd edition , Illinois, United States , human Kinetics .
4. Shaw D F, Gorely T. and Corban R M (2005) – Sports and Exercise Psychology, UK,

BIOS Scientific Publishers.

5. Gangopadhyay S R (2008) – Sports Psychology , New Delhi, India, Sports Psychology Publications.
6. Kamelsh M.L.(1988) Psychology in Physical Education and Sports,New Delhi: Metropolitan
7. Alderman A.B. (1974), Psychology Behavior in Sports Sounder : W.B. Saunders company.
8. Suninn, R.N.(1982) Psychology in Sports, Delhi : Surjit Publication, 1982.
- 9.Elangovan R (2001) Utarkalvi Ulaviyal , Tirunelveli : Aswin Publications.
10. Gita Mathew W. (1997) , Sports Psychology , Karaikudi : Shijin and Shijin Brothers.

COURSE OUTCOME students are able to	
CO-1	Introduction about Sports Psychology
CO-2	Motor Learning
CO-3	Cognitive Process in Sports
CO-4	Motivation Goal Setting Training Program
CO-5	Psychological Factors and Performance Excellence

MAPPING'S OF CO'S AND PO'S

Course Outcomes	Programme Outcome									
	1	2	3	4	5	6	7	8	9	10
1	1	1	1	1		2	2		1	
2	1		2	3	2	1	1	3		1
3		3		2	3		1		2	2

MAPPING'S OF CO'S AND PSO'S

COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)	
	1	2
1	2	
2	3	1
3	1	2

SPORTS SOCIOLOGY

UNIT- I Sociology and Sports : Definition - Origin and development - Nature and scope of sociology -Sociology as a science - Importance of sociology - what is sports sociology - Relationship between sports and sociology.

UNIT - II Society , Culture and Sports : Definition - characteristics of a society - types of sociology individual and society. Community : Definition of community - Elements of a community -Types of community .Culture : Definition of culture - characteristics of culture - Relationship between culture and sports.

UNIT – III Socialization and Sports : Definition - Need for socialization – process of socialization – stages of socialization – Agencies of socialization – sports and socialization.

UNIT - IV Social stratification and Sports : Meaning, characteristics - The process of stratification - caste and class - Difference between caste and class- Relationship between caste and sports.

UNIT - V Women and sports : Status of women in India – Historical Role of Women – Social issues in women's sports – Global status of women in sport – Barriers for women in sports.

References :

1. Pascal, G : (1979) FUNDAMENTAL OF SOCIOLOGY 3rd Rev.Ed. Bombay, Orient Longman,
2. Ogburn – W.F and Nimkoff,(1964), A Hand book of SOCIOLOGY London, Routledge and Keganpual Ltd., 1964.
3. Giddens A.,(1989), SOCIOLOGY , Cambridge , Polity Press 1989.
4. Yadvinder Singh, (2005), SOCIOLOGY IN SPORTS,New Delhi,Sports Publication.

5. Nixon : (2006)OUTLINES AND HIGHLIGHTS FOR A SOCIOLOGY, USA,Academic Internet publishers.
6. Ronald B. Woods, (2006) “ SOCIAL ISSUES IN SPORT” , USA, Human Kinetics
7. Jain . (2007) “ SPORTS SOCIOLOGY”.New Delhi, Khel Sahitya Kenra
8. Howard L.Nixon, James H. Frey (1995)“ SOCIOLOGY OF SPORT”. UK, Wadsowth publishing company
9. Laker Anthory : (2003) SOCIOLOGY OF SPORT AND PHYSICAL EDUCATION,USA , Routledgfalmer

COURSE OUTCOME students are able to	
CO-1	Sociology and Sports
CO-2	Society , Culture and Sports
CO-3	Socialization and Sports
CO-4	Social stratification and Sports
CO-5	Women and sports

MAPPING'S OF CO'S AND PO'S

Course Outcomes	Programme Outcome									
	1	2	3	4	5	6	7	8	9	10
1	2		2			2	3	2		3
2		1	3	2	3		1	3	2	
3	1		1	1		1		1	1	1

MAPPING'S OF CO'S AND PSO'S

COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)	
	1	2
1	2	3
2	1	
3		2

SPORTS MANAGEMENT

UNIT I Social Context for modern sports : Need for New Structure in Sports Today – International Sports Environment : IOC and International Federations – National Sports Environment : National Olympic Committees – National Federations – Governmental and Quasi – Governmental Organizations – Sports Conflicts – Assumptions about Conflict in Sports – Internal disputes within Federations – Conflicts concerning Individual Rights and obligations – conflicts arising from anti – doping Tests.

UNIT II Managing Sports in the 21st century : Defining Sports and Sports Management - Nature and scope of the sports industry – Unique aspects of the sports management – sports management competencies – Future challenges and opportunities for sports managers – future of sports industry/ organizations.

UNIT III The Sports Manager : Basics of Sports Management – Managing in the Sports Environment – Managing People and Administrative Units – Management functions in sports – motivating people – understanding leadership – enhancement of management Abilities : Fundamentals – Sports Budget – Guidelines for mobilization and utilization of funds.

UNIT IV Sports organizations and Technology : Technology – Research on technology and organizations – Critiques of the technology imperative – Micro – Electronic Technologies – Relationship between Technology and Organizational Structure.

UNIT V The future of sports management : Why sports managers need to understand research – commercial and academic researches in sports management – sports management Research : Key concepts – Research process – current challenges in sports management Research – The future of sports management Research.

Reference:

1. Ruben Acosta Hernandez (2007) Managing Sports Organizations, Illinois Human Kinetics.
2. Trevor Slack, et.al (2007) Understanding Sports Organizations, Illinois Human Kinetics.
3. Jean – Loup chappelet and Emmanuel Bayle (2006) Strategic and performance management of Olympic sports organization.
4. Bernard J Mullin (2007) Stephen Hardy, William A Sutton, “ Sports Marketing”, Human Kinetics.
5. Gil Fried. (2007) Managing Sports facilities,” Human Kinetics

6. Trevor slack , Milena M Parent, Understanding Sports Organisations, Human Kinetics.
7. Buchu A charles (1993) Management of Physical Education and Sports , St. Louis , Mosby Year Book
8. Prasad L.M.(1995) Principles and practice of Management, New Delhi: Sultan Chand & Sons.

COURSE OUTCOME students are able to	
CO-1	Social Context for modern sports
CO-2	Managing Sports in the 21 st century
CO-3	The Sports Manager - Managing in the Sports Environment
CO-4	Sports organizations and Technology
CO-5	The future of sports management

MAPPING'S OF CO'S AND PO'S

Course Outcomes	Programme Outcome									
	1	2	3	4	5	6	7	8	9	10
1		2	1		3		1	2	1	1
2	1		3	1	1	2			2	
3	2	1		2	2	3	3	1		3

MAPPING'S OF CO'S AND PSO'S

COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)	
	1	2
1	2	1
2		2
3	3	

SPORTS BIOMECHANICS

UNIT-I Definition of Sports Biomechanics- Branches-Dimensions & Units-Anatomical and mathematical review- Movement constraints- Forces: Maintaining Equilibrium or Changing Motion-definition of forces-Classification of forces-Force composition- Force resolution-Static equilibrium.

UNIT-II Linear Kinematics: Describing Objects in Linear Motion-Vectors and scalars- Motion descriptors (position, velocity, acceleration)-Uniformly accelerated motion Linear Kinetics: Explaining the Causes of Linear Motion-Newton's laws-Friction-Impulse-Momentum-Conservation of Momentum-Collisions.

UNIT-III Explaining the Causes of Motion without Newton- Work, Energy, Power-Work-Energy relationship-Torques and Moments of Force: Maintaining Equilibrium or Changing Angular Motion-Torques/Moments-Equilibrium-Center of Gravity

UNIT-IV Angular Kinetics: Describing Objects in Angular Motion-Angular position, velocity, acceleration-Anatomical reference descriptors-Fluid Mechanics: Effects of Air and Water-Lift, drag, buoyancy-Fluid resistance-Relative motion

UNIT-V Biomechanical characteristics of walking-running-Biomechanics of jumping-Mechanical characteristics of throwing-Qualitative Analysis Techniques-Technique Enhancement-Training Enhancement-Injury Prevention-Quantitative Analysis Techniques-Kinematic tools-Kinetic tools-Tissue-related tools.

Reference:

1. McGinnis, Peter M.(2005) Biomechanics of Sport and Exercise. Human Kinetics.
2. Hay, J. (1993). The Biomechanics of Sports Techniques. Benjamin Cummings.
3. Knudson, Duane V.(2002) Qualitative Analysis of Human Movement. Human Kinetics.
4. Robertson, Coldwell et .al.(2004)Applications of research methods in biomechanics, Human Kinetics. ISBN: 073603966X

5. Zatsiorsky Vladimir M., Zatsiorsky Vladimir M., (2002) Kinetics of human motion, Human Kinetics, ISBN: 0736037780.
6. Roger Bartlett, (2007), Introduction to Sports Biomechanics: Analyzing Human Movement Patterns, publisher: Routledge, ISBN 0415339936.
7. Susan J Hall, Susan Hall, (2002) Basic Biomechanics with Dynamic Human, McGraw-Hill Humanities/Social Sciences/Languages, ISBN:0072552417.
8. Carl J. Payton and Roger M. Bartlett, (2008) Biomechanical Evaluation of Movement in Sport and Exercise, The British Association of Sport and Exercise Sciences Guidelines, Routledge.

COURSE OUTCOME students are able to	
CO-1	Definition of Sports Biomechanics
CO-2	Linear Kinematics: Describing Objects in Linear Motion
CO-3	Explaining the Causes of Motion without Newton
CO-4	Describing Objects in Angular Motion-Angular position, velocity, acceleration-Anatomical
CO-5	Biomechanical characteristics of walking-running-Biomechanics of jumping

MAPPING'S OF CO'S AND PO'S

Course Outcomes	Programme Outcome									
	1	2	3	4	5	6	7	8	9	10
1	1	3	3		1	3	2	1		3
2		2	2	1		1		3	2	
3	2		1	2	3		1		1	2

MAPPING'S OF CO'S AND PSO'S

COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)	
	1	2
1	1	
2		1
3	2	2

SPORTS TECHNOLOGY

UNIT I INTRODUCTION Sports engineering definition, purpose, advantages and applications; General principles and purpose of instrumentation in sports, Workflow of instrumentation and business aspects; Technological and social impacts on sports.

UNIT II SPORTS MATERIALS Adhesives- Nano glue, nano moulding technology, Nano turf, Foot wear production, Factors and application in sports, constraints. Foams- Polyurethane, Polystyrene, Styrofoam, closed-cell and open-cell foams, Neoprene, Foam Product Case Study. Engineering Polymers- Classification, application in sports, Smart Materials - Shape Memory Alloy (SMA), Thermo chromic film , High-density modeling foam, Motorcycle Gloves materials.

UNIT III THERMOPLASTICS

Polycarbonate(PC), Polyhydroxyalkanoates (PHAs), Polyketone (PK), Polyester Polyethylene (PE), Polyetheretherketone (PEEK), Polyetherimide (PEI), Polyethersulfone (PES), Polyethylenechlorinates (PEC), Polyimide (PI), Polylactic acid (PLA), Polymethylpentene (PMP), Polyphenylene oxide (PPO)

UNIT IV FIBRES, FERROUS METALS

High Tech Fibres- Carbon Fibre & Aramids, Uses and applications of Carbon Fibre in Sports. Resins- types , Composite resins and Thermoset resins, Most common and less common resins, Resin Reinforcement, case study, future uses. Ferrous Metals - Mild Steel, Cast Iron, Stainless Steel, application in sports. Alloys - Sheet form, Plate form and Extrusions.

UNIT V APPLICATION OF NANO TECHNOLOGY

Applications in Medicine, Electronics, Space, Food, Fuel Cell, Solar Cells, Batteries, Fuels, Better Air Quality, Cleaner Water, Chemical Sensors, Sporting Goods with nano technology- Nanocomposite barrier film, Bicycle components strengthened with carbon nanotubes, Golf shafts with nanoparticles filling any voids in the shaft material, Golf balls using nano-enhanced polymer,. Carrier areas and risks of nano technology.

References :

1. John Mongillo,(2001), “Nano Technology 101 ” New York : Green wood publishing group.
2. Finn, R.A. and Trojan P.K.(1999) “ Engineering Materials and their Applications” UK: Jaico Publisher .

- Charles J.A. Crane, F.A.A. and Furness, J.A.G. (1987) “ Selection of Engineering Materials” UK : Butterworth Heiremann.

Web References

- www.Astm.org/ labs/ pages/131350 .htm
- www. Applied sports materials.com
- www.sports Engineering .com

COURSE OUTCOME students are able to	
CO-1	Introduction about Sports engineering definition, purpose, advantages and applications
CO-2	SPORTS MATERIALS Adhesives- Nano glue, nano moulding technology, Nano turf, Foot wear production
CO-3	Learning about THERMOPLASTICS in PC,PHA's, PK, PE, PEEK, PEI, PES,PEC, PI, PLA, PMP, PPO
CO-4	About FIBRES, FERROUS METALS
CO-5	Applications in Medicine, Electronics, Space, Food, Fuel Cell, Solar Cells, Batteries, Fuels, Better Air Quality, Cleaner Water, Chemical Sensors, Sporting Goods with nano technology

MAPPING'S OF CO'S AND PO'S

Course Outcomes	Programme Outcome									
	1	2	3	4	5	6	7	8	9	10
1		2	3		3	3		2		1
2	1		2	1	2		1	3	2	
3		1		3		2	3		1	2

MAPPING'S OF CO'S AND PSO'S

COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)	
	1	2
1	2	1
2	3	2
3	1	3

AREA OF DISSERTATION

The Syllabus for the University Examination may be prepared by the Guide himself based on the following guidelines and the topic.

The relevant Questions may also be prepared accordingly.

UNIT – I Fundamental Concepts : Meaning, need ,nature , Aim, objectives and Scope of the topic – purpose, Justification and usefulness of the topic, statement of the problem. Hypothesis, Delimitations and Limitations, Front materials of the dissertation – Reviews.

UNIT – II Methodology : Selection of subjects – variables – Justification – Scheduling – Apparatus and materials – Tests – Method of Testing and training procedures – Statistical Technique.

UNIT – III Research Design – Meaning, need , Importance – Features – Types – Principles of Sampling – Population – Steps of Sampling Design – Criteria for selecting a sampling design – characteristics – Types – Size – Random Sample – Complex Random Sampling design.

UNIT – IV Data Collection : Data Collection – Methods of Data Collection – Processing and Analysis of data – Statistical Technique – Testing Hypothesis – Interpretation – Technique of interpretation – Computer Analysis of data.

UNIT – V Significance of Research Writing – Steps in Research Writing – Lay out – Types of Reports, Mechanics of Writing a Research Report – Precautions for writing Research Reports – Chapterization – Tabulation – Graphs / Figures, conclusion – Recommendation – Bibliography – Appendices .

References:

- 1) Best W John and James V Leahn (1996) Research in Education, New Delhi : Prentice – Hall of India Pvt. Ltd.,
- 2) Kothari C.R. (1985) Research Methodology NewDelhi: Wiley Eastern Limited.
- 3) Clarke David.H and Clarke H, Harrison (1984) Research processes in Physical Education, New Jersey : Prentice Hall Inc.,
- 4) Best, John W. and Kalm James, V.(1980) Research in Education, New Delhi: Prentice Hall of India.
- 5)Clarke, H. Harrison and Clarke David H. (1972) Advanced Statistics, New Jercey: Prentice Hall Inc.

- 6) Garret Henry E and Woodworth, R.S (1958) Statistics in Psychology and Education, Bombay : Allied publication pvt.Ltd.,
- 7) Thirumalaisamy (1998) Statistics in Physical Education, Karaikudi: Senthilkumar publishers.
- 8) Thomson AL,(1986) The Art of Using Computers, Boyd & Frasher Boston: Publishing Co.,
- 9) Jerry R Thomas and Jack K Nelson(2000) Research Methods in Physical Activities, Illinois : Human Kinetics;
- 10) Craig Williams and Chris Wragg(2006) – Data Analysis and research for sport and exercise science, London Routledge Press.
- 11) Paul R kinnear and Colin D Gray (2006) –SPSS 14 Made Simple , New York: Psychology Press.

COURSE OUTCOME students are able to	
CO-1	Fundamental Concepts
CO-2	Methodology
CO-3	Research Design
CO-4	Data Collection
CO-5	Significance of Research Writing

MAPPING'S OF CO'S AND PO'S

Course Outcomes	Programme Outcome									
	1	2	3	4	5	6	7	8	9	10
1		3		2		2	3			2
2		2	2		1	1		2	3	
3	1		1	3	2	2	1		1	

MAPPING'S OF CO'S AND PSO'S

COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)	
	1	2
1	1	2
2	3	
3		1

* * * * *

COMPUTER OPERATIONS, COMMUNICATIONS AND EDUCATIONAL SKILLS

- UNIT : I** Basics of Computers – Hardware – Software – Networking Computers – LAN – WAN – Introduction to Internet – Internet Services – WWW – Sending Mail – Receiving Mail – Web Pages – Web Site – Web Server – Search Engines – Survey of Article / Literature using internet.
- UNIT : II** Word document – Creation – Formatting Features – Mail Merge – Find and Replace - Spelling Checkers – Spread Sheet - Simple Calculations - PowerPoint – Layouts – Audio – Video – image usages – with Power point – Data base – Creation – Primary Key and other constraints – Simple SQL statements – Create insert – update – delete – select – commit – front end tools – connecting database using VB – Creating simple Graphical user interface applications using VB.
- UNIT: III** What is communication - Role of communication in the present scenario – Barriers to communication - Types of communication – Written verses oral – Telephone Communication – Face to face to face interactions (situations) – Written – Letter Writing – Report Writing – Memo’s – Note making - Agenda preparation.
- UNIT :IV** Soft Skills – Interview Skills – Preparing for an interview – Presentation Skills – Body Language - Speaking , Pronunciation , structuring of presentation, Group discussion – Skills in listening and expressing effectively.
- UNIT: V** Pedagogy : Meaning, Theories of pedagogy (Benjamin Bloom, Jean Piaget, Indian educational theory (Gandhi) – Educational Psychology – Concept learning life skills, sex education – Integrating skill development, modernizing education and skill development – Basic and higher education : Issues and challenges.

COMPUTER OPERATIONS – SYLLABUS - PRACTICALS

1. MS – WORD

1. Create advertisement in MS WORD
2. To illustrate the concept of mail merging in word.
3. Document creation with scientific notation
4. Text manipulation with scientific notation
5. Table creation, table formatting and conversion.
6. Mail Merge and letter preparation
7. Drawing and Flow Chart.
8. Show the different effect for the given text in the document.
9. Create a table of employee and calculate the next salary.
10. Design a table with merge cells and split cells technique.

2. SPREAD SHEET

11. To create a Spread Sheet to analyze the marks of the students in a class and to create appropriate charts.
12. Charts in Spread Sheets
13. Formula and Formula Editor
14. Inclusion of objects, pictures and graphics protecting the document and sheet.
15. Sorting and import/ export features.
16. Create suitable chart to show the census data in Indian Sports.
17. Create a suitable chart to show the students average in the class.
18. Create an electronic spread sheet of student marks, and find the total, average and respective class secured by each student.
- 19.
20. Generate the numbers vertically starting from 10 to 100 with step value 5.

3. POWER POINT

21. To create the presentation for the department using the power point.
22. Animation in Power point Presentation
23. Designing the Power point Presentation
24. Timing for the slides in Power point Presentation
25. Background designing in Power point Presentation
26. Designing the Power point Presentation using audio and Video.

4. INTERNET LAB

27. Browsing a Web Site.
28. Composing and Sending a Mail
29. Forwarding and replying to mails.
30. Downloading Articles / Web content.
31. Literature survey using search engines

5. DBMS LAB

32. Creation of database table with constraints
33. Modification of data in a table.
34. 28 GUI applications using VB (Single calculator, dollar conversion etc.,)
35. Database Applications using VB (insert, update, delete).

References :

1. Peter Norton, “ Introduction to Computers”, 6th Edition , Tata Mcgraw Hill.
2. Ashok N. Kamthane, “ Computer Programming”, Pearson Education India.
3. Groff Weinberg, “ The complete Reference SQL”, 2nd Edition, Tata Mcgraw Hill.
4. Bott Special Edition using Microsoft Office 2007, Pearson Education India.
5. Gray W. Harsen and James V Harsen (1996) Data Base Management and Design, Prentice Hall
6. Jeffrey A Hotter, Mary B Prescott, Fred R. Medadden (2002), Modern database Management, Prentice Hall.
7. Robert I T Futrell, Donald F. shafer Linda, (2002) Quality software project management Pearson Education, Asia.
8. ‘ Soft Skills’ University of Madras, Chennai
9. ‘ Communication Skills,” University of Madras, Chennai
10. Mangal .S.K. (2002) , Advanced Educational Psychology, Prentice Hall of India, New Delhi.
11. Sampath, K. et.al (1998) Introduction to educational technology, Sterling Publishers, New Delhi..
12. Keemar.K. (1997) Educational Technology, New Age International Publishers, New Delhi.
13. Chauhan S.S.(1985) Innovations in Teaching Learning Process , New Delhi : Vikas Publishing House.
14. Rajasekar . S. (2005) Computer Education and Educational Computing , Hyderabad : Neel Kamal Publications.
15. Jyohanty Jagannath (2004) , Modern Trends in Educational Technology, “ Hyderabad : Neel Kamal Publications.
16. Vedanayagam E.G. (1988) Teaching Technology for College Teachers, New Delhi, Sterling Publishers.
17. Kumar K. (1997) Educational Technology, New Delhi : New Age International Publishers.

COURSE OUTCOME students are able to	
CO-1	Basics of Computers
CO-2	Word document
CO-3	Role of communication in the present scenario
CO-4	Soft Skills for interviews
CO-5	Pedagogy

MAPPING'S OF CO'S AND PO'S

Course Outcomes	Programme Outcome									
	1	2	3	4	5	6	7	8	9	10
1	2	1	3		2	3	2	2		1
2		3	2	1		2		3	2	
3	1		1	3	3		1	1		1

MAPPING'S OF CO'S AND PSO'S

COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)	
	1	2
1	2	1
2	3	1
3	1	2

* * * * *

DISSERTATION

Dissertation should be submitted and Viva Voce will be held after that.

The dissertation should be written in simple language. The text should be in short, clear and concise. Careless construction of sentences and incorrect grammar should be avoided. Spelling and grammar check can be done with the help of expert and computer. The dissertation material should be neatly computerized in double space, on one side in A4 size bond paper with Times New Roman, 12 font size only.

Margin

The left margin of the dissertation should be typed in 1.5 inch and the other three margins of top, bottom and right should 1 inch on all the pages.

Pagination

There is two separate series of pagination. The first is for preliminary materials which are from title page to list of appendices. For this page, number is placed in lowercase(small) Roman numbers at the centre bottom of the page.

The page number for body of the dissertation/ thesis should be in Arabic numbers placed at the top right corner of the page but for first page of each chapter there is no number. It continues for all chapters including bibliography and appendices.

Each chapter should be started on a new page.

Numbers and Symbols

In the text, the number below 10 should be spelt out in words for eg.one, nine etc, Further, the number 10 and above should be expressed in figures et.10, 11 etc. However, sentences beginning with numbers should be always spelt out in words.

The symbol of percent that is % should be used when a number is used for eg.21% . When a number is not given, the word percentage should be used, for e.g twenty one percent.

Informed Consent Form

It is essential that the subjects, their parents and concerned institutional authorities should be informed in writing by the scholar about the nature of the study and risks involved if any during testing and training. It is a must for a study which involves collection of blood and other samples from the subjects. Further, for supplementation studies clearance from concerned ethical committee is essential.

Reference :

Footnote system is not followed for M.Phil dissertation.

As footnote is not used, in the text, the author's name and the year of publication should be given in parentheses for chapter I,III, IV & V. But only the year of publication should be given in parentheses next to author's name for chapter II. For example : Shaver (1972).

Binding :

The dissertation must be card-board bound with laminated wrapped sheet. Spiral binding will not be accepted. Wrapper colour is yellow for M.Phil.

Submission :

Number of copies of dissertation and abstract to be submitted for M.Phil is 2 to the University (Excluding Guide, College and Candidate Copies).

* * * * *

03204

VIVA – VOCE

Viva – Voce will be conducted after the submission of dissertation as well as after the valuation of theory papers. The internal marks for viva- Voce is maximum of 40 and for the external . it is for the maximum of 60 . Altogether for the maximum of 100 marks. Questions will be asked in the Viva – Voce examination based on the dissertation of the student.

03205

VILLAGE PLACEMENT PROGRAMME

Village Placement Programme will be organized for five days during II Semester. The assessment of the students is internal for 100 marks. Students should design programme in Physical Education and are to teach and train villagers for five days.

**AREA OF DISSERTATION
(EXPERIMENTAL STUDY)**

UNIT – I Fundamental Concepts : Meaning, need ,nature , Aim, objectives and Scope of the topic – purpose, Justification and usefulness of the topic, statement of the problem. Hypothesis, Delimitations and Limitations, Front materials of the dissertation – Reviews.

UNIT – II Methodology : Selection of subjects – variables – Justification – Scheduling – Apparatus and materials – Tests – Method of Testing and training procedures .

UNIT – III Research Design – Meaning, need , Importance – Features – Types. Principles of Sampling – Population – Size – Steps in Sampling. Criteria for selecting a sampling design – characteristics – Types– Random Sampling – Complex Random Sampling design.

UNIT – IV : Testing Hypothesis: Concepts and calculations of the following: Descriptive statistics: Mean, Median, Mode and Standard Deviation. Test for difference between mean: Independent ‘t’ test- Dependent ‘t’ test- - Repeated Measures ANOVA -Analysis of Covariance (ANCOVA). Post-hoc test: Scheffe’s and Least Significant difference test (LSD).

UNIT – V Significance of Research Report Writing – Steps in Research report Writing – Types of Reports, Mechanics of Writing a Research Report – Precautions for writing Research Reports –Thesis format- Chapterization – Tabulation – Graphs / Figures, conclusion – Recommendation – Bibliography – Appendices .

References:

Best John W and James Leahn (1996) Research in Education, New Delhi :
Prentice – Hall of India Pvt. Ltd.,

Kothari C.R. (1985) Research Methodology, NewDelhi: Wiley Eastern Limited.

Clarke David.H and Clarke H, Harrison (1984) Research processes in
Physical Education, New Jersey : Prentice Hall Inc.

Best, John W. and Kalm James, V.(1980) Research in Education, New Delhi:
Prentice Hall of India.

Jerry R Thomas and Jack K Nelson(2000) Research Methods in Physical
Activities, Illnosis : Human Kinetics;

Garret Henry E and Woodworth,R.S (1958) Statistics in Psychology and Education, Bombay : Allied publication pvt.Ltd.,

Thirumalaisamy (1998) Statistics in Physical Education, Karaikudi: Senthilkumar publishers.

Thomson AL,(1986) The Art of Using Computers, Boyd & Frasher Boston: Publishing Co.,

Craig Williams and Chris Wragg(2006) – Data Analysis and research for sport and exercise science, London Routledge Press.

Paul R kinnear and Colin D Gray (2006) –SPSS 14 Made Simple , New York: Psychology Press.

COURSE OUTCOME students are able to	
CO-1	Fundamental Concepts
CO-2	Methodology Selection of subjects
CO-3	Research Design
CO-4	Testing Hypothesis
CO-5	Significance of Research Report Writing

MAPPING'S OF CO'S AND PO'S

Course Outcomes	Programme Outcome									
	1	2	3	4	5	6	7	8	9	10
1	2		3			2		1	3	
2				2			3		2	
3	1	1	2		1		1	2		1

MAPPING'S OF CO'S AND PSO'S

COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)	
	1	2
1	1	3
2	2	
3		2

**AREA OF DISSERTATION
(COMPARATIVE STUDY)**

UNIT – I Fundamental Concepts : Meaning, need ,nature , Aim, objectives and Scope of the topic – purpose, Justification and usefulness of the topic, statement of the problem. Hypothesis, Delimitations and Limitations, Front materials of the dissertation – Reviews.

UNIT – II Methodology : Selection of subjects – variables – Justification – Scheduling – Apparatus and materials – Tests – Method of Testing .

UNIT – III Research Design – Meaning, need , Importance – Features – Types – Principles of Sampling – Population – Steps of Sampling Design – Criteria for selecting a sampling design – characteristics – Types – Size – Random Sample – Complex Random Sampling design- Static group comparison design.

UNIT – IV : Testing Hypothesis: Concepts and calculations of the following:
Descriptive statistics: Mean, Median, Mode and Standard Deviation. Test for difference between mean: Independent's' test- One way Analysis of Variance(ANOVA), Factorial Design (ANOVA)- Two way, Three way- Repeated Measurers ANOVA- Post-hoc test: Scheffe's and Least Significant difference test (LSD).

UNIT – V Significance of Research Report Writing – Steps in Research report Writing – Types of Reports, Mechanics of Writing a Research Report – Precautions for writing Research Reports –Thesis format- Chapterization – Tabulation – Graphs / Figures, conclusion – Recommendation – Bibliography – Appendices .

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Thomson AL,(1986) The Art of Using Computers, Boyd & Frasher Boston: Publishing Co.,

Craig Williams and Chris Wragg(2006) – Data Analysis and research for sport and exercise science, London Routledge Press.

Paul R kinnear and Colin D Gray (2006) –SPSS 14 Made Simple , New York: Psychology Press.

COURSE OUTCOME students are able to	
CO-1	Meaning, need ,nature , Aim, objectives and Scope of the topic
CO-2	Justification, Apparatus and materials
CO-3	Meaning, need , Importance – Features – Types – Principles of Sampling – Population – Steps of Sampling Design
CO-4	Mean, Median, Mode and Standard Deviation. Test for difference between mean: Independent's' test
CO-5	Significance of Research Report Writing – Steps in Research report Writing – Types of Reports, Mechanics of Writing a Research Report

MAPPING'S OF CO'S AND PO'S

Course Outcomes	Programme Outcome									
	1	2	3	4	5	6	7	8	9	10
1		1	1		2	2	3		2	3
2	2		2	1	3	1		3	1	
3	1	3		3	1		2			2

MAPPING'S OF CO'S AND PSO'S

COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)	
	1	2
1	2	
2		2
3	3	1

**AREA OF DISSERTATION
(RELATIONSHIP AND PREDICTION STUDIES)**

UNIT – I Fundamental Concepts : Meaning, need ,nature , Aim, objectives and Scope of the topic – purpose, Justification and usefulness of the topic, statement of the problem. Hypothesis, Delimitations and Limitations, Front materials of the dissertation – Reviews.

UNIT – II Methodology : Selection of subjects – variables – Justification – Scheduling – Apparatus and materials – Tests – Method of Testing .

UNIT – III Research Design – Meaning, need , Importance – Features – Types – Principles of Sampling – Population – Steps of Sampling Design – Criteria for selecting a sampling design – characteristics – Types – Size – Random Sample – Complex Random Sampling design.

UNIT – IV : Testing Hypothesis: Concepts and calculations of the following:
Descriptive statistics: Mean, Median, Mode and Standard Deviation. Correlation: Pearson Product moment Correlation – Spearman Rank order correlation- Partial and Multiple Correlation - Regression Analysis.

UNIT – V Significance of Research Report Writing – Steps in Research report Writing – Types of Reports, Mechanics of Writing a Research Report – Precautions for writing Research Reports –Thesis format- Chapterization – Tabulation – Graphs / Figures, conclusion – Recommendation – Bibliography – Appendices .

References:

Best John W and James Leahn (1996) Research in Education, New Delhi :
Prentice – Hall of India Pvt. Ltd.,

Kothari C.R. (1985) Research Methodology, NewDelhi: Wiley Eastern Limited.

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Best, John W. and Kalm James, V.(1980) Research in Education, New Delhi:
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Jerry R Thomas and Jack K Nelson(2000) Research Methods in Physical
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Garret Henry E and Woodworth,R.S (1958) Statistics in Psychology and
Education, Bombay : Allied publication pvt.Ltd.,

Thirumalaisamy. R(1998) Statistics in Physical Education, Karaikudi:
Senthilkumar publishers.

Thomson AL,(1986) The Art of Using Computers, Boyd & Frasher Boston:
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Craig Williams and Chris Wragg(2006) – Data Analysis and research for sport
and exercise science, London Routledge Press.

Paul R kinnear and Colin D Gray (2006) –SPSS 14 Made Simple , New York:
Psychology Press.

COURSE OUTCOME students are able to	
CO-1	Meaning, need ,nature , Aim, objectives and Scope of the topic
CO-2	Selection of subjects – variables – Justification – Scheduling – Apparatus and materials – Tests – Method of Testing
CO-3	Meaning, need , Importance – Features – Types – Principles of Sampling
CO-4	Pearson Product moment Correlation
CO-5	Significance of Research Report Writing

MAPPING'S OF CO'S AND PO'S

Course Outcomes	Programme Outcome									
	1	2	3	4	5	6	7	8	9	10
1	2			1		3		2		3
2		1	2		1		2	1	2	
3	1	3		3	2		3		1	2

MAPPING'S OF CO'S AND PSO'S

COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)	
	1	2
1		2
2	1	1
3	2	3

**AREA OF DISSERTATION
(CASE STUDY)**

UNIT – I Fundamental Concepts : Meaning, need ,nature , Aim, objectives and Scope of the topic – purpose, Justification and usefulness of the topic, statement of the problem. Hypothesis, Delimitations and Limitations, Front materials of the dissertation – Reviews.

UNIT – II Methodology: Case Study methods: Meaning- Definition- Assumptions- Major steps- characteristics and sources- precaution in selecting an object of case studies. Advantages and limitations. Procedure to select the Case. Collection of data from the case- parents- spouse- children- physical education teacher- coaches-co players- Spectators & fans- society members Schedules and Questionnaire: Meaning of a schedule- types of schedule and steps in framing schedule- types of questionnaire: Meaning- forms- process- validity and reliability- advantages and limitations.

UNIT – III Research Design – Meaning, need , Importance – Features – Types – Principles of Sampling – Population – Steps of Sampling Design – Criteria for selecting a sampling design – characteristics – Types – Size – Random Sample – Complex Random Sampling design.

UNIT – IV : Testing Hypothesis: Concepts and calculations of the following: Descriptive statistics: Mean Median, Mode and Standard Deviation. Independent t Test - Correlation: Pearson Product moment Correlation – Spearman Rank order correlation- Chi- Square- Factor Analysis .

UNIT – V Significance of Research Report Writing – Steps in Research report Writing – Types of Reports, Mechanics of Writing a Research Report – Precautions for writing Research Reports –Thesis format- Chapterization – Tabulation – Graphs / Figures, conclusion – Recommendation – Bibliography – Appendices .

References:

Best John W and James Leahn (1996) Research in Education, New Delhi :
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Kothari C.R. (1985) Research Methodology, NewDelhi: Wiley Eastern Limited.

Clarke David.H and Clarke H, Harrison (1984) Research processes in
Physical Education, New Jersey : Prentice Hall Inc.

Best, John W. and Kalm James, V.(1980) Research in Education, New Delhi:
Prentice Hall of India.

Jerry R Thomas and Jack K Nelson(2000) Research Methods in Physical Activities, Illinois : Human Kinetics;

Garret Henry E and Woodworth,R.S (1958) Statistics in Psychology and Education, Bombay : Allied publication pvt.Ltd.,

Thirumalaisamy (1998) Statistics in Physical Education, Karaikudi: Senthilkumar publishers.

Thomson AL,(1986) The Art of Using Computers, Boyd & Frasher Boston: Publishing Co.,

Craig Williams and Chris Wragg(2006) – Data Analysis and research for sport and exercise science, London Routledge Press.

Paul R kinnear and Colin D Gray (2006) –SPSS 14 Made Simple , New York: Psychology Press.

COURSE OUTCOME students are able to	
CO-1	Fundamental Concepts
CO-2	Methodology
CO-3	Research Design
CO-4	Testing Hypothesis
CO-5	Significance of Research Report Writing

MAPPING'S OF CO'S AND PO'S

Course Outcomes	Programme Outcome									
	1	2	3	4	5	6	7	8	9	10
1	1	3			2	1	2			
2	3	1	2	3		3		2	1	
3		2	1		1		3			3

MAPPING'S OF CO'S AND PSO'S

COURSE OUTCOMES (CO)	PROGRAM SPECIFIC OUTCOMES (PSO)	
	1	2
1	2	2
2	3	
3	1	1

03201 E

**AREA OF DISSERTATION
(Survey Study)**

03201 F

**AREA OF DISSERTATION
(Descriptive Study)**

**TAMIL NADU PHYSICAL EDUCATION AND SPORTS UNIVERSITY
MELAKKOTTAIYUR POST CHENNAI - 600 127**

**DEPARTMENT OF YOGA
M.Sc., YOGA
(Two years Regular Programme)
CHOICE BASED CREDIT SYSTEM (CBCS)**

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

PEO – 1 : To equip the participants to run their own Yoga Centres.

PEO – 2 : To train them to introduce yoga in Schools, Colleges and Universities.

PEO – 3 : After successful completion of this programme, graduates will able to: Integrate and apply knowledge of yoga and spiritual evolution for the practice of yoga as healthcare therapy.

PEO – 4 : Design advanced yoga based therapies to meet identified needs within economic, environmental and social constraints.

Educational Program Outcomes (POs):

After completion of the program graduates will be able to

- PO- 1 Knowledge of the teachings and philosophy of the yoga tradition, with diverse yogic perspectives on the structure, states, functions, and conditions of the body and the mind in balance (and out of balance), based on teachings of the Yoga Sutras, the Bhagavad Gita, and other relevant texts.
- PO- 2 Ability to teach or deliver the appropriate practices for individuals and/or groups, using multimodal strategies of education such as auditory, visual, and kinaesthetic learning tools, and tools that foster client engagement.
- PO- 3 Advanced knowledge of generally accepted ethical principles of health care and yoga codes of conduct; in depth knowledge of legal and regulatory issues (including current relevant local, state, and national laws).
- PO- 4 Knowledge of the fundamental value of ongoing personal practice, long-term mentorship, and skills maintenance/development through continuing education, including

knowledge of when and how to seek advice and support for case consultation, educational advancement, and personal practice

- PO- 5 Ability to apply knowledge learned in this curriculum to assess the needs of the individuals, to design and implement effective programs, and to assess the effectiveness of these programs.

MAPPING OF PEOs WITH POs

	PO-1	PO-2	PO-3	PO-4	PO-5
PEO-1	X	X	X	X	X
PEO-2	X	X	X	X	X
PEO-3	X	X	X	X	X
PEO-4	X	X	X	X	X

PROGRAM SPECIFIC OUTCOMES (PSO)

The post graduates are able to

PSO 1 Gain knowledge and skills necessary to meet the demand of the growing needs of experts in yoga and related fields.

PSO-2 Eligible to do Research on National & International Level.

PYO18CT101	FUNDAMENTALS OF YOGA
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COURSE OUTCOME:

- CO1 - Gain knowledge about the Indian philosophy.
- CO2 - Learn about the history of yoga, classical yoga texts, yogic gurus, and contributions of yoga to religions
- CO3 - Understand the various paths of yoga, schools of yoga, and Ashtanga yoga

MAPPING (CO's and PO's)

Course Outcomes	Programme Outcomes				
	PO1	PO2	PO3	PO4	PO5
CO1	3		1	2	1
CO2	3		2	2	1
CO3	3		2	2	3

1- Low

2- Medium

3- High

MAPPING (CO's and PSOs)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1	3	3
2	3	3
3	3	3

PYO18CT102**ANATOMY AND PHYSIOLOGY**

COURSE OUTCOMES:

- CO1 - Learn about the anatomy of the human body from the cell structure to the major systems of the body
- CO2 - Understand the physiology, unique anatomical features, and the functions of the major systems of the body
- CO3 - Insight into the effect of yogic practices on each individual systems of the body

MAPPING (CO's and PO's)

Course Outcomes	Programme Outcomes				
	PO1	PO2	PO3	PO4	PO5
CO1				2	3
CO2				2	3
CO3				2	3

1 - Low**2- Medium****3- High****MAPPING (CO's and PSO's)**

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1	2	3
2	2	3
3	2	3

COURSE OUTCOMES:

- CO1 - Learn about the essentials of the yogic practices
- CO2 - Exposed to techniques of loosening the joints and Surya Namaskar
- CO3 - Oriented to some of the preliminary asanas, pranayama, kriya, bandhas, mudras and meditation

MAPPING (CO's and PO's)

Course Outcomes	Programme Outcomes				
	PO1	PO2	PO3	PO4	PO5
CO1		3		2	3
CO2		3		2	3
CO3		3		2	3

1 - Low**2- Medium****3- High****MAPPING (CO's and PSO's)**

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1	3	3
2	3	3
3	3	3

DSE PYO18DE001	YOGA AND HEALTH																																									
	COURSE OUTCOMES: <ul style="list-style-type: none">• CO1 - Understand the Indian concept of health, development and causes of disease, mental and emotional well-being, and role of yogic attitudes toward health• CO2 - In-depth knowledge about communicable diseases• CO3 - Gain knowledge about the lifestyle diseases, the role of yoga in combating them, and impact of diet and nutrition in disease prevention and curing• CO4 - Exposure on current trends in health and environment, concepts of hygiene and health, and population explosion and its control• CO5 - Learn about the yogic principles and practices for health, fitness, and wellness MAPPING (CO's and PO's) <table><tr><th rowspan="2">Course Outcomes</th><th colspan="5">Programme Outcomes</th></tr><tr><th>PO1</th><th>PO2</th><th>PO3</th><th>PO4</th><th>PO5</th></tr><tr><td>CO1</td><td>2</td><td>1</td><td></td><td>1</td><td>1</td></tr><tr><td>CO2</td><td></td><td></td><td>2</td><td>2</td><td>2</td></tr><tr><td>CO3</td><td></td><td></td><td>2</td><td>2</td><td>2</td></tr><tr><td>CO4</td><td></td><td></td><td>1</td><td>1</td><td>1</td></tr><tr><td>CO5</td><td></td><td>3</td><td></td><td>3</td><td>3</td></tr></table> <div><div>1 - Low</div><div>2- Medium</div><div>3- High</div></div> MAPPING (CO's and PSO's)	Course Outcomes	Programme Outcomes					PO1	PO2	PO3	PO4	PO5	CO1	2	1		1	1	CO2			2	2	2	CO3			2	2	2	CO4			1	1	1	CO5		3		3	3
Course Outcomes	Programme Outcomes																																									
	PO1	PO2	PO3	PO4	PO5																																					
CO1	2	1		1	1																																					
CO2			2	2	2																																					
CO3			2	2	2																																					
CO4			1	1	1																																					
CO5		3		3	3																																					

	Course Outcomes (CO)	Program Specific Outcomes (PSO)				
		1	2			
	1	2	2			
	2	1	1			
	3	3	3			
	4	2	3			
	5	3	3			
PY018AE101	COMMUNICATION SKILLS					
	COURSE OUTCOMES: <ul style="list-style-type: none">• CO1 - Understand the basic characteristics of communication and its role in society• CO2 - Learn about the types of verbal and non-verbal communication• CO3 - Training on written communication• CO4 - Orientation on the soft skills to excel in the interview• CO5 - Learn the skills of group discussion.					
	MAPPING (CO's and PO's)					
	Course Outcomes	Programme Outcomes				
		PO1	PO2	PO3	PO4	PO5
	CO1					
	CO2		2			
	CO3					
	CO4					
	CO5					
	CO6					
CO7						
CO8						

	CO3					
	CO4				2	
	CO5					2
	1 - Low 2- Medium 3- High					
	Course Outcomes (CO)	Program Specific Outcomes (PSO)				
		1	2			
	1	2	2			
	2	2	2			
	3	1	3			
	4	1	1			
5	1	1				
PYO18EC101	VILLAGE PLACEMENT PROGRAMME					
	COURSE OUTCOMES:					
	<ul style="list-style-type: none">• CO1 - Apply knowledge of yogic counselling and case-history taking of participants of the programme• CO2 - Gain competence in practical training and teaching of public members of a village in yogic practices• CO3 - Apply techniques of yogic therapy, alternative medicine, naturopathy, and yogic diet to the common public					
	MAPPING (CO's and PO's)					

	<table><tr><th rowspan="2">Course Outcomes</th><th colspan="5">Programme Outcomes</th></tr><tr><th>PO1</th><th>PO2</th><th>PO3</th><th>PO4</th><th>PO5</th></tr><tr><td>CO1</td><td></td><td>2</td><td>2</td><td>2</td><td>3</td></tr><tr><td>CO2</td><td></td><td>3</td><td>2</td><td>2</td><td>3</td></tr><tr><td>CO3</td><td></td><td>3</td><td></td><td>3</td><td>3</td></tr></table>	Course Outcomes	Programme Outcomes					PO1	PO2	PO3	PO4	PO5	CO1		2	2	2	3	CO2		3	2	2	3	CO3		3		3	3
	Course Outcomes		Programme Outcomes																											
		PO1	PO2	PO3	PO4	PO5																								
	CO1		2	2	2	3																								
	CO2		3	2	2	3																								
	CO3		3		3	3																								
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	Course Outcomes (CO)		Program Specific Outcomes (PSO)																											
1		2																												
1	2	3																												
2	3	3																												
3	1	1																												
PRACTICAL PYO18CL101	YOGIC PRACTICES-I																													
	<p>COURSE OUTCOMES:</p> <ul style="list-style-type: none">CO1 - Exposed to techniques of loosening the joints and Surya NamaskarCO2 - Oriented to some of the preliminary asanas, pranayama, kriya, bandhas, mudras and meditation <p>MAPPING (CO's and PO's)</p> <table><tr><th rowspan="2">Course Outcomes</th><th colspan="5">Programme Outcomes</th></tr><tr><th>PO1</th><th>PO2</th><th>PO3</th><th>PO4</th><th>PO5</th></tr><tr><td>CO1</td><td></td><td>2</td><td></td><td>2</td><td>3</td></tr><tr><td>CO2</td><td></td><td>2</td><td></td><td>2</td><td>3</td></tr></table>	Course Outcomes	Programme Outcomes					PO1	PO2	PO3	PO4	PO5	CO1		2		2	3	CO2		2		2	3						
Course Outcomes	Programme Outcomes																													
	PO1	PO2	PO3	PO4	PO5																									
CO1		2		2	3																									
CO2		2		2	3																									

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Course Outcomes (CO)	Program Specific Outcomes (PSO)																													
	1	2																												
1	3	3																												
2	3	3																												
Practical PYO18CL102	APPLIED PHYSIOLOGY																													
	<div>COURSE OUTCOMES:</div> <div><ul style="list-style-type: none">CO1 - Learn about the measurement of physiological variables such as temperature, pulse rate, respiratory rate and blood pressureCO2 - Physical examination of sensory function and muscles is learnedCO3 - Oriented to identify an organ specimen and explain its functions</div> <div>MAPPING (CO's and PO's)</div> <table><tr><th rowspan="2">Course Outcomes</th><th colspan="5">Programme Outcomes</th></tr><tr><th>PO1</th><th>PO2</th><th>PO3</th><th>PO4</th><th>PO5</th></tr><tr><td>CO1</td><td></td><td></td><td></td><td>2</td><td>2</td></tr><tr><td>CO2</td><td></td><td></td><td></td><td>2</td><td>2</td></tr><tr><td>CO3</td><td></td><td></td><td></td><td>2</td><td>2</td></tr></table> <div>1 - Low2- Medium3- High</div>	Course Outcomes	Programme Outcomes					PO1	PO2	PO3	PO4	PO5	CO1				2	2	CO2				2	2	CO3				2	2
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	PO1	PO2	PO3	PO4	PO5																									
CO1				2	2																									
CO2				2	2																									
CO3				2	2																									

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	1	2																												
1	2	3																												
2	2	3																												
3	2	3																												
PYO18CT201	YOGA AND PSYCHOLOGY																													
	<p>COURSE OUTCOMES:</p> <ul style="list-style-type: none">• CO1 - Learn about the scope of psychology in yoga and the concept of developmental psychology• CO2 - Gain an understanding in yogic psychology and spirituality• CO3 - Understand the impact of yoga on various psychological disorders <p>MAPPING (CO's and PO's)</p> <table><tr><th rowspan="2">Course Outcomes</th><th colspan="5">Programme Outcomes</th></tr><tr><th>PO1</th><th>PO2</th><th>PO3</th><th>PO4</th><th>PO5</th></tr><tr><td>CO1</td><td>2</td><td>2</td><td></td><td>2</td><td>3</td></tr><tr><td>CO2</td><td>2</td><td>2</td><td></td><td>3</td><td>3</td></tr><tr><td>CO3</td><td></td><td></td><td></td><td>3</td><td>3</td></tr></table> <p>1 - Low 2- Medium 3- High</p> <p>MAPPING (CO's and PSO's)</p>	Course Outcomes	Programme Outcomes					PO1	PO2	PO3	PO4	PO5	CO1	2	2		2	3	CO2	2	2		3	3	CO3				3	3
Course Outcomes	Programme Outcomes																													
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CO2	2	2		3	3																									
CO3				3	3																									

	Course Outcomes (CO)	Program Specific Outcomes (PSO)																		
		1	2																	
	1	2	2																	
	2	2	2																	
	3	3	3																	
PYO18CT202	METHODOLOGY OF TEACHING YOGA																			
	<p>COURSE OUTCOMES:</p> <ul style="list-style-type: none">• CO1 - Understand the principles and methodology of teaching yoga• CO2 - Learn about the presentation techniques and teaching aids to yoga learning• CO3 - Exposed to preparing and executing a lesson plan• CO4 - Understand the processes in organizing and conducting workshops, camps, games and competition are learned. <p>MAPPING (CO's and PO's)</p> <table><tr><td rowspan="2">Course Outcomes</td><td colspan="5">Programme Outcomes</td></tr><tr><td>PO1</td><td>PO2</td><td>PO3</td><td>PO4</td><td>PO5</td></tr><tr><td>CO1</td><td>1</td><td>3</td><td></td><td>3</td><td>3</td></tr></table>			Course Outcomes	Programme Outcomes					PO1	PO2	PO3	PO4	PO5	CO1	1	3		3	3
Course Outcomes	Programme Outcomes																			
	PO1	PO2	PO3	PO4	PO5															
CO1	1	3		3	3															

	CO2		3			
	CO3		2		2	3
	CO4				3	3
	<div>1 - Low2- Medium3- High</div> MAPPING (CO's and PSO's)					
	<div>Course Outcomes (CO)</div>	<div>Program Specific Outcomes (PSO)</div>				
		1	2			
	1	3	2			
	2	3	2			
	3	3	1			
	4	3	1			
Practical PYO18CL201	PSYCHOLOGICAL TESTING IN YOGA					
	COURSE OUTCOMES: <ul style="list-style-type: none">CO1 - Understand various cognitive and emotional states and gain competency in measuring these variables through different psychological tools					
	MAPPING (CO's and PO's)					
	<div>Course Outcomes</div>	<div>Programme Outcomes</div>				
		PO1	PO2	PO3	PO4	PO5
	CO1		1	1	3	3
	<div>1 - Low2- Medium3- High</div>					

	MAPPING (CO's and PSO's) <table><tr><td rowspan="2">Course Outcomes (CO)</td><td colspan="2">Program Specific Outcomes (PSO)</td></tr><tr><td>1</td><td>2</td></tr><tr><td>1</td><td>1</td><td>3</td></tr></table>	Course Outcomes (CO)	Program Specific Outcomes (PSO)		1	2	1	1	3																							
Course Outcomes (CO)	Program Specific Outcomes (PSO)																															
	1	2																														
1	1	3																														
Practical PYO18CL202	YOGIC PRACTICE -II																															
	COURSE OUTCOMES: <ul style="list-style-type: none">• CO1 - Exposed to techniques of loosening the joints and Surya Namaskar• CO2 – Oriented to some of the moderate-level to advanced asanas, pranayama, kriya, bandhas, mudras and meditation MAPPING (CO's and PO's) <table><tr><td rowspan="2">Course Outcomes</td><td colspan="5">Programme Outcomes</td></tr><tr><td>PO1</td><td>PO2</td><td>PO3</td><td>PO4</td><td>PO5</td></tr><tr><td>CO1</td><td>2</td><td>1</td><td></td><td>2</td><td>3</td></tr><tr><td>CO2</td><td>2</td><td>1</td><td></td><td>2</td><td>3</td></tr></table> <div>1 - Low2- Medium3- High</div> MAPPING (CO's and PSO's) <table><tr><td rowspan="2">Course Outcomes (CO)</td><td colspan="2">Program Specific Outcomes (PSO)</td></tr><tr><td>1</td><td>2</td></tr><tr><td>1</td><td>3</td><td>3</td></tr></table>	Course Outcomes	Programme Outcomes					PO1	PO2	PO3	PO4	PO5	CO1	2	1		2	3	CO2	2	1		2	3	Course Outcomes (CO)	Program Specific Outcomes (PSO)		1	2	1	3	3
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Course Outcomes (CO)	Program Specific Outcomes (PSO)																															
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1	3	3																														

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2	3	3																																	
3	3	3																																	
PYO18CT301	YOGA THERAPY																																		
	<p>COURSE OUTCOMES:</p> <ul style="list-style-type: none">• CO1 - Gain the ability to visually and physically examine, interview and suggest suitable yogic practices to subjects based on the principles of yoga therapy• CO2 – Understand the concepts of Ayurveda, Siddha, Naturopathy and other allied therapies and their application• CO3 - Ability to frame therapeutic modules of yogic practices for lifestyle disorders, psychological disorders and disorders specific to women• <p>MAPPING (CO's and PO's)</p> <table><tr><th rowspan="2">Course Outcomes</th><th colspan="5">Programme Outcomes</th></tr><tr><th>PO1</th><th>PO2</th><th>PO3</th><th>PO4</th><th>PO5</th></tr><tr><td>CO1</td><td></td><td>2</td><td></td><td>2</td><td>3</td></tr><tr><td>CO2</td><td></td><td>1</td><td></td><td>2</td><td>2</td></tr><tr><td>CO3</td><td></td><td>2</td><td></td><td>2</td><td>3</td></tr></table> <p>1 - Low 2- Medium 3- High</p> <p>MAPPING (CO's and PSO's)</p> <table><tr><th rowspan="2">Course Outcomes (CO)</th><th colspan="2">Program Specific Outcomes (PSO)</th></tr><tr><td>1</td><td>2</td></tr></table>	Course Outcomes	Programme Outcomes					PO1	PO2	PO3	PO4	PO5	CO1		2		2	3	CO2		1		2	2	CO3		2		2	3	Course Outcomes (CO)	Program Specific Outcomes (PSO)		1	2
Course Outcomes	Programme Outcomes																																		
	PO1	PO2	PO3	PO4	PO5																														
CO1		2		2	3																														
CO2		1		2	2																														
CO3		2		2	3																														
Course Outcomes (CO)	Program Specific Outcomes (PSO)																																		
	1	2																																	

	<table><tr><td>1</td><td>2</td><td>3</td></tr><tr><td>2</td><td>2</td><td>2</td></tr><tr><td>3</td><td>3</td><td>3</td></tr></table>	1	2	3	2	2	2	3	3	3																						
1	2	3																														
2	2	2																														
3	3	3																														
PYO18CT302	HATHA YOGA TEXTS																															
	<p>COURSE OUTCOMES:</p> <ul style="list-style-type: none">• CO1 - Exposed to various Hatha yoga texts, their unique features and their contribution• CO2 – In-depth study on the asanas, pranayama, mudras, bandhas, and meditation in classical Hatha Yoga texts <p>MAPPING (CO’s and PO’s)</p> <table><tr><th rowspan="2">Course Outcomes</th><th colspan="5">Programme Outcomes</th></tr><tr><th>PO1</th><th>PO2</th><th>PO3</th><th>PO4</th><th>PO5</th></tr><tr><td>CO1</td><td>3</td><td>2</td><td></td><td>2</td><td>2</td></tr><tr><td>CO2</td><td>3</td><td>2</td><td></td><td>2</td><td>2</td></tr></table> <p>1 - Low 2- Medium 3- High</p> <p>MAPPING (CO’s and PSO’s)</p> <table><tr><th rowspan="2">Course Outcomes (CO)</th><th colspan="2">Program Specific Outcomes (PSO)</th></tr><tr><td>1</td><td>2</td></tr><tr><td>1</td><td>3</td><td>2</td></tr></table>	Course Outcomes	Programme Outcomes					PO1	PO2	PO3	PO4	PO5	CO1	3	2		2	2	CO2	3	2		2	2	Course Outcomes (CO)	Program Specific Outcomes (PSO)		1	2	1	3	2
Course Outcomes	Programme Outcomes																															
	PO1	PO2	PO3	PO4	PO5																											
CO1	3	2		2	2																											
CO2	3	2		2	2																											
Course Outcomes (CO)	Program Specific Outcomes (PSO)																															
	1	2																														
1	3	2																														

	2	3	3																																				
PYO18CT303	TRADITIONAL SYSTEMS OF MEDICINE & THERAPIES																																						
	<p>COURSE OUTCOMES:</p> <ul style="list-style-type: none">• CO1 - Understand the principles and philosophy of important Ayurveda texts• CO2 - Gain knowledge about the Ayurvedic purification practices and Ayurvedic diet• CO3 – Understand the principles of Siddha medicine and treatment for lifestyle disorders• CO4 - Various alternative therapies and nature cure treatment approaches are learned <p>MAPPING (CO's and PO's)</p> <table><tr><th rowspan="2">Course Outcomes</th><th colspan="4">Programme Outcomes</th><th></th></tr><tr><th>PO1</th><th>PO2</th><th>PO3</th><th>PO4</th><th>PO5</th></tr><tr><td>CO1</td><td></td><td></td><td></td><td>2</td><td>2</td></tr><tr><td>CO2</td><td></td><td></td><td></td><td>2</td><td>2</td></tr><tr><td>CO3</td><td></td><td></td><td></td><td>2</td><td>2</td></tr><tr><td>CO4</td><td></td><td></td><td></td><td>2</td><td>3</td></tr></table> <p>1 - Low 2- Medium 3- High</p> <p>MAPPING (CO's and PSO's)</p>				Course Outcomes	Programme Outcomes					PO1	PO2	PO3	PO4	PO5	CO1				2	2	CO2				2	2	CO3				2	2	CO4				2	3
Course Outcomes	Programme Outcomes																																						
	PO1	PO2	PO3	PO4	PO5																																		
CO1				2	2																																		
CO2				2	2																																		
CO3				2	2																																		
CO4				2	3																																		

	Course Outcomes (CO)	Program Specific Outcomes (PSO)	
		1	2
	1	1	1
	2	1	1
	3	1	1
	4	2	3

Discipline Specific Elective PYO18DE005	METHODS OF NATUROPATHY				
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	COURSE OUTCOMES:																											
	<ul style="list-style-type: none">CO1 - Gain an understanding of the principles, philosophy and modalities of naturopathyCO2 – Learn about the therapeutic naturopathy treatments such as mud therapy, hydrotherapy, steam bath and diet and their application for common disorders																											
	MAPPING (CO’s and PO’s)																											
	<table><tr><td rowspan="2">Course Outcomes</td><td colspan="5">Programme Outcomes</td></tr><tr><td>PO1</td><td>PO2</td><td>PO3</td><td>PO4</td><td>PO5</td></tr><tr><td>CO1</td><td></td><td></td><td></td><td>2</td><td>2</td></tr><tr><td>CO2</td><td></td><td></td><td></td><td>2</td><td>2</td></tr></table>					Course Outcomes	Programme Outcomes					PO1	PO2	PO3	PO4	PO5	CO1				2	2	CO2				2	2
	Course Outcomes	Programme Outcomes																										
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	CO1				2	2																						
	CO2				2	2																						
	1 - Low 2- Medium 3- High																											
	MAPPING (CO’s and PSO’s)																											

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Course Outcomes (CO)	Program Specific Outcomes (PSO)																												
	1	2																											
1	2	2																											
2	2	3																											
Generic PYO18GE301	STRESS MANAGEMENT																												
	<p>COURSE OUTCOMES:</p> <ul style="list-style-type: none">• CO1 - Understand the concepts, types and remedies of stress• CO2 – Learn about the yogic approach to stress management• CO3 - Gain an insight on the impact of stress management on psychosomatic disorders and mental health <p>MAPPING (CO’s and PO’s)</p> <table><tr><th rowspan="2">Course Outcomes</th><th colspan="4">Programme Outcomes</th><th rowspan="2">PO5</th></tr><tr><th>PO1</th><th>PO2</th><th>PO3</th><th>PO4</th></tr><tr><td>CO1</td><td>1</td><td></td><td>1</td><td>3</td><td>3</td></tr><tr><td>CO2</td><td></td><td></td><td></td><td>3</td><td>3</td></tr><tr><td>CO3</td><td></td><td>2</td><td></td><td>3</td><td>3</td></tr></table> <p>1 - Low 2- Medium 3- High</p> <p>MAPPING (CO’s and PSO’s)</p>	Course Outcomes	Programme Outcomes				PO5	PO1	PO2	PO3	PO4	CO1	1		1	3	3	CO2				3	3	CO3		2		3	3
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Ability enhancement compulsory course PYO18AE301	PERSONALITY DEVELOPMENT																														
	<p>COURSE OUTCOMES:</p> <ul style="list-style-type: none">• CO1 - Learn about the concepts and developmental processes of personality• CO2 - Understand the role of yoga, diet and stress management in developing the personality.• CO3 - Gain insight into the development of leadership qualities and career development <p>MAPPING (CO's and PO's)</p> <table><tr><td rowspan="2">Course Outcomes</td><td colspan="5">Programme Outcomes</td></tr><tr><td>PO1</td><td>PO2</td><td>PO3</td><td>PO4</td><td>PO5</td></tr><tr><td>CO1</td><td></td><td></td><td></td><td>3</td><td>3</td></tr><tr><td>CO2</td><td></td><td></td><td></td><td>3</td><td>3</td></tr><tr><td>CO3</td><td></td><td></td><td></td><td>3</td><td></td></tr></table> <p>1 - Low 2- Medium 3- High</p> <p>MAPPING (CO's and PSO's)</p>		Course Outcomes	Programme Outcomes					PO1	PO2	PO3	PO4	PO5	CO1				3	3	CO2				3	3	CO3				3	
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Co-curricular PYO18EC301	<div>INTERNSHIP</div> <div>HOSPITALS OR HEALTH CENTERS OR YOGA OR NATUROPATHY CENTRES</div>																							
	<div>COURSE OUTCOMES:</div> <div><ul style="list-style-type: none">CO1 - Experience in designing yogic programmes for various age groups and people with disordersCO2 – Practical teaching of yogic practices based on the needs and requirement of the subjects</div> <div>MAPPING (CO’s and PO’s)</div> <table><tr><th rowspan="2">Course Outcomes</th><th colspan="5">Programme Outcomes</th></tr><tr><th>PO1</th><th>PO2</th><th>PO3</th><th>PO4</th><th>PO5</th></tr><tr><td>CO1</td><td></td><td>3</td><td></td><td>3</td><td>3</td></tr><tr><td>CO2</td><td></td><td>3</td><td></td><td>3</td><td>3</td></tr></table> <div>1 - Low2- Medium3- High</div>	Course Outcomes	Programme Outcomes					PO1	PO2	PO3	PO4	PO5	CO1		3		3	3	CO2		3		3	3
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PRACTICAL PYO18CL301	YOGIC PRACTICES-III																												
	COURSE OUTCOMES: <ul style="list-style-type: none">• CO1 – Learn the methods of loosening the joints and types of suryanamaskar• CO2 – Learn techniques of some of the moderate-to advanced level asanas, pranayama, kriya, bandhas, mudras and meditation MAPPING (CO's and PO's) <table><tr><td rowspan="2">Course Outcomes</td><td colspan="5">Programme Outcomes</td></tr><tr><td>PO1</td><td>PO2</td><td>PO3</td><td>PO4</td><td>PO5</td></tr><tr><td>CO1</td><td>2</td><td>2</td><td></td><td>3</td><td>2</td></tr><tr><td>CO2</td><td>2</td><td>2</td><td></td><td>3</td><td>2</td></tr></table> <p>1 - Low 2- Medium 3- High</p> MAPPING (CO's and PSO's) <table><tr><td rowspan="2">Course Outcomes (CO)</td><td colspan="2">Program Specific Outcomes (PSO)</td></tr><tr><td>1</td><td>2</td></tr></table>	Course Outcomes	Programme Outcomes					PO1	PO2	PO3	PO4	PO5	CO1	2	2		3	2	CO2	2	2		3	2	Course Outcomes (CO)	Program Specific Outcomes (PSO)		1	2
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	1	3	3																																									
	2	3	3																																									
Practicals PYO18CL302	CLINICAL APPLICATIONS IN YOGA THERAPY																																											
	COURSE OUTCOMES: <ul style="list-style-type: none">• CO1 - Gain knowledge about the causes, symptoms, and predisposing factors of various diseases• CO2 - Learn about the principles and application of various diagnostic and therapeutic tools of yoga therapy• CO3 - Understand the methodology and application of nadi pariksha for therapeutic intervention• CO4 - Learn techniques of modifying asanas, pranayama, meditation and chanting in therapeutic intervention• CO5 - Study the application of therapeutic yogic modules for disorders of the major systems of the body MAPPING (CO's and PO's) <table><tr><th rowspan="2">Course Outcomes</th><th colspan="5">Programme Outcomes</th></tr><tr><th>PO1</th><th>PO2</th><th>PO3</th><th>PO4</th><th>PO5</th></tr><tr><td>CO1</td><td>1</td><td>2</td><td></td><td>2</td><td>3</td></tr><tr><td>CO2</td><td></td><td></td><td></td><td>2</td><td>3</td></tr><tr><td>CO3</td><td></td><td>1</td><td></td><td>2</td><td>3</td></tr><tr><td>CO4</td><td></td><td>2</td><td></td><td>3</td><td>3</td></tr><tr><td>CO5</td><td>2</td><td>2</td><td></td><td>2</td><td>3</td></tr></table>			Course Outcomes	Programme Outcomes					PO1	PO2	PO3	PO4	PO5	CO1	1	2		2	3	CO2				2	3	CO3		1		2	3	CO4		2		3	3	CO5	2	2		2	3
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1	2	3																			
2	3	3																			
3	2	3																			
4	3	3																			
5	3	3																			
PYO18CT401	<p>RESEARCH PROCESS IN YOGA</p>																				
	<p>COURSE OUTCOMES:</p> <ul style="list-style-type: none">• CO1 - Understand the nature and scope of research in yoga, various research methods and design, and areas of research• CO2 – Learn to prepare a research proposal, formulate hypothesis, and implement research design and sampling• CO3 - Learn to write research report and synopsis• CO4 - Gain practical competency in statistical concepts related to experimental research <p>MAPPING (CO's and PO's)</p> <table><tr><th rowspan="2">Course Outcomes</th><th colspan="5">Programme Outcomes</th></tr><tr><th>PO1</th><th>PO2</th><th>PO3</th><th>PO4</th><th>PO5</th></tr></table>	Course Outcomes	Programme Outcomes					PO1	PO2	PO3	PO4	PO5									
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	CO1		1			
	CO2					
	CO3			2	3	
	CO4				3	3
	1 - Low 2- Medium 3- High					
	MAPPING (CO's and PSO's)					
	Course Outcomes (CO)		Program Specific Outcomes (PSO)			
			1	2		
	1	2	3			
	2	2	3			
3	1	3				
4	1	3				
PYO18CT402	YOGA SUTRAS					
	COURSE OUTCOMES:					
	<ul style="list-style-type: none">• CO1 - Understand the philosophy, principles, concepts and commentaries of Yoga Sutra• CO2 - In-depth study of Samadhi Pada, Sadhana Pada, Vibhuti Pada and Kaivalya Pada.					
	MAPPING (CO's and PO's)					
	Course Outcomes	Programme Outcomes				
		PO1	PO2	PO3	PO4	PO5

	CO1	2	1		2												
	CO2	2	1		2												
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1	3	1															
2	3	1															
PYO18CT403	THESIS																
	COURSE OUTCOMES: <ul style="list-style-type: none">• CO1 - Acquire practical skills in a systematic investigation of a research problem• CO2 - Organize the samples and sampling techniques which is relevant to the study• CO3 – Apply the statistics in research thesis for evaluation• CO4 – Learn measurement of clinical symptoms and psychological parameters• CO5 – Organizing the data and presenting it as a thesis																

	MAPPING (CO's and PO's)					
	Course Outcomes	Programme Outcomes				
		PO1	PO2	PO3	PO4	PO5
	CO1					
	CO2					
	CO3			1	2	
	CO4				3	
	CO5				2	
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		1	2			
	1	1	3			
	2	1	3			
	3	1	3			
	4	2	3			
	5	1	3			
PRACTICAL PYO18CL401	YOGA PRACTICES – IV					
	COURSE OUTCOMES: <ul style="list-style-type: none">CO1 - Learn about the essentials of the yogic practicesCO2 - Exposed to techniques of loosening the joints and advanced Surya Namaskar					

	<ul style="list-style-type: none">CO3 - Oriented to some of the advanced level of asanas, pranayama, kriya, bandhas, mudras and meditation <p>MAPPING (CO's and PO's)</p> <table><tr><th rowspan="2">Course Outcomes</th><th colspan="5">Programme Outcomes</th></tr><tr><th>PO1</th><th>PO2</th><th>PO3</th><th>PO4</th><th>PO5</th></tr><tr><td>CO1</td><td>2</td><td>3</td><td></td><td>3</td><td>2</td></tr><tr><td>CO2</td><td>2</td><td>3</td><td></td><td>3</td><td>2</td></tr><tr><td>CO3</td><td>3</td><td>3</td><td></td><td>3</td><td>2</td></tr></table> <p>MAPPING (CO's and PSO's)</p> <table><tr><th rowspan="2">Course Outcomes (CO)</th><th colspan="2">Program Specific Outcomes (PSO)</th></tr><tr><th>1</th><th>2</th></tr><tr><td>1</td><td>3</td><td>3</td></tr><tr><td>2</td><td>3</td><td>3</td></tr><tr><td>3</td><td>3</td><td>3</td></tr></table> <p>1 - Low 2- Medium 3- High</p>	Course Outcomes	Programme Outcomes					PO1	PO2	PO3	PO4	PO5	CO1	2	3		3	2	CO2	2	3		3	2	CO3	3	3		3	2	Course Outcomes (CO)	Program Specific Outcomes (PSO)		1	2	1	3	3	2	3	3	3	3	3
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PRACTICAL PTO18CL402	CLINICAL APPLICATIONS IN TRADITIONAL SYSTEMS OF MEDICINES AND THERAPIES																																											
	<p>COURSE OUTCOMES:</p> <ul style="list-style-type: none">CO1 - Develop the ability to visually and physically examine, interview and perform nadi pariksha of the subjectsCO2 - Gain knowledge about the concepts and principles of yoga therapy, Ayurveda, and siddha, naturopathy, acupuncture, acupressure, and physiotherapy																																											

- CO3 - Understand the treatment modalities in yoga therapy, Ayurveda, and siddha for life-style disorders, psychological disorders, and disorders specific to women

MAPPING (CO's and PO's)

Course Outcomes	Programme Outcomes				
	PO1	PO2	PO3	PO4	PO5
CO1				3	3
CO2	1	1		2	3
CO3		2		2	3

1 - Low

2- Medium

3- High

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1	3	3
2	2	1
3	3	3

**Discipline Specific Elective
PYO18DE008**

STATISTICS IN YOGA

COURSE OUTCOMES:

- CO1 - Learn about the types of data and the measures of central tendency and variability
- CO2 - Understand normal distribution and testing of hypothesis through T test, ANOVA, correlation, and non-parametric tests
- CO3 - Gain ability to present data through graphical representations

MAPPING (CO's and PO's)

Course Outcomes	Programme Outcomes				
	PO1	PO2	PO3	PO4	PO5
CO1				2	
CO2				2	
CO3				2	2

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1	1	3
2	1	3
3	1	3

1 - Low

2- Medium

3- High

**Skill-enhancement course
PYO18SE401**

ENVIRONMENTAL STUDIES

COURSE OUTCOMES:

- CO1 - Raises awareness about the environment, natural resources and social issues that affect environment
- CO2 - Learn about the causes and effects of environmental pollution and means to control it
- CO3 - Understand the impact of various social issues and population growth on the environment

MAPPING (CO's and PO's)

Course Outcomes	Programme Outcomes				
	PO1	PO2	PO3	PO4	PO5
CO1			2	2	
CO2			2	2	
CO3			2	2	

1 - Low

2- Medium

3- High

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1	1	1
2	1	2
3	2	2

TAMIL NADU PHYSICAL EDUCATION AND SPORTS UNIVERSITY
MELAKKOTTAIYUR POST CHENNAI - 600 127

DEPARTMENT OF YOGA
M.Sc., YOGA THERAPY
(Two years Regular Programme)
CHOICE BASED CREDIT SYSTEM (CBCS)

Programme Educational Objectives (PEO)

- PEO-1 Graduate will have successful academic and research career.
- PEO-2 Graduates will have employment in public and private sectors and resolve health, economic, social and environmental issues.

PROGRAM EDUCATIONAL OBJECTIVES (POs)

PO – 1: Knowledge of classical and theoretical foundations of the field of Yoga Therapy

PO – 2: Knowledge of classical theories of health and disease relevant to the practice of Yoga Therapy

PO – 3: Knowledge of human anatomy, physiology and biomechanics, and the interrelationships between systems of the body

PO – 4: Knowledge of common pathologies and disorders of systems of the body, including familiarity with symptoms, condition management, illness trajectories, and related contraindications to yoga practices

PO – 5: Ability to communicate using common medical and psychological terminology,

PEO – 6: Knowledge of models of human development, with the influence of familial, social, religious and cultural conditioning on health and healing

PO – 7: Knowledge of the interconnections between the body, the breath, the mind, and the emotions in the context of maintaining resilience and well-being

PO – 8: Ability to communicate effectively, to establish healthy therapeutic and professional relationships, and to implement effective teaching methods by adapting to unique styles of

learning, providing supportive and effective feedback while evaluating and acknowledging the progress of the client

PO – 9: The skill to conduct an intake and assessment of the client and elicit the priorities and goals of the client; to integrate information from the intake, evaluation, and observation to develop a working assessment of the client's condition, limitations, and possibilities;

PO – 10: The skill to determine which aspects of the client's conditions, goals, and aspirations might be addressed through Yoga Therapy

PO – 11: Advanced knowledge of diverse Yoga Therapy tools and practices and their appropriate application, with practices that may include asana or postures, pranayama (or regulated breathing) meditation and relaxation techniques, and lifestyle modifications, including basic yogic dietary concepts; and the knowledge of when to apply these practices and when they are contraindicated

PO – 12: Critical thinking skills and science-based literacy to advance the evolution of Yoga Therapy as an integrative health practice

PO – 13: Integrate and apply knowledge of yoga and spiritual evolution for the practice of yoga as healthcare therapy.

PO – 14: Install the intellectual skills to analyze and solve healthcare disorders through designing specific yoga therapies.

MAPPING OF PEOs WITH POs

	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12	PO-13	PO-14
PEO-1	X	X	X	X	X	X	X	X	X	X	X	X	X	X
PEO-2		X	X	X		X		X	X	X	X		X	X

The post graduates are able to

PSO 1 Gain knowledge and skills necessary to meet the demand for Yoga Therapy Instructors as paramedical personal in hospitals and nursing homes under the guidance of doctors, and to equip the students to work as therapists at Naturopathy hospitals, health clubs, etc.

PSO-2 Eligible to do Research on National & International Level.

PYT18CT101	FUNDAMENTALS OF YOGA THERAPY																																																																																																																					
	COURSE OUTCOME: <ul style="list-style-type: none">• CO1 - Gain knowledge about the goals, principles and philosophy of yoga therapy.• CO2 - Learn about the history, evolution and foundations of yoga therapy• CO3 – Understand the meaning, definitions, dimensions, and scope of health, fitness and wellness• CO4 – Insight into the causes of illness and the management of those ill-health through yoga• CO5 – Gain knowledge about the nutrition, components of nutrition and their impact on health. Also the principles and characteristics of the yogic diet are expounded																																																																																																																					
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PYT18CT102	FUNCTIONAL ANATOMY AND PHYSIOLOGY																																																																										
	<p>COURSE OUTCOMES:</p> <ul style="list-style-type: none">CO1 - Learn about the anatomy of the human body from the cell structure to the major systems of the bodyCO2 - Understand the physiology, unique anatomical features, and the functions of the major systems of the bodyCO3 - Insight into the effect of yogic practices on each individual systems of the body <p>MAPPING (CO's and PO's)</p> <table><tr><th rowspan="2">Course Outcome</th><th colspan="14">Programme Outcomes</th></tr><tr><th>PO1</th><th>PO2</th><th>PO3</th><th>PO4</th><th>PO5</th><th>PO6</th><th>PO7</th><th>PO8</th><th>PO9</th><th>PO 10</th><th>PO 11</th><th>PO 12</th><th>PO 13</th><th>PO 14</th></tr><tr><td>CO1</td><td></td><td></td><td>3</td><td></td><td></td><td></td><td></td><td></td><td>1</td><td>2</td><td>2</td><td>1</td><td>1</td><td></td></tr><tr><td>CO2</td><td></td><td></td><td>3</td><td></td><td></td><td></td><td></td><td></td><td>2</td><td>1</td><td></td><td>1</td><td>1</td><td></td></tr><tr><td>CO3</td><td></td><td>2</td><td>3</td><td>3</td><td></td><td></td><td></td><td></td><td></td><td>3</td><td></td><td>2</td><td>1</td><td></td></tr></table> <div>1 - Low2- Medium3- High</div>	Course Outcome	Programme Outcomes														PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO 10	PO 11	PO 12	PO 13	PO 14	CO1			3						1	2	2	1	1		CO2			3						2	1		1	1		CO3		2	3	3						3		2	1	
Course Outcome	Programme Outcomes																																																																										
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PYT18CT103	BASIC PRINCIPLES OF YOGA THERAPY																																																																																									
	COURSE OUTCOMES: <ul style="list-style-type: none">• CO1 - Gain an insight into viniyoga and its application for people of different life-stages• CO2 - Understand and develop an ability to apply principles and concepts of yoga cikitsa in health management• CO3 - Develop the ability to frame course planning and progression• CO4 - Gain knowledge about the concepts and principles of Ayurveda, siddha, naturopathy, acupuncture, acupressure, physiotherapy and other alternative medical systems MAPPING (CO's and PO's) <table><tr><th rowspan="2">Course Outcome</th><th colspan="14">Program Outcomes</th></tr><tr><th>PO1</th><th>PO2</th><th>PO3</th><th>PO4</th><th>PO5</th><th>PO6</th><th>PO7</th><th>PO8</th><th>PO9</th><th>PO10</th><th>PO11</th><th>PO12</th><th>PO13</th><th>PO14</th></tr><tr><td>CO1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>2</td><td>2</td><td>2</td><td></td><td></td><td>1</td></tr><tr><td>CO2</td><td></td><td></td><td></td><td>1</td><td></td><td></td><td></td><td></td><td>3</td><td>3</td><td>3</td><td></td><td></td><td>2</td></tr><tr><td>CO3</td><td></td><td></td><td></td><td>2</td><td></td><td></td><td></td><td></td><td></td><td>3</td><td>3</td><td>3</td><td>1</td><td>3</td></tr><tr><td>CO4</td><td></td><td></td><td>1</td><td>2</td><td>1</td><td>2</td><td></td><td></td><td>2</td><td></td><td></td><td></td><td></td><td></td></tr></table>	Course Outcome	Program Outcomes														PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14	CO1									2	2	2			1	CO2				1					3	3	3			2	CO3				2						3	3	3	1	3	CO4			1	2	1	2			2					
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3	3	3																
4	3	2																
DSE PYT18DE001	HEALTH AND YOGA THERAPY																	
	<div>COURSE OUTCOMES:</div> <div><ul style="list-style-type: none">CO1 - Understand the Indian concept of health, development and causes of disease, mental and emotional well-being, and role of yogic attitudes toward healthCO2 - In-depth knowledge about communicable diseasesCO3 - Gain knowledge about the lifestyle diseases, the role of yoga in combating them, and impact of diet and nutrition in disease prevention and curingCO4 - Exposure on current trends in health and environment, concepts of hygiene and health, and population explosion and its controlCO5 - Learn about the yogic principles and practices for health, fitness, and</div>																	

wellness

MAPPING (CO's and PO's)

Course Outcome	Program Outcomes													
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14
CO1		3		2	1		3			1		2	2	2
CO2				3		2	1			1		1	2	1
CO3				2		2	1			3		2	2	2
CO4		2		2	1	2	1					1	1	1
CO5	1	2		2	1	1				2		3	2	2

1 - Low

2- Medium

3- High

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1	3	2
2	2	1
3	3	3
4	2	1
5	3	3

PYT18AE101

COMMUNICATION SKILLS

COURSE OUTCOMES:

- CO1 - Understand the basic characteristics of communication and its role in society

- CO2 - Learn about the types of verbal and non-verbal communication
- CO3 - Training on written communication
- CO4 - Orientation on the soft skills to excel in the interview
- CO5 - Learn the skills of group discussion.

MAPPING (CO's and PO's)

Course Outcome	Program Outcomes													
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14
CO1					1			3						
CO2					1			3	2					
CO3								1						
CO4					1			2	1					
CO5					1			1	1					

1 - Low

2- Medium

3- High

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1	1	1
2	2	2
3	1	3
4	1	1
5	1	1

PYT18EC101

VILLAGE PLACEMENT PROGRAMME

	<div>Duration : Five days</div> <div>Date : During 1st Year</div> <div>Mode of evaluation : Internal Assessment</div> <div>Maximum Marks : 100</div> <div>Subject : Yoga Therapy</div> <div>Nature of Program : To teach and train villagers</div>																																																																																		
	<div>COURSE OUTCOMES:</div> <div><ul style="list-style-type: none">• CO1 - Apply knowledge of yogic counselling and case-history taking of participants of the programme• CO2 - Gain competence in practical training and teaching of public members of a village in yogic practices• CO3 - Apply techniques of yogic therapy, alternative medicine, naturopathy, and yogic diet to the common public</div> <div>MAPPING (CO's and PO's)</div> <div><table><tr><th rowspan="2">Course Outcome</th><th colspan="14">Programme Outcomes</th></tr><tr><th>PO1</th><th>PO2</th><th>PO3</th><th>PO4</th><th>PO5</th><th>PO6</th><th>PO7</th><th>PO8</th><th>PO9</th><th>PO10</th><th>PO11</th><th>PO12</th><th>PO13</th><th>PO14</th></tr><tr><td>CO1</td><td></td><td></td><td></td><td></td><td>1</td><td></td><td></td><td>2</td><td>3</td><td>3</td><td>1</td><td>1</td><td>2</td><td>3</td></tr><tr><td>CO2</td><td></td><td></td><td>2</td><td></td><td>1</td><td></td><td></td><td>2</td><td>1</td><td>3</td><td>1</td><td>1</td><td>2</td><td>3</td></tr><tr><td>CO3</td><td></td><td></td><td>3</td><td>3</td><td>1</td><td></td><td></td><td></td><td>1</td><td>3</td><td>1</td><td>1</td><td>2</td><td>3</td></tr></table><div><div>1 - Low</div><div>2- Medium</div><div>3- High</div></div></div> <div>MAPPING (CO's and PSO's)</div> <div><table><tr><th rowspan="2">Course Outcomes (CO)</th><th colspan="2">Program Specific Outcomes (PSO)</th></tr><tr><td>1</td><td>2</td></tr><tr><td></td><td></td><td></td></tr></table></div>	Course Outcome	Programme Outcomes														PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14	CO1					1			2	3	3	1	1	2	3	CO2			2		1			2	1	3	1	1	2	3	CO3			3	3	1				1	3	1	1	2	3	Course Outcomes (CO)	Program Specific Outcomes (PSO)		1	2			
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PRACTICAL PYT18CL101	YOGIC PRACTICES AND MODIFICATIONS -I																																																																						
	<p>COURSE OUTCOMES:</p> <ul style="list-style-type: none">• CO1 - Exposed to techniques of loosening the joints and Surya Namaskar• CO2 - Oriented to some of the preliminary asanas, pranayama, kriya, bandhas, mudras and meditation <p>MAPPING (CO's and PO's)</p> <table><tr><th rowspan="2">Course Outcome</th><th colspan="14">Programe Outcomes</th></tr><tr><th>PO1</th><th>PO2</th><th>PO3</th><th>PO4</th><th>PO5</th><th>PO6</th><th>PO7</th><th>PO8</th><th>PO9</th><th>PO 10</th><th>PO 11</th><th>PO 12</th><th>PO 13</th><th>PO 14</th></tr><tr><td>CO1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>3</td><td>1</td><td>1</td><td>2</td></tr><tr><td>CO2</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>3</td><td>1</td><td>1</td><td>1</td></tr></table> <p>MAPPING (CO's and PSO's)</p> <table><tr><th rowspan="2">Course Outcomes (CO)</th><th colspan="2">Program Specific Outcomes (PSO)</th></tr><tr><th>1</th><th>2</th></tr><tr><td>1</td><td>3</td><td>3</td></tr><tr><td>2</td><td>3</td><td>3</td></tr></table> <p>1 - Low 2- Medium 3- High</p>	Course Outcome	Programe Outcomes														PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO 10	PO 11	PO 12	PO 13	PO 14	CO1											3	1	1	2	CO2											3	1	1	1	Course Outcomes (CO)	Program Specific Outcomes (PSO)		1	2	1	3	3	2	3	3
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1	3	3																																																																					
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Practical PYT18CL102	APPLIED PHYSIOLOGY																																																																																								
	<p>COURSE OUTCOMES:</p> <ul style="list-style-type: none">• CO1 - Learn about the measurement of physiological variables such as temperature, pulse rate, respiratory rate and blood pressure• CO2 - Physical examination of sensory function and muscles is learned• CO3 - Oriented to identify an organ specimen and explain its functions <p>MAPPING (CO's and PO's)</p> <table><tr><th rowspan="2">Course Outcome</th><th colspan="14">Programe Outcomes</th></tr><tr><th>PO1</th><th>PO2</th><th>PO3</th><th>PO4</th><th>PO5</th><th>PO6</th><th>PO7</th><th>PO8</th><th>PO9</th><th>PO 10</th><th>PO 11</th><th>PO 12</th><th>PO 13</th><th>PO 14</th></tr><tr><td>CO1</td><td></td><td></td><td>3</td><td>1</td><td>1</td><td></td><td></td><td></td><td>3</td><td>1</td><td></td><td></td><td></td><td>1</td></tr><tr><td>CO2</td><td></td><td></td><td>1</td><td>1</td><td>1</td><td></td><td></td><td></td><td>3</td><td>1</td><td></td><td></td><td></td><td>1</td></tr><tr><td>CO3</td><td></td><td></td><td>3</td><td>1</td><td>1</td><td></td><td></td><td></td><td>1</td><td>1</td><td></td><td></td><td></td><td>1</td></tr></table> <p>1 - Low 2- Medium 3- High</p> <p>MAPPING (CO's and PSO's)</p> <table><tr><th rowspan="2">Course Outcomes (CO)</th><th colspan="2">Program Specific Outcomes (PSO)</th></tr><tr><th>1</th><th>2</th></tr><tr><td>1</td><td>3</td><td>3</td></tr><tr><td>2</td><td>3</td><td>3</td></tr><tr><td>3</td><td>2</td><td>3</td></tr></table>	Course Outcome	Programe Outcomes														PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO 10	PO 11	PO 12	PO 13	PO 14	CO1			3	1	1				3	1				1	CO2			1	1	1				3	1				1	CO3			3	1	1				1	1				1	Course Outcomes (CO)	Program Specific Outcomes (PSO)		1	2	1	3	3	2	3	3	3	2	3
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3	2	3																																																																																							
PYT18CT201	YOGA THERAPY AND PSYCHOLOGY																																																																																								

COURSE OUTCOMES:

- CO1 - Learn about the scope of psychology in yoga and the concept of developmental psychology
- CO2 - Gain an understanding in yogic psychology and spirituality
- CO3 - Understand the impact of yoga on various psychological disorders

MAPPING (CO's and PO's)

Course Outcome	Program Outcomes													
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14
CO1				1	2	1	2	2		1		1		2
CO2				1	2	1	2	2		1		1		2
CO3				1	2	1	2	2		1		1		2

1 - Low**2- Medium****3- High****MAPPING (CO's and PSO's)**

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1	2	3
2	3	3
3	3	3

PYT18CT202**PHYSICAL EXAMINATION METHODS OF YOGA THERAPY****COURSE OUTCOMES:**

- CO1 - Physical examination of spine, joints, abdomen, sensory function and muscles is learnt

MAPPING (CO's and PO's)

Course Outcome	Program Outcomes													
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14
CO1			3	2	2				3	3		2		3

1 - Low**2- Medium****3- High****MAPPING (CO's and PSO's)**

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1	3	3

PYT18CT203**METHODOLOGY IN YOGA THERAPY****COURSE OUTCOMES:**

- CO1 - Gain the ability to identify the symptoms and causes of diseases
- CO2 - Learn the methodology of visually and physically examine, interview and perform nadi pariksha of the subjects
- CO3 - Ability to apply suitable therapeutic tools and modifications of yogic practices during therapeutic intervention is gained

MAPPING (CO's and PO's)

Course Outcome	Program Outcomes													
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14
CO1				3	1	3			2	1	2	2		2
CO2				1	1	1			3	1	1	2		1
CO3				1	1				2	1	3	2		3

	<div>1 - Low2- Medium3- High</div> <div>MAPPING (CO's and PSO's)</div> <table><tr><th rowspan="2">Course Outcomes (CO)</th><th colspan="2">Program Specific Outcomes (PSO)</th></tr><tr><th>1</th><th>2</th></tr><tr><td>1</td><td>3</td><td>3</td></tr><tr><td>2</td><td>3</td><td>3</td></tr><tr><td>3</td><td>3</td><td>3</td></tr></table>	Course Outcomes (CO)	Program Specific Outcomes (PSO)		1	2	1	3	3	2	3	3	3	3	3																																																																											
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3	3	3																																																																																								
PYT18DE002	NUTRITION AND YOGA THERAPY																																																																																									
	<div>COURSE OUTCOMES:</div> <div><ul style="list-style-type: none">CO1 - Learn about macro and micronutrients and various diets and their applicationCO2 - Gain an understanding of yogic diet as prescribed in classical textsCO3 - Understand nutritional requirements during various life stagesCO4 - Nutrition therapy for infectious and lifestyle diseases is learned</div> <div>MAPPING (CO's and PO's)</div> <table><tr><th rowspan="2">Course Outcome</th><th colspan="14">Programe Outcomes</th></tr><tr><th>PO1</th><th>PO2</th><th>PO3</th><th>PO4</th><th>PO5</th><th>PO6</th><th>PO7</th><th>PO8</th><th>PO9</th><th>PO10</th><th>PO11</th><th>PO12</th><th>PO13</th><th>PO14</th></tr><tr><td>CO1</td><td></td><td></td><td></td><td>1</td><td>1</td><td>2</td><td></td><td></td><td></td><td></td><td></td><td>2</td><td></td><td>1</td></tr><tr><td>CO2</td><td></td><td></td><td></td><td>1</td><td>1</td><td>2</td><td></td><td></td><td></td><td></td><td></td><td>2</td><td></td><td>1</td></tr><tr><td>CO3</td><td></td><td></td><td></td><td>1</td><td>1</td><td>2</td><td></td><td></td><td></td><td></td><td></td><td>2</td><td></td><td>1</td></tr><tr><td>CO4</td><td></td><td></td><td></td><td>1</td><td>1</td><td>2</td><td></td><td></td><td></td><td></td><td></td><td>2</td><td></td><td>1</td></tr></table> <div>1 - Low2- Medium3- High</div>	Course Outcome	Programe Outcomes														PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14	CO1				1	1	2						2		1	CO2				1	1	2						2		1	CO3				1	1	2						2		1	CO4				1	1	2						2		1
Course Outcome	Programe Outcomes																																																																																									
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CO2				1	1	2						2		1																																																																												
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CO4				1	1	2						2		1																																																																												

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3	3	3																																																																									
4	3	3																																																																									
<p>Generic PYT18GE201</p>	<p>YOGIC PRACTICES</p>																																																																										
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1	2	2																																																										
2	3	3																																																										
3	3	3																																																										
Skill enhancement course PYT18SE201	COMPUTER APPLICATIONS																																																											
	<div>COURSE OUTCOMES:</div> <div><div>CO1 - Develop theoretical and practical aspects of MS Word, Excel, PowerPoint and Internet</div><div>CO2 – Ability to apply these applications in thesis and record preparation, and during presentations and demonstrations</div></div> <div>MAPPING (CO's and PO's)</div> <table><tr><td rowspan="2">Course Outcome</td><td colspan="14">Programe Outcomes</td></tr><tr><td>PO1</td><td>PO2</td><td>PO3</td><td>PO4</td><td>PO5</td><td>PO6</td><td>PO7</td><td>PO8</td><td>PO9</td><td>PO10</td><td>PO11</td><td>PO12</td><td>PO13</td><td>PO14</td></tr><tr><td>CO1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>1</td><td>1</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>CO2</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>1</td><td>1</td><td></td><td></td><td></td><td></td><td></td></tr></table> <div>1 - Low2- Medium3- High</div>	Course Outcome	Programe Outcomes														PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14	CO1								1	1						CO2								1	1					
Course Outcome	Programe Outcomes																																																											
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Course Outcome	Programe Outcomes																																																											
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1	3	3																																																			
2	3	3																																																			
Practical PYT18CL201	PSYCHOLOGICAL TESTING																																																				
	<div>COURSE OUTCOMES:</div> <div><ul style="list-style-type: none">CO1 - Understand various cognitive and emotional states and gain competency in measuring these variables through different psychological tools</div> <div>MAPPING (CO's and PO's)</div> <table><tr><td rowspan="2">Course Outcome</td><td colspan="14">Programe Outcomes</td></tr><tr><td>PO1</td><td>PO2</td><td>PO3</td><td>PO4</td><td>PO5</td><td>PO6</td><td>PO7</td><td>PO8</td><td>PO9</td><td>PO10</td><td>PO11</td><td>PO12</td><td>PO13</td><td>PO14</td></tr><tr><td>CO1</td><td></td><td></td><td></td><td></td><td>1</td><td>1</td><td>2</td><td>1</td><td>1</td><td>1</td><td></td><td></td><td></td><td>3</td></tr></table> <div><div>1 - Low</div><div>2- Medium</div><div>3- High</div></div> <div>MAPPING (CO's and PSO's)</div> <table><tr><td rowspan="2">Course Outcomes (CO)</td><td colspan="2">Program Specific Outcomes (PSO)</td></tr><tr><td>1</td><td>2</td></tr><tr><td>1</td><td>2</td><td>3</td></tr></table>	Course Outcome	Programe Outcomes														PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14	CO1					1	1	2	1	1	1				3	Course Outcomes (CO)	Program Specific Outcomes (PSO)		1	2	1	2	3
Course Outcome	Programe Outcomes																																																				
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Course Outcomes (CO)	Program Specific Outcomes (PSO)																																																				
	1	2																																																			
1	2	3																																																			

Practical PYT18CL202	YOGIC PRACTICE AND MODIFICATIONS -II																																																																						
	<p>COURSE OUTCOMES:</p> <ul style="list-style-type: none">• CO1 - Exposed to techniques of loosening the joints and Surya Namaskar• CO2 – Oriented to some of the moderate-level to advanced asanas, pranayama, kriya, bandhas, mudras and meditation <p>MAPPING (CO’s and PO’s)</p> <table><tr><th rowspan="2">Course Outcome</th><th colspan="14">Programe Outcomes</th></tr><tr><th>PO1</th><th>PO2</th><th>PO3</th><th>PO4</th><th>PO5</th><th>PO6</th><th>PO7</th><th>PO8</th><th>PO9</th><th>PO 10</th><th>PO 11</th><th>PO 12</th><th>PO 13</th><th>PO 14</th></tr><tr><td>CO1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>3</td><td>1</td><td>1</td><td>2</td></tr><tr><td>CO2</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>3</td><td>1</td><td>1</td><td>1</td></tr></table> <p>1 - Low 2- Medium 3- High</p> <p>MAPPING (CO’s and PSO’s)</p> <table><tr><th rowspan="2">Course Outcomes (CO)</th><th colspan="2">Program Specific Outcomes (PSO)</th></tr><tr><th>1</th><th>2</th></tr><tr><td>1</td><td>3</td><td>3</td></tr><tr><td>2</td><td>3</td><td>3</td></tr></table>	Course Outcome	Programe Outcomes														PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO 10	PO 11	PO 12	PO 13	PO 14	CO1											3	1	1	2	CO2											3	1	1	1	Course Outcomes (CO)	Program Specific Outcomes (PSO)		1	2	1	3	3	2	3	3
Course Outcome	Programe Outcomes																																																																						
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	1	2																																																																					
1	3	3																																																																					
2	3	3																																																																					
PYT18CT301	TEXT IN YOGA THERAPY																																																																						
	<p>COURSE OUTCOMES:</p> <ul style="list-style-type: none">• CO1 - Learn about Vedas and principle Upanishads																																																																						

- CO2 - Understand important concepts and tenets of Bagavad Gita and Yoga Vashista
- CO3 - In-depth study and understanding of the concepts and philosophy of basic hatha yoga texts, Ayurveda texts, and Indian philosophy
- CO4 - Understand the yoga therapy techniques and approaches as defined by the modern Hatha Yoga texts

MAPPING (CO's and PO's)

Course Outcome	Programme Outcomes													
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO 10	PO 11	PO 12	PO 13	PO 14
CO1	3	3									3		1	1
CO2	3	3									3		1	1
CO3	3	3									3		1	1
CO4	3	3									3		1	1

1 - Low

2- Medium

3- High

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1	2	1
2	2	1
3	2	2
4	3	3

PYT18CT302

PATHOLOGY AILMENTS AND YOGA THERAPY

COURSE OUTCOMES:

- CO1 - Learn about the Allopathic and yogic pathology of diseases
- CO2 - Ability to assess and prescribe yoga therapy for important diseases
- CO3 - Gain knowledge about the yogic intervention specific to major systems of the body and their respective ailments

MAPPING (CO's and PO's)

Course Outcome	Program Outcomes													
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14
CO1		3	1	3	1	1	1			2		2	2	2
CO2		2	1	1	1	1	1	3		2	2		2	2
CO3		2	1	1	1	1	1			2	3	2	2	2

1 - Low**2- Medium****3- High****MAPPING (CO's and PSO's)**

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1	3	3
2	3	3
3	3	3

PYT18CT303**TRADITIONAL SYSTEMS OF MEDICINE & THERAPIES****COURSE OUTCOMES:**

- CO1 - Understand the principles and philosophy of important Ayurveda texts

- CO2 - Gain knowledge about the Ayurvedic purification practices and Ayurvedic diet
- CO3 – Understand the principles of Siddha medicine and treatment for lifestyle disorders
- CO4 - Various alternative therapies and nature cure treatment approaches are learned

MAPPING (CO's and PO's)

Course Outcome	Program Outcomes													
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14
CO1		1		2	1		1		2	2				1
CO2		1		2	1		1		2	2				1
CO3		1		2	1		1		2	2				1
CO4		1		2	1		1		2	2				1

1 - Low

2- Medium

3- High

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1	2	2
2	2	2
3	2	2
4	3	3

Discipline Specific

METHODS OF NATUROPATHY

Elective PYT18DE005																																																																							
	<p>COURSE OUTCOMES:</p> <ul style="list-style-type: none">• CO1 - Gain an understanding of the principles, philosophy and modalities of naturopathy• CO2 – Learn about the therapeutic naturopathy treatments such as mud therapy, hydrotherapy, steam bath and diet and their application for common disorders <p>MAPPING (CO’s and PO’s)</p> <table><tr><th rowspan="2">Course Outcome</th><th colspan="14">Program Outcomes</th></tr><tr><th>PO1</th><th>PO2</th><th>PO3</th><th>PO4</th><th>PO5</th><th>PO6</th><th>PO7</th><th>PO8</th><th>PO9</th><th>PO10</th><th>PO11</th><th>PO12</th><th>PO13</th><th>PO14</th></tr><tr><td>CO1</td><td></td><td></td><td></td><td>2</td><td></td><td></td><td>1</td><td></td><td></td><td></td><td></td><td>1</td><td></td><td></td></tr><tr><td>CO2</td><td></td><td></td><td></td><td>2</td><td></td><td></td><td>1</td><td></td><td></td><td></td><td></td><td>1</td><td></td><td></td></tr></table> <p>1 - Low 2- Medium 3- High</p> <p>MAPPING (CO’s and PSO’s)</p> <table><tr><th rowspan="2">Course Outcomes (CO)</th><th colspan="2">Program Specific Outcomes (PSO)</th></tr><tr><th>1</th><th>2</th></tr><tr><td>1</td><td>3</td><td>3</td></tr><tr><td>2</td><td>3</td><td>3</td></tr></table>	Course Outcome	Program Outcomes														PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14	CO1				2			1					1			CO2				2			1					1			Course Outcomes (CO)	Program Specific Outcomes (PSO)		1	2	1	3	3	2	3	3
Course Outcome	Program Outcomes																																																																						
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CO1				2			1					1																																																											
CO2				2			1					1																																																											
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	1	2																																																																					
1	3	3																																																																					
2	3	3																																																																					
Generic PYT18GE301	<p>STRESS MANAGEMENT</p>																																																																						
	<p>COURSE OUTCOMES:</p> <ul style="list-style-type: none">• CO1 - Understand the concepts, types and remedies of stress• CO2 – Learn about the yogic approach to stress management																																																																						

- CO3 - Gain an insight on the impact of stress management on psychosomatic disorders and mental health.

MAPPING (CO's and PO's)

Course Outcome	Program Outcomes													
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14
CO1		2	1		1	1	2			1			2	1
CO2		2	1		1	1	2			1	2	2	2	1
CO3		2	1		1	1	2			1		2	2	1

1 - Low

2- Medium

3- High

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1	3	3
2	3	3
3	2	3

**Ability enhancement compulsory course
PYT18AE301**

PERSONALITY DEVELOPMENT

COURSE OUTCOMES:

- CO1 - Learn about the concepts and developmental processes of personality

- CO2 - Understand the role of yoga, diet and stress management in developing the personality.
- CO3 - Gain insight into the development of leadership qualities and career development

MAPPING (CO's and PO's)

Course Outcome	Program Outcomes													
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14
CO1						1	1	1		1		2		1
CO2						1	1	1		1		2		1
CO3						1	1	3		1		2		1

1 - Low

2- Medium

3- High

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1	1	1
2	2	3
3	1	1

**Co-curricular
PYT18EC301**

INTERNSHIP

HOSPITALS OR HEALTH CENTERS OR YOGA OR NATUROPATHY CENTRES

	<p>COURSE OUTCOMES:</p> <ul style="list-style-type: none">• CO1 - Experience in designing yogic programmes for various age groups and people with disorders• CO2 – Practical teaching of yogic practices based on the needs and requirement of the subjects <p>MAPPING (CO’s and PO’s)</p> <table><tr><th rowspan="2">Course Outcome</th><th colspan="14">Program Outcomes</th></tr><tr><th>PO1</th><th>PO2</th><th>PO3</th><th>PO4</th><th>PO5</th><th>PO6</th><th>PO7</th><th>PO8</th><th>PO9</th><th>PO 10</th><th>PO 11</th><th>PO 12</th><th>PO 13</th><th>PO 14</th></tr><tr><td>CO1</td><td></td><td></td><td></td><td></td><td>1</td><td></td><td></td><td></td><td>3</td><td>2</td><td>2</td><td>1</td><td>2</td><td>2</td></tr><tr><td>CO2</td><td></td><td></td><td></td><td></td><td>1</td><td></td><td></td><td></td><td>3</td><td>2</td><td>2</td><td>1</td><td>2</td><td>2</td></tr></table> <p>1 - Low 2- Medium 3- High</p> <p>MAPPING (CO’s and PSO’s)</p> <table><tr><th rowspan="2">Course Outcomes (CO)</th><th colspan="2">Program Specific Outcomes (PSO)</th></tr><tr><th>1</th><th>2</th></tr><tr><td>1</td><td>3</td><td>3</td></tr><tr><td>2</td><td>3</td><td>3</td></tr></table>	Course Outcome	Program Outcomes														PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO 10	PO 11	PO 12	PO 13	PO 14	CO1					1				3	2	2	1	2	2	CO2					1				3	2	2	1	2	2	Course Outcomes (CO)	Program Specific Outcomes (PSO)		1	2	1	3	3	2	3	3
Course Outcome	Program Outcomes																																																																						
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CO1					1				3	2	2	1	2	2																																																									
CO2					1				3	2	2	1	2	2																																																									
Course Outcomes (CO)	Program Specific Outcomes (PSO)																																																																						
	1	2																																																																					
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2	3	3																																																																					
PRACTICAL PYT18CL301	YOGIC PRACTICES AND MODIFICATIONS-III																																																																						
	<p>COURSE OUTCOMES:</p>																																																																						

- CO1 – Learn about the essentials of the yogic practices
- CO2 – Exposed to techniques of loosening the joints and Surya Namaskar
- CO3 - Oriented to some of the moderate-level to advanced asanas, pranayama, kriya, bandhas, mudras and meditation

MAPPING (CO's and PO's)

Course Outcome	Program Outcomes													
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO 10	PO 11	PO 12	PO 13	PO 14
CO1											3	1	2	2
CO2											3	1	2	2
CO3											3	1	2	3

1 - Low

2- Medium

3- High

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1	1	2
2	3	3
3	3	3

Practicals
PYO18CL302

CLINICAL APPLICATION IN TRADITIONAL INDIAN SYSTEMS OF MEDICINE AND THERAPIES

COURSE OUTCOMES:

- CO1 - Gain practical knowledge about the concepts and principles of yoga therapy, Ayurveda, and siddha, naturopathy, acupuncture, acupressure, physiotherapy, and their clinical application for diseases
- CO2 - Understand the treatment modalities in yoga therapy, Ayurveda, and siddha for life-style disorders, psychological disorders, and disorders specific to women

MAPPING (CO's and PO's)

Course Outcome	Program Outcomes													
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14
CO1		2		3	1	1			1			1	1	2
CO2		2		3	1	1			1			1	1	2

1 - Low

2- Medium

3- High

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1	2	2
2	3	3

PYO18CT401

RESEARCH PROCESS IN YOGA THERAPY

COURSE OUTCOMES:

CO1 - Understand the nature and scope of research in yoga, various research methods and design, and areas of research

CO2 – Learn to prepare a research proposal, formulate hypothesis, and implement research design and sampling

CO3 - Learn to write research report and synopsis

CO4 - Gain practical competency in statistical concepts related to experimental research

MAPPING (CO's and PO's)

Course Outcome	Program Outcomes													
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14
CO1					2				2	2	2	3		2
CO2					2				2	2	2	3		2
CO3														
CO4														

1 - Low

2- Medium

3- High

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1	1	3
2	1	3
3	1	3
4	1	3

PYO18CT402

YOGA THERAPY IN YOGA SUTRAS

COURSE OUTCOMES:

- CO1 - Understand the philosophy, principles, concepts and commentaries of Yoga Sutra
- CO2 - In-depth study of Samadhi Pada, Sadhana Pada, Vibhuti Pada and Kaivalya Pada with specific importance to the therapeutic application

MAPPING (CO's and PO's)

Course Outcome	Program Outcomes													
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO 10	PO 11	PO 12	PO 13	PO 14
CO1	3	3					1						2	
CO2	3	3					1						2	

1 - Low

2- Medium

3- High

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1	2	1
2	2	1

PYT18CT403

THESIS

COURSE OUTCOMES:

- CO1 - Acquire practical skills in a systematic investigation of a research problem
- CO2 - Organize the samples and sampling techniques which is relevant to the study
- CO3 – Apply the statistics in research thesis for evaluation

- CO4 – Learn measurement of clinical symptoms and psychological parameters
- CO5 – Organizing the data and presenting it as a thesis

MAPPING (CO's and PO's)

Course Outcome	Program Outcomes													
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14
CO1				1	2	1	1	2	3	1		2		3
CO2														
CO3														
CO4				1	2	1	1	2	3	1		2		3
CO5														

1 - Low

2- Medium

3- High

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1	1	3
2	1	3
3	1	3
4	1	3
5	1	3

**PRACTICAL
PYT18CL401**

YOGA PRACTICES AND MODIFICATIONS – IV

COURSE OUTCOMES:

- CO1 - Learn about the essentials of the yogic practices

- CO2 - Exposed to techniques of loosening the joints and advanced Surya Namaskar
- CO3 - Oriented to some of the advanced level of asanas, pranayama, kriya, bandhas, mudras and meditation

MAPPING (CO's and PO's)

Course Outcome	Program Outcomes													
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14
CO1											3	1	2	2
CO2											3	1	2	2
CO3											3	1	2	3

1 - Low

2- Medium

3- High

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1	1	1
2	3	3
3	2	3

**PRACTICAL
PYT18CL402**

CLINICAL APPLICATIONS IN TRADITIONAL SYSTEMS OF MEDICINE AND YOGA THERAPY

COURSE OUTCOMES:

- CO1 – Gain practical knowledge about the causes, symptoms, and predisposing factors of various diseases

- CO2 – Learn about the principles and application of various diagnostic and therapeutic tools of yoga therapy
- CO3 – Understand the methodology and application of nadi pariksha for therapeutic intervention
- CO4 – Learn techniques of modifying asanas, pranayama, meditation and chanting in therapeutic intervention
- CO5 – Study the application of therapeutic yogic modules for disorders of the major systems of the body

MAPPING (CO's and PO's)

Course Outcome	Programme Outcomes													
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14
CO1		2		3	1	1	1			2			1	3
CO2					1				3	2	2	1	2	3
CO3			1						3	2				
CO4	2	2		1						3	3		3	3
CO5										2	3	2	3	3

1 - Low

2- Medium

3- High

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1	3	3
2	3	3
3	3	3

	<table><tr><td>4</td><td>3</td><td>3</td></tr><tr><td>5</td><td>3</td><td>3</td></tr></table>	4	3	3	5	3	3																																																																															
4	3	3																																																																																				
5	3	3																																																																																				
Discipline Specific Elective PYT18DE008	STATISTICS IN YOGA THERAPY																																																																																					
	COURSE OUTCOMES: <ul style="list-style-type: none">CO1 - Learn about the types of data and the measures of central tendency and variabilityCO2 - Understand normal distribution and testing of hypothesis through T test, ANOVA, correlation, and non-parametric testsCO3 - Gain ability to present data through graphical representations MAPPING (CO's and PO's) <table><tr><th rowspan="2">Course Outcome</th><th colspan="14">Program Outcomes</th></tr><tr><th>PO1</th><th>PO2</th><th>PO3</th><th>PO4</th><th>PO5</th><th>PO6</th><th>PO7</th><th>PO8</th><th>PO9</th><th>PO 10</th><th>PO 11</th><th>PO 12</th><th>PO 13</th><th>PO 14</th></tr><tr><td>CO1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>2</td><td></td><td></td></tr><tr><td>CO2</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>2</td><td></td><td></td></tr><tr><td>CO3</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>2</td><td></td><td></td></tr></table> <p>1 - Low 2- Medium 3- High</p> MAPPING (CO's and PSO's) <table><tr><th rowspan="2">Course Outcomes (CO)</th><th colspan="2">Program Specific Outcomes (PSO)</th></tr><tr><th>1</th><th>2</th></tr><tr><td>1</td><td>1</td><td>3</td></tr><tr><td>2</td><td>1</td><td>3</td></tr></table>	Course Outcome	Program Outcomes														PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO 10	PO 11	PO 12	PO 13	PO 14	CO1												2			CO2												2			CO3												2			Course Outcomes (CO)	Program Specific Outcomes (PSO)		1	2	1	1	3	2	1	3
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	3	1	3																																																																																									
Skill- enhancement course PYT18SE401	ENVIRONMENTAL STUDIES																																																																																											
	COURSE OUTCOMES: <ul style="list-style-type: none">• CO1 - Raises awareness about the environment, natural resources and social issues that affect environment• CO2 - Learn about the causes and effects of environmental pollution and means to control it• CO3 - Understand the impact of various social issues and population growth on the environment MAPPING (CO's and PO's) <table><tr><th rowspan="2">Course Outcome</th><th colspan="14">Programme Outcomes</th></tr><tr><th>PO1</th><th>PO2</th><th>PO3</th><th>PO4</th><th>PO5</th><th>PO6</th><th>PO7</th><th>PO8</th><th>PO9</th><th>PO10</th><th>PO11</th><th>PO12</th><th>PO13</th><th>PO14</th></tr><tr><td>CO1</td><td></td><td></td><td></td><td></td><td></td><td>2</td><td>1</td><td></td><td></td><td></td><td></td><td>2</td><td></td><td></td></tr><tr><td>CO2</td><td></td><td></td><td></td><td></td><td></td><td>2</td><td>1</td><td></td><td></td><td></td><td></td><td>1</td><td></td><td></td></tr><tr><td>CO3</td><td></td><td></td><td></td><td></td><td></td><td>2</td><td>1</td><td></td><td></td><td></td><td></td><td>2</td><td></td><td></td></tr></table> <p>1 - Low 2- Medium 3- High</p> MAPPING (CO's and PSO's) <table><tr><th rowspan="2">Course Outcomes (CO)</th><th colspan="2">Program Specific Outcomes (PSO)</th></tr><tr><th>1</th><th>2</th></tr><tr><td>1</td><td>1</td><td>2</td></tr><tr><td>2</td><td>1</td><td>1</td></tr><tr><td>3</td><td>1</td><td>1</td></tr></table>				Course Outcome	Programme Outcomes														PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	PO14	CO1						2	1					2			CO2						2	1					1			CO3						2	1					2			Course Outcomes (CO)	Program Specific Outcomes (PSO)		1	2	1	1	2	2	1	1	3	1	1
Course Outcome	Programme Outcomes																																																																																											
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**TAMIL NADU PHYSICAL EDUCATION AND SPORTS UNIVERSITY,
MELAKKOTTAIYUR POST CHENNAI - 600 127.**

**DEPT. OF EXERCISE PHYSIOLOGY AND BIOMECHANICS
M.Sc., SPORTS BIOMECHANICS AND KINESIOLOGY
(Three years Regular Programme)**

CHOICE BASED CREDIT SYSTEM (CBCS)

B.SC. EXERCISE PHYSIOLOGY AND NUTRITION

Programme Educational Objectives (PEOs)

1. To teach the total fitness that integrates medical fitness, Nutritional Fitness, Physical, Mental and Social Fitness.
2. The effect of Exercise on various system are given due coverage.
3. The unique features in the internship programme offered to students at various hospital and fitness centers further the curriculum provides an insight into the importance of Nutrition, Nutrition standard, balanced diet and calorific value required for various levels of sportsmen.

Programme Outcomes (Po's)

PO-1.

To gain knowledge on Basic anatomy and Physiology, Fundamental in Food Science, Health Education, Clinical Exercise Testing, Introduction to Human Nutrition Kinanthropometry, Sports Nutrition, Clinical Dietetics, Exercise for special population, Clinical Dietetics, Effect of exercise on various system, Kinesiology, Strength Training and conditioning, Nutritional Ergogenic Aids and exercise performance, Weight Management , Geriatric Sports and Nutrition , Floor and Step Aerobics, Elementary Statistics, First Aid and Sports Injury and Physiotherapy, Occupational and Functional Assessment, Sports Biomechanics, Nutrition and Immune function in Athletics, Fitness and Wellness, Stability and Core Training.

PO-2)

To gain knowledge in fitness and nutrition.

PO-3)

To gain practical knowledge in Floor and Step Aerobics , stability and core training, Kinanthropometry, Clinical Exercise Testing, Training and performance, Strength Training and Conditioning, WEIGHT MANAGEMENT.

MAPPING OF PEO'S WITH PO'S :

	PO 1	PO 2	PO 3
PEO 1	X	X	X
PEO 2	X	X	X
PEO 3	X	X	X

SEMESTER- I- PAPER CODE – U
EN18CT101 BASIC ANATOMY & PHYSIOLOGY – I

COURSE OUTCOMES:

CO- 1. By learning the subject the students will be aware of the various anatomical structures present in Human body.

CO -2. The students after learning will gain knowledge about the normal functioning of various organs in Human body.

CO –3.Only after knowing about normal functioning of the human body the students will the students will be knowing about effect of exercise on various system.

MAPPING (CO's and PO's)**Programme outcomes**

COURSE OUTCOME	PO 1	PO2	PO3
1	3	3	3
2	3	3	
3	3	3	

SEMESTER- I- PAPER CODE - UEN18CT102
FUNDAMENTALS IN FOOD SCIENCE

COURSE OUTCOMES:

After studying this paper, the student should be able to:

Nutrients and their primary functions

Recognize common characteristics of well-nourished people

Recognize symptoms of malnutrition and nutrition assessment

Understand the scientific principles underlying food preparation.

MAPPING:

COURSE OUTCOME	PO 1	PO2	PO3
1	3	3	3
2	3	3	3
3	3		
4	3		

SEMESTER I- PAPER CODE -UEN18DE103 HEALTH EDUCATION

COURSE OUTCOMES:

By the end of this course, you will be able to describe and/or demonstrate:

The various published definitions of “health.”

The concept of optimal health in developing a personal view of health.

The history of national disease prevention and health promotion activities.

Key risk factors affecting health promotion and longevity.

The core foundation areas underlying health education as an applied discipline.

Trends potentially affecting health education in the future

COURSE OUTCOME	PO1	PO2	PO3
1	3		
2	3		
3	3		
4	3		
5	3		
6	3		

SEMESTER II- PAPER CODE - UEN18CT2
INTRODUCTION TO HUMAN NUTRITION
COURSE OUTCOMES:

After studying this paper, the student should be able to:

1. Macronutrients and their primary functions
2. Gain basic knowledge of the different nutrients and their role in maintaining health of the community
3. Micronutrients and their primary functions.

MAPPING:

COURSE OUTCOME	PO1	PO2	PO3
1	3	3	
2	3	3	
3	3	3	

SEMESTER- II- PAPER CODE - UEN18CT203 CLINICAL EXERCISE TESTING

PROCEDURES

COURSE OUTCOME:

On completion of this instruction

1. Students will be able to accurately screen, assess.
2. Students should be able to utilize laboratory testing that measures heart rate, blood irredeemable uptake, body composition and flexibility

MAPPING:

Course outcome	Po1	Po2	Po3
1	3		3
2	3		3

SEMESTER III- PAPER CODE -UEN18CT301 KINANTHROPOMETRY

COURSE OUTCOME

After studying this paper, the student should be able to:

Accurately use anatomical and physiological terminology.

Competently use and understand the principles pretentiousness procedures for assessing human body composition.

MAPPING:

CORSE OUTCOME	PO1	PO2	PO3
1	3		3
2	3		3

SEMESTER III- PAPER CODE -UEN18CT302 FUNDAMENTALS OF SPORTS

NUTRITION

COURSE OUTCOMES:

Provide individual advice and guidance in the area of sports nutrition.

Design and run a group consultation for athletes about sports nutrition.

Develop knowledge on sports nutrition.

MAPPING:

COURSE OUTCOME	PO1	PO2	PO3
1	3	3	
2	3	3	
3	3		

SEMESTER III - PAPER CODE -UEN18CT303 TRAINING & PERFORMANCE

COURSE OUTCOMES:

To work with higher efficiency as Exercise Physiologist or Exercise Trainers.

To constructively apply the acquired scientific findings and methodological repertoire in practical training under various conditions.

To recognize the tendencies of development in their sport and consider them in their training process.

MAPPING:

COURSE OUTCOME	PO1	PO2	PO3
1	3		3
2	3		3
3	3		3

SEMESTER IV- PAPER CODE -UEN18CT401 EXERCISE FOR SPECIAL

POPULATION

COURSE OUTCOMES:

Students will be able to define terminology related to exercise for special populations.

Will be able to explain general principles of exercise prescription for special populations.

Able to identify the important differences between children and adult.

COURSE OUTCOMES	PO1	PO2	PO3
1	3		
2	3		
3	3		

SEMESTER IV- PAPER CODE -UEN18CT303 CLINICAL DIETETICS

COURSE OUTCOMES:

Prepare graduates to promote health of medically complex clients through clinical residencies and special projects in clinical nutrition.

Prepare Graduates to collaborate with other members of the health care team, industry and academia as the nutrition experts.

MAPPING:

COURSE OUTCOME	PO1	PO2	PO3
1	3		
2	3		

SEMESTER IV- PAPER CODE -UEN18CT403 EFFECT OF EXERCISE ON VARIOUS SYSTEMS

COURSE OUTCOMES:

It explains the various physiological factors affecting sports performance. Make recommendations for enhancing the training effect after analyzing sports training plan.

MAPPING:

COURSE OUTCOME	PO1	PO2	PO3
1	3		
2	3		

SEMESTER- I- PAPER CODE -UEN18DE501 KINESIOLOGY

COURSE OUTCOMES:

After completing the Kinesiology major a student will be able to:

List and describe five career options available in the field of kinesiology.

Describe and critically analyze the role of physical activity and its impact on health, society and quality of life.

Identify critical elements of motor skill performance, combine motor skills into appropriate sequences for the purpose of improving skill learning, and demonstrate competent motor skill performance in a variety of physical activities.

Utilize measurement concepts (qualitative and quantitative) to assess student/client performance and program effectiveness

Describe and demonstrate effective verbal and nonverbal communication skill

MAPPING:

COURSE OUTCOME	PO1	PO2	PO3
1	3		
2	3		
3	3		
4	3		
5	3		

**SEMESTER V- PAPER CODE -UEN18DE502 STRENGTH TRAINING AND
CONDITIONING**

COURSE OUTCOMES:

To Interpret and apply scientific knowledge and literature relating to strength training.

Understand the importance of organizations administration and leadership and their importance in the development of safe and effective training programs.

MAPPING:

COURSE OUTCOME	PO1	PO2	PO3
1	3		3
2	3		3

SEMESTER V- PAPER CODE -UEN18DE503 NUTRITIONAL ERGOGENIC AIDS AND EXERCISE PERFORMANCE

COURSE OUTCOMES:

1. Gain in depth knowledge on one nutritional ergogenic aids.
2. To evaluate an athlete's diet and make valuable nutritional recommendations that will impact his/ her sports performance.

MAPPING:

COURSE OUTCOME	PO1	PO2	PO3
1	3		
2	3		

SEMESTER V- PAPER CODE -UEN18DE504 WEIGHT MANAGEMENT

COURSE OUTCOME:

1. Gain an understanding of the basic elements of nutrition with a focus on the key nutrients in order to avoid deficiencies when working with weight loss clients
2. Develop the confidence to be able to make informed choices from a wide span of weight loss options and avoid the use of rigidly fixed methods, thereby delivering programmes best suited to individual needs
3. Learn the skills to be able to counsel on a one-to-one basis. We believe that this favours the resolution of individual circumstances and problems

Receive the training to see your clients through every stage of the process, thereby maximizing their chances of success.

MAPPING:

C O U R S E W O R K	P O 1	P O 2	P O 3
1	3		3
2	3		3
3	3		3

**SEMESTER V- PAPER CODE -UEN18DE505 FITNESS AND NUTRITIONFOR
GERIATRIC**

COURSE OUTCOMES:

Provide individual advice and guidance in the area of Geriatric sports.

Provide individual advice and guidance in the area of Geriatric nutrition.

Design and run a group consultation for Master athletes about geriatric sports and nutrition.

MAPPING:

CO URS E OU TCO ME	P O 1	P O 2	P O 3
1	3		
2	3		

V SEMESTER - PAPER CODE**UEN18DE506 FLOOR AND STEP AEROBICS****COURSE OUTCOME:**

Demonstrate the ability to perform aerobic movements in various combination and forms.

Understand and apply the knowledge of basic choreography, music selection and effective group management.

Identify the major muscle groups and their application to aerobics.

MAPPING:

COURSE OUTCOME	PO1	PO2	PO3
1	3		3
2	3		3
3	3		3

SKILL ENHANCEMENT COURSE (SEC) SEMESTER V- PAPER CODE -**UEN18SE501****ELEMENTARY STATISTICS IN EXERCISE PHYSIOLOGY & NUTRITION****COURSE OBJECTIVES**

After completing this subject we will be able to understand about

1. the basic concepts of Statistics
2. need of Statistics
3. how to analysis the problem using statistics tools

MAPPING:

CORSE OUTCOME	PO1	PO2	PO3
1	3		
2	3		
3	3		

SEMESTER VI- PAPER CODE -UEN18DE601 FIRST AID AND SPORTS**INJURY & PHYSIOTHERAPY****COURSE OUTCOMES:**

1. To know and understand the science, methods, techniques and instruments on which physiotherapy is based.
2. To know and understand the methods, procedures and actions expected in clinical contexts, as well as to employ physiotherapy as an educational tool for promoting and maintaining health.
3. To participate in the areas of the promotion, prevention, protection and recovery of health.
4. To learn in the development of physiotherapy protocols based on scientific evidence that promote research in physiotherapy.
5. To understand the importance of upgrading knowledge, skills and attitudes
Familiarise themselves with First Aid regulations of 2002
6. Be aware of the duties of the students as to First Aid
7. Manage an unresponsive casualty who is breathing normally
8. Manage and unresponsive casualty who is not breathing normally
9. Understand how to manage a variety of conditions.

MAPPING:

COURSE OUTCOME	PO1	PO2	PO3
1	3		
2	3		
3	3		
4	3		
5	3		
6	3		
7	3		
8	3		
9	3		

SEMESTER VI- PAPER CODE -UEN18DE602 OCCUPATIONAL AND FUNCTIONAL ASSESSMENT

SEMESTER VI- PAPER CODE -UEN18DE602 OCCUPATIONAL AND FUNCTIONAL ASSESSMENTCOURSE OUTCOMES:

Students will able to design individual nutritional plan for old person based on prioritized problems and goals, justified intervention and outcome measures and within a specific time frame.

MAPPING:

COURSE OUTCOME	PO1	PO2	PO3
1	3		
2	3		
3	3		

SEMESTER VI- PAPER CODE -UEN18DE603 SPORTS

BIOMECHANICS

MAPPING:

C	P	P	P
O	O	O	O
U	1	2	3
R			
S			
E			
O			
U			
T			
C			
O			
M			
E			

1	3		
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**SEMESTER VI- PAPER CODE -UEN18DE604 NUTRITION AND
IMMUNE FUNCTION IN ATHLETES**

MAPPING:

COURSE OUTCOME	PO1	PO2	PO3
1	3	3	
2	3	3	

SEMESTER VI- PAPER CODE -UEN18DE605 FITNESS AND WELLNE

COURSE OUTCOMES:

1. Students will be able to explain the process to become physically fit. They will also understand how food affects your personal well-being and learn how to make smart choices. They will demonstrate this through personal journal keeping, class assignments, group projects, physical activities, quizzes and physical tests.
2. To define how becoming fit and leading a healthy lifestyle will improve the quality of life both mentally and physically.
3. Students will be able to explain how the way they live their life will affect the quality of life they lead.
4. They will demonstrate this through personal journal keeping, class assignments, group projects, physical activities, quizzes and physical tests.
5. Develop a personal fitness routine.

COURSE OUTCOME	PO1	PO2	PO3
1	3	2	
2	3		
3	3		
4	3		
5	3		

SEMESTER VI- PAPER CODE -UEN18DE606

STABILITY AND CORE TRAINING

COURSE OUTCOMES:

Apply the core principles to exercise on a large stability cushion

Understand how the unstable nature of the cushion challenges stability.

Discover how to include proprioceptive challenge into any workout.

MAPPING:

COURSE OUTCOME	PO1	PO2	PO3
1	3		3
2	3		3
3	3		3

**TAMIL NADU PHYSICAL EDUCATION AND SPORTS UNIVERSITY
MELAKKOTTAIYUR POST CHENNAI - 600 127
DEPT. OF EXERCISE PHYSIOLOGY AND BIOMECHANICS
M.Sc., SPORTS BIOMECHANICS AND KINESIOLOGY
(Two years Regular Programme)
CHOICE BASED CREDIT SYSTEM (CBCS)**

M.SC. EXERCISE PHYSIOLOGY AND NUTRITION

PROGRAM EDUCATIONAL OBJECTIVES (PEOS)

PEO-1: To train and prepare students for professional roles in promoting optimum health and wellness of individuals and diverse communication through the application and integration of exercise physiology and Special Nutrition, dietetics, sports, research, and service.

PEO-2: To conduct advanced research in areas related to nutrition and exercise physiology and mentor junior researchers who will become future thought leaders in the fields.

PEO-3: To prepare students for professional credentialing in healthcare vocational with emphasis in exercise physiology, nutrition and dietetics, fitness health promotion, disease prevention and related specialties.

PROGRAMME OUTCOMES (PO'S)

The post graduates are able to

PO-1) To gain knowledge on Cardio respiratory physiology, muscular physiology, Environmental Physiology, advanced human nutrition, Research and statistics, Neuro physiology, Renal physiology, Health and fitness, Ergogenic aids and supplements, Exercise and sports for women, Training and performance

PO-2) To gain knowledge in fitness and nutrition

PO-3) To analyse the body composition and to assess the anthropometric measurements

PO-4) To create a platform to students to engage in exercise Physiology and Nutrition, Research and pursue higher education

PO-5) To produce an efficient Exercise Physiologist in Research laboratories, fitness centre, National teams and faculty in Academic institutions.

PO-6) To produce Sports Nutritionist to work with Sports Teams/ Sports Clubs/ Research Labs as Sports Nutritionist.

MAPPING OF PEO'S WITH PO'S

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6
PEO 1	X	X	X	X	X	X
PEO 2	X	X	X	X	X	X
PEO 3	X	X	X	X	X	X

PEN18CT101	BIOENERGETICS AND MUSCULAR PHYSIOLOGY																																																	
	<p>COURSE OUTCOME:</p> <p>CO1 - Understanding of metabolic influences in glucose fatty acid cycle</p> <ul style="list-style-type: none">• CO2 - Distinction between fast and slow components of recovery oxygen• CO3 - Pathways for recovery of energy stores -• CO4-Training impacts on fuel use and recovery• CO5- Influences on lactate inflection point <p>MAPPING (CO's and PO's)</p> <table><tr><th colspan="7">Programme outcomes</th></tr><tr><th>course outcomes</th><th>PO 1</th><th>PO 2</th><th>PO 3</th><th>PO 4</th><th>PO 5</th><th>PO 6</th></tr><tr><td>1</td><td>3</td><td>2</td><td></td><td>3</td><td>3</td><td></td></tr><tr><td>2</td><td>3</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>3</td><td>3</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>4</td><td>3</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>5</td><td>3</td><td></td><td></td><td></td><td></td><td></td></tr></table>	Programme outcomes							course outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	1	3	2		3	3		2	3						3	3						4	3						5	3					
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PEN18CT102	CARDIOVASCULAR AND RESPIRATORY PHYSIOLOGY																																																	
	<p>COURSE OUTCOMES:</p> <ol style="list-style-type: none">1. Critically evaluate the central and peripheral mechanisms that regulate the cardiovascular and respiratory systems in exercise and their interactions.2. To use the Exercise programmes to enhance cardiovascular and respiratory function in health, sports and disease. <table><tr><th>course outcomes</th><th>PO 1</th><th>PO 2</th><th>PO 3</th><th>PO 4</th><th>PO 5</th><th>PO 6</th></tr><tr><td>1</td><td>3</td><td>3</td><td></td><td>3</td><td>3</td><td>3</td></tr><tr><td>2</td><td>3</td><td></td><td></td><td></td><td></td><td>3</td></tr></table>	course outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	1	3	3		3	3	3	2	3					3																												
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PEN18CT103	ADVANCED HUMAN NUTRITION																																																	
	<p>COURSE OUTCOMES:</p> <ol style="list-style-type: none">1. It will be the physical and biological science foundation of the dietetics profession.																																																	

	<table><tr><td>course outcomes</td><td>PO 1</td><td>PO 2</td><td>PO 3</td><td>PO 4</td><td>PO 5</td><td>PO 6</td></tr><tr><td>1</td><td>3</td><td>3</td><td>3</td><td>3</td><td>3</td><td>3</td></tr></table>	course outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	1	3	3	3	3	3	3														
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PEN18CT201	NEURO PHYSIOLOGY																												
	COURSE OUTCOMES: 1. To interpret the knowledge of Neurophysiology in athletes and in special population. <table><tr><td>course outcomes</td><td>PO 1</td><td>PO 2</td><td>PO 3</td><td>PO 4</td><td>PO 5</td><td>PO 6</td></tr><tr><td>1</td><td>3</td><td>2</td><td>1</td><td>2</td><td></td><td>1</td></tr></table>	course outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	1	3	2	1	2		1														
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P ^P EN18CT202	TRAINING AND COMPETITION NUTRITION																												
	COURSE OUTCOMES: 1. To impart knowledge on sports specific nutrition and hydration guidelines- in power/strength, weight class-combat and racket sport athletes. 2. To help students understand the role or ergogenic aids- their dose, safety and efficacy to enhance sports performance <table><tr><td>course outcomes</td><td>PO 1</td><td>PO 2</td><td>PO 3</td><td>PO 4</td><td>PO 5</td><td>PO 6</td></tr><tr><td>1</td><td>3</td><td>3</td><td>3</td><td>3</td><td>3</td><td>3</td></tr><tr><td>2</td><td>3</td><td>3</td><td>3</td><td>3</td><td>3</td><td>3</td></tr></table>	course outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	1	3	3	3	3	3	3	2	3	3	3	3	3	3							
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PEN18CT203	STATISTICS IN EXERCISE PHYSIOLOGY AND NUTRITION																												
	COURSE OUTCOMES: After completing this subject we will be able to understand about 1. the basic concepts of Statistics 2. need of Statistics 3. how to analysis the problem using statisticstools <table><tr><td>course outcomes</td><td>PO 1</td><td>PO 2</td><td>PO 3</td><td>PO 4</td><td>PO 5</td><td>PO 6</td></tr><tr><td>1</td><td>3</td><td></td><td></td><td></td><td>3</td><td></td></tr><tr><td>2</td><td>3</td><td></td><td></td><td></td><td>3</td><td></td></tr><tr><td>3</td><td>3</td><td></td><td></td><td></td><td>3</td><td></td></tr></table>	course outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	1	3				3		2	3				3		3	3				3	
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PEN18CT301	ENVIRONMENTAL PHYSIOLOGY																												
	COURSE OUTCOMES: 1. Students who successfully complete the paper will develop an understanding of the physiological adaptations that have evolved them to survive, adapt, participate and to train in various sports activities. <table><tr><td>course outcomes</td><td>PO 1</td><td>PO 2</td><td>PO 3</td><td>PO 4</td><td>PO 5</td><td>PO 6</td></tr><tr><td>1</td><td>3</td><td>3</td><td>3</td><td></td><td>3</td><td>3</td></tr></table>	course outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	1	3	3	3		3	3														
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PEN18CT302	RESEARCH METHODOLOGY IN EXERCISE PHYSIOLOGY AND NUTRITION																												
	COURSE OUTCOMES: After completing this subject we will be able to understand about 1. the basic concepts in research 2. need and scope of research 3. types of research in recent trends 4. how to analysis the problem using statistics techniques <table><tr><td>course outcomes</td><td>PO 1</td><td>PO 2</td><td>PO 3</td><td>PO 4</td><td>PO 5</td><td>PO 6</td></tr><tr><td>1</td><td>3</td><td></td><td></td><td></td><td></td><td>3</td></tr><tr><td>2</td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>3</td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>	course outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	1	3					3	2							3						
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PEN18CT301	EXERCISE AND DIET PRESCRIPTION FOR SPECIAL POPULATION																												

	<p>COURSE OUTCOMES:</p> <ol style="list-style-type: none">1. To develop the Students will become expertise in exercise testing and prescription in Special populations.2. The risks of exercise, pre-participation screening procedures and guidelines for exercise prescription are discussed.3. The focus will be on Diet and aerobic/cardiovascular assessment and conditioning.4. Students will become knowledgeable about laboratory and field testing techniques including the estimation of aerobic capacity, Strength and Flexibility and prescription of exercise through theoretical and laboratory learning.5. Based on the disease specific mechanisms, evidence-based options for exercise interventions will be presented. <table><tr><th>course outcomes</th><th>PO 1</th><th>PO 2</th><th>PO 3</th><th>PO 4</th><th>PO 5</th><th>PO 6</th></tr><tr><td>1</td><td>3</td><td></td><td>3</td><td>3</td><td>3</td><td>3</td></tr><tr><td>2</td><td>3</td><td></td><td></td><td></td><td></td><td>3</td></tr><tr><td>3</td><td>3</td><td></td><td></td><td></td><td></td><td>3</td></tr><tr><td>4</td><td>3</td><td></td><td></td><td></td><td></td><td>3</td></tr><tr><td>5</td><td>3</td><td></td><td></td><td></td><td></td><td>3</td></tr></table>	course outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	1	3		3	3	3	3	2	3					3	3	3					3	4	3					3	5	3					3
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DSE	HEALTH, FITNESS AND PERFORMANCE ASSESSMENT																																										
	<p>COURSE OUTCOMES:</p> <ol style="list-style-type: none">1. Describe and discuss the relationship between physical activity and health across the lifespan.2. Conduct health related fitness assessment for the cardio respiratory endurance, muscular strength, endure, flexibility and body composition <table><tr><th>course outcomes</th><th>PO 1</th><th>PO 2</th><th>PO 3</th><th>PO 4</th><th>PO 5</th><th>PO 6</th></tr><tr><td>1</td><td>3</td><td>3</td><td>3</td><td>3</td><td>3</td><td>3</td></tr><tr><td>2</td><td>3</td><td>3</td><td>3</td><td>3</td><td>3</td><td>3</td></tr></table>	course outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	1	3	3	3	3	3	3	2	3	3	3	3	3	3																					
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DSC	MUSCLE AND EXERCISE METABOLISM																																										

	<p>UNIT – I</p> <p>Define metabolism – Energy for muscular contraction –Aerobic metabolism – Anaerobic metabolism – Fat oxidation –</p> <p>UNIT - II</p> <p>Fuel stores in skeletal muscle – Regulator of energy metabolism – Intracellular factors – Hormones – Insulin – Glucagon – Catecholamines – Growth hormones and cortisol</p> <p>UNIT - III</p> <p>Metabolic response to exercise – Cause of fatigue in High – Intensity exercise – prolonged exercise – Metabolic adaptation to exercise training</p> <p>UNIT - IV</p> <p>Metabolic calculation – Expressions of energy expenditure – Relative oxygen consumption – Metabolic equivalents (METs) – Calories – Fat stores – Net versus gross Vo2</p> <p>UNIT - V</p> <p>Metabolic formulae - Walking and running formulae – Leg and arm ergometry formulae</p> <p>COURSE OUTCOMES:</p> <p>1. Students will be able to know the importance of muscle glycogen and blood glucose for increased ATP production within contracting skeletal muscle during Exercise.</p> <table><tr><th>course outcomes</th><th>PO 1</th><th>PO 2</th><th>PO 3</th><th>PO 4</th><th>PO 5</th><th>PO 6</th></tr><tr><td>1</td><td>3</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>2</td><td>3</td><td></td><td></td><td></td><td></td><td></td></tr></table>	course outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	1	3						2	3					
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DSC	EXERCISE BIO-CHEMISTRY																					

	<p>COURSE OUTCOMES:</p> <p>1. To demonstrate technical meaning of fundamental Laboratory Skill, use proper laboratory safely in practices and demonstrate proficiency in using computers to solve chemical problems</p> <p>2. To demonstrate effective scientific communication skill – both written and oral, students will able to write report and present the result of their own scientific works or the other work.</p>																					
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DSC	RENAL PHYSIOLOGY																					
	<p>COURSE OUTCOMES:</p> <p>1. Students will be able to present individual research papers.</p> <p>2. Students will be able to develop and in depth understanding if the kidney physiology.</p>																					
	<table><tr><td>course outcomes</td><td>PO 1</td><td>PO 2</td><td>PO 3</td><td>PO 4</td><td>PO 5</td><td>PO 6</td></tr><tr><td>1</td><td>3</td><td></td><td></td><td></td><td></td><td>3</td></tr><tr><td>2</td><td>3</td><td></td><td></td><td></td><td></td><td>3</td></tr></table>	course outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	1	3					3	2	3					3
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DSC	SUPPLEMENTS AND ERGOGENIC AIDS FOR PERFORMANCE ENHANCEMENT																					
	<p>COURSE OUTCOMES:</p> <p>1. To apply the knowledge and to describe the ill effects of ergogenic aids to athletics</p> <p>2. To educate the athletics about the use of doping substances will harm the important system and further will decline the performance.</p>																					
	<table><tr><td>course outcomes</td><td>PO 1</td><td>PO 2</td><td>PO 3</td><td>PO 4</td><td>PO 5</td><td>PO 6</td></tr><tr><td>1</td><td>3</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>2</td><td>3</td><td></td><td></td><td></td><td></td><td></td></tr></table>	course outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	1	3						2	3					
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DSC	NUTRITIONAL PLANNING FOR SPORTS AND EXERCISE																					

	COURSE OUTCOMES: The students will be proficient in planning menus with macro and micronutrients for various sports. <table><tr><td>course outcomes</td><td>PO 1</td><td>PO 2</td><td>PO 3</td><td>PO 4</td><td>PO 5</td><td>PO 6</td></tr><tr><td>1</td><td>3</td><td></td><td></td><td></td><td></td><td></td></tr></table>	course outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	1	3												
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DSC	EXERCISE ASSESSEMENT IN SPECIAL POPULATION																					
	COURSE OUTCOMES: 1. Became a specialized personal trainer for special population such as pregnant women, children and the elderly. 2. Analyze and interpret data from an exercisetest. <table><tr><td>course outcomes</td><td>PO 1</td><td>PO 2</td><td>PO 3</td><td>PO 4</td><td>PO 5</td><td>PO 6</td></tr><tr><td>1</td><td>3</td><td></td><td></td><td></td><td></td><td>3</td></tr><tr><td>2</td><td>3</td><td></td><td></td><td></td><td></td><td>3</td></tr></table>	course outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	1	3					3	2	3					3
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	EXERCISE AND SPORTS FOR WOMEN																					
	COURSE OUTCOMES: 1. The ESS for women student is knowledgeable in the sub-disciplines of sports science and be able to adopt an interdisciplinary approach to problem-solve practical situations related to exercise and sports for women. Through the study of the subject, he/she develops the analytical skills to observe, analyse and evaluate practical performance for improvement. <table><tr><td>course outcomes</td><td>PO 1</td><td>PO 2</td><td>PO 3</td><td>PO 4</td><td>PO 5</td><td>PO 6</td></tr><tr><td>1</td><td>3</td><td></td><td></td><td></td><td>3</td><td>3</td></tr></table>	course outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	1	3				3	3							
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GE	EXERCISE PHYSIOLOGY																					
	COURSE OUTCOMES: 1. Demonstrate the sound fundamental knowledge and understanding of the principles																					

	<p>of Exercise physiology as they relate to responses and adaptations to physical activity and exercise.</p> <p>2. Plan, administer, and evaluate wellness and fitness programs and exercise physiology tracks based in sport, clinical, industrial and corporate environment.</p> <p>3. Demonstrate requisite skills and abilities for meaningful employment in Exercise Physiology related areas or pursue higher studies in the area of Exercise Physiology.</p>																												
	<table><tr><th>course outcomes</th><th>PO 1</th><th>PO 2</th><th>PO 3</th><th>PO 4</th><th>PO 5</th><th>PO 6</th></tr><tr><td>1</td><td>3</td><td>3</td><td></td><td></td><td></td><td>3</td></tr><tr><td>2</td><td>3</td><td>3</td><td></td><td></td><td></td><td>3</td></tr><tr><td>3</td><td>3</td><td>3</td><td></td><td></td><td></td><td>3</td></tr></table>	course outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	1	3	3				3	2	3	3				3	3	3	3				3
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GE	SPORTS NUTRITION																												
	<p>COURSE OUTCOMES:</p> <p>1. Provide individual advice and guidance in the area of sports nutrition.</p> <p>2. Design and run a group consultation for athletes about sports nutrition.</p> <p>3. Develop knowledge on sports nutrition.</p>																												
	<table><tr><th>Course Outcomes</th><th>PO 1</th><th>PO 2</th><th>PO 3</th><th>PO 4</th><th>PO 5</th><th>PO 6</th></tr><tr><td>1</td><td>3</td><td></td><td>3</td><td>3</td><td>3</td><td>3</td></tr><tr><td>2</td><td>3</td><td></td><td>3</td><td>3</td><td>3</td><td>3</td></tr><tr><td>3</td><td>3</td><td></td><td>3</td><td>3</td><td>3</td><td>3</td></tr></table>	Course Outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	1	3		3	3	3	3	2	3		3	3	3	3	3	3		3	3	3	3
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	EXERCISE SCIENCE AND FUNCTIONAL ASSESSMENT																												
	<p>COURSE OUTCOMES:</p> <p>1. To consider scope of practice when selecting fitness assessments and interpreting data from assessments.</p> <p>2. To appreciate the historical development of modern fitness assessments, especially with regard to trends and technology.</p>																												

	<div>3. To appreciate the value of the methods section of a scientific publication.</div> <div>4. To appreciate how and why fitness assessments are used in various settings: fitness industry, sports, clinical, and even basic sciences.</div> <table><tr><td>course outcomes</td><td>PO 1</td><td>PO 2</td><td>PO 3</td><td>PO 4</td><td>PO 5</td><td>PO 6</td></tr><tr><td>1</td><td>3</td><td></td><td></td><td></td><td>3</td><td>3</td></tr><tr><td>2</td><td>3</td><td></td><td></td><td></td><td>3</td><td>3</td></tr><tr><td>3</td><td>3</td><td></td><td></td><td></td><td>3</td><td>3</td></tr><tr><td>4</td><td>3</td><td></td><td></td><td></td><td>3</td><td>3</td></tr></table>	course outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	1	3				3	3	2	3				3	3	3	3				3	3	4	3				3	3
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GE	FLOOR AND STEP AEROBICS																																			
	COURSE OUTCOMES: <div>1. Demonstrate the ability to perform aerobic movements in various combination and forms.</div> <div>2. Understand and apply the knowledge of basic choreography, music selection and effective group management.</div> <div>3. Identify the major muscle groups and their application to aerobics.</div> <table><tr><td>course outcomes</td><td>PO 1</td><td>PO 2</td><td>PO 3</td><td>PO 4</td><td>PO 5</td><td>PO 6</td></tr><tr><td>1</td><td>3</td><td></td><td></td><td></td><td>3</td><td>3</td></tr><tr><td>2</td><td>3</td><td></td><td></td><td></td><td>3</td><td>3</td></tr><tr><td>3</td><td>3</td><td></td><td></td><td></td><td>3</td><td>3</td></tr></table>	course outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	1	3				3	3	2	3				3	3	3	3				3	3							
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GE	STABILITY AND CORE TRAINING																																			
	COURSE OUTCOMES: <div>1. Apply the core principles to exercise on a large stability cushion</div> <div>2. Understand how the unstable nature of the cushion challenges stability.</div> <div>3. Discover how to include proprioceptive challenge</div>																																			

	into any workout.																																	
	<table> <tr> <th>course outcomes</th><th>PO 1</th><th>PO 2</th><th>PO 3</th><th>PO 4</th><th>PO 5</th><th>PO 6</th></tr> <tr> <td>1</td><td>3</td><td></td><td></td><td></td><td>3</td><td>3</td></tr> <tr> <td>2</td><td>3</td><td></td><td></td><td></td><td>3</td><td>3</td></tr> <tr> <td>3</td><td>3</td><td></td><td></td><td></td><td>3</td><td>3</td></tr> </table>	course outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	1	3				3	3	2	3				3	3	3	3				3	3					
course outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6																												
1	3				3	3																												
2	3				3	3																												
3	3				3	3																												
GE	TRAINING AND PERFORMANCE																																	
	COURSE OUTCOMES: <ol style="list-style-type: none"> 1. To work with higher efficiency as Exercise Physiologist or Exercise Trainers. 2. To constructively apply the acquired scientific findings and methodological repertoire in practical training under various conditions. 3. To recognize the tendencies of development in their sport and consider them in their training process. 																																	
	<table> <tr> <th>course outcomes</th><th>PO 1</th><th>PO 2</th><th>PO 3</th><th>PO 4</th><th>PO 5</th><th>PO 6</th></tr> <tr> <td>1</td><td>3</td><td>3</td><td></td><td></td><td>3</td><td>3</td></tr> <tr> <td>2</td><td>3</td><td>3</td><td></td><td></td><td>3</td><td>3</td></tr> <tr> <td>3</td><td>3</td><td>3</td><td></td><td></td><td>3</td><td>3</td></tr> </table>	course outcomes	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	1	3	3			3	3	2	3	3			3	3	3	3	3			3	3					
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1	3	3			3	3																												
2	3	3			3	3																												
3	3	3			3	3																												

**TAMIL NADU PHYSICAL EDUCATION AND SPORTS
UNIVERSITY
CHENNAI – 600 127**



**APPROVED SYLLABUS FOR
MASTER OF BUSINESS ADMINISTRATION (SPORTS
MANAGEMENT)**

**UNDER CHOICE BASED CREDIT SYSTEM (CBCS)
2018-2019 ONWARDS**

**DEPARTMENT OF SPORTS MANAGEMENT AND
SPORTS PSYCHOLOGY & SOCIOLOGY**

EDUCATIONAL OBJECTIVES (PEOs)

PEO-1) Graduate will have successful academic and research career.

PEO-2) Graduates will have employment in public and private sectors and resolve economic, social and environmental issues.

PROGRAMME OUTCOMES (POs)

The post graduates are able to

PO -1: Explore current trends and key concepts in sport management.

PO – 2: Understand the dynamics of Sports Industry at the national and International Level.

PO -3: Develop analytical and decision-making skills.

PO -4: Inculcate essential business and marketing skills blended with specialized knowledge in sports management.

PO -5: Identify and evaluate recent changes in sport participation and policies and their implications on sports development.

PO -6: Inculcate the knowledge on sports governance for effectively managing sport organizations

PO -7: Demonstrate mastery on Analytics (Quantitative Aspects)

PO – 8: Develop peer group Learning and Working in groups

PO – 9: Use Application of Technology tools in business

PO –10: Demonstrate ethical, Social and Environmental Responsibilities in Business Environment

PROGRAMME SPECIFIC OUTCOMES (PSOs)

PSO -1: Graduates will be able to apply managerial skills for effective governance of sports

PSO -2: Graduates will be able to understand and analyze the sports environment and take better decisions to cope with external challenges

MAPPING OF PEOs WITH POs

	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10
PEO-1	X	X	X	X	X	X	X	X	X	X
PEO-2	X	X		X		X	X		X	X

PSM18C T101	<p style="text-align: center;">PRINCIPLES OF MANAGEMENT</p> <p><i>Instruction : 4 hr/week Credits : 4 Assessment : 20 + 20 +60</i></p>
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2	COURSE OUTCOMES: Students are able to	
	CO-1	Gain the knowledge on <ul style="list-style-type: none"> • Functions of Management • Management by Objectives
	CO-2	Understand different ways of communication and barriers to communication
	CO-3	Acquiring knowledge on different types of Leadership and Training

3.	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
	1			1			2				3
	2				1				1		
	3	2				3			2		
	<div>1 – Low 2- Medium 3- High</div>										

4.	MAPPING (CO's AND PSO's)		
	Course Outcomes	Program Specific Outcomes	
		1	2
	1	2	1
	2	2	
	3	3	
	1 – Low 2- Medium 3-High		

PSM18CT 102	<p style="text-align: center;">ORGANIZATIONAL BEHAVIOUR</p> <p><i>Instruction : 4 hr/week Credits:4 Assessment : 20 + 20 +60</i></p>
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2	COURSE OUTCOMES: Students are able to										
	CO-1	Understand the scope and functions of Organizational Behavior									
	CO-2	Identify the difference between Leader and a Manager									
	CO-3	Understand the significance of Motivation									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
	1	2	1			1			2		3
	2	2		1					3		
	3						2				2
	1 – Low 2-Medium 3- High										

4.	MAPPING (CO's AND PSO's)		
	Course Outcomes	Program Specific Outcomes	
		1	2
	1	3	2
	2		3
	3		2
1 – Low 2- Medium 3-High			

PSM18C T103	<div data-bbox="685 186 945 224" data-label="Section-Header"> <p>BUSINESS LAWS</p> </div> <div data-bbox="311 254 609 291" data-label="Text"> <p><i>Instruction : 4 hr/week</i></p> </div> <div data-bbox="805 254 933 291" data-label="Text"> <p><i>Credits:4</i></p> </div> <div data-bbox="1107 254 1430 291" data-label="Text"> <p><i>Assessment : 20 + 20 +60</i></p> </div>
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2.	COURSE OUTCOMES: students are able to									
	CO-1	Understand the significance of legal aspects in Business								
	CO-2	Identify the essential elements of Business Contract								
	CO-3	Examine the Rights and Duties of Business Partner.								
3	MAPPING (CO's and PO's)									
		</								

PSM18 CT104	<div data-bbox="641 195 1105 233" data-label="Section-Header"> <p>MANAGEMENT ECONOMICS</p> </div> <div data-bbox="310 247 605 287" data-label="Text"> <p><i>Instruction : 4 hr/week</i></p> </div> <div data-bbox="805 247 933 287" data-label="Text"> <p><i>Credits:4</i></p> </div> <div data-bbox="1110 247 1433 287" data-label="Text"> <p><i>Assessment : 20 + 20 +60</i></p> </div>
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2.	Course Outcomes: Students are able to																																																															
	CO-1	Identify the Importance of Managerial Economics																																																														
	CO-2	Take effective Decision on Pricing Policy																																																														
	CO-3	Analyze the Break Even Point to decide on Quantum of Production																																																														
3	MAPPING (CO's and PO's) <table><tr><th rowspan="2">Course Outcomes</th><th colspan="10">Program Outcomes</th></tr><tr><th>1</th><th>2</th><th>3</th><th>4</th><th>5</th><th>6</th><th>7</th><th>8</th><th>9</th><th>10</th></tr><tr><td>1</td><td>2</td><td>1</td><td></td><td></td><td></td><td>1</td><td></td><td></td><td></td><td>1</td></tr><tr><td>2</td><td></td><td></td><td>3</td><td>1</td><td></td><td>2</td><td>1</td><td></td><td>3</td><td>2</td></tr><tr><td>3</td><td></td><td></td><td></td><td>2</td><td></td><td></td><td>3</td><td></td><td>2</td><td></td></tr></table> <p>1 – Low 2-Medium 3- High</p>										Course Outcomes	Program Outcomes										1	2	3	4	5	6	7	8	9	10	1	2	1				1				1	2			3	1		2	1		3	2	3				2			3		2	
Course Outcomes	Program Outcomes																																																															
	1	2	3	4	5	6	7	8	9	10																																																						
1	2	1				1				1																																																						
2			3	1		2	1		3	2																																																						
3				2			3		2																																																							
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Course Outcomes	Program Specific Outcomes																																																															
	1	2																																																														
1	3																																																															
2	2	3																																																														
3		2																																																														

PSM18C T105	MANAGEMENT ACCOUNTING <i>Instruction :4 hr/ week Credits: 4 Assessment : 20 + 20 +60</i>	
2.	COURSE OUTCOMES: Students are able to	
	CO-1	Understand the Basic Concepts in Accountancy
	CO-2	Prepare and Analyze Financial Statements
	CO-3	Offer Concrete Suggestions for Financial Planning and Budgeting

3.	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
	1	2				1					2
	2			3			2	3		3	
	3			3		1		2		3	
1 – Low 2-Medium 3- High											

4.	MAPPING (CO's AND PSO's)		
	Course Outcomes	Program Specific Outcomes	
		1	2
	1	3	2
	2	2	
	3	1	2
	1 – Low 2- Medium 3-High		

PSM18 CT106	<p style="text-align: center;">QUANTITATIVE METHOD IN BUSINESS</p> <p><i>Instruction : 3hr/week</i> <i>Credits:2</i> <i>Assessment : 20 + 20 +60</i></p>

2	COURSE OUTCOMES(COS): students will be able to										
	CO-1	Acquire in–depth knowledge on Probability Distribution									
	CO-2	Identify the significance of Mathematics in Business									
	CO-3	Understand the Basics concepts in Statistics									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
	1	2		2	1			3		2	1
	2	2		3		2		3		3	1
	3	3		2				3		3	
	1 – Low 2-Medium 3- High										

4.

MAPPING (CO's AND PSO's)

Course Outcomes	Program Specific Outcomes	
	1	2
1	2	2
2		3
3	2	2

1 – Low 2- Medium 3-High

PSM18 CT107	<p style="text-align: center;">OPERATIONS MANAGEMENT</p> <p> <i>Instruction : 4 hr/week</i> <i>Credits : 4</i> <i>Assessment : 20 + 20 +60</i> </p>

2.	COURSE OUTCOMES: Students will be able to										
	CO-1	Gain knowledge on functions of Production and Operations									
	CO-2	Classify the different Production Systems									
	CO-3	Develop the steps in Process Planning									
3.	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
	1	2				2	2				2
	2		2		1					3	
	3	1		3							
	1 – Low 2-Medium 3- High										
4.	MAPPING (CO's AND PSO's)										
	Course Outcomes	Program Specific Outcomes									
		1	2								
		1	3	2							
		2	2								
		3	2								
1 – Low 2- Medium 3-High											

PSM18 CT108	<p style="text-align: center;">MARKETING MANAGEMENT</p> <p><i>Instruction : 4 hr/week Credits : 4 Assessment : 20 + 20 +60</i></p>
	<p><i>1.</i></p>

2	COURSE OUTCOMES(COS): students will be able to										
	CO-1	Understand the Fundamentals of Marketing									
	CO-2	Identify the different Marketing Environments									
	CO-3	Examine the Buyer Behaviour for effective Marketing									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
	1	2			2	1					
	2	1	2		2		3			2	1
	3	1		3		1			1		
	1 – Low 2-Medium 3- High										

4.	MAPPING (CO's AND PSO's)		
	Course Outcomes	Program Specific Outcomes	
		1	2
	1	2	
	2	3	1
	3	2	1
	1 – Low 2- Medium 3-High		

PSM18 CT109	<p style="text-align: center;">FINANCIAL MANAGEMENT</p> <p><i>Instruction : 4 hr/week Credits : 4 Assessment : 20 + 20 +60</i></p>
	<p><i>I.</i></p>

2	COURSE OUTCOMES: Students will be able to										
	CO-1	Formulate the Objectives and role of Financial Management									
	CO-2	Identify the different Sources of Finance									
	CO-3	Gain the knowledge on different Theories on Dividend									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
	1	2	2				2				2
	2			1	2			2			
	3			2	1			3		2	
			1 – Low		2-Medium		3- High				

4.	MAPPING (CO's AND PSO's)		
	Course Outcomes	Program Specific Outcomes	
		1	2
	1	2	
	2	2	2
	3	3	
	1 – Low 2- Medium 3-High		

PSM18 CT110	<p style="text-align: center;">HUMAN RESOURCE MANAGEMENT</p> <p><i>Instruction : 4 hr/week Credits : 4 Assessment : 20 + 20 +60</i></p>

2	COURSE OUTCOMES: Students will be able to										
	CO-1	Examine the Scope of Human Resource Management									
	CO-2	Identify the Functions and Role of Human Resource Manager									
	CO-3	Develop the need for Training and Development									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
	1	1			1						
	2	2	1	2			2		3		3
	3	1				2				2	
	1 – Low 2-Medium 3- High										

4.

MAPPING (CO's AND PSO's)

Course Outcomes	Program Specific Outcomes	
	1	2
1		3
2	2	2
3	3	

1 – Low 2- Medium 3-High

PSM18 CT111	<p style="text-align: center;">OPERATIONS RESEARCH</p> <p><i>Instruction : 4 hr/week Credits : 4 Assessment : 20 + 20 +60</i></p>

2	COURSE OUTCOMES: Students will be able to										
	CO-1	Understand the concept of Optimization Techniques									
	CO-2	Make effective Decision through resource management techniques									
	CO-3	Acquire Knowledge on Network Construction for Project Management									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
	1	2		2	2		2				1
	2			3		1		3		3	2
	3	3		2				3		3	
	1 – Low 2-Medium 3- High										

4.	MAPPING (CO's AND PSO's)		
	Course Outcomes	Program Specific Outcomes	
		1	2
	1	1	3
	2	3	2
	3	2	
	1 – Low 2- Medium 3-High		

PSM18 CT112	<p style="text-align: center;">MANAGEMENT INFORMATION SYSTEMS</p> <p><i>Instruction : 4 hr/week Credits : 4 Assessment : 20 + 20 +60</i></p>
	<p><i>1.</i></p>

2	COURSE OUTCOMES (COS): students are able to										
	CO-1	Examine the Business Application of Information System									
	CO-2	Analyze the different approaches to Information System									
	CO-3	Acquire in–depth knowledge on Enterprise Resource Planning									
3	MAPPING (CO’s and PO’s)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
	1	2	2		2		1				
	2	2				1	2			1	2
	3	1		3	2					2	1
	1 – Low 2-Medium 3- High										

4.	MAPPING (CO's AND PSO's)		
	Course Outcomes	Program Specific Outcomes	
		1	2
	1	3	
	2	2	2
	3	2	3
	1 – Low 2- Medium 3-High		

PSM18 CT113	<p style="text-align: center;">TOTAL QUALITY MANAGEMENT</p> <p><i>Instruction : 4 hr/week Credits : 4 Assessment : 20 + 20 +60</i></p>
	<p><i>1.</i></p>

2	COURSE OUTCOMES(COS): students are able to										
	CO-1	Understand the significance of Total Quality Management									
	CO-2	Formulate the new Strategies for Quality Planning									
	CO-3	Develop the Bench Marking using Quality Tools									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
	1	2			1		2				3
	2	1		3		2	1			2	2
	3		2	2				2		2	
	1 – Low 2-Medium 3- High										

4.	MAPPING (CO's AND PSO's)	
	Course Outcomes	Program Specific Outcomes
		1 2
	1	2 3
	2	2
	3	2 1
	1 – Low 2- Medium 3-High	

PSM18 CT114	<p style="text-align: center;">STRATEGIC MANAGEMENT</p> <p><i>Instruction : 4 hr/week Credits : 4 Assessment : 20 + 20 +60</i></p>

2	COURSE OUTCOMES(COs):Students will be able to									
	CO-1	Gain knowledge on different Business Environment								
	CO-2	Make SWOT Analysis for the given Business Condition								
	CO-3	Identify the Economic Indicators in Human Resource Management								
3	MAPPING (CO's and PO's)									
Course Outcomes		Program Outcomes								
		1	2	3	4	5	6	7	8	9
1	3	3				2				3
2			3	2	3					
3	1			1					2	2
1 – Low 2-Medium 3- High										

4.

MAPPING (CO's AND PSO's)

Course Outcomes	Program Specific Outcomes	
	1	2
1	3	
2		2
3	2	1

1 – Low 2- Medium 3-High

PSM18C T115	<p style="text-align: center;">RESEARCH METHODS IN BUSINESS</p> <p><i>Instruction : 4 hr/week Credits : 4 Assessment : 20 + 20 +60</i></p>

2	COURSE OUTCOMES(COs):Students will be able to											
	CO-1	Understand the Significance of Research										
	CO-2	Formulate and Identify the Research Problem										
	CO-3	Apply the knowledge of Statistics in Business Research										
3	MAPPING (CO's and PO's)											
	Course Outcomes	Program Outcomes										
		1	2	3	4	5	6	7	8	9	10	
		1	1			2						2
		2		3			1				2	2
		3	2		3			2	3		3	
1 – Low 2-Medium 3- High												

4.	MAPPING (CO's AND PSO's)		
	Course Outcomes	Program Specific Outcomes	
		1	2
	1	2	
	2	1	2
	3	3	1
	1 – Low 2- Medium 3-High		

PSM18 AE101	<p style="text-align: center;">BUSINESS COMMUNICATION</p> <p><i>Instruction : 4 hr/week Credits : 2 Assessment : 20 + 20 +60</i></p>

2	COURSE OUTCOMES (COs): students are able to										
	CO-1	Probe the need and Importance of Business Communication									
	CO-2	Identify the Barriers in Communication									
	CO-3	Communicate effectively and Develop Good Business Communication Skills									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
	1	2	2		1	1					2
	2	2					2				
	3	2	2	3	2		1			2	3
	1 – Low			2-Medium			3- High				

4.	MAPPING (CO's AND PSO's)	
	Course Outcomes	Program Specific Outcomes
		1 2
	1	3
	2	2 3
	3	3
	1 – Low 2- Medium 3-High	

PSM18 AE301	PROFESSIONAL ETHICS <i>Instruction : 2hr/ week Credits: 2 Assessment : 40 +60</i>																																																															
2	COURSE OUTCOMES (COs): students are able to <table border="1" data-bbox="324 779 1474 1043"> <tr> <td data-bbox="324 779 464 863">CO-1</td><td colspan="10" data-bbox="466 779 1474 863">Understand the nature of Business Ethics</td></tr> <tr> <td data-bbox="324 865 464 949">CO-2</td><td colspan="10" data-bbox="466 865 1474 949">Analyze the role Ethics in Sports</td></tr> <tr> <td data-bbox="324 951 464 1043">CO-3</td><td colspan="10" data-bbox="466 951 1474 1043">Resolve the Sports Conflicts through Ethical principles</td></tr> </table>										CO-1	Understand the nature of Business Ethics										CO-2	Analyze the role Ethics in Sports										CO-3	Resolve the Sports Conflicts through Ethical principles																														
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CO-2	Analyze the role Ethics in Sports																																																															
CO-3	Resolve the Sports Conflicts through Ethical principles																																																															
3	MAPPING (CO's and PO's) <table border="1" data-bbox="347 1081 1430 1419"> <tr> <th data-bbox="347 1081 492 1247" rowspan="2">Course Outcomes</th><th colspan="10" data-bbox="493 1081 1430 1178">Program Outcomes</th></tr> <tr> <th data-bbox="493 1180 581 1247">1</th><th data-bbox="583 1180 669 1247">2</th><th data-bbox="670 1180 756 1247">3</th><th data-bbox="758 1180 844 1247">4</th><th data-bbox="846 1180 932 1247">5</th><th data-bbox="933 1180 1019 1247">6</th><th data-bbox="1021 1180 1107 1247">7</th><th data-bbox="1109 1180 1195 1247">8</th><th data-bbox="1196 1180 1282 1247">9</th><th data-bbox="1284 1180 1430 1247">10</th></tr> <tr> <td data-bbox="347 1249 492 1304">1</td><td data-bbox="493 1249 581 1304">2</td><td data-bbox="583 1249 669 1304"></td><td data-bbox="670 1249 756 1304"></td><td data-bbox="758 1249 844 1304"></td><td data-bbox="846 1249 932 1304"></td><td data-bbox="933 1249 1019 1304"></td><td data-bbox="1021 1249 1107 1304"></td><td data-bbox="1109 1249 1195 1304"></td><td data-bbox="1196 1249 1282 1304"></td><td data-bbox="1284 1249 1430 1304">3</td></tr> <tr> <td data-bbox="347 1306 492 1360">2</td><td data-bbox="493 1306 581 1360">2</td><td data-bbox="583 1306 669 1360">2</td><td data-bbox="670 1306 756 1360"></td><td data-bbox="758 1306 844 1360">1</td><td data-bbox="846 1306 932 1360">1</td><td data-bbox="933 1306 1019 1360"></td><td data-bbox="1021 1306 1107 1360"></td><td data-bbox="1109 1306 1195 1360">2</td><td data-bbox="1196 1306 1282 1360"></td><td data-bbox="1284 1306 1430 1360">3</td></tr> <tr> <td data-bbox="347 1362 492 1419">3</td><td data-bbox="493 1362 581 1419"></td><td data-bbox="583 1362 669 1419"></td><td data-bbox="670 1362 756 1419">2</td><td data-bbox="758 1362 844 1419">1</td><td data-bbox="846 1362 932 1419"></td><td data-bbox="933 1362 1019 1419"></td><td data-bbox="1021 1362 1107 1419"></td><td data-bbox="1109 1362 1195 1419"></td><td data-bbox="1196 1362 1282 1419">2</td><td data-bbox="1284 1362 1430 1419">3</td></tr> </table> <p data-bbox="558 1486 1117 1520">1 – Low 2-Medium 3- High</p>										Course Outcomes	Program Outcomes										1	2	3	4	5	6	7	8	9	10	1	2									3	2	2	2		1	1			2		3	3			2	1					2	3
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4.	MAPPING (CO's AND PSO's)														
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	Course Outcomes		Program Specific Outcomes												
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	1	1	3												
	2	2	3												
	3		2												
1 – Low 2- Medium 3-High															

PSM18 SE201	E - COMMERCE										
	Instruction : 2hr/ week				Credits: 2			Assessment : 40 +60			
2	COURSE OUTCOMES (COs): students are able to										
	CO-1	Understand the Fundamentals of E-Commerce									
	CO-2	Identify the major Issues related to Online Marketing									
	CO-3	Examine the different Business Models available for E-Commerce									
3	MAPPING (CO's and PO's)										
	Course Outcome s	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
		1	2				1				2
		2			1	3		2			2
		3	1	2		1					3
	1 – Low 2-Medium 3- High										
4.	MAPPING (CO's AND PSO's)										
	Course Outcomes	Program Specific Outcomes									
		1		2							
		1		3		2					
		2		2							
		3		3		1					
	1 – Low 2- Medium 3-High										

PSM18 DE101	<p align="center">SPORTS ORGANIZATION AND ADMINISTRATION</p> <p> <i>Instruction : 4 hr/week</i> <i>Credits : 4</i> <i>Assessment : 20 + 20 +60</i> </p>

2	COURSE OUTCOMES: Students are able to										
	CO-1	Examine the Social Context of Sports									
	CO-2	Understand the significance of Technology in Sports									
	CO-3	Measure the Performance of Olympic Sports Organizations									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
	1	2				1			2		2
	2	2			2					3	2
	3		3	3			2			2	
	1 – Low 2-Medium 3- High										

4.	MAPPING (CO's AND PSO's)		
	Course Outcomes	Program Specific Outcomes	
		1	2
	1	3	2
	2	3	1
	3	3	2
	1 – Low 2- Medium 3-High		

PSM18D E102	SPORTS MANAGEMENT – PRINCIPLES AND PRACTICES <i>Instruction : 4 hr/week</i> <i>Credits:4</i> <i>Assessment : 20 + 20 +60</i>

2	COURSE OUTCOMES: Students are able to										
	CO-1	Manage the Sports Environment through Sports Research									
	CO-2	Possess an Idea on Sports Budgeting									
	CO-3	Assess the Challenges in Sports Management									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
	1	2			1		2				2
	2	2		2	1			3		2	
	3		3			2				2	
	1 – Low			2-Medium			3- High				

4.	MAPPING (CO's AND PSO's)		
	Course Outcomes	Program Specific Outcomes	
		1	2
	1	3	2
	2	3	2
	3	3	2
	1 – Low 2- Medium 3-High		

PSM18 DE103	SPORTS MARKETING <i>Instruction : 4 hr/week</i> <i>Credits:4</i> <i>Assessment : 20 + 20 +60</i>

2.	COURSE OUTCOMES: students are able to									
	CO-1	Identify the Uniqueness of Sports								
	CO-2	Understand the Behaviour of Sports Consumers								
	CO-3	Bring out the effective Strategies for Sports Marketing								
3	MAPPING (CO's and PO's)									

4.	MAPPING (CO's AND PSO's)		
	Course Outcomes	Program Specific Outcomes	
		1	2
	1	3	2
	2	2	2
	3	2	2
	1 – Low 2- Medium 3-High		

PSM18 DE104	<p style="text-align: center;">SPORTS FACILITY MANAGEMENT</p> <p> <i>Instruction : 4 hr/week</i> <i>Credits:4</i> <i>Assessment : 20 + 20 +60</i> </p>

2.	Course Outcomes: Students are able to										
	CO-1	Know about the different types of Sports Facilities									
	CO-2	Acquire in–depth knowledge on Sports Facility Planning									
	CO-3	Identify the Key factors required for a good Sports Infrastructure									
3	MAPPING (CO’s and PO’s)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
	1	1	2		2	2					
	2	3		3				2		2	
	3	1			2		2			2	3
	1 – Low 2-Medium 3- High										
4.	MAPPING (CO’s AND PSO’s)										
	Course Outcomes	Program Specific Outcomes									
		1		2							
	1	2		3							
	2	2		2							
	3	3		2							
	1 – Low 2- Medium 3-High										

PSM18D E105	SPORTS PSYCHOLOGY AND SOCIOLOGY <i>Instruction :4 hr/ week</i> <i>Credits: 4</i> <i>Assessment : 20 + 20 +60</i>
	<i>1.</i>

2	COURSE OUTCOMES(COS): students will be able to										
	CO-1	Bring out the Need and Importance of Psychology in Sports									
	CO-2	Understand the significance of Motivation in Sports									
	CO-3	Analyze the Role of Women in Sports									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
	1	2			1		1		2		2
	2	1		1	1				2		2
	3		3	2		2					3
	1 – Low		2-Medium			3- High					

4.

MAPPING (CO's AND PSO's)

Course Outcomes	Program Specific Outcomes	
	1	2
1	3	3
2	3	2
3	2	2

1 – Low 2- Medium 3-High

PSM18 DE106	<p style="text-align: center;">SPORTS TOURISM</p> <p> <i>Instruction : 4 hr/week</i> <i>Credits : 4</i> <i>Assessment : 20 + 20 +60</i> </p>

2.	COURSE OUTCOMES: Students will be able to	
	CO-1	Acquire Knowledge on Sports Tourism
	CO-2	Identify the Economic Value of Sports Tourism
	CO-3	Derive the Future Prospects of Sports Tourism

3.	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
	1	2			2		1				2
	2	1		3			2	3		2	
	3		3			2					2
1 – Low		2-Medium			3- High						

4.	MAPPING (CO's AND PSO's)		
	Course Outcomes	Program Specific Outcomes	
		1	2
	1		2
	2	3	
	3	2	2
1 – Low 2- Medium 3-High			

PSM18 DE107	<p style="text-align: center;">ADVERTISING IN SPORTS</p> <p> <i>Instruction : 4 hr/week</i> <i>Credits : 4</i> <i>Assessment : 20 + 20 +60</i> </p>

2	COURSE OUTCOMES(COS): students will be able to																																																															
	CO-1	Understand the concept of Advertisement																																																														
	CO-2	Gain the knowledge on Integrated Marketing Communications																																																														
	CO-3	Examine the Role of Brand in Sports Advertisements																																																														
3	MAPPING (CO's and PO's)																																																															
<table><tr><th rowspan="2">Course Outcomes</th><th colspan="10">Program Outcomes</th></tr><tr><th>1</th><th>2</th><th>3</th><th>4</th><th>5</th><th>6</th><th>7</th><th>8</th><th>9</th><th>10</th></tr><tr><td>1</td><td>2</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>1</td></tr><tr><td>2</td><td>1</td><td></td><td>2</td><td>3</td><td></td><td>2</td><td>2</td><td></td><td>2</td><td>3</td></tr><tr><td>3</td><td></td><td>2</td><td></td><td>2</td><td>2</td><td></td><td></td><td></td><td></td><td></td></tr></table>											Course Outcomes	Program Outcomes										1	2	3	4	5	6	7	8	9	10	1	2									1	2	1		2	3		2	2		2	3	3		2		2	2					
Course Outcomes	Program Outcomes																																																															
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1 – Low 2-Medium 3- High																																																																

4.	MAPPING (CO's AND PSO's)		
	Course Outcomes	Program Specific Outcomes	
		1	2
	1	2	1
	2		3
	3	2	2
	1 – Low 2- Medium 3-High		

PSM18 DE108	<p style="text-align: center;">SPORTS MEDIA & EVENT MANAGEMENT</p> <p> <i>Instruction : 4 hr/week</i> <i>Credits : 4</i> <i>Assessment : 20 + 20 +60</i> </p>

2	COURSE OUTCOMES(COS): students will be able to											
	CO-1	Know the concept of Sports Media										
	CO-2	Acquire in–depth knowledge on Sports Journalism										
	CO-3	Understand the types of Channels available for Event Management										
3	MAPPING (CO’s and PO’s)											
	Course Outcomes	Program Outcomes										
		1	2	3	4	5	6	7	8	9	10	
		1	1				1			2		2
		2	2	2			1			2		3
		3	2		2	2		1			3	
1 – Low 2-Medium 3- High												

4.	MAPPING (CO's AND PSO's)		
	Course Outcomes	Program Specific Outcomes	
		1	2
	1	3	2
	2	2	3
	3	2	3
	1 – Low 2- Medium 3-High		

PSM18G E301	<p style="text-align: center;">MANAGEMENT CONCEPTS</p> <p><i>Instruction :4 hr/ week Credits: 4 Assessment : 20 + 20 +60</i></p>

2	COURSE OUTCOMES(COS): students will be able to										
	CO-1	Gain the knowledge on fundamentals of Management									
	CO-2	Take effective Decision in the Business Environment									
	CO-3	Exhibit Corporate Social Responsibility									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
	1	2			2						
	2	1	3	3				3		2	2
	3	2				1					3
	1 – Low		2-Medium			3- High					

4.	MAPPING (CO's AND PSO's)		
Course Outcomes		Program Specific Outcomes	
		1	2
1		3	1
2			2
3		2	1
1 – Low 2- Medium 3-High			

PSM18 GE302	BUSINESS COMMUNICATION <i>Instruction : 4 hr/week</i> <i>Credits : 4</i> <i>Assessment : 20 + 20 +60</i>

2.	COURSE OUTCOMES: Students will be able to										
	CO-1	Understand the basics of Communication									
	CO-2	Communicate effectively through different Medias									
	CO-3	Realize the benefits of Public Relations									
3.	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
	1	2			1				2		
	2	2		2			2			3	2
	3	2	2			2			2		2
	1 – Low		2-Medium			3- High					
4.	MAPPING (CO's AND PSO's)										
	Course Outcomes	Program Specific Outcomes									
		1		2							
	1	2		1							
	2	2									
	3	2		1							
	1 – Low		2- Medium		3-High						

PSM18 GE401	<p style="text-align: center;">ENTREPRENEURSHIP DEVELOPMENT</p> <p> <i>Instruction : 4 hr/week</i> <i>Credits : 4</i> <i>Assessment : 20 + 20 +60</i> </p>

2	COURSE OUTCOMES(COS): students will be able to																																																															
	CO-1	Understand the Concept of Entrepreneurship																																																														
	CO-2	Gain the Knowledge and Importance of Entrepreneurship																																																														
	CO-3	Basic Functions of an Entrepreneur																																																														
3	MAPPING (CO's and PO's)																																																															
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Course Outcomes	Program Outcomes																																																															
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1 – Low 2-Medium 3- High																																																																

4.

MAPPING (CO's AND PSO's)

Course Outcomes	Program Specific Outcomes	
	1	2
1	3	2
2		2
3	2	

1 – Low 2- Medium 3-High

PSM18 GE402	<p style="text-align: center;">EVENT MANAGEMENT</p> <p> <i>Instruction : 4 hr/week</i> <i>Credits : 4</i> <i>Assessment : 20 + 20 +60</i> </p>

2	COURSE OUTCOMES(COS): students will be able to																																																															
	CO-1	Know about Sports Events – Planning of Sports Events																																																														
	CO-2	Commercialization of Sports Events																																																														
	CO-3	Exhibit social responsibility through Sports Events																																																														
3	MAPPING (CO's and PO's)																																																															
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Course Outcomes	Program Outcomes																																																															
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Course Outcomes	Program Specific Outcomes														
	1	2													
1	2														
2	3	2													
3	2														

PROGRAMME: M.Sc.

SPORTS PSYCHOLOGY AND SOCIOLOGY

PROGRAM EDUCATIONAL OBJECTIVES

PEO-1: To produce students with effective interpersonal skills and psycho-social skills to help athletes to excel in sports profession

PEO-2: To enable the student to articulate the skill sets desired by employers who hire or select people who demonstrate the knowledge of Psychology and Sociology in sports.

PROGRAM OUTCOME

The student will be able to:

PO1: Demonstrate fundamental knowledge and comprehension of the major concepts, theoretical perspectives, and empirical findings to discuss how psychological principles apply to behavioural problems among athletes.

PO2: Understand the application of psychological and sociological theories in sports.

PO3: Identify methods that can help teams improve their dynamics, boost their performance, recover from injuries, and overcome emotional obstacles caused by competition.

PO4: Articulate an approach to work effectively with diverse individual and groups by demonstrating the psychological skills and techniques to enhance sports performance

PO5: Demonstrate professional ethics and commitment in all aspects of professional practice.

PO6: Carry out researches on various domains of psychology and sociology in relation to sports.

PO7: Develop critical thinking and applies strategy on solving emotional and social problems in sports situations.

PO8: Plan to communicate to formulate effective arguments for report writing/presentation.

PO9: Relate to society by contributing to the society by community engagement and justify to be a responsible global citizen

PO10: Focus on the professional realities of working as a sports psychologist or sports sociologist.

MAPPING OF PEO'S WITH PO'S

	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10
PEO-1				X	X		X	X	X	X
PEO-2	X	X	X	X	X	X	X	X	X	X

FIRST SEMESTER					
Paper Code	Paper Title	L	T	P	Credits
PPS18CT101	Advanced General Psychology	4	0	0	4
PPS18CT102	Introduction to Sports Sociology	4	0	0	4
PPS18CT103	Research Methodology	4	0	0	4
PPS18CP104	Psychological Testing I	0	0	10	5
	DSE - Elective I	4	0	0	4
	Communication Skills (AEC I)	2	0	0	2
Total		23			
SECOND SEMESTER					
Paper Code	Paper Title	L	T	P	Credits
PPS18CT201	Psychological aspects of Sports Performance	4	0	0	4
PPS18CT202	Indian social system and Sports	4	0	0	4
PPS18CT203	Social and Behavioral Statistics	4	0	0	4
PPS18CP204	Psychological Testing & Assessment – II	0	0	10	5
	DSE - Elective II	4	0	0	4
	Fundamentals of Information and Technology (SEC)	2	0	0	2
	NSS / Community Engagement - Co curricular	0	0	0	2
Total		25			

THIRD SEMESTER					
Paper Code	Paper Title	L	T	P	Credits
PPS18CT301	Life Span Development	4	0	0	4
PPS18CT302	Scientific Dimensions of Sports Psychology	4	0	0	4
PPS18CT303	Sociological Theories	4	0	0	4
	Case Studies & Project Work	0	0	0	4
	DSE - Elective III	4	0	0	4
	Generic Elective I	4	0	0	4
	Life Skills Management (AEC II)	2	0	0	2
	Village Placement Program – Co curricular	0	0	0	2
	Total	28			
FOURTH SEMESTER					
Paper Code	Paper Title	L	T	P	Credits
PPS18CT401	Counseling and Behavioral Modification in Sports	4	0	0	4
PPS18CT402	Coping With Stress	4	0	0	4
PPS18CT403	Intervention Strategies and Sports Behavior	4	0	0	4
PPS18CT404	Thesis	0	0	0	6
	DSE - Elective IV	4	0	0	4
	Generic Elective II	4	0	0	4
Total		26			

FIRST SEMESTER

PPS18CT101 - ADVANCED GENERAL PSYCHOLOGY

COURSE OUTCOMES

At the end of the course, the student will be able to:

1. Apply conceptual knowledge of the core areas of Psychology and Sociology and study the diversities present.
2. Examine the knowledge related to the approaches used in the field of psychology to understand human behaviour and mental process.
3. Will be able to relate behavioural issues through theoretical approaches and methods ethically by contributing to society as a responsible citizen

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1		2	1	1			2	1		
2	1	1		2	1		1		1	1
3		1	1	1	2		2	2	1	1

- 01 - Low Level of Relevance
02 - Moderate Level of Relevance
03 - High Level of Relevance

PPS18CT102: INTRODUCTION TO SPORTS SOCIOLOGY

COURSE OUTCOMES

At the end of the course, the student will be able to:

1. Understand the basics of sociological phenomenon in relation to sports.

2. Analyze social issues with a commitment to social justice and intellectual diversity in the society.
3. Understand the role that sport has in society and how sport reciprocally influences society

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1		2		1	1		1	1		
2			2		1		2	1	1	1
3		2			2		1		1	1

- 01 - Low Level of Relevance
- 02 - Moderate Level of Relevance
- 03 - High Level of Relevance

PPS18CT103: RESEARCH METHODOLOGY

COURSE OUTCOMES

At the end of the course, the student will be able to:

1. Illustrate basic and applied research to address issues in psychology and sociology.
2. Understand and apply basic research methods in psychology and sociology, including research design, data analysis, and interpretation
3. Examine the importance of the use of statistical analyses and reporting of results in research publications.

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1	2	1	1		2		1	1	1	
2		2	2	1		1	2	1	1	1
3	1	1	2			1		1	1	

- 01 - Low Level of Relevance
- 02 - Moderate Level of Relevance
- 03 - High Level of Relevance

PPS18CP104: PSYCHOLOGICAL TESTING

Students are required to conduct and record any 08 experiments.

COURSE OUTCOMES

At the end of the course, the student will be able to:

1. Critically assess the information by administering the psychometric assessments to study human behaviour and mental processes and also forms conclusions and arguments
2. Administers psychometric tools and interprets the evaluation for framing the strategy to improve the sports performance and mental health of the athlete
3. Understand the ethical values of interpretation of the assessment tools.

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1		1	2	1	2	1	2	1	1	
2		1	2			2	1	2		2
3		1	2	1	2		1	1	1	1

- 01 - Low Level of Relevance
- 02 - Moderate Level of Relevance
- 03 - High Level of Relevance

SECOND SEMESTER

PPS18CT201: PSYCHOLOGICAL ASPECTS OF SPORTS PERFORMANCE

COURSE OUTCOMES

At the end of the course, the student will be able to:

1. Relate the knowledge of psychology to assist in treating a wide range of mental health issues commonly experienced by athletes and sports industry professionals in a clinical setting.
2. Examine the link between psychological features influencing athletic activity in competitive sports.

3. Analyze how participation in sport influences the psychological make-up of those individuals involved in athletic competitions.

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1	1	2		1	1	1	1	1		
2		1	2		1		2	1	1	1
3			2	1	1	1	1	1	1	1

- 01 - Low Level of Relevance
- 02 - Moderate Level of Relevance
- 03 - High Level of Relevance

PPS18CT202: INDIAN SOCIAL SYSTEM AND SPORTS

COURSE OUTCOMES

At the end of the course, the student will be able to:

1. Understand multicultural Indian society, Indian sports, and the importance of recreational activities in social life
2. Gain knowledge to promote talent in traditional sports in the social system considering the role of religion, culture and family.

3. Understand the challenges faced by the sports professionals in India and the benefits of Professional sports sociologist in improving the Indian social system.

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1		2	1	1	1		1	1		
2	1	1	2	2	1		1		1	1
3	1	2		1	1	1	1	1	1	1

- 01 - Low Level of Relevance
- 02 - Moderate Level of Relevance
- 03 - High Level of Relevance

PPPS18CT203: SOCIAL AND BEHAVIOURAL STATISTICS

COURSE OUTCOMES

At the end of the course, the student will be able to:

- 1 Understand the basics of organize, manage, present data, describe and discuss the key terminology, concepts tools and techniques used in statistical analysis
2. Critically evaluate the underlying assumptions of analysis tools and discuss the issues surrounding sampling and significance

3. To develop the ability to deal with numerical and quantitative issues in behavioural sciences and effective use of statistical and graphical techniques wherever relevant in their research.

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1		2		1		1	1			
2		1		2	1	2	1	1		
3	1		2	2	1	2	1	1		

01 - Low Level of Relevance

02 - Moderate Level of Relevance

03 - High Level of Relevance

PPS18CP204: PSYCHOLOGICAL TESTING & ASSESSMENT – II

Students are required to conduct and record any 08 experiments

COURSE OUTCOMES

At the end of the course, the student will be able to:

1. Critically assess the information by administering the psychometric assessments to study human behaviour and mental processes and also forms conclusions and arguments

2. Administers psychometric tools and interprets the evaluation for framing the strategy to improve the sports performance and mental health of the athlete
3. To develop the ability to deal with numerical and quantitative issues in behavioural sciences and effective use of statistical and graphical techniques wherever relevant in their research

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1		2		1		1	1			
2		1		2	1	2	1	1		
3	1		2	2	1	2	1	1		

- 01 - Low Level of Relevance
- 02 - Moderate Level of Relevance
- 03 - High Level of Relevance

THIRD SEMESTER

PSP18CT301: FUNDAMENTALS OF COUNSELING SKILLS

COURSE OUTCOMES

At the end of the course, the student will be able to:

1. Understand the factors contributing for positive outcomes in guidance and counselling

2. Access the purpose of testing and assessment understand the role of confidentiality and the limits to it in terms of the counselling and supervisory relationships.

3. In depth knowledge of ethical codes and variety of ethical dilemmas that could arise, and understand the ways in which to navigate and select the best course of action.

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1		2	2	1		1	1	2	1	
2		2	1		2	1		2	1	1
3	2	1	2		2		1	1	1	

01 - Low Level of Relevance

02 - Moderate Level of Relevance

03 - High Level of Relevance

PPS18CT302 - LIFE SPAN DEVELOPMENT

COURSE OUTCOMES

At the end of the course, the student will be able to:

1. Critically assess information related to different developmental processes in a life span of a person.

2. Analyse the differences between the various methods of investigation used in developmental studies and the relationship between physiology, cognition, and emotion in the different developmental stages.

3. Identify and evaluate factors affecting the physical, social, emotional, psychological, and intellectual development of children, adolescents and aged.

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1		2	2	1		1	1	2	1	
2		2	1		1	2		2	1	1
3	1	1	2		2		1	1	1	

- 01 - Low Level of Relevance
- 02 - Moderate Level of Relevance
- 03 - High Level of Relevance

PPS18CT303- SOCIOLOGICAL THEORIES

COURSE OUTCOMES

At the end of the course, the student will be able to:

- Describe and apply some basic theories or theoretical orientations in at least one of the social realities.

- Apply critical thinking skills to sociological data and theory. Show how patterns of thought and knowledge are directly influenced by political-economic social structures.
- Show how social issues can be better understood by emphasizing the micro/macro connections. Participate actively in civic affairs.

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1		1	2		2	1		1		1
2		2	1		1	1	1	1	1	
3	1	2	1		1		2	1		1

- 01 - Low Level of Relevance
- 02 - Moderate Level of Relevance
- 03 - High Level of Relevance

PSO18AEC02 – LIFE SKILLS MANAGEMENT

COURSE OUTCOMES

At the end of the course, the student will be able to:

- Demonstrate fundamental knowledge and comprehension of the major concepts, to discuss psychological principles to building life skill.

- Develop and exhibit and accurate sense of self, nurture a deep understanding of personal motivation.
- Understand and practice personal and professional responsibility, strengthen personal character and enhance ethical sense

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1		1	2	1			1	2	1	
2	1	2	1	2	1		1	2		
3		2	1	2		1	1	1	1	1

- 01 - Low Level of Relevance
- 02 - Moderate Level of Relevance
- 03 - High Level of Relevance

PPS18CP304: CASE STUDY AND PROJECT WORK

Students are required to submit a PROJECT at the end of the year. The Project shall embody the record of original investigation under the guidance of a supervisor.

COURSE OUTCOMES

At the end of the course, the student will be able to:

CO 1 - Identify key research questions within the demographic field on which the student will carry out independent research.

CO 2 - Demonstrate appropriate referencing and develop skills in other aspects of academic writing.

CO 3 - Apply the demographic/statistical research training acquired in the taught element of the programme by designing an appropriate research strategy and research methodology to carry out research.

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1	2	1			3	2	2			2
2		1			2	2	1		1	1
3			1		3	1	1		1	1

01 - Low Level of Relevance

02 - Moderate Level of Relevance

03 - High Level of Relevance

FOURTH SEMESTER

PPS18CT401: COUNSELING AND BEHAVIOR MODIFICATION TECHNIQUES

COURSE OUTCOMES

At the end of the course, the student will be able to:

1. Apply psychological knowledge and skills to address peak performance and well-being of athletes

2. Familiarize with a variety of ethical dilemmas that could arise, and understand the ways in which to navigate and select the best course of action for the athletes.
3. Integrate with the major counselling approaches and apply the effective sports performance.

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1			2	1		1	2	1		
2	2	1		2	2		1	1	1	1
3		1	2	1	1	1	2	1		1

- 01 - Low Level of Relevance
- 02 - Moderate Level of Relevance
- 03 - High Level of Relevance

PPS18CT302 - SCIENTIFIC DIMENSIONS OF SPORTS PSYCHOLOGY

COURSE OUTCOMES

At the end of the course, the student will be able to:

1. Apply psychology-specific content and skills, effective self reflection, self management skills, teamwork skills, frame goals, and enhance performance, socio cultural influences and game preparation.

2. Gain knowledge about psychometrics, cognition, motivation, personality and emotion and their influence in a game.
3. Apply psychological concepts and skills in an ethical way to modify in meeting the needs of persons with a disability, and sustain participation and competition for disabled persons.

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1		1	2	1	1	1	2	1	1	
2	2		1	1	1			1		1
3		2	1	2		1	1	2		1

- 01 - Low Level of Relevance
- 02 - Moderate Level of Relevance
- 03 - High Level of Relevance

PPS18CT403- INTERVENTION STRATEGIES AND SPORTS BEHAVIOUR

COURSE OUTCOMES

At the end of the course, the student will be able to:

1. Demonstrate adequate knowledge and understanding to address psychological issues faced by athletes on and off the field, both in individual and team sports.

2. Analyse how psychological factors impact sports injuries, rehabilitation and recovery of athletes.
3. Outline the intervention methods that can help athletes improve their dynamics, boost their performance, recover from injuries, and overcome emotional obstacles caused by competition.

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1		1	1	1	2		2	1		1
2		1	2	1	1	1	1		1	2
3	2	1	2	1	1		2	1	1	2

- 01 - Low Level of Relevance
- 02 - Moderate Level of Relevance
- 03 - High Level of Relevance

PPS18CT404- THESIS

Students are required to submit a thesis at the end of the year. The thesis shall embody the record of original investigation under the guidance of a supervisor.

COURSE OUTCOMES

At the end of the course, the student will be able to:

1. Familiarize with the existing trends in Research Methodology, for preparation of dissertation to instil some primary concepts of academic research.
2. Use scientific reasoning to interpret psychological phenomena, Demonstrate psychology information literacy,
3. Interpret, design, and conduct basic psychological research, incorporate socio-cultural factors in scientific inquiry

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1		2	1	2	1	2			1	1
2			2	1	1	2	1	1		1
3		1	2	2	1	2	2	2	1	2

01 - Low Level of Relevance

02 - Moderate Level of Relevance

03 - High Level of Relevance

M.SC. SPORTS PSYCHOLOGY

PROGRAM EDUCATIONAL OBJECTIVES

PEO-1: To produce students with effective interpersonal skills and psycho-social skills to help athletes to excel in sports profession

PEO-2: To enable the student to articulate the skill sets desired by employers who hire or select people who demonstrate the knowledge of Psychology in sports.

PROGRAM OUTCOME

The student will be able to:

PO1 Demonstrate fundamental knowledge and comprehension of the major concepts, theoretical perspectives, and empirical findings to discuss how psychological principles apply to behavioural problems

PO2 Understand the application of psychological theories in sports.

PO3 Identify methods that can help teams improve their dynamics, boost their performance, recover from injuries, and overcome emotional obstacles caused by competition.

PO4 Articulate an approach to work effectively with diverse individual and groups by demonstrating the psychological skills and techniques to enhance sports performance

PO5 Demonstrate professional ethics and commitment in all aspects of professional practice.

PO6 Carry out researches on various domains of psychology in relation to sports.

PO7 Develop critical thinking and applies strategy on solving emotional and social problems in sports situations.

PO8 Plan to communicate to formulate effective arguments for report writing/presentation.

PO9 Relate to society by contributing by community engagement and justify to be a responsible global citizen

PO10 Focus on the professional realities of working as a sports psychologist.

MAPPING OF PEO'S WITH PO'S

	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10
PE0-1				X	X		X	X	X	X
PEO-2	X	X	X	X	X	X	X	X	X	X

FIRST SEMESTER					
Paper Code	Paper Title	L	T	P	Credits
PSP18CT101	Advanced General Psychology	4	0	0	4
PSP18CT102	Principles of Sports Psychology	4	0	0	4
PSP18CT103	Research Methodology	4	0	0	4
PSP18CP104	Psychological Testing I	0	0	10	5
	DSE - Elective I	4	0	0	4
	Communication Skills (AEC I)	2	0	0	2
Total		23			
SECOND SEMESTER					
Paper Code	Paper Title	L	T	P	Credits
PSP18CT201	Psychological aspects of Sports Performance	4	0	0	4
PSP18CT202	Biological Basis of Behaviour	4	0	0	4
PSP18CT203	Behavioural statistics	4	0	0	4
PSP18CP204	Psychological Testing & Assessment – II	0	0	10	5
	DSE - Elective II	4	0	0	4
	Fundamentals of Information and Technology (SEC)	2	0	0	2
	NSS / Community Engagement - Co curricular	0	0	0	2
Total		25			

THIRD SEMESTER					
Paper Code	Paper Title	L	T	P	Credits
PSP18CT301	Fundamentals of Counseling Skills	4	0	0	4
PSP18CT302	Psychology of Athletic Injury and Rehabilitation	4	0	0	4
PSP18CT303	Psychological Preparation and Mental Skills training	4	0	0	4
	Case Studies & Project Work	0	0	0	4
	DSE - Elective III	4	0	0	4
	Generic Elective I	4	0	0	4
	Life Skills Management (AEC II)	2	0	0	2
	Village Placement Program – Co curricular	0	0	0	2
	Total	28			
FOURTH SEMESTER					
Paper Code	Paper Title	L	T	P	Credits
PSP18CT401	Counselling and Behaviour Modification Techniques in Sports	4	0	0	4
PSP18CT402	Coping with Stress	4	0	0	4
PSP18CT403	Athletic Psychopathology	4	0	0	4
PSP18CT404	Thesis	0	0	0	6
	DSE - Elective IV	4	0	0	4
	Generic Elective II	4	0	0	4
Total		26			

FIRST SEMESTER

PSP18CT101: ADVANCED GENERAL PSYCHOLOGY COURSE OUTCOMES

At the end of the course, the student will be able to:

1. Apply conceptual knowledge of the core areas of Psychology (cognitive, sensory, perceptual, learning, motivation and personality) and the links between them
2. Examine the knowledge related to the approaches used in the field of psychology to understand human behaviour and mental process.
3. Will be able to relate behavioural issues through theoretical approaches and methods ethically by contributing to society as a responsible citizen

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1		2	1	1			2	1		
2	1	1		2	1		1		1	1
3		1	1	1	2		2	2	1	1

- 01 - Low Level of Relevance
02 - Moderate Level of Relevance
03 - High Level of Relevance

PSP18CT102: PRINCIPLES OF SPORTS PSYCHOLOGY

COURSE OUTCOMES

At the end of the course, the student will be able to:

1. Apply psychology-specific content and skills, effective self-reflection, self-management skills, teamwork skills, frame goals, and enhance performance, socio cultural influences and game preparation.
2. Gain knowledge about psychometrics, cognition, motivation, personality and emotion and their influence in a game.
3. Apply psychological concepts and skills required in competitive sport participation.

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1	2			1			1	2		
2		1		2			1	1		
3	1	2	2				2	2	2	2

01 - Low Level of Relevance

02 - Moderate Level of Relevance

03 - High Level of Relevance

PSP18CT103: RESEARCH METHODOLOGY

COURSE OUTCOMES

At the end of the course, the student will be able to:

- . 1. Illustrate basic and applied research to address issues in psychology.
2. Understand and apply basic research methods in psychology, including research design, data analysis, and interpretation
3. Examine the importance of the use of statistical analyses and reporting of results in research publications.

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1		2	1		2	2		2		
2		2		2		2		1		
3	1	1			2	2		1	1	

01 - Low Level of Relevance

- 02 - Moderate Level of Relevance
- 03 - High Level of Relevance

PSP18CP105: PSYCHOLOGICAL TESTING AND ASSESSMENT-I

Students are required to conduct and record any 08 experiments.

1. Competitive State Anxiety
2. Psychological Performance
3. Locus of Control –Internal/External
4. Life Skills
5. Mental Imagery
6. Extrinsic/Intrinsic Motivation
7. Bio-feedback
8. Concentration
9. Sports Specific Personality Inventory
10. Sports Achievement Motivation
11. Reaction Time
- 12.

REFERENCES:

1. Woodworth, R.S. and Scholberg (1972), Experimental psychology. Holt, Rinehart & Winston.
2. Anastasi & Susana Urbina (2004) 7th Edition, Psychological Testing, Pearson Education Inc, New Delhi..
3. Parameswaran & Ravichandran. (2003). Experimental psychology. Neel Kamal Publications.

COURSE OUTCOMES

At the end of the course, the student will be able to:

1. Critically access the information by administering the psychometric assessments to study human behaviour and mental processes.
2. Administers psychometric tools and interprets the evaluation for framing the strategy to improve the sports performance and mental health of the athlete
3. Understand the ethical values of interpretation of the assessment tools.

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1	2			1			2	1		
2		2		1			2	2	1	2
3	1		1		2				2	2

01 - Low Level of Relevance

02 - Moderate Level of Relevance

03 - High Level of Relevance

SECOND SEMESTER
PSP18CT201: PSYCHOLOGICAL ASPECTS OF
SPORTSPERFORMANCE
COURSE OUTCOMES

At the end of the course, the student will be able to:

1. Define the basics of physiological principles relevant to the effect of exercise on human functioning and performance.
2. Analyze the different psychological factors influencing individual growth and development through life time.
3. Recommend sport as a tool to enhance health and use games and physical activities to enhance individual competencies.

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1	2	1		1			1	1		
2		1	1	2	1		1	1		
3	1		2			2		1	1	1

01 - Low Level of Relevance

02 - Moderate Level of Relevance

03 - High Level of Relevance

PSP18CT202: BIOLOGICAL BASES OF BEHAVIOR

COURSE OUTCOMES

At the end of the course, the student will be able to:

1. Understand the basics of biopsychology; examine the relationship between sports with respect to individual physiology.
2. Analyze factors that influence on individual health and employ ways and means to optimise the same
3. Relate the role of the brain in human performance and apply psychological techniques and theories to human performance within diverse population.

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1		2		1			1	2		
2		1		2			1	1		
3	1	2	2				2	2	2	2

01 - Low Level of Relevance

02 - Moderate Level of Relevance

03 - High Level of Relevance

PSP18CT203: BEHAVIORAL STATISTICS

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1		2		1		1	1			
2		1		2	1	2	1	1		
3	1		2	2	1	2	1	1		

01 - Low Level of Relevance

02 - Moderate Level of Relevance

03 - High Level of Relevance

PSP18CP204– PSYCHOLOGICAL TESTING AND ASSESSMENT - II.

COURSE OUTCOMES

At the end of the course, the student will be able to:

1. Critically assess the information by administering the psychometric assessments to study human behaviour and mental processes and also forms conclusions and arguments
2. Administers psychometric tools and interprets the evaluation for framing the strategy to improve the sports performance and mental health of the athlete
3. To develop the ability to deal with numerical and quantitative issues in behavioural sciences and effective use of statistical and graphical techniques wherever relevant in their research.

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1		2		1		1	1			
2		1		2	1	2	1	1		
3	1		2	2	1	2	1	1		

01 - Low Level of Relevance

02 - Moderate Level of Relevance

03 - High Level of Relevance

THIRD SEMESTER

PSP18CT301: FUNDAMENTALS OF COUNSELING SKILLS

COURSE OUTCOMES

At the end of the course, the student will be able to:

1. Understand the basics of psychological principles; professional and ethical practice in the role of counsellor in various settings.
2. Develop knowledge on career assessments related to interests, personality, values, and career development.
3. Describe the role that human growth and development in counselling interventions and gain ability for appropriate modification made in a multicultural society.

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10

1		2	1	2	1		1	2		
2		1		2	1	1	1	1		
3	1	2	2		1	1	2	1	1	1

- 01 - Low Level of Relevance
- 02 - Moderate Level of Relevance
- 03 - High Level of Relevance

PSP18CT302: PSYCHOLOGY OF ATHLETIC INJURY AND REHABILITATION

COURSE OUTCOMES

At the end of the course, the student will be able to:

1. Understand the types of injuries and the fundamental components involved in designing a successful rehabilitation program
2. Analyze the influence of different parameters of performance, physiological, biochemical and subjective measures such as mood disturbance, perceived stress and recovery and symptoms of athlete rehabilitation monitoring and recovery process
3. Recommend adequate examination methods for muscle and skeleton injuries related to physical exercise and sports to reduce instances of reinjury

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1		2		1			1	2		
2		1		2	1		1			

3	1	2	2			2	2		1	1
---	---	---	---	--	--	---	---	--	---	---

- 01 - Low Level of Relevance
- 02 - Moderate Level of Relevance
- 03 - High Level of Relevance

PSP18CT303: PSYCHOLOGICAL PREPARATION AND MENTAL SKILLS TRAINING

COURSE OUTCOMES

At the end of the course, the student will be able to:

1. Understand the basics and apply psychological techniques and strategies to enhance sportsperformance and participation in sport and exercise settings.
2. Analyzethe influences of social aspects (e.g., group processes, persuasion) on performance and well-beings faced by sports persons.
3. Recommend strategies to cope with the mental stress and coping skills influence sports performance, with a commitment to social justice and intellectual diversity in the society and the influence on sports on public health

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1		2		1			1	2		
2		1		2	1	1	1	1		
3		2	2	1			2	1	1	1

- 01 - Low Level of Relevance
- 02 - Moderate Level of Relevance
- 03 - High Level of Relevance

PPS18CP304: CASE STUDY AND PROJECT WORK

Students are required to submit a PROJECT at the end of the year. The Project shall embody the record of original investigation under the guidance of a supervisor.

COURSE OUTCOMES

At the end of the course, the student will be able to:

- CO 1 - Identify key research questions within the demographic field on which the student will carry out independent research.
- CO 2 - Demonstrate appropriate referencing and develop skills in other aspects of academic writing.
- CO 3 - Apply the demographic/statistical research training acquired in the taught element of the programme by designing an appropriate research strategy and research methodology to carry out research.

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1	2	1			3	2	2			2
2		1			2	2	1		1	1
3			1		3	1	1		1	1

- 01 - Low Level of Relevance
- 02 - Moderate Level of Relevance
- 03 - High Level of Relevance

PSO18AEC02 – LIFE SKILLS MANAGEMENT(AEC II)
COURSE OUTCOMES

At the end of the course, the student will be able to:

- Demonstrate fundamental knowledge and comprehension of the major concepts, to discuss psychological principles to building life skill.
- Develop and exhibit an accurate sense of self, nurture a deep understanding of personal motivation.
- Understand and practice personal and professional responsibility, strengthen personal character and enhance ethical sense

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1		1	2	1			1	2	1	
2	1	2	1	2	1		1	2		
3		2	1	2		1	1	1	1	1

- 01 - Low Level of Relevance
 02 - Moderate Level of Relevance
 03 - High Level of Relevance

FOURTH SEMESTER

PSP18CT401:COUNSELING AND BEHAVIOR MODIFICATION TECHNIQUES IN SPORTS

COURSE OUTCOMES

At the end of the course, the student will be able to:

1. Understand theories and practices related to human development across the lifespan, goals, principles and ethics involved in counselling
2. Assess and analyse behavioural issues with in day-to-day context and come up effective strategies to resolve conflicts.
3. Recommend techniques and training to enhance mental health, building, maintaining, and utilizing counselling relationships to address mental health issues and meet client goals.

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1		1	1	1			1	2		
2		1		2	1	1	1	1		
3	1					1	2	2		

- 01 - Low Level of Relevance
02 - Moderate Level of Relevance
03 - High Level of Relevance

PSP18DSE05 - SPORTS FOR THE CHALLENGED

COURSE OUTCOMES

At the end of the course, the student will be able to:

1. Understand limitations and exclusions were imposed on the individual due to impairment
2. Analyze and come up with ways to encourage and promote the participation of persons with disabilities in mainstream sporting activities at all levels
3. Provide opportunities to use sports as a medium to engage in levels of physical activity that will benefit their health and wellness among people with a disability.

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1	1	1				1		1		
2				2		1	1	1	2	
3	1	1		2	1		1	1	2	2

01 - Low Level of Relevance

02 - Moderate Level of Relevance

03 - High Level of Relevance

PSP18CT403- ATHLETIC PSYCHOPATHOLOGY

COURSE OUTCOMES

At the end of the course, the student will be able to:

1. Understand the basics of the biological, psychological, behavioral, cognitive, humanistic-existential and sociocultural models of abnormal behavior and its influence on sports performance.
2. Analyse the different systems of classifications of maladaptive behaviour
3. Develop critical thinking and apply strategies on solving the emotional, behavioural and other psychopathological issues faced on and off the field of sporting arena and also their influence sports performance,

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1	2		1	1			1			
2			1	2	1	1		1		
3	1	2	2				2	2	2	2

- 01 - Low Level of Relevance
- 02 - Moderate Level of Relevance
- 03 - High Level of Relevance

PSP18CT404 THESIS

Students are required to submit a thesis at the end of the year. The thesis shall embody the record of original investigation under the guidance of a supervisor.

COURSE OUTCOMES

At the end of the course, the student will be able to:

- 1 Enabling the students to identify a problem in their area of interest and finding ways in tackling and solving the problem
- 3 Gathering related literature and analyzing data pertaining to their study
- 4 - Gaining appropriate scientific writing skills.

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1	2	1	2							
2		1	1		2				2	
3		3	1	1	2				1	

- 01 - Low Level of Relevance
- 02 - Moderate Level of Relevance
- 03 - High Level of Relevance

PROGRAMME: M.PHIL.PSYCHOLOGY

PROGRAM EDUCATIONAL OBJECTIVES

PEO-1: To produce scholars with aptitude for research and analytical abilities, who are well-equipped to engage in doctoral research, as well as find employment in industry and the public service in relate fields.

PEO-2: To attain professional knowledge and practice to work in different fields of Psychology and also can become entrepreneur in their own establishments.

PROGRAM OUTCOME

The student will be able to:

PO 1:Demonstrate familiarity with the major concepts, theoretical perspectives, empirical findings, and historical trends in psychology.

PO 2: Equip with vital knowledgenecessary to critically examine the background literature relevant to conduct rigorous psychological research

PO 3: Understand and apply basic research methods in psychology, including research design, data analysis and interpretation.

PO 4:Develop the knowledge and skills to engage in ethical research and practice.

PO 5: Show competence and the ability to use computers and other technology to conduct independent research in academic and/or applied settings.

PO 6:Demonstrate professional ethics, commitments and skills to engage in ethical research and in all aspects of professional practice.

PO 7: Develop the knowledge and skills to engage diversity and inclusion in psychological science.

PO 8: Develop the knowledge and skills to remain abreast of latest advancements and issues in their respective areas of research/interest.

PO 9:Develop strong written and oral skills to to communicate effectively in a variety of formats.

PO10:Use critical and creative thinking, develop an attitude of inquiry and, when possible, the scientific approach to solve problems related to behavior and mental processes necessary for professional development.

MAPPING OF PEO'S WITH PO'S

	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10
PEO-1	X	X	X	X	X	X	X	X	X	X
PEO-2	X			X	X	X	X			X

FIRST SEMESTER

MPHSPS 101 RESEARCH METHODOLOGY AND STATISTICS

COURSE OUTCOMES

At the end of the course, the student will be able to:

CO 1 Understand and apply appropriate research methods in psychology, including research design, data analysis, and interpretation in their research work.

CO 2 Examine and collect relevant literature and apply scientific methods and techniques in research work

CO3 Exhibit competency, acquire critical knowledge relate to their current research, able to use critical thinking to evaluate and interpret evidence.

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1	1	1	1	1	1		1	1		1
2	1	2	1	1	2	2	1	1	1	1
3		2			1	1			2	

01 - Low Level of Relevance

02 - Moderate Level of Relevance

03 - High Level of Relevance

MPHS17102 - AREA OF SPECIALIZATION – APPLIED PSYCHOLOGY

COURSE OUTCOMES

At the end of the course, the student will be able to:

CO 1 Demonstrate familiarity, and apply major concepts, theoretical perspectives, empirical findings, historical trends and the core domains of psychology.

CO 2 Learn the theories, applications and principles of the core areas of their research study undertaken.

CO 3 Gain information related to their allied and supplementary areas of their research study undertaken, including methodologies adopted, assessment patterns and statistical tool.

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1	1		1				2	1		1
2	1	2	2	1	1	1	1	1	1	2
3		1	2	1	2	1	1	1	2	2

01 - Low Level of Relevance

02 - Moderate Level of Relevance

03 - High Level of Relevance

SECOND SEMESTER
MPHSPS 201 - AREA OF DISSERTATION

COURSE OUTCOMES

At the end of the course, the student will be able to:

CO 1 Understand and apply psychological principles to personal, social, and organizational issues.

CO 2 Develop the knowledge and skills to engage in ethical research with recognition, understanding, and respect for complexity of sociocultural and ethical diversity.

CO 3 Have effective oral communication skills to disseminate research and scholarly activities like journal publications and conference proceedings

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1	1	1	2	1		1	1	1	1	1
2		2		1		1	2		2	
3			1			1	1	2	2	1

01 - Low Level of Relevance

02 - Moderate Level of Relevance

03 - High Level of Relevance

MPHPHY202 - COMPUTER OPERATION-COMMUNICATION & EDUCATIONAL SKILLS

COURSE OUTCOMES

At the end of the course, the student will be able to:

CO 1 Demonstrate competency and the ability to use computers and other technology to accomplish various tasks in research.

CO 2 Apply appropriate tools to present accurate information in an effective manner.

CO 3 Demonstrate critical and innovative thinking and display competence in oral, written communication.

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1								1	1	2
2		1			1					1
3	2	2			1					2

01 - Low Level of Relevance

02 - Moderate Level of Relevance

03 - High Level of Relevance

MPHPSY 203 – DISSERTATION

Students are required to submit a dissertation at the end of the year. The dissertation shall embody the record of original investigation under the guidance of a supervisor.

COURSE OUTCOMES

At the end of the course, the student will be able to:

CO 1 Identify a research problem in the area of interest and apply basic research methods in psychology

CO 2 Planning and implementation of techniques to solve their research problem.

CO 3 Ability to gather related literature, collect, analyse data and present findings in effective scientific manner.

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1	1	2	1	1	2	1	1	1	1	1
2		1						2		
3		2		1	1	1		1	1	1

01 - Low Level of Relevance

02 - Moderate Level of Relevance

03 - High Level of Relevance

PROGRAMME: M.PHIL -SPORTS PSYCHOLOGY AND SOCIOLOGY

PROGRAM EDUCATIONAL OBJECTIVES

PEO-1: To produce scholars with aptitude for research and analytical abilities, who are well-equipped to engage in doctoral research, as well as can find employment in industry and the public service related to Sports Psychology and Sociology

PEO-2: To attain professional knowledge and practice to work in different fields of Sports Psychology and Sociology and also can become entrepreneur in their own establishments.

PROGRAM OUTCOME

The student will be able to:

- PO 1:** Demonstrate familiarity with the major concepts, theoretical perspectives, empirical findings, and historical trends in Sports Psychology and Sociology.
- PO 2:** Equip with vital knowledge necessary to critically examine the background literature relevant to conduct rigorous research in Sports Psychology and Sociology.
- PO 3:** Understand and apply basic research methods in Sports Psychology and Sociology, including research design, data analysis and interpretation.
- PO 4:** Develop the knowledge and skills to engage in ethical research and practice.
- PO 5:** Show competence and the ability to use computers and other technology to conduct independent research in academic and/or applied settings.
- PO 6:** Demonstrate professional ethics, commitments and skills to engage in ethical research and in all aspects of professional practice.
- PO 7:** Develop the knowledge and skills to engage diversity and inclusion in Sports Psycho-Sociological studies.
- PO 8:** Develop the knowledge and skills to remain abreast of latest advancements and issues in their respective areas of research/interest.
- PO 9:** Develop strong written and oral skills to communicate effectively in a variety of formats.
- PO 10:** Use critical and creative thinking, develop an attitude of inquiry and, when possible, the scientific approach to solve problems related to behaviour and mental processes necessary for professional development.

MAPPING OF PEO'S WITH PO'S

	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10
PEO-1	X	X	X	X	X	X	X	X	X	X
PEO-2	X			X	X	X	X			X

MPHSPS 101 RESEARCH METHODOLOGY AND STATISTICS

COURSE OUTCOMES

At the end of the course, the student will be able to:

CO 1 Understand and apply appropriate research methods in Sports Psychology and Sociology, including research design, data analysis, and interpretation in their research work.

CO 2 Examine and collect relevant literature and apply scientific methods and techniques in research work

CO3 Exhibit competency, acquire critical knowledge relate to their current research, able to use critical thinking to evaluate and interpret evidence.

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1	1	1	1	1	1		1	1		1
2	1	2	1	1	2	2	1	1	1	1
3		2			1	1			2	

01 - Low Level of Relevance

02 - Moderate Level of Relevance

03 - High Level of Relevance

MPHSPS 102 - SPORTS PSYCHOLOGY AND SOCIOLOGY

COURSE OUTCOMES

At the end of the course, the student will be able to:

CO 1 - Demonstrate familiarity, and apply major concepts, theoretical perspectives, empirical findings, historical trends and the core domains of Sports Psychology and Sociology.

CO 2 Learn the theories, applications and principles of the core areas of their research study undertaken.

CO 3 Gain information related to their allied and supplementary areas of their research study undertaken, including methodologies adopted, assessment patterns and statistical tool.

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1	1		1				2	1		1
2	1	2	2	1	1	1	1	1	1	2
3		1	2	1	2	1	1	1	2	2

01 - Low Level of Relevance

02 - Moderate Level of Relevance

03 - High Level of Relevance

MPHSPS 201 - AREA OF DISSERTATION

COURSE OUTCOMES

At the end of the course, the student will be able to:

- CO 1 Understand and apply principles of Sports Psychology and Sociology to personal, social, and organizational issues in individual and team sports.
- CO 2 Understand and apply principles of Sports Psychology and Sociology to personal, social, and organizational issues in individual and team sports..
- CO 3 Have effective oral communication skills to disseminate research and scholarly activities like journal publications and conference proceedings

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1	1	1	2	1		1	1	1	1	1
2		2		1		1	2		2	
3			1			1	1	2	2	1

- 01 - Low Level of Relevance
- 02 - Moderate Level of Relevance
- 03 - High Level of Relevance

**MPHSPS 202 COMPUTER OPERATIONS, COMMUNICATIONS AND
EDUCATIONAL SKILLS**

COURSE OUTCOMES

CO 1 Demonstrate competency and the ability to use computers and other technology to accomplish various tasks in research.

CO 2 Apply appropriate tools to present accurate information in an effective manner.

CO 3 Demonstrate critical and innovative thinking and display competence in oral, written communication.

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1								1	1	2
2		1			1			1		1
3	2	2			1			1		2

01 - Low Level of Relevance

02 - Moderate Level of Relevance

03 - High Level of Relevance

MPHSPS 203 DISSERTATION

Students are required to submit a dissertation at the end of the year. The dissertation shall embody the record of original investigation under the guidance of a supervisor.

COURSE OUTCOMES

At the end of the course, the student will be able to:

CO 1 Identify a research problem in the area of interest and apply basic research methods in Sports Psychology and Sociology

CO 2 Planning and implementation of techniques to solve their research problem.

CO 3 Ability to gather related literature, collect, analyse data and present findings in effective scientific manner.

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1	1	2	1	1	2	1	1	1	1	1
2		1						2		
3		2		1	1	1		1	1	1

01 - Low Level of Relevance

02 - Moderate Level of Relevance

03 - High Level of Relevance

M.SC. PSYCHOLOGY

PROGRAM EDUCATIONAL OBJECTIVES

PEO-1: To produce students with effective interpersonal skills and psycho-social skills to help individual to excel in the chosen profession

PEO-2: To enable the student to articulate the skill sets desired by employers who hire or select people who demonstrate the knowledge of Psychology.

PROGRAM OUTCOME

The student will be able to:

PO1 Demonstrate fundamental knowledge and comprehension of the major concepts, and theoretical perspectives.

PO2: Understand the application of psychological theories in real life situations

PO3. Analyse the influence of psychological factors on mental processes and human behaviour.

PO4. Articulate a sound psychological approach to enhance performance to work effectively with diverse individual and groups

PO5 Demonstrate professional ethics and commitment in all aspects of professional practice.

PO6 Carry out researches on various domains of psychology.

PO7 Develop critical thinking and applies strategy on solving emotional and social problems in daily situations.

PO8 Plan to communicate to formulate effective arguments for report writing/presentation.

PO9 Relate to society by contributing by community engagement and justify to be a responsible global citizen

PO10 Focus on the professional realities of working as a psychologist.

MAPPING OF PEO'S WITH PO'S

	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10
PE0-1				X	X		X	X	X	X
PEO-2	X	X	X	X	X	X	X	X	X	X

FIRST SEMESTER					
Paper Code	Paper Title	L	T	P	Credits
PPY18CT101	Advanced General Psychology	4	0	0	4
PPY18CT102	Biological Basis of Behaviour	4	0	0	4
PPY18CT103	Research Methodology	4	0	0	4
PPY18CP104	Psychological Testing I	0	0	10	5
	DSE - Elective I	4	0	0	4
	Communication Skills (AEC I)	2	0	0	2
Total		23			
SECOND SEMESTER					
Paper Code	Paper Title	L	T	P	Credits
PPY18CT201	Life Span Development	4	0	0	4
PPY18CT202	Psychopathology – I	4	0	0	4
PPY18CT203	Behavioural Statistics	4	0	0	4
PPY18CP204	Psychological Testing & Assessment – II	0	0	10	5
	DSE - Elective II	4	0	0	4
	Fundamentals of Information and Technology (SEC)	2	0	0	2
	NSS / Community Engagement - Co curricular	0	0	0	2
Total		25			

THIRD SEMESTER					
Paper Code	Paper Title	L	T	P	Credits
PPY18CT301	Advanced Social Psychology	4	0	0	4
PPY18CT302	Guidance and Counselling	4	0	0	4
PPY18CT303	Psychopathology – II	4	0	0	4
	Case Studies & Project Work	0	0	0	4
	DSE - Elective III	4	0	0	4
	Generic Elective I	4	0	0	4
	Life Skills Management (AEC II)	2	0	0	2
	Village Placement Program – Co curricular	0	0	0	2
	Total	28			
FOURTH SEMESTER					
Paper Code	Paper Title	L	T	P	Credits
PPY18CT401	School Psychology	4	0	0	4
PPY18CT402	Organizational Behaviour	4	0	0	4
PPY18CT403	Training and Development	4	0	0	4
PPY18CT404	Thesis	0	0	0	6
	DSE - Elective IV	4	0	0	4
	Generic Elective II	4	0	0	4
Total		26			

FIRST SEMESTER
PPY18CT101 - ADVANCED GENERAL PSYCHOLOGY

COURSE OUTCOMES

At the end of the course, the student will be able to:

1. Apply conceptual knowledge of the core areas of sensory process, perception, learning, intelligence and personality in Psychological context.
2. Examine the knowledge related to the approaches used in the field of psychology to understand human behaviour and mental process.
3. Will be able to relate behavioural issues through theoretical approaches and methods ethically by contributing to society as a responsible citizen.

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1		2	1	1			2	1		
2	1	1		2	1		1		1	1
3		1	1	1	2		2	2	1	1

- 01 - Low Level of Relevance
- 02 - Moderate Level of Relevance
- 03 - High Level of Relevance

PPY18CT102 - BIOLOGICAL BASIS OF BEHAVIOUR

COURSE OUTCOMES

At the end of the course, the student will be able to:

1. Understand the basics of biopsychology; examine the relationship of behaviour with respect to individual physiology.
2. Analyze factors that influence on individual health and employ ways and means to optimise the same.
3. Relate the role of the brain in human performance and apply psychological techniques and theories to human performance within diverse population

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1		2		1			1	2		
2		1		2			1	1		
3	1	2	2				2	2	2	2

- 01 - Low Level of Relevance
- 02 - Moderate Level of Relevance
- 03 - High Level of Relevance

PPY18CT103- RESEARCH METHODOLOGY

COURSE OUTCOMES

At the end of the course, the student will be able to:

- . 1. Illustrate basic and applied research to address issues in psychology.
2. Understand and apply basic research methods in psychology, including research design, data analysis, and interpretation
3. Examine the importance of the use of statistical analyses and reporting of results in research publications.

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1		2	1		2	2		2		
2		2		2		2		1		
3	1	1			2	2		1	1	

01 - Low Level of Relevance

02 - Moderate Level of Relevance

03 - High Level of Relevance

PPY18CP104 - PSYCHOLOGICAL TESTING AND ASSESSMENT- I

COURSE OUTCOMES

At the end of the course, the student will be able to:

1. Critically access the information by administering the psychometric assessments to study human behaviour and mental processes.
2. Administers psychometric tools and interprets the evaluation of the basic psychometric tests and read and summarize general ideas and conclusions from psychological sources accurately.
3. Understand the ethical values of interpretation of the assessment tools.

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1	2			1			2	1		
2		2		1			2	2	1	2
3	1		1		2				2	2

01 - Low Level of Relevance

02 - Moderate Level of Relevance

03 - High Level of Relevance

SECOND SEMESTER
PPY18CT201 - LIFE SPAN DEVELOPMENT

COURSE OUTCOMES

At the end of the course, the student will be able to:

- Critically assess information related to different developmental processes in a life span of a person.
- List and evaluate the differences between the various methods of investigation used in developmental studies and the relationship between physiology, cognition, and emotion in the different developmental stages.
- Identify and evaluate factors affecting the physical, social, emotional, psychological, and intellectual development of children, adolescents and aged.

• MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1	2			1			2	1		
2		2		1			2	2	1	2
3	1		1		2				2	2

- 01 - Low Level of Relevance
- 02 - Moderate Level of Relevance
- 03 - High Level of Relevance

PPY18CT202 – PSYCHOPATHOLOGY -I

COURSE OUTCOMES

At the end of the course, the student will be able to:

1. Understand the basics of the biological, psychological, behavioural, cognitive, humanistic-existential and sociocultural models of abnormal behaviour and its influence on individual.
2. Analyse the different systems of classifications of maladaptive behaviour
3. Develop critical thinking and apply strategies on solving the emotional, behavioural and other psychopathological issues that affect people.

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1	2		1	1			1			
2			1	2	1	1		1		
3	1	2	2				2	2	2	2

01 - Low Level of Relevance

02 - Moderate Level of Relevance

03 - High Level of Relevance

PPY18CT203 – BEHAVIORAL STATISTICS

COURSE OUTCOMES

At the end of the course, the student will be able to:

1. Understand the basics of organize, manage, present data, describe and discuss the key terminology, concepts tools and techniques used in business statistical analysis.
2. Critically evaluate the underlying assumptions of analysis tools and discuss the issues surrounding sampling and significance
3. To develop the ability to deal with numerical and quantitative issues in behavioural sciences and effective use of statistical and graphical techniques wherever relevant in their research.

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1		2		1		1	1			
2		1		2	1	2	1	1		
3	1		2	2	1	2	1	1		

01 - Low Level of Relevance

02 - Moderate Level of Relevance

03 - High Level of Relevance

PPY18CP204 - PSYCHOLOGICAL TESTING - II

COURSE OUTCOMES

At the end of the course, the student will be able to:

1. Critically assess the information by administering the psychometric assessments to study human behaviour and mental processes and also forms conclusions and arguments
2. Administers psychometric tools and interprets the evaluation for framing the strategy to improve the sports performance and mental health of the athlete
3. To develop the ability to deal with numerical and quantitative issues in behavioural sciences and effective use of statistical and graphical techniques wherever relevant in their research.

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1		2		1		1	1			
2		1		2	1	2	1	1		
3	1		2	2	1	2	1	1		

- 01 - Low Level of Relevance
02 - Moderate Level of Relevance
03 - High Level of Relevance

THIRD SEMESTER

PSP18CT301: FUNDAMENTALS OF COUNSELING SKILLS

COURSE OUTCOMES

At the end of the course, the student will be able to:

1. Understand the basics of psychological principles; professional and ethical practice in the role of counsellor in various settings.
2. Develop knowledge on career assessments related to interests, personality, values, and career development.
3. Describe the role that human growth and development in counselling interventions and gain ability for appropriate modification made in a multicultural society.

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1		2	1	2	1		1	2		
2		1		2	1	1	1	1		
3	1	2	2		1	1	2	1	1	1

- 01 - Low Level of Relevance
- 02 - Moderate Level of Relevance
- 03 - High Level of Relevance

PY18CT302 - ADVANCED SOCIAL PSYCHOLOGY

COURSE OUTCOMES

At the end of the course, the student will be able to:

1. Understand the fundamental principles, major theories, concepts and perspectives in the field of social psychology.
2. Compare and contrast the major theories, concepts, empirical findings, methods and techniques used in social psychology
3. Integrate different perspectives discussed in class to explain social behavior in humans.

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1	1	2		1		1	1			
2		2		2	1	2	1	1		
3			2	1	1	2			2	2

- 01 - Low Level of Relevance
- 02 - Moderate Level of Relevance
- 03 - High Level of Relevance

PPY18CT 303 - PSYCHOPATHOLOGY – II

COURSE OUTCOMES

At the end of the course, the student will be able to:

1. Critically assess the information by administering the psychometric assessments to study human behaviour and mental processes and also forms conclusions and arguments
2. Administers psychometric tools and interprets the evaluation for framing the strategy to improve the sports performance and mental health of the athlete
3. To develop the ability to deal with numerical and quantitative issues in behavioural sciences and effective use of statistical and graphical techniques wherever relevant in their research.

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1		2		1		1	1			
2		1		2	1	2	1	1		
3	1		2	2	1	2	1	1		

- 01 - Low Level of Relevance
02 - Moderate Level of Relevance
03 - High Level of Relevance

PSO18AEC02 – LIFE SKILLS MANAGEMENT(ACE II)
COURSE OUTCOMES

At the end of the course, the student will be able to:

- Demonstrate fundamental knowledge and comprehension of the major concepts, to discuss psychological principles to building life skill.
- Develop and exhibit and accurate sense of self, nurture a deep understanding of personal motivation.
- Understand and practice personal and professional responsibility,strengthen personal character and enhance ethical sense

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1		1	2	1			1	2	1	
2	1	2	1	2	1		1	2		
3		2	1	2		1	1	1	1	1

- 01 - Low Level of Relevance
- 02 - Moderate Level of Relevance
- 03 - High Level of Relevance

FOURTH SEMESTER

SP18CT401: COUNSELING AND BEHAVIOR MODIFICATION

COURSE OUTCOMES

At the end of the course, the student will be able to:

1. Understand theories and practices related to human development across the lifespan, goals, principles and ethics involved in counselling
2. Assess and analyse behavioural issues within day-to-day context and come up with effective strategies to resolve conflicts.
3. Recommend techniques and training to enhance mental health, building, maintaining, and utilizing counselling relationships to address mental health issues and meet client goals.

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1		1	1	1			1	2		
2		1		2	1	1	1	1		
3	1					1	2	2		

01 - Low Level of Relevance

02 - Moderate Level of Relevance

03 - High Level of Relevance

PPY18CT402: ORGANIZATIONAL BEHAVIOUR

COURSE OUTCOMES

At the end of the course, the student will be able to:

1. Acquire and develop skill to take rational decisions in the process of O.B. People have always been regarded as important in managing organizations.
2. Critically evaluate the human aspects are critical in each functional aspects of management and equally so for the effective utilization of resources and analyze the complexities associated with management of the group behavior in the organization.
3. Demonstrate how the organizational behavior can integrate in understanding the motivation behind behavior of people in the organization

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1		2		1		2	1			
2		2		1	1	1	1	1	2	
3	1		2	2	1	2	1	1	2	1

- 01 - Low Level of Relevance
- 02 - Moderate Level of Relevance
- 03 - High Level of Relevance

PPY18CT403 - TRAINING AND DEVELOPMENT

COURSE OUTCOMES

At the end of the course, the student will be able to:

1. Understand the explain the role of training and development in human resources management and describe the psychology of the learning process in training and development process.
2. Critically evaluate the different process of assessment, design and implement various methods, techniques and sources of training.
3. To develop the students' ability to evaluate the value of the training once completed from the individual and the organization's viewpoint

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1		2		1		1	1			
2		1		2	1	2	1	1		
3	1		2	2	1	2	1	1	2	

- 01 - Low Level of Relevance
- 02 - Moderate Level of Relevance
- 03 - High Level of Relevance

PPY18CT404 - THESIS

Students are required to submit a thesis at the end of the year. The thesis shall embody the record of original investigation under the guidance of a supervisor.

COURSE OUTCOMES

At the end of the course, the student will be able to:

- 1 Enabling the students to identify a problem in their area of interest and finding ways in tackling and solving the problem
- 3 Gathering related literature and analyzing data pertaining to their study
- 4 - Gaining appropriate scientific writing skills.

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1	2	1	2							
2		1	1		2				2	
3		3	1	1	2				1	

- 01 - Low Level of Relevance
- 02 - Moderate Level of Relevance
- 03 - High Level of Relevance

List of discipline Specific Electives

Paper Code	PAPER TITLE
PPY18DSE01	Managerial Psychology
PPY18DSE02	Social Problems and Issues
PPY18DSE03	Classroom Psychology
PPY18DSE04	Psychometrics
PPY18DSE05	MARKETING AND CONSUMER BEHAVIOUR
PPY18DSE06	Psychology of Interpersonal Relationship
PPY18DSE07	Coping with Stress
PPY18DSE08	Positive Psychology

PPY18DSE01 - MANAGERIAL PSYCHOLOGY

COURSE OUTCOMES

At the end of the course, the student will be able to:

1. Understand the basic psychological principles in the organisation hierarchy which focuses on the efficacy of individuals, groups and organizations in the workplace.
2. Critically evaluate the underlying assumptions of analysis tools and discuss the issues surrounding sampling and significance of psychological patterns among individuals and groups in a way that will benefit the organisation.
3. To develop ability to identify skills, motivate, develop and persuade others, train and screen job applicants, assist with organizational development, and consult with corporations on a problem-solving basis.

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1		2		1		1	1			
2		1		2	1	2	1	1		2
3	1		2	2	1	2	1	1	2	

- 01 - Low Level of Relevance
- 02 - Moderate Level of Relevance
- 03 - High Level of Relevance

PPY18DSE02 - SOCIAL PROBLEMS AND ISSUES

COURSE OUTCOMES

At the end of the course, the student will be able to:

1. Understand the basics of sociological perspective to the study of social problems, including their identification, analyses of causes and consequences of issues existing in society
2. Critically evaluate the underlying assumptions of topics such as inequality, poverty, crime and delinquency, substance abuse, discrimination, domestic violence, the environment, global stratification, and international conflict
3. Analyse the causes and consequences of social problems and participate as active citizens in their societies and communities, demonstrating respect for diversity, critical thinking, and collaboration in problem-solving.

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1		2		1		1	1			
2		1		1	1	1	2		1	2
3	1		1	2	1		1		2	2

01 - Low Level of Relevance

02 - Moderate Level of Relevance

03 - High Level of Relevance

PPY18DSE03: CLASSROOM PSYCHOLOGY

COURSE OUTCOMES

At the end of the course, the student will be able to:

1. Understand the basics about both general and special education, school systems and structures other educational and related services; understand schools and other settings as systems.
2. Exhibit the ability to work with individuals and groups to facilitate practices that create and maintain safe and effective learning environments for children and others.
3. Assess learning and scored in a standardized fashion and systematically collects and disseminates information essential to data-based decision-making process.

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1	2	2		1		1	1			1
2		1	1	1	1	1	1	1	1	
3	1		2	2	1	2	1	1	2	1

01 - Low Level of Relevance

02 - Moderate Level of Relevance

03 - High Level of Relevance

PSP18DSE04: PSYCHOMETRICS

COURSE OUTCOMES

At the end of the course, the student will be able to:

1. Understand the basics of psychological measurement and tests; examine the relation to psychometrics and its importance in research.
2. Analyze the difference between psychological tests and psychometric tests
3. Recommend appropriate tools in accordance with reliability and validity and other guidelines to be followed in different settings.

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1	1		2	1			1	1		
2				2	1		1	1		
3	1	1	2			2		1	1	2

01 - Low Level of Relevance

02 - Moderate Level of Relevance

03 - High Level of Relevance

PSP18DSE05:MARKETING AND CONSUMER BEHAVIOUR

COURSE OUTCOMES

At the end of the course, the student will be able to:

1. Understand the basics of marketing management and strategies.
2. Analyzetheneed and development of new product
3. Recommend appropriate measures to study influences on consumer behaviour and enhance marketing.

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1	1	2		1			1	1	1	
2			2	2	1		1	1		
3	1	1	2			1		1	1	1

01 - Low Level of Relevance

02 - Moderate Level of Relevance

03 - High Level of Relevance

**PPY18DSE05 - PSYCHOLOGY OF INTERPERSONAL
RELATIONSHIP
COURSE OUTCOMES**

At the end of the course, the student will be able to:

1. Understand the basics of theories and practice in verbal and nonverbal communication with a focus on interpersonal relationships.
2. Critically evaluate the underlying assumptions of analysis tools of communication to express feelings, to imagine, to influence, and to meet social expectations.
3. To develop ability of competent communication in interpersonal interactions, to understand how and why relationships develop, to practice effective conflict management techniques.

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1		2		1			1			
2		1		2	1		1	1		
3	1		2	2	1		1	1	2	

- 01 - Low Level of Relevance
- 02 - Moderate Level of Relevance
- 03 - High Level of Relevance

PPY18DSE06: COPING WITH STRESS

COURSE OUTCOMES

At the end of the course, the student will be able to:

1. Acquire an in-depth knowledge of coping process and its effect on emotional mental and behavioural aspects of an individual.
2. Develop mechanisms to cope with stress and attempt to overcome or diminish the amount of stress experienced.
3. Using research in finding conventional methods to focus on the stressor itself, using evidence-based approaches to either removing or coming to terms with the stressful situation.

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1		1	2	1			1	1	1	
2		1	1	1			1	1	1	
3		1	2	1		1	1	2	1	

01 - Low Level of Relevance

02 - Moderate Level of Relevance

03 - High Level of Relevance

PPY18DSE07- POSTIVE PSYCHOLOGY

COURSE OUTCOMES

At the end of the course, the student will be able to:

1. Understanding of the aim and scope of positive psychology and implications to well-being
2. Critically evaluate the underlying assumptions of the science and application of positive psychology to biological, psychological, social and emotional outcomes
3. Apply core concepts of positive psychology and resiliency factors into their own lives and professional practice

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1		2		1		1		1		
2		1	2	1		2		1	1	
3	1		2	1	1		1	1	2	

01 - Low Level of Relevance

02 - Moderate Level of Relevance

03 - High Level of Relevance

PROGRAMME: M.Phil.

SPORTS PSYCHOLOGY

PROGRAM EDUCATIONAL OBJECTIVES

PEO-1: To produce scholars with aptitude for research and analytical abilities, who are well-equipped to engage in doctoral research, as well as can find employment in industry and the public service related to Sports Psychology.

PEO-2: To attain professional knowledge and practice to work in different fields of Sports Psychology and also can become entrepreneur in their own establishments.

PROGRAM OUTCOME

The student will be able to:

- PO 1:** Demonstrate familiarity with the major concepts, theoretical perspectives, empirical findings, and historical trends in Sports Psychology.
- PO 2:** Equip with vital knowledge necessary to critically examine the background literature relevant to conduct rigorous research in Sports Psychology.
- PO 3:** Understand and apply basic research methods in Sports Psychology, including research design, data analysis and interpretation.
- PO 4:** Develop the knowledge and skills to engage in ethical research and practice.
- PO 5:** Show competence and the ability to use computers and other technology to conduct independent research in academic and/or applied settings.
- PO 6:** Demonstrate professional ethics, commitments and skills to engage in ethical research and in all aspects of professional practice.
- PO 7:** Develop the knowledge and skills to engage diversity and inclusion in Sports Psychological studies.
- PO 8:** Develop the knowledge and skills to remain abreast of latest advancements and issues in their respective areas of research/interest.
- PO 9:** Develop strong written and oral skills to to communicate effectively in a variety of formats.
- PO 10:** Use critical and creative thinking, develop an attitude of inquiry and, when possible, the scientific approach to solve problems related to behaviour and mental processes necessary for professional development.

MAPPING OF PEO'S WITH PO'S

	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10
PEO-1	X	X	X	X	X	X	X	X	X	X
PEO-2	X			X	X	X	X			X

FIRST SEMESTER

MPHSPS 101 RESEARCH METHODOLOGY AND STATISTICS

UNIT I- Research: criteria for locating and selecting research problems - subjects, variables – Hypothesis – Limitation – Delimitation – Review of related literature. Requirements for quality research and experimental control – Application of research findings for excellence in sports.

UNIT II- Research Design: Meaning, Significance and Criteria for selecting suitable research design: Quasi experiment – Cross sectional design – longitudinal design – Double blind placebo design – repeated measures design – rotated group design – Independent factorial design – mixed factorial design.

UNIT III- Research Laboratory: Methods of finding instrument, tester and subject reliability - Construction Standardization and adaptation of Sports Questionnaire. Sampling – Types of Sampling, sampling techniques – Tools of Data collection – Interview schedule – Survey Method – Mechanism of Writing Research Proposal - Mechanism of Writing Research Report – Synopsis – Abstract – Bibliography – Preliminary and End Pages.

UNIT IV- Introduction to statistics: Types, classification and basic concepts of statistics – measures of central tendency – measures of variability – Normal probability curve – properties of normal curve – Problems based on Normal curve – Testing of hypothesis – Problems based on t Test and Normal.

UNIT V- Need for analysis of variance: One way analysis of variance – Two way analysis of variance – Analysis of Covariance – Concepts of Correlation - Rank order correlation - Partial and Multiple Correlation – Biserial Correlation – Chi Square – Contingency Coefficient – Mann Whitney U test – Kruskal Wallis H Test.

REFERENCES:

1. Clarke David. H and Clarke H. Harrison (1984) *Research process in Physical Education*, New Jersey: Prentice Hall Inc.
2. Best, John W. and Kalm James, V. (1980) *Research in Education*, New Delhi: Prentice Hall of India.

3. Kothari C.R. (1985) **Research Methodology** 2nd revised ed., New Age International, Publisher; New Delhi.

COURSE OUTCOMES

At the end of the course, the student will be able to:

CO 1 Understand and apply appropriate research methods in Sports Psychology, including research design, data analysis, and interpretation in their research work.

CO 2 Examine and collect relevant literature and apply scientific methods and techniques in research work

CO3 Exhibit competency, acquire critical knowledge relate to their current research, able to use critical thinking to evaluate and interpret evidence.

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1	1	1	1	1	1		1	1		1
2	1	2	1	1	2	2	1	1	1	1
3		2			1	1			2	

01 - Low Level of Relevance

02 - Moderate Level of Relevance

03 - High Level of Relevance

MPHS17102 - Area of Specialization - Applied Sports Psychology

Unit I-

Introduction: Definition, Nature and its Relationship with other sciences, Development, Scope of Sports Psychology, Motor Learning-Definition, Stages of Learning :Cognitive, Associative and Automotive Skills- Self Regulation and Bio-feedback modalities in Sports.

Unit II

Cognitive, Sensory and Motivational Process in Sports: Cognition: Definition, Characteristics of Cognitive Process in Sports, Attention and Perception: Definition, Ways of Focusing Attention, Importance of Perception in Sports. Motivation: Definition, Ways of Improving motivation in practice and Games, Motivating the self-motivated and problem athlete.

Unit III

Assessment of Psychological Factors for Enhancing Performance: Anger, Anxiety, Arousal and Aggression, Self Esteem, Emotion, Frustration, Locus of Control, Stress, Choking, Personality, Mood States.

Unit IV

Burn out – Athletes Burn out – Potential Causes of Burnout. Preventing Burnout – Coping: Stressor Appraisals – Psychological Preparation and Competition: Phenomenon of competitive sport, long term Psychological preparation for competition (arousal regulation, imagery, self-confidence, goal setting, concentration), short term psychological preparation (upcoming competition).

Unit V

Psychological Skills Training (PST) Definition, Importance of PST, Myths about PST, Psyching Up and Psyching Down strategies - Construction and Standardization of Sports Psychology Questionnaires, Procedures to use Psychological Questionnaire

Reference:

1. Weinberg, R. S, Gould D (2003) – Foundation of Sports & Exercise Psychology, 3rd Edition, Human Kinetics, South Australia.
2. Gurbakhsh S. Sandhu (2002)- Psychology in Sports _ A Contemporary Approach, Friends Publications, New Delhi.
3. Bierstedt. R. The Social Order, New Delhi: Tata McGraw Hill, 1970.
4. Fieher, J.H. Sociology 2nd Edition. London The University of Chicago Press. 1971.
5. Bottomore, T. B. Sociology- A Guide to Literature and Problems, New Delhi, Creavge Allen and Unwin (INDIA)

COURSE OUTCOMES

At the end of the course, the student will be able to:

CO 1 - Demonstrate familiarity, and apply major concepts, theoretical perspectives, empirical findings, historical trends and the core domains of Sports Psychology.

CO 2 Learn the theories, applications and principles of the core areas of their research study undertaken.

CO 3 Gain information related to their allied and supplementary areas of their research study undertaken, including methodologies adopted, assessment patterns and statistical tool.

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1	1		1				2	1		1
2	1	2	2	1	1	1	1	1	1	2
3		1	2	1	2	1	1	1	2	2

01 - Low Level of Relevance

02 - Moderate Level of Relevance

03 - High Level of Relevance

SECOND SEMESTER
MPHSPS 201 - AREA OF DISSERTATION

COURSE OUTCOMES

At the end of the course, the student will be able to:

- CO 1 Understand and apply principles of Sports Psychology to personal, social, and organizational issues.
- CO 2 Develop the knowledge and skills to engage in ethical research with recognition, understanding, and respect for complexity of sociocultural and ethical diversity.
- CO 3 Have effective oral communication skills to disseminate research and scholarly activities like journal publications and conference proceedings

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1	1	1	2	1		1	1	1	1	1
2		2		1		1	2		2	
3			1			1	1	2	2	1

- 01 - Low Level of Relevance
- 02 - Moderate Level of Relevance
- 03 - High Level of Relevance

MPHPSY202 - Computer Operation-Communication & Educational Skills

UNIT I - Basics of Computers – Hardware – Software – Networking Computers – LAN – WAN – Introduction to Internet – Internet Services – WWW – Sending Mail – Receiving Mail – Web Pages – Web Site – Web Server – Search Engines – Survey of Article / Literature using internet.

UNIT II - Word document – Creation – Formatting Features – Mail Merge – Find and Replace - Spelling Checkers – Spread Sheet - Simple Calculations - PowerPoint – Layouts – Audio – Video – image usages – with Power point – Data base – Creation – Primary Key and other constraints – Simple SQL statements – Create – insert – update – delete – select – commit – front end tools – connecting database using VB – Creating simple Graphical user interface applications using VB

UNIT III - What is communication - Role of communication in the present scenario – Barriers to communication - Types of communication – Written versus oral – Telephone Communication – Face to face interactions (situations) – Written – Letter Writing – Report Writing – Memo's – Note making - Agenda preparation.

UNIT IV - Soft Skills – Interview Skills – Preparing for an interview – Presentation Skills – Body Language - Speaking, Pronunciation, structuring of presentation, Group discussion – Skills in listening and expressing effectively.

UNIT V - Pedagogy: Meaning, Theories of pedagogy (Benjamin Bloom, Piaget, Indian educational theory (Gandhi) – Educational Psychology – Concept learning life skills of sex education – Intergrading skill development, modernizing education and skill development – Basic and higher education: Issues and challenges.

References:

1. *'Soft skills', university of madras, Chennai*
2. *'Communication skills', university of madras, Chennai*
3. *Mangal .S.K. (2002). Advanced Educational psychology, prentice hall of India, New Delhi.*
4. *Sampath .K etal (1998) introduction to educational technology, sterling publishers, New Delhi.*

5. keemar. K. (1997) *Educational technology*, New Age international publishers, New Delhi.
6. kuppusamy.B (1984). *Advanced educational psychology*, Sterling Publishers, New Delhi.

COMPUTER OPERATIONS – SYLLABUS - PRACTICALS

1. MS – WORD

1. Create advertisement in MS WORD
2. To illustrate the concept of mail merging in word.
3. Document creation with scientific rotation
4. Text manipulation with scientific rotation
5. Table creation, table formatting and conversion.
6. Mail Merger and letter preparation
7. Drawing and Flow Chart.
8. Show the different effect for the given text in the document.
9. Create a table of employee and calculate the next salary.
10. Design a table with merge cells and split cells technique.

2. SPREAD SHEET

11. To create a Spread Sheet to analyze the marks of the students in a class and to create appropriate charts.
12. Charts in Spread Sheets
13. Formula and Formula Editor
14. Inclusion of objects, pictures and graphics protecting the document and sheet.
15. Sorting and import/ export features.
16. Create suitable chart to show the census data in Indian Sports.
17. Create a suitable chart to show the students average in the class.
18. Create an electronic spread sheet of marks, and find the total, average occurred in a calculation.
- 19.
20. Generate the numbers vertically starting from 10 to 100 with step value 5.

3. POWER POINT

21. To create the presentation for the department using the power point.
22. Animation in Power point Presentation
23. Designing the Power point Presentation
24. Timing for the slides in Power point Presentation
25. Back ground designing in Power point Presentation
26. Designing the Power point Presentation using audio and Video.

4. INTERNET LAB

27. Browsing a Web Site.
28. Composing and Sending a Mail
29. Forwarding and replying to mails.
30. Downloading Articles / Web content.
31. Literature survey using search enquires

5. DBMS LAB

32. Creation of database table with constraints
33. Modification of data in a table.
34. 28 GUI applications using VB (Single calculator, dollar conversion etc)
35. Database Applications using VB (insert, update, delete).

REFERENCES:

1. Peter Norton, "Introduction to Computers", 6th Edition, Tata Mcgraw Hill.
2. Ashok N. Kamthane, "Computer Programming", Pearson Education India.
3. Groff Weinberg, "The complete Reference SQL", 2nd Edition, Tata Mcgraw Hill.
4. Bottm Special Edition using Microsoft Office 2007, Pearson Education India.
5. Gray W. Harson and James V Harson (1996) Data Base Management and Design, Prentice Hall
6. Jeffrey A Hotter, Mary B Prescolt, Fred R. Medadden (2002), Modern database Management, Prentice Hall.
7. Robert I T Futrell, Donald F. shafer Linda, (2002) Quality software project management Pearson Education, Asia.

8. *Chandran S.S. (1985) Innovations in Teaching Learning Process, New Delhi : Vikas Publishing House.*
9. *Rajasekar .S (2005) Computer Education and Educational Computing, Hyderabad: Neelkamal Publications.*

COURSE OUTCOMES

At the end of the course, the student will be able to:

CO 1 Demonstrate competency and the ability to use computers and other technology to accomplish various tasks in research.

CO 2 Apply appropriate tools to present accurate information in an effective manner.

CO 3 Demonstrate critical and innovative thinking and display competence in oral, written communication.

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1								1	1	2
2		1			1					1
3	2	2			1					2

01 - Low Level of Relevance

02 - Moderate Level of Relevance

03 - High Level of Relevance

MPHPSY 203 – Dissertation

Students are required to submit a dissertation at the end of the year. The dissertation shall embody the record of original investigation under the guidance of a supervisor.

COURSE OUTCOMES

At the end of the course, the student will be able to:

CO 1 Identify a research problem in the area of interest and apply basic research methods in Sports Psychology

CO 2 Planning and implementation of techniques to solve their research problem.

CO 3 Ability to gather related literature, collect, analyse data and present findings in effective scientific manner.

MAPPING OF POs WITH COs

COURSE OBJECTIVES	PROGRAM OBJECTIVES									
	1	2	3	4	5	6	7	8	9	10
1	1	2	1	1	2	1	1	1	1	1
2		1						2		
3		2		1	1	1		1	1	1

01 - Low Level of Relevance

02 - Moderate Level of Relevance

03 - High Level of Relevance

PROGRAM SPECIFIC OUTCOME-PSYCHOLOGY

PSO-I	Graduates will be able to analyse, articulate and enable the individuals to understand their behavior and managing them to lead a better living.
PSO-2	Graduates will be able to create positive changes by empowered and diversified approaches towards the promotion of health and wellness.

FIRST SEMESTER

PPY18CT101- Advanced General Psychology

CO1	Apply conceptual knowledge of the core areas of sensory process, perception, learning, intelligence and personality in Psychological context.
CO2	Examine the knowledge related to the approaches used in the field of psychology to understand human behaviour and mental process.
CO3	Will be able to relate behavioural issues through theoretical approaches and methods ethically by contributing to society as a responsible citizen

PSO CO	PSO1	PSO2
CO1	1	
CO2		1
CO3		1

PPY18CT102 Biological Basis of Behaviour

CO1	Understand the basics of biopsychology; examine the relationship of behaviour with respect to individual physiology
CO2	Analyze factors that influence on individual health and employ ways and means to optimise the same
CO3	Relate the role of the brain in human performance and apply psychological techniques and theories to human performance within diverse population

PSO CO	PSO1	PSO2
CO1	1	
CO2	1	
CO3		1

PPY18CT103 Research Methodology

CO1	Illustrate basic and applied research to address issues in psychology.
CO2	Understand and apply basic research methods in psychology, including research design, data analysis, and interpretation
CO3	Examine the importance of the use of statistical analyses and reporting of results in research publications

PSO CO	PSO1	PSO2
CO1	1	
CO2	1	
CO3	1	

PPY18CP104 Psychological Testing I

CO1	Critically access the information by administering the psychometric assessments to study human behaviour and mental processes.
CO2	Administers psychometric tools and interprets the evaluation of the basic psychometric tests and read and summarize general ideas and conclusions from psychological sources accurately
CO3	Understand the ethical values of interpretation of the assessment tools.

PSO CO	PSO1	PSO2
CO1	1	
CO2	1	
CO3	1	

SECOND SEMESTER

PPY18CT201 Life Span Development

CO1	Critically assess information related to different developmental processes in a life span of a person
CO2	List and evaluate the differences between the various methods of investigation used in developmental studies and the relationship between physiology, cognition, and emotion in the different developmental stages
CO3	Identify and evaluate factors affecting the physical, social, emotional, psychological, and intellectual development of children, adolescents and aged.

PSO CO	PSO1	PSO2
CO1	1	
CO2	1	
CO3	1	

PPY18CT202 Psychopathology – I

CO1	Understand the basics of the biological, psychological, behavioural, cognitive, humanistic-existential and sociocultural models of abnormal behaviour and its influence on individual
CO2	Analyse the different systems of classifications of maladaptive behaviour
CO3	Develop critical thinking and apply strategies on solving the emotional, behavioural and other psychopathological issues that affect people

PSO CO	PSO1	PSO2
CO1	1	
CO2	1	
CO3		1

PPY18CT203 Behavioural Statistics

CO1	Understand the basics of organize, manage, present data, describe and discuss the key terminology, concepts tools and techniques used in business statistical analysis.
CO2	Critically evaluate the underlying assumptions of analysis tools and discuss the issues surrounding sampling and significance
CO3	To develop the ability to deal with numerical and quantitative issues in behavioural sciences and effective use of statistical and graphical techniques wherever relevant in their research

PSO CO	PSO1	PSO2
CO1	1	
CO2	1	
CO3	1	

PPY18CP204 Psychological Testing & Assessment – II

CO1	Critically assess the information by administering the psychometric assessments to study human behaviour and mental processes and also forms conclusions and arguments
CO2	Administers psychometric tools and interprets the evaluation for framing the strategy to improve performance as the individual and group
CO3	To develop the ability to deal with numerical and quantitative issues in behavioural sciences and effective use of statistical and graphical techniques wherever relevant in their research.

PSO CO	PSO1	PSO2
CO1	1	
CO2	1	
CO3	1	

THIRD SEMESTER

PPY18CT301 fundamentals of Counseling Skills

CO1	Understand the basics of psychological principles; professional and ethical practice in the role of counsellor in various settings.
CO2	Develop knowledge on career assessments related to interests, personality, values, and career development.
CO3	Describe the role that human growth and development in counselling interventions and gain ability for appropriate modification made in a multicultural society.

PSO CO	PSO1	PSO2
CO1		1
CO2		1
CO3		1

PPY18CT302 Advanced Social Psychology

CO1	Understand the fundamental principles, major theories, concepts and perspectives in the field of social psychology
CO2	Compare and contrast the major theories, concepts, empirical findings, methods and techniques used in social psychology
CO3	Integrate different perspectives discussed in class to explain social behavior in humans

PSO CO	PSO1	PSO2
CO1	1	
CO2	1	
CO3	1	

PPY18CT303 Psychopathology – II

CO1	Understand the basics of the biological, psychological, behavioural, cognitive, humanistic-existential and sociocultural models of abnormal behaviour and its influence on individual.
CO2	Analyse the different systems of classifications of maladaptive behaviour
CO3	Develop critical thinking and apply strategies on solving the emotional, behavioural and other psychopathological issues that affect people.

PSO CO	PSO1	PSO2
CO1	1	
CO2	1	
CO3		1

FOURTH SEMESTER

PPY18CT401 Counseling and Behavior Modification

CO1	Understand theories and practices related to human development across the lifespan, goals, principles and ethics involved in counselling
CO2	Assess and analyse behavioural issues with in day-to-day context and come up effective strategies to resolve conflicts.
CO3	Recommend techniques and training to enhance mental health, building, maintaining, and utilizing counselling relationships to address mental health issues and meet client goals

PSO CO	PSO1	PSO2
CO1	1	
CO2		1
CO3		1

PPY18CT402 Organizational Behaviour

CO1	Acquire and develop skill to take rational decisions in the process of O.B. People have always been regarded as important in managing organizations
CO2	Critically evaluate the human aspects are critical in each functional aspects of management and equally so for the effective utilization of resources and analyze the complexities associated with management of the group behavior in the organization.
CO3	Demonstrate how the organizational behavior can integrate in understanding the motivation behind behavior of people in the organization

PSO CO	PSO1	PSO2
CO1		1
CO2		1
CO3		1

PPY18CT403 Training and Development

CO1	Understand the explain the role of training and development in human resources management and describe the psychology of the learning process in training and development process.
CO2	Critically evaluate the different process of assessment, design and implement various methods, techniques and sources of training.
CO3	To develop the students' ability to evaluate the value of the training once completed from the individual and the organization's viewpoint

PSO CO	PSO1	PSO2
CO1	1	
CO2	1	
CO3		1

PPY18CT404 Thesis

CO1	Enabling the students to identify a problem in their area of interest and finding ways in tackling and solving the problem
CO2	Gathering related literature and analyzing data pertaining to their study
CO3	Gaining appropriate scientific writing skills

PSO CO	PSO1	PSO2
CO1	1	
CO2	1	
CO3	1	

PROGRAM SPECIFIC OUTCOME - SPORTS PSYCHOLOGY AND SOCIOLOGY

PSO-I	Graduates will be able to analyse, articulate with concrete psycho-social skills, enabling the individuals to understand their behavior and managing them for enhanced sports performance.
PSO-2	Graduates will be able to create positive changes by empowered and diversified approaches towards the promotion of health and wellness.

FIRST SEMESTER

PPS18CT101 - Advanced General Psychology

CO1	Apply conceptual knowledge of the core areas of sensory process, perception, learning, intelligence and personality in Psychological context.
CO2	Examine the knowledge related to the approaches used in the field of psychology understand human behaviour and mental process.
CO3	Will be able to relate behavioural issues through theoretical approaches and methods ethically by contributing to society as a responsible citizen

PSO	PSO1	PSO2
CO		
CO1	1	
CO2		1
CO3		1

Pps18ct102: Introduction to Sports Sociology

CO1	Understand the basics of sociological phenomenon in relation to sports.
CO2	Analyze social issues with a commitment to social justice and intellectual diversity in the society.
CO3	Understand the role that sport has in society and how sport reciprocally influences society

PSO CO	PSO1	PSO2
CO1	1	
CO2		1
CO3		1

PPS18CT103: Research Methodology

CO1	Illustrate basic and applied research to address issues in psychology and sociology
CO2	Understand and apply basic research methods in psychology and sociology, including research design, data analysis, and interpretation
CO3	Examine the importance of the use of statistical analyses and reporting of results research publications.

PSO	PSO1	PSO2
CO		
CO1	1	
CO2	1	
CO3	1	

PPS18CP104: Psychological Testing-1

CO1	Critically assess the information by administering the psychometric assessments to study human behaviour and mental processes and also forms conclusions and arguments,
CO2	Administers psychometric tools and interprets the evaluation for framing the strategy improve the sports performance and mental health of the athlete.
CO3	Understand the ethical values of interpretation of the assessment tools.

PSO	PSO1	PSO2
CO		
CO1	1	
CO2	1	
CO3	1	

SECOND SEMESTER

PPS18CT201: Psychological Aspects of Sports Performance

CO1	Relate the knowledge of psychology to assist in treating a wide range of mental health issues commonly experienced by athletes and sports industry professionals in a clinical setting.
CO2	Examine the link between psychological features influencing athletic activity competitive sports.
CO3	Analyze how participation in sport influences the psychological make-up of those individuals involved in athletic competitions.

PSO	PSO1	PSO2
CO		
CO1	1	
CO2	1	
CO3	1	

PPS18CT202: Indian Social System and Sports

CO1	Understand multicultural Indian society, Indian sports, and the importance recreational activities in social life
CO2	Gain knowledge to promote talent in traditional sports in the social system considering the role of religion, culture and family
CO3	Understand the challenges faced by the sports professionals in India and the benefits Professional sports sociologist in improving the Indian social system.

PSO	PSO1	PSO2
CO		
CO1		1
CO2		1
CO3		1

PPPS18CT203: Social and Behavioural Statistics

CO1	Understand the basics of organize, manage, present data, describe and discuss the key terminology, concepts tools and techniques used in statistical analysis
CO2	Critically evaluate the underlying assumptions of analysis tools and discuss the issues surrounding sampling and significance
CO3	To develop the ability to deal with numerical and quantitative issues in behavioural sciences and effective use of statistical and graphical techniques wherever relevant in their research.

PSO	PSO1	PSO2
CO		
CO1	1	
CO2	1	
CO3	1	

PPS18CP204: Psychological Testing & Assessment – II

CO1	Critically assess the information by administering the psychometric assessments to study human behaviour and mental processes and also forms conclusions and arguments
CO2	Administers psychometric tools and interprets the evaluation for framing the strategy to improve the sports performance and mental health of the athlete
CO3	To develop the ability to deal with numerical and quantitative issues in behavioural sciences and effective use of statistical and graphical techniques wherever relevant in their research

PSO	PSO1	PSO2
CO		
CO1	1	
CO2	1	
CO3	1	

THIRD SEMESTER
PSP18CT301: Fundamentals of Counseling Skills

CO1	Understand the factors contributing for positive outcomes in guidance and counselling
CO2	Access the purpose of testing and assessment understand the role of confidentiality and the limits to it in terms of the counselling and supervisory relationships.
CO3	Access the purpose of testing and assessment understand the role of confidentiality and the limits to it in terms of the counselling and supervisory relationships.

PSO	PSO1	PSO2
CO		
CO1	1	
CO2	1	
CO3	1	

PPS18CT302 - Life Span Development

CO1	Critically assess information related to different developmental processes in a life span of a person.
CO2	Analyse the differences between the various methods of investigation used in developmental studies and the relationship between physiology, cognition, and emotion in the different developmental stages.
CO3	Identify and evaluate factors affecting the physical, social, emotional, psychological, and intellectual development of children, adolescents and aged.

PSO	PSO1	PSO2
CO		
CO1	1	
CO2	1	
CO3		1

PPS18CT303- Sociological Theories

CO1	Describe and apply some basic theories or theoretical orientations in at least one of the social realities.
CO2	Apply critical thinking skills to sociological data and theory. Show how patterns of thought and knowledge are directly influenced by political-economic social structures.
CO3	Show how social issues can be better understood by emphasizing the micro/macro connections. Participate actively in civic affairs.

PSO	PSO1	PSO2
CO		
CO1	1	
CO2		1
CO3		1

PSO18AEC02 – Life Skills Management

CO1	Demonstrate fundamental knowledge and comprehension of the major concepts, to discuss psychological principles to building life skill.
CO2	Develop and exhibit and accurate sense of self, nurture a deep understanding of personal motivation.
CO3	Understand and practice personal and professional responsibility, strengthen personal character and enhance ethical sense

PSO	PSO1	PSO2
CO		
CO1		1
CO2	1	
CO3		1

PPS18CP304: Case Study and Project Work

CO1	Identify key research questions within the demographic field on which the student will carry out independent research.
CO2	Demonstrate appropriate referencing and develop skills in other aspects of academic writing.
CO3	Apply the demographic/statistical research training acquired in the taught element of the programme by designing an appropriate research strategy and research methodology to carry out research

PSO	PSO1	PSO2
CO		
CO1	1	
CO2	1	
CO3	1	

FOURTH SEMESTER

PPS18CT401: Counseling and Behavior Modification Techniques

CO1	Apply psychological knowledge and skills to address peak performance and well-being of athletes
CO2	Familiarize with a variety of ethical dilemmas that could arise, and understand the ways in which to navigate and select the best course of action for the athletes.
CO3	Integrate with the major counselling approaches and apply the effective sports performance

PSO	PSO1	PSO2
CO		
CO1	1	
CO2	1	
CO3	1	

PPS18CT302 - Scientific Dimensions of Sports Psychology

CO1	Apply psychology-specific content and skills, effective self reflection, self management skill teamwork skills, frame goals, and enhance performance, socio cultural influences and game preparation.
CO2	Gain knowledge about psychometrics, cognition, motivation, personality and emotion and their influence in a game
CO3	Apply psychological concepts and skills in an ethical way to modify in meeting the needs of persons with a disability, and sustain participation and competition for disabled persons

PSO	PSO1	PSO2
CO		
CO1	1	
CO2	1	
CO3	1	

PPS18CT403- Intervention Strategies and Sports Behaviour

CO1	Demonstrate adequate knowledge and understanding to address psychological issues faced by athletes on and off the field, both in individual and team sports
CO2	Analyse how psychological factors impact sports injuries, rehabilitation and recovery of athletes.
CO3	Outline the intervention methods that can help athletes improve their dynamics, boost their performance, recover from injuries, and overcome emotional obstacles caused by competition.

PSO	PSO1	PSO2
CO		
CO1	1	
CO2	1	
CO3	1	

PPS18CT404- Thesis

CO1	Familiarize with the existing trends in Research Methodology, for preparation of dissertation to instil some primary concepts of academic research
CO2	Use scientific reasoning to interpret psychological phenomena, Demonstrate psychology information literacy.
CO3	Interpret, design, and conduct basic psychological research, incorporate socio-cultural factors in scientific inquiry

PSO	PSO1	PSO2
CO		
CO1	1	
CO2	1	
CO3	1	

PROGRAM SPECIFIC OUTCOME - SPORTS PSYCHOLOGY

PSO-I	Graduates will be able to analyse, articulate with sound psychological skills and techniques, enabling the athletes to work effectively for enhanced sports performance.
PSO-2	Graduates will be able to create positive changes by empowered and diversified approaches towards the promotion of health and wellness.

FIRST SEMESTER

PSP18CT101: Advanced General Psychology

CO1	Apply conceptual knowledge of the core areas of Psychology (cognitive, sensory, perceptual, learning, motivation and personality) and the links between them
CO2	Examine the knowledge related to the approaches used in the field of psychology to understand human behaviour and mental process.
CO3	Will be able to relate behavioural issues through theoretical approaches and methods ethically by contributing to society as a responsible citizen

PSO	PSO1	PSO2
CO		
CO1	1	
CO2		1
CO3		1

PSP18CT102: Principles of Sports Psychology

CO1	Apply psychology-specific content and skills, effective self-reflection, self-management skills, teamwork skills, frame goals, and enhance performance in the presence of socio cultural influences and game preparation.
CO2	Gain knowledge about psychometrics, cognition, motivation, personality and emotion and their influence in a game.
CO3	Apply psychological concepts and skills required in competitive sport participation

PSO	PSO1	PSO2
CO		
CO1	1	
CO2	1	
CO3	1	

PPY18CT103: Research Methodology

CO1	Illustrate basic and applied research to address issues in psychology
CO2	Understand and apply basic research methods in psychology and sociology, including research design, data analysis, and interpretation
CO3	Examine the importance of the use of statistical analyses and reporting of results in research publications

PSO	PSO1	PSO2
CO		
CO1	1	
CO2	1	
CO3	1	

PSP18CP104: Psychological Testing And Assessment-I

CO1	Critically access the information by administering the psychometric assessment to study human behaviour and mental processes.
CO2	Administers psychometric tools and interprets the evaluation for framing the strategy to improve the sports performance and mental health of the athlete
CO3	Understand the ethical values of interpretation of the assessment tools.

PSO	PSO1	PSO2
CO		
CO1	1	
CO2	1	
CO3	1	

SECOND SEMESTER

PSP18CT201: Psychological Aspects of Sports Performance

CO1	Define the basics of physiological principles relevant to the effect of exercise on human functioning and performance and examine the relation to sports with respect to socio cultural influences in a society.
CO2	Analyze the different psychological factors influencing individual growth and development through life time
CO3	Recommend sport as a community building activity, use games and physical activities to enhance individual competencies

PSO	PSO1	PSO2
CO		
CO1		1
CO2	1	
CO3		1

PSP18CT202: Biological Bases of Behavior

CO1	Understand the basics of biopsychology; examine the relation to sports with respect to individual physiology.
CO2	Analyze factors that influence on individual health and employ ways and mean to optimise the same
CO3	Relate the role of the brain in human performance and apply psychological techniques and theories to human performance within diverse population.

PSO	PSO1	PSO2
CO		
CO1	1	
CO2	1	
CO3		1

PSP18CT203: Behavioral Statistics

CO1	Understand the basics of organize, manage, present data, describe and discuss the key terminology, concepts tools and techniques used in business statistical analysis
CO2	Critically evaluate the underlying assumptions of analysis tools and discuss the issues surrounding sampling and significance
CO3	To develop the students' ability to deal with numerical and quantitative issues in behavioural sciences and effective use of statistical and graphical techniques wherever relevant in their research.

PSO	PSO1	PSO2
CO		
CO1	1	
CO2	1	
CO3	1	

PSP18CP204– Psychological Testing and Assessment - II

CO1	Understand the basics of organize, manage, present data, describe and discuss the key terminology, concepts tools and techniques used in business statistical analysis
CO2	Critically evaluate the underlying assumptions of analysis tools and discuss the issues surrounding sampling and significance
CO3	To develop the students ability to deal with numerical and quantitative issues in behavioural sciences and effective use of statistical and graphical techniques wherever relevant in their research

PSO	PSO1	PSO2
CO		
CO1	1	
CO2	1	
CO3	1	

THIRD SEMESTER

PSP18CT301: Fundamentals of Counseling Skills

CO1	Understand the basics of psychological principles; professional and ethical practice in the role of counsellor in various settings.
CO2	Develop knowledge on career assessments related to interests, personality, values, and career development.
CO3	Describe the role that human growth and development in counselling interventions and to appropriate modification made in a multicultural society.

PSO	PSO1	PSO2
CO		
CO1	1	
CO2	1	
CO3		1

PSP18CT302: Psychology of Athletic Injury and Rehabilitation

CO1	Understand the types of injuries and the fundamental components involved in designing a successful rehabilitation program
CO2	Analyze the influence of different parameters of performance, physiological, biochemical and subjective measures such as mood disturbance, perceived stress and recovery and symptoms of athlete rehabilitation monitoring and recovery process
CO3	Recommend adequate examination methods for muscle and skeleton injuries related to physical exercise and sports to reduce instances of reinjury

PSO	PSO1	PSO2
CO		
CO1	1	
CO2	1	
CO3	1	

PSP18CT303: Psychological Preparation and Mental Skills Training

CO1	Understand the basics and apply psychological techniques and strategies to enhance sports performance and participation in sport and exercise settings.
CO2	Analyze the influences of social aspects (e.g., group processes, persuasion) on performance and well-beings faced by sports persons.
CO3	Recommend strategies to cope with the mental stress and coping skills influence sports performance, with a commitment to social justice and intellectual diversity in the society and the influence on sports on public health

PSO	PSO1	PSO2
CO		
CO1	1	
CO2	1	
CO3		1

FOURTH SEMESTER

PSP18CT401: Counseling and Behavior Modification Techniques in Sports

CO1	Understand theories and practices related to human development across the lifespan, goals, principles and ethics involved in counselling
CO2	Assess and analyse behavioural issues with in day-to-day context and come up effective strategies to resolve
CO3	Recommend techniques and training to enhance mental health , building, maintaining, and utilizing counselling relationships to address mental health issues and meet client goals.

PSO	PSO1	PSO2
CO		
CO1	1	
CO2	1	
CO3	1	

PSP18CT402: Sports for the Challenged

CO1	Understand limitations and exclusions were imposed on the individual due to impairment
CO2	Analyze and come up with ways to encourage and promote the participation of persons with disabilities in mainstream sporting activities at all levels
CO3	Provide opportunities to use sports as a medium to engage in levels of physical activity that will benefit their health and wellness among people with a disability.

PSO	PSO1	PSO2
CO		
CO1	1	
CO2	1	
CO3		1

PSP18CT403: Athletic Psychopathology

CO1	Understand the basics of the biological, psychological, behavioral, cognitive, humanistic-existential and sociocultural models of abnormal behavior and its influence on sports performance.
CO2	Analyse the different systems of classifications of maladaptive behaviour
CO3	Develop critical thinking and apply strategies on solving the emotional, behavioural and other psychopathological issues faced on and off the field of sporting arena and also their influence sports performance

PSO	PSO1	PSO2
CO		
CO1	1	
CO2	1	
CO3	1	

PSP18CT404: Thesis

CO1	Enabling the students to identify a problem in their area of interest and finding ways in tackling and solving the problem
CO2	Gathering related literature and analyzing data pertaining to their study
CO3	Gaining appropriate scientific writing skills.

PSO	PSO1	PSO2
CO		
CO1	1	
CO2	1	
CO3	1	

PROGRAM SPECIFIC OUTCOME – M Phil Applied Psychology

PSO-I	Research scholars will have requisite knowledge to conduct research, analyse, articulate with concrete psychological skills, enabling the individuals to understand their behavior and managing them for enhanced individual wellbeing.
PSO-2	Research Scholars will be able to adhere to professional standards and expectations, create positive changes by empowered and diversified approaches towards the promotion of health and wellness in society.

FIRST SEMESTER

MPHSPS 101 RESEARCH METHODOLOGY AND STATISTICS

CO1	Understand and apply appropriate research methods in psychology, including research design, data analysis, and interpretation in their research work.
CO2	Examine and collect relevant literature and apply scientific methods and techniques in research work
CO3	Exhibit competency, acquire critical knowledge relate to their current research, able to use critical thinking to evaluate and interpret evidence

PSOs	PSO1	PSO2
COs		
CO1	1	
CO2	1	
CO3	1	

**MPHS17102 - AREA OF SPECIALIZATION – APPLIED
PSYCHOLOGY**

CO1	Demonstrate familiarity, and apply major concepts, theoretical perspectives, empirical findings, historical trends and the core domains of psychology.
CO2	Learn the theories, applications and principles of the core areas of their research study undertaken.
CO3	Gain information related to their allied and supplementary areas of their research study undertaken, including methodologies adopted, assessment patterns and statistical tool.

PSOs Cos	PSO1	PSO2
CO1	1	
CO2	1	
CO3	1	

SECOND SEMESTER

MPHSPS 201 - AREA OF DISSERTATION

CO1	Understand and apply psychological principles to personal, social, and organizational issues.
CO2	Develop the knowledge and skills to engage in ethical research with recognition understanding, and respect for complexity of sociocultural and ethical diversity.
CO3	Have effective oral communication skills to disseminate research and scholarly activities like journal publications and conference proceedings

PSOs COs	PSO1	PSO2
CO1		1
CO2		1
CO3	1	

MPHPSY202 - COMPUTER OPERATION-COMMUNICATION & EDUCATIONAL SKILLS

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CO1	Demonstrate competency and the ability to use computers and other technology to accomplish various tasks in research.
CO2	Apply appropriate tools to present accurate information in an effective manner.
CO3	Demonstrate critical and innovative thinking and display competence in oral and written communication.

PSOs COs	PSO1	PSO2
CO1	1	
CO2	1	
CO3	1	

MPHPSY 203 – DISSERTATION

CO1	Identify a research problem in the area of interest and apply basic research methods in psychology
CO2	Planning and implementation of techniques to solve their research problem
CO3	Ability to gather related literature, collect, analyse data and present findings in effective scientific manner

PSOs COs	PSO1	PSO2
CO1	1	
CO2	1	
CO3	1	

PROGRAM SPECIFIC OUTCOME – M PHIL SPORTS PSYCHOLOGY

PSO-I	Research scholars will have requisite knowledge to conduct research, analyse, articulate with concrete psychological skills, enabling athletes to understand their behavior and managing them for enhanced their performance on and off the field.
PSO-2	Research Scholars will be able to adhere to professional standards and expectations, create positive changes by empowered and diversified approaches towards the promotion of health and wellness among sports personnel.

FIRST SEMESTER

MPHSPS 101 RESEARCH METHODOLOGY AND STATISTICS

CO1	Understand and apply appropriate research methods in Sports Psychology, including research design, data analysis, and interpretation in their research work
CO2	Examine and collect relevant literature and apply scientific methods and techniques in research work
CO3	Exhibit competency, acquire critical knowledge relate to the current research, able to use critical thinking to evaluate and interpret evidence.

PSOs COs	PSO1	PSO2
CO1	1	
CO2	1	
CO3	1	

**MPHS17102 - AREA OF SPECIALIZATION - APPLIED SPORTS
PSYCHOLOGY**

CO1	Demonstrate familiarity, and apply major concepts, theoretical perspectives, empirical findings, historical trends and the core domains of Sports Psychology
CO2	Learn the theories, applications and principles of the core areas of their research study undertaken.
CO3	Gain information related to their allied and supplementary areas of their research study undertaken, including methodologies adopted, assessment patterns and statistical tool.

PSOs COs	PSO1	PSO2
CO1		1
CO2	1	
CO3	1	

SECOND SEMESTER

MPHSPS 201 - AREA OF DISSERTATION

CO1	Understand and apply principles of Sports Psychology to personal, social, and organizational issues
CO2	Develop the knowledge and skills to engage in ethical research with recognition, understanding, and respect for complexity of sociocultural and ethical diversity.
CO3	Have effective oral communication skills to disseminate research and scholarly activities like journal publications and conference proceedings

PSOs COs	PSO1	PSO2
CO1	1	
CO2		1
CO3	1	

MPHPSY202 - COMPUTER OPERATION-COMMUNICATION &EDUCATIONAL SKILLS

CO1	Demonstrate competency and the ability to use computers and other technology to accomplish various tasks in research
CO2	Apply appropriate tools to present accurate information in an effective manner.
CO3	Demonstrate critical and innovative thinking and display competence in oral, written communication.

PSOs COs	PSO1	PSO2
CO1	1	
CO2	1	
CO3	1	

MPHPSY 203 – DISSERTATION

CO1	Identify a research problem in the area of interest and apply basic research methods in Sports Psychology
CO2	Planning and implementation of techniques to solve their research problem.
CO3	Ability to gather related literature, collect, analyse data and present findings in effective scientific manner

PSOs COs	PSO1	PSO2
CO1	1	
CO2	1	
CO3	1	

PROGRAM SPECIFIC OUTCOME

M PHIL SPORTS PSYCHOLOGY & SOCIOLOGY

PSO-I	Research scholars will have requisite knowledge to conduct research, analyse, articulate with concrete psycho-social skills, enabling the individuals to understand their behavior and managing them for enhanced individual wellbeing.
PSO-2	Research Scholars will be able to adhere to professional standards and expectations, create positive changes by empowered and diversified approaches towards the promotion of health and wellness among sports personnel.

FIRST SEMESTER

MPHSPS 101 RESEARCH METHODOLOGY AND STATISTICS

CO1	Understand and apply appropriate research methods in Sports Psychology and Sociology, including research design, data analysis, and interpretation in the research work.
CO2	Examine and collect relevant literature and apply scientific methods and techniques in research work
CO3	Exhibit competency, acquire critical knowledge related to their current research, able to use critical thinking to evaluate and interpret evidence.

PSOs	PSO1	PSO2
Cos		
CO1	1	
CO2	1	
CO2	1	

MPHSPS 102 - SPORTS PSYCHOLOGY AND SOCIOLOGY

CO1	Demonstrate familiarity, and apply major concepts, theoretical perspectives, empirical findings, historical trends and the core domains of Sports Psychology and Sociology.
CO2	Learn the theories, applications and principles of the core areas of their research study undertaken
CO3	Gain information related to their allied and supplementary areas of their research study undertaken, including methodologies adopted, assessment pattern and statistical tool.

PSOs	PSO1	PSO2
Cos		
CO1	1	
CO2	1	
CO2	1	

SECOND SEMESTER
MPHSPS 201 - AREA OF DISSERTATION

CO1	Understand and apply principles of Sports Psychology and Sociology personal, social, and organizational issues in individual and team sports.
CO2	Understand and apply principles of Sports Psychology and Sociology personal, social, and organizational issues in individual and team sports.
CO3	Have effective oral communication skills to disseminate research and scholarly activities like journal publications and conference proceedings

PSOs	PSO1	PSO2
Cos		
CO1	1	
CO2	1	
CO2	1	

**MPHSPS 202 - COMPUTER OPERATIONS, COMMUNICATIONS AND
EDUCATIONAL SKILLS**

CO1	Demonstrate competency and the ability to use computers and other technology to accomplish various tasks in research.
CO2	Apply appropriate tools to present accurate information in an effective manner
CO3	Demonstrate critical and innovative thinking and display competence in oral or written communication.

PSOs	PSO1	PSO2
Cos		
CO1	1	
CO2	1	
CO2	1	

MPHSPS 203 DISSERTATION

CO1	Identify a research problem in the area of interest and apply basic research methods in Sports Psychology and Sociology.
CO2	Planning and implementation of techniques to solve their research problem.
CO3	Ability to gather related literature, collect, analyse data and present findings effective scientific manner

PSOs	PSO1	PSO2
Cos		
CO1	1	
CO2	1	
CO2	1	

**TAMILNADU PHYSICAL EDUCATION AND
SPORTS UNIVERSITY
CHENNAI-600 127**

APPROVED SYLLABUS

**(Applicable to the students admitted from the academic year
2018-2019 onwards)**

Choice Based Credit System



**BSC SPORTS COACHING
DEGREE PROGRAMME OFFERED IN THE
DEPARTMENT OF ADVANCED SPORTS TRAINING
AND SPORTS TECHNOLOGY
TAMILNADU PHYSICAL EDUCATION AND
SPORTS UNIVERSITY**

BSC SPORTS COACHING

Programme Educational Objectives (PEO)

- PEO-1 The students will learn the fundamental skills of specified sports for future career in Sports.
- PEO-2 The students will be exposed to train the children in Sports.

Educational Program Outcomes (POs):

After completion of the program graduates will be able to

PROGRAMME OUTCOMES (PO'S)

The under graduates are able to

PO-1) Attain the knowledge to train the sports person.

PO-2) Analyse the students Psychology in terms of improving the Games.

PO-3) Guide to treat and rehab the sports injuries.

PO-4) Understand the Sports movements.

PO-5) Identify the talent in basic level children to promote the welfare of Sports.

PO-6) The designed internship program will help the student to get exposure in teaching and training the fundamental skills.

PO-7) Teach and train the fundamental skill effectively.

PO-8) Motivate the students for updating the sports related knowledge

PO-9) Responsible for the healthy Society

PO-10) Imparting the knowledge for effective judgement in Sports

MAPPING OF PEO'S WITH PO'S

	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10
PEO-1	X			X		X	X			X
PEO-2	X		X	X	X				X	X

PROGRAM SPECIFIC OUTCOMES (PSO)

The under graduates are able to

PSO 1 Understanding the different components of sports training skills and its developments.

PSO-2 Intend to work with the young children for sports excellence.

[Type text]

[Type text]

[Type text]

SEMESTER – I (FIRST YEAR)					
Subject Code	Title of the Paper	L	T	P	C
17101	Tamil – I	3	0	0	3
17012	English – I	3	0	0	3
17103	Anatomy and Physiology	3	0	0	3
17014	History and administration of Specified Sports	3	0	0	3
17105	Allied theories sports and Games Part – I	3	0	0	3
17106	Teaching practice- conditioning	0	0	3	3
	Total	15	0	3	18
SEMESTER – II					
Subject Code	Title of the Paper	L	T	P	C
17201	Tamil – II	3	0	0	3
17202	English – II	3	0	0	3
17203	Science of Sports Training– I	3	0	0	3
17204	Rules Regulation and Techniques of Specified Sports	3	0	0	3
17205	Allied theories sports and Games Part – II	3	0	0	3
17206	Teaching practice – fundamental skills	0	0	3	3
	Total	15	0	6	21

L – Lecture Hour T – Tutorial Hour P - Practical Hour C - Credits

First year students would give coaching in a primary school for 15 days

[Type text]

[Type text]

[Type text]

SEMESTER – III (SECOND YEAR)					
Subject Code	Title of the Paper	L	T	P	C
17301	Tamil – III	3	0	0	3
17302	English – III	3	0	0	3
17303	Science of sports training - 11	3	0	0	3
17304	Technique and tactics of Specified Sports/ Games	3	0	0	3
17305	Allied theories sports and Games Part – III	3	0	0	3
17306	Teaching practice - individual training	0	0	3	3
	Total	15	0	3	18
SEMESTER – IV					
Subject Code	Title of the Paper	L	T	P	C
17401	Tamil – IV	3	0	0	3
17402	English – IV	3	0	0	3
17403	Sports Psychology and Sociology of Sport	3	0	0	3
17404	Sports Medicine and Nutrition	3	0	0	3
17405	Allied theories sports and Games Part – IV	3	0	0	3
17406	Practical – II Specified Sports / Games	0	0	3	3
17407	Teaching practice team training	0	0	3	3
	Total	15	0	6	21

L – Lecture Hour T – Tutorial Hour P - Practical Hour C - Credits

In the Second year students are expected to coach an under -15 years team in a sports of their choice.

[Type text]

[Type text]

[Type text]

SEMESTER – V (THIRD YEAR)					
Subject Code	Title of the Paper	L	T	P	C
17501	Kinesiology and Bio Mechanics	3	0	0	3
17502	Anthropometry Sports Pedagogy and Talent Identification	3	0	0	3
17503	Personality Development and Communication Skills	3	0	0	3
17504	Specific Motor qualities, System of play and functional training	3	0	0	3
17505	Pedagogic competition	3	0	0	3
	Total	15	0	0	15
SEMESTER – VI					
Subject Code	Title of the Paper	L	T	P	C
17601	Fundamentals of Sports Management and methods	3	0	0	3
17602	Computer Application, Test and Measurement	3	0	0	3
17603	Team preparation Coaching , Match Analysis of and philosophy of coaching	3	0	0	3
17604	Disaster management	3	0	0	3
17605	Practical – III Specified Sports / Games	0	0	3	3
17606	Practical – IV Specified Sports/ Games	0	0	3	3
17607	Internship	0	5	0	5
	Total	15	5	6	26
	Grand Total (I +II+III+IV+V+VI)				119

L – Lecture Hour

T – Tutorial Hour P -

Practical Hour C- Credits

SEMESTER I

17102	ENGLISH – I BASIC LANGUAGE SKILL
<i>Instruction : 4 hr / week</i>	<i>Credits : 4</i> <i>Assessment : 25 + 75</i>

2	COURSE OUTCOMES: Students are able to										
	CO-1	Understand and attain knowledge on Novel.									
	CO-2	Able to introduce themselves in a better way									
	CO-3	Able to communicate in English with proper grammar									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
		1	3		3						2
		2		3	2						3
		3			3		3	3			2

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		
2	1	2
3	1	1

17103	ANATOMY AND PHYSIOLOGY
-------	------------------------

2	COURSE OUTCOMES: Students are able to										
	CO-1	Understand the structure and functions of human organs									
	CO-2	Proper exercise may be prescribed for the development of the muscles and training									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
		1	3			2	1				1
		2	1		2					3	

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		
2	1	
3	1	3

17104	HISTORY ADMINISTRATION OF SPORTS/GAME
-------	---------------------------------------

2	COURSE OUTCOMES: Students are able to									
	CO-1	Understand the past events of the game and its development								
	CO-2	To understand the facts performing growth and development								
3	MAPPING (CO's and PO's)									
	Course Outcomes	Program Outcomes								
		1	2	3	4	5	6	7	8	9
	1	2		1			1			

	2								2			
--	---	--	--	--	--	--	--	--	---	--	--	--

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		2
2	2	

17105	ALLIED THEORIES OF SPORTS AND GAMES
-------	-------------------------------------

2	COURSE OUTCOMES: Students are able to										
	CO-1	To understand the rules of the specific game to play better									
	CO-2	Plan for a State level match									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
		1	2					3			
		2		2				1			

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		
2	1	2

SEMESTER II

17202	ENGLISH - II DEVELOPING THE LANGUAGE SKILLS
-------	---

2	COURSE OUTCOMES: Students are able to										
	CO-1	Communication is important for teaching and training.									
	CO-2	It helps for greeting the people									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
		1	2				1				
	2	1	2						1		

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		
2		2

17203	SCIENCE OF SPORTS TRAINING -I
-------	-------------------------------

2	COURSE OUTCOMES: Students are able to	
	CO-1	The knowledge of sports training principles will help to understand different qualities.
	CO-2	Developing the motor qualities and skills
3	MAPPING (CO's and PO's)	
	Course	Program Outcomes

Outcomes	1	2	3	4	5	6	7	8	9	10
1		2		3					1	
2	1						2			

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		1
2	2	

17204	RULES REGULATION AND TECHNIQUES OF SPECIFIED SPORT/GAME
-------	---

2	COURSE OUTCOMES: Students are able to										
	CO-1	To understand the rules of the specific game to play better									
	CO-2	To prevent from injuries									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
	1	2			1					3	
	2			1					2		

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2

1		
2	1	2

17205	ALLIED THEORIES OF SPORTS AND GAMES
-------	-------------------------------------

2	COURSE OUTCOMES: Students are able to										
	CO-1	To understand the rules of the specific game to play better									
	CO-2	Plan for a State level match									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
		1	2				2			3	
		2					2			2	1

SEMESTER III

17302	ENGLISH - III PROGRESSIVE LANGUAGE SKILLS
-------	---

2	COURSE OUTCOMES: Students are able to										
	CO-1	Acquire knowledge on writing the letter									
	CO-2	Communicate better									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
		1	1			3					
		2	2			3		2			1

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		
2	1	1

17303	SCIENCE OF SPORTS TRAINING -II
-------	--------------------------------

2	COURSE OUTCOMES: Students are able to										
	CO-1	Plan the training for best performance									
	CO-2	Apply for the development of strength, speed, reaction, endurance and flexibility.									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
	1	1						2			
	2		2						3		

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		
2		2

17304	SPORTS MEDICINE AND NUTRITION
-------	-------------------------------

2	COURSE OUTCOMES: Students are able to										
	CO-1	Help the sportsmen to prevent from sports injuries									
	CO-2	Develop the knowledge of side effects of doping									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
		1	2	1			1				3
		2					2				2

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		
2		2

TECHNIQUE AND TACTICS OF SPECIFIED SPORTS/ GAMES

2	COURSE OUTCOMES: Students are able to										
	CO-1	Help to learn skills in proper form and execute									
	CO-2	By learning this technique the performance could be enhanced to play competitive sport, this learning is important and it serves as basic.									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
		1	2				1			3	1
		2	2				1	3		2	

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		
2		2

17306	ALLIED THEORIES OF SPORTS AND GAMES
-------	-------------------------------------

2	COURSE OUTCOMES: Students are able to										
	CO-1	To learn the other sports with support along main sport									
	CO-2	It help us to learn the new skill by transfer of learning method									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
	1	1		2					1		
	2		2					1			2

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1	1	
2		

SEMESTER IV

17402	ENGLISH – IV CAREER LISTENING AND SPEAKING
-------	--

2	COURSE OUTCOMES: Students are able to
---	--

	CO-1	Attain knowledge in attending the interview									
	CO-2	Ability to improve the personality									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
	1	1			3						1
	2			2			1				

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		
2		2

17403	SPORTS PSYCHOLOGY AND SOCIOLOGY OF SPORT
-------	--

2	COURSE OUTCOMES: Students are able to										
	CO-1	Understand the character and behaviour of a sport person									
	CO-2	The sportsmen will be Psychologically strong to play the match									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
		1	1	2	1						2
	2			1	2						

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1	1	
2		

4BCC2	TACTICS AND TACTICAL DEVELOPMENT OF SPECIFIED SPORT/GAME
-------	--

2	COURSE OUTCOMES: Students are able to										
	CO-1	To reach the top level performance it is mandatory to equip and excel the tactics.									
	CO-2	By developing this tactic all the fundamentals skills of the specific sports could be enhanced at the maximum level									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
		1	2	2			1				
		2		3	2			2			

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		2
2		

4BCA1	ALLIED THEORIES OF SPORTS AND GAMES
-------	-------------------------------------

2	COURSE OUTCOMES: Students are able to										
	CO-1	Understand various kinds of sports injuries and its prevention									
	CO-2	Acquire knowledge on different protective device on sports equipments									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
		1	1		1			1			
		2		2	2			1	2		

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		
2		

SEMESTER V

5BCC1	KINESIOLOGY AND SPORTS BIO MECHANICS
-------	--------------------------------------

2	COURSE OUTCOMES: Students are able to										
	CO-1	Understand various kinds of sports movemsnts.									
	CO-2	Acquire knowledge about the fundamental movements.									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
		1	3					2			
		2		1						1	

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		
2	2	

5BCC2	ANTHROPOMETRY SPORTS PEDAGOGY AND TALENT IDENTIFICATION
--------------	--

2	COURSE OUTCOMES: Students are able to									
	CO-1	Gain knowledge on Anthropometry								
	CO-2	Improve individual personality by improving the talent								
3	MAPPING (CO's and PO's)									
	Course Outcomes	Program Outcomes								
		1	2	3	4	5	6	7	8	9
	1						2			
	2			1		1		3		2

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		2
2		

5BCC3	PERSONALITY DEVELOPMENT & COMMUNICATION SKILL
-------	---

2	COURSE OUTCOMES: Students are able to									
	CO-1	Improve individual personality								
	CO-2	Improve the human values and leadership qualities								
3	MAPPING (CO's and PO's)									
	Course Outcomes	Program Outcomes								
		1	2	3	4	5	6	7	8	9
	1	2			1					

	2		3					2			1	
--	---	--	---	--	--	--	--	---	--	--	---	--

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		
2		

5BCC4	SPECIFIC MOTOR QUALITIES OF SPECIFIED SPORT/GAME
-------	--

2	COURSE OUTCOMES: Students are able to										
	CO-1	To understand and learn the specific qualities recovered to improve the particular game									
	CO-2	Sports movement are different from sport to sport so we need to understand and choose the correct quality and to excel in the particular sports									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
	1				2						1
	2			3			2			1	

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		2
2		

5BCC5	SYSTEM OF PLAY AND FUNCTIONAL TRAINING
--------------	---

2	COURSE OUTCOMES: Students are able to										
	CO-1	To play any sport we need to follow certain systems and rules also insist the same									
	CO-2	By learning the system of play, advanced tactics could be employed to get success in a match									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
		1	2	2						1	
		2		3			2	3			

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		
2	1	

SEMESTER VI

6BCC1	FUNDAMENTALS OF SPORTS MANAGEMENT
--------------	--

2	COURSE OUTCOMES: Students are able to										
	CO-1	The knowledge of management will help to arrange systematic formation of the program									
	CO-2	The knowledge of sports management will help to program any sports event using effective system of management									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
		1		2							1
		2		1	3		3			3	

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		
2		1

6BCC2	COMPUTER APPLICATION TEST AND MEASUREMENT
-------	---

2	COURSE OUTCOMES: Students are able to										
	CO-1	This electronic device will help to design and store the data pertaining to sports performance									
	CO-2	By understanding the knowledge of computer and different testing methods will help the stack holders to assess the process and product.									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
		1	1	2					2		
		2			2				1	1	

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		
2		

6BCC3	PHILOSOPHY OF SPORTS COACHING
-------	-------------------------------

2	COURSE OUTCOMES: Students are able to										
	CO-1	Understanding the concept of coaching with stipulated principles									
	CO-2	Philosophical approach towards coaching will help the students to update their knowledge towards better performance.									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
		1	3						2		
		2					1				

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		
2	1	

6BCC4	TEAM PREPARATION FOR SPECIFIC /GAME
-------	-------------------------------------

2	COURSE OUTCOMES: Students are able to										
	CO-1	Preparation for any activity is needed to execute effectively, and understanding this concept the learners will be exposed to preparation of the sportsmen for the competitions									
	CO-2	The success of any program purely depends on the preparations, which will help to reach the goal.									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
		1	3	2					1		
		2		3							2

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		1
2		

6BCC5	TEAM COACHING AND MATCH ANALYSIS OF SPECIFIC SPORT /GAME
-------	--

2	COURSE OUTCOMES: Students are able to										
	CO-1	Evaluation plays vital role in success of any program, this approach towards the competition is scientific one.									
	CO-2	Understanding the importance of assessment thereby enhancing the performance by redesigning									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
		1	1				1		2		
		2	1	1			1				

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		2
2		

SPECIFIED SPORTS PRACTICAL II, IV AND VI SEMESTER

- The Candidate has to select any one of the Major Games as Specified Sports practical during II, IV and VI semester

Semester	Games	Marks – Max - 100		
		Internal	External	Total
II Semester	Handball, Football, Swimming, Volleyball, Fencing, Taekwondo	100	-	100
IV Semester	Handball, Football, Swimming, Volleyball, Fencing, Taekwondo	100	-	100
VI Semester	Handball, Football, Swimming, Volleyball, Fencing, Taekwondo	25	75	100

ANCILLARY PRACTICAL: PART – I, II, III & IV

The candidate has to select any one of the following games as ancillary practical during I, II and IV semester. During III Semester the candidate has to select Track and Field Compulsory

Sport III Semester	Games I, II and IV Semester	Max Marks 100 (Internal Marks)	Minimum pass Marks
--------------------	-----------------------------	--------------------------------	--------------------

Track and Field	Badminton, Ball Badminton, Basketball, Handball, Hockey, Kabaddi, Football, Kho-kho, Tennis, Swimming, Table Tennis, Volleyball and Weight Lifting	100	50
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APPROVED SYLLABUS

**(Applicable to the students admitted from the academic year
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Choice Based Credit System



**M.TECH SPORTS TECHNOLOGY
DEGREE PROGRAMME OFFERED IN THE
DEPARTMENT OF ADVANCED SPORTS TRAINING
AND SPORTS TECHNOLOGY
TAMILNADU PHYSICAL EDUCATION AND
SPORTS UNIVERSITY**

M.TECH SPORTS TECHNOLOGY

Programme Educational Objectives (PEO)

- PEO-1 Graduate will have successful academic and research career.
- PEO-2 Graduates will have employment in public and private sectors and resolve economic, social and environmental issues.

Educational Program Outcomes (POs):

After completion of the program graduates will be able to

PROGRAMME OUTCOMES (PO'S)

The post graduates are able to

PO-1) Attain in-depth knowledge to solve Sports Engineering problems in current needs of stakeholders at global perspective.

PO-2) Analyse complex Sports Engineering problems critically.

PO-3) Find optimal solutions for Sports Engineering and Technology problems considering social and environmental issues.

PO-4) Carryout researches in one or more domains of Sports Engineering and Technology

PO-5) Apply appropriate and upgraded tools like DARTFISH,CFD to solve present day Sports Engineering and Technology problems.

PO-6) Carryout projects & research using collaborative and multidisciplinary engineering to enhance sporting performance considering economic aspects.

PO-7) Communicate effectively socio-economic problems related to Sports Engineering and technology by appropriate documentations and presentations.

PO-8) Incline for independent life-long learning.

PO-9) Exhibit social responsibility adhering to ethical values.

PO-10) Make corrective measures based on their own experiences.

MAPPING OF PEO'S WITH PO'S

	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10
PEO-1	X	X	X	X	X	X	X	X	X	X
PEO-2						X	X		X	X

PROGRAM SPECIFIC OUTCOMES (PSO)

The post graduates are able to

PSO 1 Analyze, design and develop sports devices and players performance with latest available technologies.

PSO-2 Work on sports and interdisciplinary projects in their research and development activities.

I, II, III & IV TH SEMESTERS CURRICULUM AND SYLLABI

CURRICULUM 2018-CHOICE BASED CREDIT SYSTEM

M.TECH SPORTS TECHNOLOGY

I, II, III & IV TH SEMESTERS CURRICULUM AND SYLLABI

SEMESTER I

(Applicable to the students admitted from the academic year 2018-2019 onwards)

Sl.No.	Course type &Code No.	Course Title	Teaching Scheme			Credits
			Th	Tuto	Lab	
1	Core/ PST 18CT101	Aerodynamics in sports	3	0	0	3
2	Core/ PST 18CT102	Sports Materials Engineering and Design	3	0	0	3
3	Elective/ PST18DE101	Elective I	3	0	0	3
	Elective/ PST18DE102	Elective II	3	0	0	3
5	PST18CL101	Sports Aerodynamics Lab	0	0	4	2
6	PST18CL102	Computer Aided Modeling lab	0	0	4	2
7	MLC/ PST18CT103	Research Methodology and IPR	2	0	0	2
8	Audit course/ PST18SE101	Audit course 1	2	0	0	0
Total Credits						18

(Th-Theory, Tuto- Tutorial, Lab – Laboratory)

SEMESTER II

(Applicable to the students admitted from the academic year 2018-2019 onwards)

Sl.No.	Course type &Code No.	Course Title	Teaching Scheme			Credits
			Th	Tuto	Lab	
1	Core/ PST18CT201	Sports Biomechanics	3	0	0	3
2	Core/ PST18CT202	Measurement and Instrumentation in sports	3	0	0	3
3	Programme Elective/	Elective III	3	0	0	3

	PST18DE201					
	Programme Elective/ PST18DE202	Elective IV	3	0	0	3
5	Core Lab 1/ PST18CL201	Sports Performance Analysis Lab	0	0	4	2
6	Core Lab 2/ PST18CL2012	Computer Aided Modeling & analysis lab	0	0	4	2
7	Core/ PST18MP101	Mini Project	0	0	4	2
8	Audit course 2 / PST18AE201	Audit course 2	2	0	0	0
Total Credits						18

(Th-Theory, Tuto- Tutorial, Lab – Laboratory)

SEMESTER III

(Applicable to the students admitted from the academic year 2018-2019 onwards)

Sl.No.	Course type &Code No.	Course Title	Teaching Scheme			Credits
			Th	Tuto	Lab	
1	Programme Elective/ PST18DE301	Elective V	3	0	0	3
2	Open Elective/ PST18GE101	Open Elective I	3	0	0	3
3	Dissertation / PST18DP301	Dissertation Phase I	0	0	20	10
Total Credits						16

(Th-Theory, Tuto- Tutorial, Lab – Laboratory)

SEMESTER IV

(Applicable to the students admitted from the academic year 2018-2019 onwards)

Sl.No.	Course type &Code No.	Course Title	Teaching Scheme			Credits
3	Dissertation/ PST18DP401	Dissertation Phase II	0	0	32	16
Total Credits						16

Total Credits for the programme 18+18+16+16 = 68

List of Elective Courses Offered in I, II & III Semesters

(Applicable to the students admitted from the academic year 2018-2019 onwards)

Code No.	Course Title	Teaching Scheme			Credits
		Th	Tuto	Lab	
ST 1501	Applications of Statistics in Baseball	3	0	0	3
ST 1502	Physiology of Sports and Exercise	3	0	0	3
ST 1503	Race engine design for optimal performance	3	0	0	3
ST 1504	Sports Equipment Materials	3	0	0	3
ST 1505	Sports Traumatology	3	0	0	3
ST 1506	Software in Sports	3	0	0	3
ST 1507	Sports Psychology: Issues and Applications	3	0	0	3
ST 1508	Surveying And Construction Materials	3	0	0	3
ST 1509	Applied Biomaterials in Sports Technology	3	0	0	3
ST 1510	Commercialization of Sports	3	0	0	3
ST 1511	Sports Economics	3	0	0	3
ST 1512	Motor Sports Applications	3	0	0	3
ST 1513	Sports And Event Management	3	0	0	3
ST 1514	Applications of Statistics in Sports	3	0	0	3
ST 1515	Cell & Tissue Engineering	3	0	0	3
ST 1516	Sports Materials Engineering II	3	0	0	3
ST 1517	Race Car Vehicle Dynamics	3	0	0	3
ST 1518	Sports Facility Management	3	0	0	3

ST 1519	Sports Marketing	3	0	0	3
ST 1520	Soil And Ground Improvement Techniques	3	0	0	3

(Th-Theory, Tuto- Tutorial, Lab – Laboratory)

List of Open Elective Courses Offered for other Department Students

Course code	Course	Teaching Scheme			Credits
		Th	Tuto	Lab	
SET 1501	Fundamentals of Sports Technology	3	0	0	3
SET 1502	Intellectual Properties Rights	3	0	0	3
SET 1503	Design of Experiments and Research Applications	3	0	0	3
SET 1504	Industrial Safety	3	0	0	3

(Th-Theory, Tuto- Tutorial, Lab – Laboratory)

AUDIT COURSE 1 & 2

Course code	Course	Teaching Scheme			Credits
		Th	Tuto	Lab	
AE01	English for Research Paper Writing	2	0	0	0
AE02	Disaster Management	2	0	0	0
AE03	Sanskrit for Technical Knowledge	2	0	0	0
AE04	Value Education	2	0	0	0
AE05	Constitution of India	2	0	0	0
AE06	Pedagogy Studies	2	0	0	0
AE07	Stress Management by Yoga	2	0	0	0
AE08	Personality Development through Life Enlightenment Skills.	2	0	0	0
AE09	Professional Ethics in Engineering	2	0	0	0

SEMESTER I

Sl.No.	Course type &Code No.	Course Title	Teaching Scheme			Credits
			Th	Tuto	Lab	
1	Core/ PST 18CT101	Aerodynamics in sports	3	0	0	3
2	Core/ PST 18CT102	Sports Materials Engineering and Design	3	0	0	3
3	Elective/ PST18DE101	Elective I	3	0	0	3
	Elective/ PST18DE102	Elective II	3	0	0	3
5	PST18CL101	Sports Aerodynamics Lab	0	0	4	2
6	PST18CL102	Computer Aided Modeling lab	0	0	4	2
7	MLC/ PST18CT103	Research Methodology and IPR	2	0	0	2
8	Audit coursel /PST18AE101	Audit course 1	2	0	0	0
Total Credits						18

(Th-Theory, Tuto- Tutorial, Lab – Laboratory)

PST 18 CT101	AERODYNAMICS IN SPORTS		
	<i>Instruction : 4 hr / week</i>	<i>Credits : 4</i>	<i>Assessment : 25 + 75</i>

2	COURSE OUTCOMES: Students are able to										
	CO-1	Understand and attain knowledge on Theory and Experimental knowledge of aerodynamics in sports									
	CO-2	Apply Theory and Experimental knowledge of aerodynamics in sports									
	CO-3	Design the high performance equipments and to optimize the performance of the athlete.									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
		1	3			3					2
		2		3		2					3
		3			3		3	3			2

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		
2	2	3
3	1	1

Core/PST 18CT102 – SPORTS MATERIALS ENGINEERING AND DESIGN

2	COURSE OUTCOMES: Students are able to										
	CO-1	Understand various kinds of materials and its properties									
	CO-2	Apply specific materials for the design and manufacture of the different sports apparel and equipments									
	CO-3	Modify suitable materials/ design to increase athlete performance and to avoid the injury.									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
	1	3			2	1	2				1
	2		3	2						2	
	3		2		3		3			2	1

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		
2	1	2
3	1	3

PST18CT103 - Research Methodology and IPR Course Objectives:

2	COURSE OUTCOMES: Students are able to										
	CO-1	Understand research problem formulation									
	CO-2	Analyze research related information									
	CO-3	. Follow research ethics									
	CO4	Understand that today’s world is controlled by Computer, Information Technology, but tomorrow world will be ruled by ideas, concept, and creativity.									
	CO5	Understanding that when IPR would take such important place in growth of individuals & nation, it is needless to emphasis the need of information about Intellectual Property Right to be promoted among students in general & engineering in particular.									
	CO6	Understand that IPR protection provides an incentive to inventors for further research work and investment in R & D, which leads to creation of new and better products, and in turn brings about, economic growth and social benefits.									
3	MAPPING (CO’s and PO’s)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
	1	3			3		2				

2						3				
3									3	
4					3					
5								2	1	
6		3	2	1			3			

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		1
2	2	1
3	3	1
4	3	2
5	2	1
6	3	1

PST18CL101 Sports Aerodynamics Lab

LIST OF EXPERIMENTS

Study on wind tunnel basis and low speed sub sonic wind tunnel

Finding Drag and lift coefficient of different sports balls using wind tunnel Test

Comparing drag coefficient various sports balls

Calculating side force and pressure distribution on various balls

2	COURSE OUTCOMES: Students are able to										
	CO-1	Understand the influence of air on various sports.									
	CO-2	Develop specific models for testing the effect of air									
	CO-3	Modify the position of the models to increase athlete performance									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
		1	3	1							
		2				3		2			
	3				3					2	

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		
2	1	2
3	1	3

PST18CL102 - COMPUTER AIDED MODELING LAB

Course Objectives:

- To familiarise the students with the design and assemble of the sports equipments using the CAD Software.
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LIST OF EXPERIMENTS

Basic 2D and 3D sketch , basic part modelling, sports ball and accessories modelling

LIST OF EQUIPMENTS

1. Computers with latest configuration - 30 Nos.
2. Power back up of required capacity
3. Colour printer – 1 No.
4. Dotmatrix Printer – 1 No.

LIST OF SOFTWARES REQUIRED

1. Any latest modelling softwares like ProE, CATIA, CAD etc.,

2	COURSE OUTCOMES: Students are able to										
	CO-1	Understand various kinds of software used for modelling and design of sports equipments.									
	CO-2	Apply specific softwares for modelling different sports equipments									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
		1	1			3					
		2		2	3		3			2	

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		
2		
3		

SEMESTER II

Applicable to the students admitted from the academic year 2018-2019 onwards)

Sl.No.	Course type	Course Title	Teaching	Credits
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	&Code No.		Scheme			
			Th	Tuto	Lab	
1	Core/ PST18CT201	Sports Biomechanics	3	0	0	3
2	Core/ PST18CT202	Measurement and Instrumentation in sports	3	0	0	3
3	Programme Elective/ PST18DE201	Elective III	3	0	0	3
	Programme Elective/ PST18DE202	Elective IV	3	0	0	3
5	Core Lab 1/ PST18CL201	Sports Performance Analysis Lab	0	0	4	2
6	Core Lab 2/ PST18CL2012	Computer Aided Modeling & analysis lab	0	0	4	2
7	Core/ PST18MP201	Mini Project	0	0	4	2
8	Audit course 2 / PST18AE201	Audit course 2	2	0	0	0
Total Credits						18

(Th-Theory, Tuto- Tutorial, Lab – Laboratory)

PST18CT201 - SPORTS BIOMECHANICS

2	COURSE OUTCOMES: Students are able to										
	CO-1	Understand the concepts of biomechanics in sports									
	CO-2	Modify suitable body positions and movements to increase athlete performance and to avoid injury.									
	CO-3	Optimize the performance and safety of athletes using the principles of biomechanics.									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
		1	3	1		2					
		2		2		3					

	3			3	2		3					
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MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		
2	1	2
3	1	3

PST18CT202 - MEASUREMENT AND INSTRUMENTATION IN SPORTS ENGINEERING

2	COURSE OUTCOMES: Students are able to										
	CO-1	Gain knowledge of the electronics and sensor technology									
	CO-2	Measure performance of the athlete error free									
	CO-3	increase athlete performance and to avoid injury by providing with feed to the players/athletes									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
	1	3				2					
	2		2								
	3			3	3		3				

MAPPING (CO's and PSO's)

Course Outcomes	Program Specific Outcomes (PSO)
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(CO)	1	2
1		
2	1	2
3	1	3

PST18MP201 MINI PROJECT

Teaching Scheme

Lectures: 2 hrs/week

Syllabus Contents:

- Students can take up small problems in the field of design engineering as mini project. It can be related to solution to an engineering problem, verification and analysis of experimental data available, conducting experiments on various engineering subjects, material characterization, studying a software tool for the solution of an engineering problem etc.

2	COURSE OUTCOMES: Students are able to										
	CO-1	Work in actual industrial environment if they opt for internship.									
	CO-2	Solve a live problem using software/analytical/computational tools.									
	CO-3	Write technical reports.									
	CO-4	Present and defend their work in front of technically qualified audience.									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
	1		2	2	3		1				
	2					3	2				
	3	2					2	3			
	4						3	3	2	3	1

PST18CL201 Sports Performance Analysis Lab

Course Objectives:

- To apply movement analysis through image capturing through high resolution camera and motion analysis software to evaluate and optimize the sports performance.
- **LIST OF EXPERIMENTS**

Studies on Motion analysis software, Individual player analysis , match analysis, vertical jumping test, drag flick analysis using stromotion, ball trajectory analysis using stromotion , basketball tagging analysis

LIST OF EQUIPMENTS AND SOFTWARES REQUIRED

- 1.Computers with latest configuration 30 Nos.**
- 2.Power back up for the required capacity**
- 3.Colour printer**
- 4. High resolution camera**
- 5.Motion analysis software like Dartfish and SportCAD etc .**

2	COURSE OUTCOMES: Students are able to										
	CO-1	Acquire knowledge on Athletes movement capturing using high resolution camera Movement analysis software									
	CO-2	Capture and analyse movements in various sports and athletic events									
	CO-3	Optimize players performance									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
		1	3				3				
		2					3	3	2		
	3			3						2	

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		
2	1	2
3	1	3

PST18CL202 COMPUTER AIDED MODELING & ANALYSIS LAB

Course Objectives:

- To attain Numerical simulation to study the Structural, Fluid and FSI analysis of the sports apparel and equipment to confirm the safety and to optimize the sports performance.

LIST OF EQUIPMENTS

1.Computers with latest configuration 30 Nos.

2.Power back up of the required capacity

3.Colour printer

LIST OF SOFTWARES REQUIRED

- 1.Any latest modelling software like ProE, CATIA, CAD etc.,**
- 2.Analysis package such as ANSYS ,MATLAB etc**

- **LIST OF EXPERIMENTS**

Numerical analysis of different sports balls,
Numerical analysis of stadium,
FEM analysis on 2D pole vault
Race engine modelling and analysis

2	COURSE OUTCOMES: Students are able to	
	CO-1	Classify a given problem on the basis of its dimensionality as 1-D, 2-D, or 3-D, time-dependence as Static or Dynamic, Linear or Non-linear.
	CO-2	Develop system level matrix equations from a given mathematical model of a problem following the Galerkin weighted residual method or principle of stationary potential.
	CO-3	While demonstrating the process mentioned in 2 above, he will be able to identify the primary and secondary variables of the problem and choose correct nodal degrees of freedom and develop suitable shape functions for an element, implement Gauss-Legendre scheme of numerical integration to evaluate integrals at element level, and assemble the element level equations to get the system level matrix equations. He will also be able to substitute the essential boundary conditions correctly and obtain the solution to system level matrix equations to get the values of the field variable at the global nodes.
	CO-4	state three sources of errors in implementing FEM and suggest remedies to minimize the same for a given problem, viz. Modeling errors, Approximation errors, and numerical errors.
	CO-5	Obtain consistent and lumped mass matrices for axial vibration of bar and transverse vibration of beams and obtain fundamental frequency of natural vibration using the methods mentioned in the curricula.
	CO-6	use MATLAB for implementation of FEM to obtain elongations at nodes of a bar subjected to traction and concentrated loads and prescribed boundary conditions
	CO-7	use commercial software like ANSYS or ABAQUS for implementation of FEM to obtain stress concentration due to a small hole in a rectangular plate subjected to traction on edges and concentrated loads at points on the edges and prescribed boundary conditions and present his/her work using the above software in a conference or publish the work in a peer reviewed journal 3

3 MAPPING (CO's and PO's)

Course Outcomes	Program Outcomes									
	1	2	3	4	5	6	7	8	9	10
1	1	3								
2	2	2								
3	3	3								
4					3					

5	3	3									
6					3						
7						3	3	3	2		

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		
2		
3		
4		
5		
6		
7		

SEMESTER III

(Applicable to the students admitted from the academic year 2018-2019 onwards)

Sl.No.	Course type & Code No.	Course Title	Teaching Scheme			Credits	Assessment
			Th	Tuto	Lab		
1	Programme Elective/ PST18DE301	Elective V	3	0	0	3	25+75
2	Open Elective/ PST18GE301	Open Elective I	3	0	0	3	25+75
3	Dissertation / PST18DP301	Dissertation Phase I	0	0	20	10	50+150
Total Credits						16	400

(Th-Theory, Tuto- Tutorial, Lab – Laboratory)

Dissertation Phase-1

Teaching Scheme
Lectures: 20 hr/week

Guidelines:

- The Project Work will start in semester III and should preferably be a problem with research potential and should involve scientific research, design, generation/collection and analysis of data, determining solution and must preferably bring out the individual contribution.
- Seminar should be based on the area in which the candidate has undertaken the dissertation work as per the common instructions for all branches of M. Tech.
- The examination shall consist of the preparation of report consisting of a detailed problem statement and a literature review.
- The preliminary results (if available) of the problem may also be discussed in the report.
- The work has to be presented in front of the examiners panel set by Head and PG coordinator.
- The candidate has to be in regular contact with his guide and the topic of dissertation must be mutually decided by the guide and student.

2	COURSE OUTCOMES: Students are able to										
	CO-1	Exposed to self-learning various topics.									
	CO-2	Survey the literature such as books, national /international refereed journals and contact resource persons for the selected topic of research.									
	CO-3	Write technical reports.									
	CO-4	Develop oral and written communication skills to present and defend their work in front of technically qualified audience.									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
	1	3	2	1	2				3		3
	2					2	3				
	3							3			
	4							3	1	3	2

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		
2		
3		
4		

SEMESTER IV

(Applicable to the students admitted from the academic year 2018-2019 onwards)

Sl.No.	Course type & Code No.	Course Title	Teaching Scheme	Credits	Assessment
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			T	Tito	Lab		
1	Dissertatio PST18DP401	Dissertation Phase II	0	0	32	16	100+200
Total Credits						16	

Total Credits for the programme 18+18+16+16 = 68

Dissertation Phase- II

Teaching Scheme

Lectures: 32 hr/week

Guidelines:

- It is a continuation of Project work started in semester III. He has to submit the report in prescribed format and also present a seminar.
- The dissertation should be presented in standard format as provided by the department.
- The candidate has to prepare a detailed project report consisting of introduction of the problem, problem statement, literature review, objectives of the work, methodology (experimental set up or numerical details as the case may be) of solution and results and discussion.
- The report must bring out the conclusions of the work and future scope for the study.
- The work has to be presented in front of the examiners panel consisting of an approved external examiner, an internal examiner and a guide, co-guide etc. as decided by the Head and PG coordinator.
- The candidate has to be in regular contact with his guide.

2	COURSE OUTCOMES: Students are able to	
	CO-1	Prepare comprehensive report based on literature survey and Use different experimental techniques
	CO-2	Use different software/ computational/analytical tools.
	CO-3	Design and develop an experimental set up/ equipment/test rig relevant to sports technology

	CO-4	Conduct tests on existing set ups/equipments and draw logical conclusions from the results after analyzing them.									
	CO-5	Either work in a research environment or in an industrial environment.									
	CO-6	Conversant with technical report writing.									
	CO-7	Present and convince their topic of study to the engineering community or to publish the work in a peer reviewed journal/conference.									
3	MAPPING (CO's and PO's)										
Course Outcomes		Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
1	3		3				3	3	3	1	
2	3	3	3		3	3	3	2	3	3	
3	3	3	3	1	2	3		3	3	3	
4	3	3	3		3	3		3	3	3	
5	3	3	3	2	2	3		1	3	1	
6	1						3		2		
7	3			3			3		3	3	

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		
2		
3		
4		
5		
6		
7		

LIST OF ELECTIVE COURSES OFFERED IN I, II & III SEMESTERS

(Applicable to the students admitted from the academic year 2018-2019 onwards)

Code No.	Course Title	L	T	P	C
THEORY					
ST 1501	Applications of Statistics in Baseball	3	0	0	3
ST 1502	Physiology of Sports and Exercise	3	0	0	3
ST 1503	Race engine design for optimal performance	3	0	0	3
ST 1504	Sports Equipment Materials	3	0	0	3
ST 1505	Sports Traumatology	3	0	0	3
ST 1506	Software in Sports	3	0	0	3
ST 1507	Sports Psychology: Issues and Applications	3	0	0	3
ST 1508	Surveying And Construction Materials	3	0	0	3
ST 1509	Applied Biomaterials in Sports Technology	3	0	0	3
ST 1510	Commercialization of Sports	3	0	0	3
ST 1511	Sports Economics	3	0	0	3
ST 1512	Motor Sports Applications	3	0	0	3
ST 1513	Sports And Event Management	3	0	0	3
ST 1514	Applications of Statistics in Sports	3	0	0	3
ST 1515	Cell & Tissue Engineering	3	0	0	3
ST 1516	Sports Materials Engineering II	3	0	0	3
ST 1517	Race Car Vehicle Dynamics	3	0	0	3
ST 1518	Sports Facility Management	3	0	0	3
ST 1519	Sports Marketing	3	0	0	3
ST 1520	Soil And Ground Improvement Techniques	3	0	0	3

ST 1501 – APPLICATIONS OF STATISTICS IN BASEBALL

2	COURSE OUTCOMES: Students are able to										
	CO-1	Understand concepts of statistics in the different sports to predict the success and maximum chance of winning technique. various kinds of materials and its properties									
	CO-2	Apply statistical techniques in different sports to predict the success and maximum chance of winning.									
	CO-3	Optimize the results									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
	1	3	2	2							
	2				3		2	2			
	3				3	1		2			

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		
2		
3		

ST 1502 - PHYSIOLOGY OF SPORTS AND EXERCISE

Course Objectives:

- To attain the knowledge in the athlete anatomy and biological science to apply the technology to measure and study the performance of the athlete.

2	COURSE OUTCOMES: Students are able to										
	CO-1	Attain knowledge in anatomy and biological science.									
	CO-2	Understand about training and the influence of environment on training									
	CO-3	study and measure the effect of nutritional on optimal performance of the athlete									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
		1	1		2						
		2		2			1				
		3			3		2			1	

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		
2		
3		

ST 1503 RACE ENGINE DESIGN FOR OPTIMAL PERFORMANCE

Course Objectives:

- To attain the knowledge in the engineering technique to optimize the performance of the vehicle in motor sports.

2	COURSE OUTCOMES: Students are able to										
	CO-1	Understand various kinds terminology in race engine									
	CO-2	Acquire knowledge on race car design									
	CO-3	Modify suitable design to increase performance and to avoid the injury.									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
	1	3	2	1							
	2			3	2						
	3			3		3	2	1		1	

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		
2		
3		

ST 1504 SPORTS EQUIPMENT MATERIALS

Total No.of periods : 45

Course Outcomes:

- To apply different engineering materials in the manufacturing of the sports equipments

2	COURSE OUTCOMES: Students are able to										
	CO-1	Gain in-depth knowledge on various kinds of materials and its properties									
	CO-2	Apply specific materials for manufacturing different sports goods and equipments									
	CO-3	Refer suitable materials to design and improve athlete performance and to avoid injury.									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
		1	3	2							
		2	3	2			2				
	3		3	2	1						

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		
2		
3		

ST 1505 SPORTS TRAUMATOLOGY

2	COURSE OUTCOMES: Students are able to										
	CO-1	Understand various kinds of sports injuries and its prevention									
	CO-2	Acquire knowledge on different protective device on sports equipments									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
		1	2		1			1			
		2	2	3			2	2		1	

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		
2		

ST1506 - SOFTWARE IN SPORTS

Course Objectives:

- To gain knowledge in present trending software for the analysis and prediction of the athlete performance and for sports safety.
-

2	COURSE OUTCOMES: Students are able to	
	CO-1	Understand various kinds of software used in sports
	CO-2	Apply suitable software for analysis and prediction of athletes performance and for error free decision making in sports and games.
	CO-3	Carryout project works
3	MAPPING (CO's and PO's)	

Course Outcomes	Program Outcomes									
	1	2	3	4	5	6	7	8	9	10
1	3				3					
2		3	2		3					
3			3	3		3			1	

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		
2		
3		

ST 1507 SPORTS PSYCHOLOGY: ISSUES AND APPLICATIONS

2	COURSE OUTCOMES: Students are able to									
	CO-1	Gain knowledge on <ul style="list-style-type: none">• Psychology on economy issues• Psychology on environmental issues• Ethical and mental health								
	CO-2	Improve individual personality								
3	MAPPING (CO's and PO's)									
	Course Outcomes	Program Outcomes								
		1	2	3	4	5	6	7	8	9
	1	3					2			
	2				1		1		3	

MAPPING (CO's and PSO's)

Course	Program Specific
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Outcomes (CO)	Outcomes (PSO)	
	1	2
1		
2		

ST 1508 SURVEYING AND CONSTRUCTION MATERIALS

Course Objectives:

- To attain the better sound in development of the different sports facility and the infrastructure

2	COURSE OUTCOMES: Students are able to										
	CO-1	Understand the significance of various kinds of tools used for development of sports facility and infrastructure									
	CO-2	Apply various tools for development of different sports facility and infrastructure									
	CO-3	Gain knowledge on construction materials to increase athlete performance and to avoid the injury.									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
	1	3	1		1						
	2		3		2		3				1
	3			3				2		2	

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		

2		
3		

ST 1509 - APPLIED BIOMATERIALS IN SPORTS TECHNOLOGY

Total No.of Periods : 45

Course Outcomes:

- Able to apply knowledge in the application of different biomaterial implantation for athlete in the sports medicine.

2	COURSE OUTCOMES: Students are able to										
	CO-1	Understand the significance of various kinds implant of materials and its properties									
	CO-2	Apply specific implant materials for defective human parts									
	CO-3	Gain knowledge on biocompatibility									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
		1	3								1
		2		3	3			2			
	3							3		1	

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		
2		
3		

ST1510 - COMMERCIALISATION OF SPORTS

Course Objectives:

- To develop the entrepreneurship and management skill in the sport industry and private and public sector organisation.

2	COURSE OUTCOMES: Students are able to										
	CO-1	Understand various issues in commercialising sports									
	CO-2	Gain significant knowledge about the role of television and sports sponsorers on commercialising sports									
	CO-3	The ethical issues pertaining to commercialisation of sports									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
		1	3	2							
		2		3		2		2	3		
	3								3	1	

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		
2		
3		

ST1511 - SPORTS ECONOMICS**Course Objectives:**

- To attain skill in Market, opportunity, labour relation, taxation and legal issue on sports industry.

2	COURSE OUTCOMES: Students are able to										
	CO-1	Gain significant knowledge on <ul style="list-style-type: none">● Market trends and Opportunity,● labour relation,● taxation and legal issue on sports industry.									
	CO-2	Apply SPSS tool to predict and analyse sports industry .									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
	1	3		2							
	2		1	3		3				3	

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		
2		

ST1512 MOTOR SPORTS APPLICATIONS

Course Objectives:

To impart knowledge about racing vehicle behavior and various technologies used in motorsports.

2	COURSE OUTCOMES: Students are able to									
	CO-1	Understand the fundamentals of racing vehicle characteristics.								
	CO-2	Understand aerodynamic requirements in racing vehicles								

	CO-3	Understand the concepts of chassis behavior of racing vehicles.									
	CO-4	Gain knowledge about the concepts of suspension characteristics of racing vehicles.									
	CO-5	Understand the problems faced in drives and braking systems in motorsports									
3	MAPPING (CO's and PO's)										
Course Outcomes		Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
1	3	2									
2		3	2								
3		2	3								
4			2							1	
5							3		2		

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		
2		
3		
4		
5		

2	COURSE OUTCOMES: Students are able to	
	CO-1	Understand various kinds of materials and its properties

	CO-2	Apply specific materials for the design and manufacture of the different sports apparel and equipments									
	CO-3	Modify suitable materials/ design to increase athlete performance and to avoid the injury.									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
		1	3								
		2									
		3									

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		
2		
3		

ST1514 - APPLICATIONS OF STATISTICS IN SPORTS

Course Objectives:

- To attain the skill in applying the maths especially statistics in the different sports to predict the success and maximum chance of winning technique.

2	COURSE OUTCOMES: Students are able to	
	CO-1	Acquire the knowledge of basic statistics concepts and planning aspects
	CO-2	Apply TQM in athletic performance
	CO-3	Derive mathematical model for different sports activities and assess the reliability of the modeled sports activities

	CO-4	Apply the knowledge of reliability and planning concepts to the practical and real time systems.									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
	1	3	2								
	2		3								
	3			3		2		1			
	4				3		3	2			

2	COURSE OUTCOMES: Students are able to										
	CO-1	Understand the concepts of cell and tissue and its properties									
	CO-2	Gain significant knowledge on cell communication and culture									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
		1	3	1							
		2		3	1			2			

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		
2		

ST 1516 SPORTS MATERIAL ENGINEERING -II

Course Objectives:

- To attain the knowledge in the science of the behaviour of the different materials application in the sports.

2	COURSE OUTCOMES: Students are able to										
	CO-1	Understand various kinds of materials and its properties									
	CO-2	Gain specific materials knowledge for manufacture of the different sports apparel and equipments									
	CO-3	Apply suitable materials to increase athlete performance and to avoid the injury during sporting activities.									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
		1	3								
		2		3				1			
	3			3		2		1		1	

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		
2		
3		

ST 1517 RACE CAR VEHICLE DYNAMICS

Course Objectives:

- To attain the knowledge in the engineering technique to optimize the performance of the vehicle in motor sports.

2	COURSE OUTCOMES: Students are able to										
	CO-1	Exhibit the knowledge in <ul style="list-style-type: none">• Tire behaviour• Transient stability• Steady state pair analysis									
	CO-2	Apply the concept learned to design and testing of a race car									
	CO-3	Modify suitable design changes to increase athlete performance and to avoid injury.									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
		1	3	2							
		2		3			2		1		
		3			3	2		3			1

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		
2		
3		

ST 1518 SPORTS FACILITY MANAGEMENT

Course Objectives:

- To understand facility management and to impart knowledge on effective utilization sports facilities while conducting different sports activities.

2	COURSE OUTCOMES: Students are able to
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	CO-1	Learn about <ul style="list-style-type: none">• Concepts of facility management• facility planning• facility marketing• Facility Preparation									
	CO-2	Apply the different sports facility management techniques to organize various sports activities effectively									
	CO-3	Analysis sports performance through facility management									
3	MAPPING (CO's and PO's)										
Course Outcomes		Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
1	3			1							
2		2	2				3				
3			3	2		2				1	

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		
2		
3		

ST 1519 SPORTS MARKETING

Course Objectives:

- To impart knowledge on marketing and to study about various sports marketing techniques and opportunities

2	COURSE OUTCOMES: Students are able to										
	CO-1	Demonstrate knowledge in: <ul style="list-style-type: none">• Concepts in sports Marketing• sports consumer behaviour• Pricing strategies• Places/Product distribution									
	CO-2	Apply sports marketing techniques to market various sports goods									
	CO-3	Analyse different sports marketing techniques and to implement in the real sports marketing environment									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
		1	3				2				
		2		3	1						
		3		3		1		2	1		1

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		
2		
3		

ST 1520 SOIL AND GROUND IMPROVEMENT TECHNIQUES

Course Objectives:

- To aware of the different sports surface engineering technique for the good performance of the athlete and to avoid the sports injury.

2	COURSE OUTCOMES: Students are able to										
	CO-1	Understand various kinds of soils and ground improvement technique and its properties									
	CO-2	Aware of the different sports surface engineering technique for the good performance of the athlete and to avoid sports injury.									
	CO-3	Apply ground improvement techniques to improve players performance									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
		1	3	2							
		2	3	3							
	3			3	2		3	1			

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		
2		
3		

List of Generic/Open Elective Courses Offered for other Department Students

Course code	Course	Teaching Scheme			Credits	Assessment
		Th	Tuto	Lab		
SET 1501	Fundamentals of Sports Technology	3	0	0	3	25+75
SET 1502	Intellectual Properties Rights	3	0	0	3	25+75

SET 1503	Design of Experiments and Research Applications	3	0	0	3	25+75
SET 1504	Industrial Safety	3	0	0	3	25+75

(Th-Theory, Tuto- Tutorial, Lab – Laboratory)

SET 1501 - FUNDAMENTALS OF SPORTS TECHNOLOGY

Course Objectives:

At the end of the course, students will be able to:

Appreciate the different technological advances available for application in sports domain.

2	COURSE OUTCOMES: Students are able to										
	CO-1	Acquire knowledge on <ul style="list-style-type: none">• Sports Science and Sports Engineering• Applications of Engineering in Sports									
	CO-2	Understand engineering concepts and techniques used in different sports .									
	CO-3	Understand business opportunities in sports engineering.									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
		1	3								
		2	3	2				1		2	
		3		3							1

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		
2		
3		

SET 1502 INTELLECTUAL PROPERTIES RIGHTS

2	COURSE OUTCOMES: Students are able to										
	CO1	Understand that today’s world is controlled by Computer, Information Technology, but tomorrow world will be ruled by ideas, concept, and creativity.									
	CO2	Understanding that when IPR would take such important place in growth of individuals & nation, it is needless to emphasis the need of information about Intellectual Property Right to be promoted among students in general & engineering in particular.									
	CO3	Understand that IPR protection provides an incentive to inventors for further research work and investment in R & D, which leads to creation of new and better products, and in turn brings about, economic growth and social benefits.									
3	MAPPING (CO’s and PO’s)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
	1	3	2								
	2	3	3				2				
	3				2		3			2	1

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		
2		

3		
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SET 1503 - DESIGN OF EXPERIMENTS AND RESEARCH APPLICATIONS

Course Objectives:

- To impart knowledge about Design of Experiments, Taguchi's Methods and Robust Design.

2	COURSE OUTCOMES: Students are able to										
	CO-1	Acquire knowledge on <ul style="list-style-type: none">• Design of Experiments• Taguchi’s Methods and• Robust Design techniques.									
	CO-2	Understand Design of Experiments, Taguchi’s Methods and Robust Design techniques in research									
	CO-3	Apply Design of Experiments, Taguchi’s Methods and Robust Design techniques in research									
3	MAPPING (CO’s and PO’s)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
	1	3	2								
	2		2	3	3						
	3				3		3			2	1

MAPPING (CO's and PSO's)

Course	Program Specific
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Outcomes (CO)	Outcomes (PSO)	
	1	2
1		
2		
3		

SET 1504 - INDUSTRIAL SAFETY

Lecture: - 3 h/week

Course objectives:

- To aware of the safety procedure during accident and the maintenance of the machinery and the production sit to avoid the accident.

2	COURSE OUTCOMES: Students are able to									
	CO-1	Acquire knowledge on <ul style="list-style-type: none">Industrial safetyMaintenance engineering								
	CO-2	Apply safety and the maintenance to avoid the accident and injury.								
	CO-3	Plant efficiency improved								

3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
	1	3					1			1	
	2		3					1	3		
	3			3			1		1		

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		
2		

3		
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AUDIT COURSE 1 & 2

Course code	Course	Teaching Scheme			Credits
		Th	Tuto	Lab	
AE01	English for Research Paper Writing	2	0	0	0
AE02	Disaster Management	2	0	0	0
AE03	Sanskrit for Technical Knowledge	2	0	0	0
AE04	Value Education	2	0	0	0
AE05	Constitution of India	2	0	0	0
AE06	Pedagogy Studies	2	0	0	0
AE07	Stress Management by Yoga	2	0	0	0
AE08	Personality Development through Life Enlightenment Skills.	2	0	0	0
AE09	Professional Ethics in Engineering	2	0	0	0

AE01: ENGLISH FOR RESEARCH PAPER WRITING

Course objectives:

Students will be able to:

1. Understand that how to improve your writing skills and level of readability
2. Learn about what to write in each section
3. Understand the skills needed when writing a Title
4. Ensure the good quality of paper at very first-time submission

2	COURSE OUTCOMES: Students are able to									
	CO-1	Improve your writing skills and level of readability								
	CO-2	Understand what to write in each section								
	CO-3	Submit good quality of paper at very first-time								
3	MAPPING (CO's and PO's)									
	Course Outcomes	Program Outcomes								
		1	2	3	4	5	6	7	8	9
	1	1					3			2
	2		2		3				2	
	3				3		3			

MAPPING (CO's and PSO's)

Course Outcomes	Program Specific Outcomes (PSO)
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(CO)	1	2
1	2	
2		2
3		

AE02: DISASTER MANAGEMENT

Course Objectives:

Students will be able to:

1. learn to demonstrate a critical understanding of key concepts in disaster risk reduction and humanitarian response.
2. critically evaluate disaster risk reduction and humanitarian response policy and practice from multiple perspectives.
3. develop an understanding of standards of humanitarian response and practical relevance in specific types of disasters and conflict situations.
4. critically understand the strengths and weaknesses of disaster management approaches, planning and programming in different countries, particularly their home country or the countries they work in.

2	COURSE OUTCOMES: Students are able to										
	CO-1	Understand key concepts in disaster risk reduction and humanitarian response.									
	CO-2	Evaluate disaster risk reduction and humanitarian response policy and practice from multiple perspectives.									
	CO-3	Understand the strengths and weaknesses of disaster management approaches.									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
		1	2							2	1
		2		2						3	2
	3		3					2		1	

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		3
2	2	
3		2

AE03 SANSKRIT FOR TECHNICAL KNOWLEDGE

Course Objectives :

- 1.To get a working knowledge in illustrious Sanskrit, the scientific language in the world
- 2.Learning of Sanskrit to improve brain functioning
- 3.Learning of Sanskrit to develop the logic in mathematics, science & other subjects enhancing the memory power
- 4.The engineering scholars equipped with Sanskrit will be able to explore the huge knowledge from ancient literature

2	COURSE OUTCOMES: Students are able to										
	CO-1	Understanding basic Sanskrit language									
	CO-2	Ancient Sanskrit literature about science & technology can be understood									
	CO-3	Being a logical language will help to develop logic in students									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
	1								2		2
	2								2	2	

	3					2				1	
--	---	--	--	--	--	---	--	--	--	---	--

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		
2		3
3		

AE04: VALUE EDUCATION

Course Objectives

Students will be able to

1. Understand value of education and self- development
2. Imbibe good values in students
3. Let the should know about the importance of character

2	COURSE OUTCOMES: Students are able to									
	CO-1	Knowledge of self-development								
	CO-2	Learn the importance of Human values								
	CO-3	Developing the overall personality								
3	MAPPING (CO's and PO's)									
	Course Outcomes	Program Outcomes								
		1	2	3	4	5	6	7	8	9
	1							3	1	1
	2					1			2	2
	3							2		3

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1	2	
2		2
3		2

AE05: CONSTITUTION OF INDIA

Course Objectives:

Students will be able to:

1. Understand the premises informing the twin themes of liberty and freedom from a civil rights perspective.
2. To address the growth of Indian opinion regarding modern Indian intellectuals' constitutional role and entitlement to civil and economic rights as well as the emergence of nationhood in the early years of Indian nationalism.
3. To address the role of socialism in India after the commencement of the Bolshevik Revolution in 1917 and its impact on the initial drafting of the Indian Constitution.

2	COURSE OUTCOMES: Students are able to										
	CO-1	Acquire knowledge about <ul style="list-style-type: none">fundamental of Indian constitutionConstitutional Rights & Duties:									
	CO-2	Understand civil and economic rights and social justice in India									
	CO-3	Acquire knowledge about <ul style="list-style-type: none">Local AdministrationElection commission									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
	1						2	3			
	2								3		2
	3								3		1

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1	2	
2		2
3	2	

AE06: PEDAGOGY STUDIES

Course Objectives:

Students will be able to:

1.Review existing evidence on the review topic to inform programme design and policy making undertaken by the DfID, other agencies and researchers.

2. Identify critical evidence gaps to guide the development.

Syllabus

Syllabus

2	COURSE OUTCOMES: Students are able to										
	CO-1	What pedagogical practices are being used by teachers in formal and informal classrooms in developing countries?									
	CO-2	What is the evidence on the effectiveness of these pedagogical practices, in what conditions, and with what population of learners?									
	CO-3	How can teacher education (curriculum and practicum) and the school curriculum and guidance materials best support effective pedagogy?									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
	1	1									2
	2		2					1			
	3								2	2	

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1	2	
2		2
3	2	3

AE07: STRESS MANAGEMENT BY YOGA

Course Objectives:

1. To achieve overall health of body and mind
2. To overcome stress

Syllabus

2	COURSE OUTCOMES: Students are able to										
	CO-1	Develop healthy mind in a healthy body thus improving social health also.									
	CO-2	Improve efficiency.									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
	1				2				2	3	1
	2				2		2				

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		3
2	3	

AE08 PERSONALITY DEVELOPMENT THROUGH LIFE ENLIGHTENMENT SKILLS

Course Objectives:

1. To learn to achieve the highest goal happily
2. To become a person with stable mind, pleasing personality and determination
3. To awaken wisdom in students

2	COURSE OUTCOMES: Students are able to										
	CO-1	Study of Shrimad-Bhagwad-Geeta will help the student in developing his personality and achieve the highest goal in life .									
	CO-2	The person who has studied Geeta will lead the nation and mankind to peace and prosperity .									
	CO-3	Study of Neetishatakam will help in developing versatile personality of students.									
3	MAPPING (CO's and PO's)										
	Course Outcomes	Program Outcomes									
		1	2	3	4	5	6	7	8	9	10
		1							2	2	2
		2							1	2	3
		3							2	2	3

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		
2	3	
3		3

AE09: PROFESSIONAL ETHICS IN ENGINEERING

2	COURSE OUTCOMES: Students are able to	
	CO-1	The students will understand the basic perception of profession, professional ethics, various moral & social issues, industrial standards, code of ethics and role of professional ethics in engineering field.
	CO-2	The students will aware of professional rights and responsibilities of an engineer, responsibilities of an engineer for safety and risk benefit analysis.
	CO-3	The students will acquire knowledge about various roles of engineers in variety of global issues and able to apply ethical principles to resolve situations that arise in their professional lives.
3	MAPPING (CO's and PO's)	

Course Outcomes	Program Outcomes									
	1	2	3	4	5	6	7	8	9	10
1							1	2	3	
2									3	2
3									3	2

MAPPING (CO's and PSO's)

Course Outcomes (CO)	Program Specific Outcomes (PSO)	
	1	2
1		
2	3	2
3	1	3


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