



HINDUSTAN
INSTITUTE OF TECHNOLOGY & SCIENCE
(DEEMED TO BE UNIVERSITY)

**B.SC., PHYSICAL EDUCATION,
HEALTH EDUCATION & SPORTS**

CURRICULUM AND SYLLABUS

Choice Based Credit System (CBCS)
(Applicable for students admitted from 2019)

SCHOOL OF PHYSICAL EDUCATION & SPORTS

HINDUSTAN INSTITUTE OF TECHNOLOGY & SCIENCE

VISION AND MISSION

MOTTO

“TO MAKE EVERY MAN A SUCCESS AND NO MAN A FAILURE.”

VISION

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

MISSION

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

VALUE STATEMENT

- Integrity, Innovation, Internationalization

B.Sc. PHYSICAL EDUCATION, HEALTH EDUCATION AND SPORTS

Vision

To nurture sports professionals by imparting quality education, training, research, development and innovation in the field of physical education, health education and sports.

Mission

- To train highly competent and skilled professionals in the field of Physical Education, Health Education and Sports
- To impart research-based quality education
- To inculcate aspiration and confidence to enhance professionalism in their chosen field of Physical Education

Objectives

- Incorporate research and innovation in the field of physical education, health education and sports by conducting various programmes
- Emphasizing quality education by providing global standards
- Enhance innovative programmes by conducting training camps, workshops, seminars, conferences and project meet
- Strategic collaborations with national and international organizations for implementing standard teaching and learning activities
- Facilitating students to discover a range of modern-day and ethical issues related to Physical education, Health education and Sports

PROGRAMME EDUCATIONAL OBJECTIVES (PEO)

The Program Educational Objectives (PEOs) describe the specialized accolades of our graduates about three-five years after having completed the under-graduate program in Physical Education, Health Education and Sports.

PEO-1: Design and develop strategies to cater the needs of Sports field that are ethical and safe.

PEO-2: Possess leadership qualities, team spirit and communication skills to exhibit professional responsibility.

PEO-3: Improve logical and integrative problem-solving approaches for precarious consideration and systematic analysis.

PEO-4: To inculcate training and practical approach usin students in the field of physical education, health education and sports.

PEO-5: Create, Select and Apply appropriate techniques, resources and modern technology in multi-disciplinary environment.

PROGRAM OUTCOMES (PO)

The Program Outcomes (POs) of the Physical Education, Health Education and Sports Graduate will be:

- PO - 1: Understand the importance of health and wellness for sports professionals.
- PO - 2: Practically apply knowledge with an understanding of sports, health and exercise sciences through scientific principles to analyze techniques.
- PO - 3: Emphasis on teaching relevant skills with student centered approach who will in turn will be highly valued in physical education, Health education and sports.
- PO - 4: Practically apply knowledge with an understanding of officiating, rules and regulations.
- PO - 5: Execute well planned work assignments by implementing actual time management.
- PO - 6: Get ready for prominent career in physical education and sports by equipping them with relevant facts, concepts and scientific theories related to various disciplines applicable to Physical education, Health education and sports.

PROGRAM SPECIFIC OUTCOMES (PSO)

The Program Specific Outcome (PSO) describe that upon graduation in Physical Education, Health Education and Sports, graduate will

- PO - 1: Establish knowledge and proficiency in theories, concepts, practice and skills specific to the field of Physical Education, Health Education and Sports
- PO - 2: Exhibit capability in applying his/her knowledge in instructional planning, scientific theories related to various disciplines applicable to Physical and Health education
- PO - 3: Demonstrate a working and specialized knowledge in discipline specific skills, technique and tactics.
- PO - 4: Determine ability to integrate knowledge and understanding, analytical skills and attributes to appreciate multiple perspectives
- PO - 5: Develop active listening and speaking skills as well as interpersonal skills
- PO - 6: Attribute career long learning for engaging in youth sport and participating in National and International events.

Admission procedure:

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

- | | | |
|--------------------------------------|---|----------|
| 1. Qualifying Examination | - | 25 marks |
| 2. Participation in Sports and Games | - | 25 marks |
| 3. Sports proficiency test | - | 50 marks |
| 4. Physical fitness test | - | 50 marks |
| a. 100mts - 20 marks | | |
| b. Shot-put - 15 marks | | |
| c. Long Jump - 15 marks | | |

Sports and Games participation (Maximum Marks: 25)

- | | | |
|--|---|----------|
| 1. Representation for the Country/National placing (I, II, III & IV) | - | 25 marks |
| 2. State Representation (Form II/IV in games/Sports) | - | 20 marks |
| 3. Inter Division (Participation) BDS / RDS
Inter District (participation) / CBSC CLUSTER | - | 15 marks |
| 4. BDS / RDS | - | 10 marks |
| 5. Inter-School Representation | - | 05 marks |

Games and Sports proficiency test (Maximum marks: 50)

The applicant should choose any one of the following games (Badminton, Ball Badminton, Basketball, Cricket, Football, Handball, Hockey, Kabaddi, Kho-Kho, Table Tennis, Tennis & Volleyball) for assessment.

Medical Certificate

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

SEMESTER - I

Sl. No	Course Category	Course Code	Name of the Course	L	T	P	C	TCH
1	BS	TLA2101 HLA2101 FLA2101 FLA2105	Tamil - I Hindi - I French - I A French - I B	3	0	0	3	3
2	BS	ELA2101	English	3	0	0	3	3
3	PC	PDB1101	Foundation of Physical Education	3	0	0	3	3
4	PC	PDB1102	Anatomy and Physiology	3	0	0	3	3
5	PC	PDB1103	Theories of Major Games - I (Badminton, Hand Ball & Kabaddi)	3	0	0	3	3
PRACTICAL								
6	PC	PDB1131	Major Games - I (Badminton, Hand Ball and Kabaddi)	0	0	4	2	4
7	CF	PDB1132	Enrichment Course - I	0	0	4	2	4
TOTAL				15	0	8	19	23

SEMESTER - II

Sl. No	Course Category	Course Code	Name of the Course	L	T	P	C	TCH
1	BS	TLA2116 HLA2116 FLA2116 FLA2120	Tamil - II Hindi - II French - II A French - II B	3	0	0	3	3
2	BS	ELA2116	English - II	3	0	0	3	3
3	PC	PDB1116	Health Education, Safety Education and First aid	3	0	0	3	3
4	PC	PDB1117	Theories of Yoga and Gymnastics	2	0	0	2	2
	HS	PDF1118	Environmental Science	2	0	0	2	2
5	HS	PDF1119	Value Education	2	0	0	2	2
PRACTICAL								
6	PC	PDB1141	Asanas, Pranayama, Kriyas and Gymnastics	0	0	4	2	4
7	CF	PDB1142	Enrichment Course - II	0	0	4	2	4
TOTAL				15	0	8	19	23

SEMESTER - III

Sl. No	Course Category	Course Code	Name of the Course	L	T	P	C	TCH
1	PC	PDB1201	Methods in Physical Education	3	0	0	3	3
2	PC	PDB1202	Test, Measurement and Evaluation in Physical Education	3	0	0	3	3
3	PC	PDB1203	Theories of Major Games - II (Basketball, Table Tennis & Tennis)	3	0	0	3	3
4	PC	PDB1204	Statistics in Physical Education	3	0	0	3	3
5	PC	PDB1205	Sports Psychology and Sociology	3	0	0	3	3
PRACTICAL								
6	PC	PDB1231	Major Games - II (Basketball, Table Tennis & Tennis)	0	0	4	2	4
7	HS	PDF1232	Enrichment Course - III	0	0	4	2	4
TOTAL				15	0	8	19	23

SEMESTER - IV

Sl. No	Course Category	Course Code	Name of the Course	L	T	P	C	TCH
1	PC	PDB1216	Sports Management	3	0	0	3	3
2	PC	PDB1217	Applied Kinesiology & Bio-mechanics	3	0	0	3	3
3	PC	PDB1218	Sports Medicine	3	0	0	3	3
4	PE		Elective - I	3	0	0	3	3
5	OE		Non - Department Elective	3	0	0	3	3
PRACTICAL								
6	PC	PDB1241	Teaching Practice	0	0	6	3	6
7	NC	PDF1242	Seminar	0	0	4	2	4
TOTAL				1	0	10	20	25

SEMESTER - V

Sl. No	Course Category	Course Code	Name of the Course	L	T	P	C	TCH
1	PC	PDB1301	Science of Sports Training	3	0	0	3	3
2	PC	PDB1302	Exercise Physiology	3	0	0	3	3
3	PC	PDB1303	Theories of Major Games - III (Cricket, Football, Hockey and Volleyball)	3	0	0	3	3
4	PE		Elective - II	3	0	0	3	3
5	OE		Non - Department Elective	3	0	0	3	3
PRACTICAL								
6	PC	PDB1331	Major Games - III (Cricket, Football, Hockey and Volleyball)	0	0	6	3	6
7	NC	PDF1332	NSS / NCC / YRC / SPORTS	0	0	4	2	4
TOTAL				15	0	10	20	25

SEMESTER – VI

Sl. No	Course Category	Course Code	Name of the Course	L	T	P	C	TCH
1	PC	PDB1316	Modern Trends in Physical Education	3	0	0	3	3
2	PC	PDB1317	Theories of Track & Field	4	0	0	4	4
PRACTICAL								
	PC	PDB1341	Track & Field	0	0	8	4	8
	PC	PDB1342	Competitions / Training / Survey / Schemes	0	0	12	6	12
Total				7	0	20	17	27

LIST OF DEPARTMENTAL ELECTIVES (PROFESSIONAL ELECTIVE) WITH GROUPING - SEMESTER WISE

Semester	Course Category	Course Code	Name of the Course	L	T	P	C	TCH
4	PE	PDC1211	Fitness and Wellness	3	0	0	3	3
4	PE	PDC1212	Olympic Movement	3	0	0	3	3
4	PE	PDC1213	Sports Nutrition	3	0	0	3	3
5	PE	PDC1311	Sports Journalism	3	0	0	3	3
5	PE	PDC1312	Sports Physiotherapy	3	0	0	3	3
5	PE	PDC1313	Sports Technology	3	0	0	3	3

SEMESTER - I

Sl. No	Course Category	Course Code	Name of the Course	L	T	P	C	TCH
1	BS	TLA2101 HLA2101 FLA2101 FLA2105	Tamil - I Hindi - I French - I A French - I B	3	0	0	3	3
2	BS	ELA4104	English - I	3	0	0	3	3

SEMESTER - II

1	BS	TLA2116 HLA2116 FLA2116 FLA2120	Tamil - II Hindi - II French - II A French - II B	3	0	0	3	3
2	BS	ELA2116	English - II	3	0	0	3	3

Note: Language: Tamil, English, Hindi, French - Syllabus and Text books are same as prescribed for other B.Sc. programs.

Course Title	Foundation of Physical Education			Credits	3
Course Code	PDB1101	Course Category	PC	L-T-P-S	3-0-0-0
CIA	50 %			ESE	50 %
Learning Level	BTL				
CO	Course Outcomes				PO
1	To study and understand the fundamental concepts of Physical Education.				1
2	To attain the knowledge of history of Physical Education.				1, 2
3	Understand the basic competence and confidence to face the different challenges.				2, 3
4	To acquire knowledge about scope and future of Physical education.				6
5	To elaborate about the sports competition's categories.				6
Prerequisites: Nil					
Module I: Introduction to Physical Education					9
Meaning and Definition of Education and Physical Education. Need, Nature and Scope of Physical Education. Physical training and Physical culture.					
Module II: Multiple Developments and Learning					9
Aim and Objectives of Physical Education. Development of Physical, Cognitive, Neuromuscular, Affective, Social, Emotional, Spiritual and Recreational. Theories of Learning. Laws of Learning.					
Module III: Physical Education and allied Sciences					9
Scientific basis Physical Education. Contribution of Allied Sciences - anatomy, Physiology, Biomechanics, Kinesiology, Sports Medicine, Psychology, Sociology and Computer Science.					
Module IV: History of Physical Education					9
History of Physical Education in Sparta and Athens. Olympic Games: Ancient, Modern - Origin - Organization and conduct of the game - Olympic Flag, Torch, Oath, Emblem and Motto.					
Module V: Sporting Institutions and Awards					9
Recent developments in India: SAI, NSNIS, SNIPES, LNIPE. Sports Academics: Awards and Scholarships: Arjuna Award, Dhronocharya Award, Rajiv Gandhi Khel Ratna Award - International and National Competitions: Asian Games, SAF, SGF, RDS and BDS.					
References:					
1. Bucher, Charles A., (1983). Foundations of Physical Education. St. Louis: The C.V. Mosby Company.					
2. Thirunarayanan, C. and Hariharan, S., (1990). Analytical History of Physical Education. Karaikudi:C.T. & S.H. Publications.					
3. Kamlesh, M.L., (1988). Physical Education: Facts and Foundation. New Delhi: P.B. Publications.					
4. Sharma, O.P., (1998). History of Physical Education. New Delhi: Khel Shitya Kendra.					
5. Wakharkar, D.G., (1967). Manual of Physical Education in India. Bombay: Pearl Publications Pvt. Ltd.					

Course Title	Anatomy and Physiology			Credits	3
Course Code	PDB1102	Course Category	PC	L-T-P-S	3-0-0-0
CIA	50%			ESE	50%
Learning Level	BTL				
CO	Course Outcomes				PO
1	To describe the structures and functions of tissues and muscles in human body				1, 2
2	To summarize the classification, features and the importance of skeletal system in human body.				2, 6
3	To understand the anatomy and physiology of nervous and digestive system				2, 6
4	To elaborate the structure and functions of respiratory and circulatory systems.				2, 6
5	To explain the role of endocrine glands in development and regulation of body functions				2, 6
Prerequisites:					
Module I: Introduction to Anatomy and Physiology					9
Meaning of Anatomy and Physiology - Need and Scope of Anatomy and Physiology in Physical Education. Cell - Structure and Functions. Tissues - Types and Function. Muscular System - Types of Muscles: Skeletal Muscle, Cardiac Muscle, and Smooth Muscle.					
Module II: Skeletal System					9
Skeleton: Meaning and Functions - Bones: Classification and Functions - General Features of Various Bones: Vertebral Column, Pelvic Bone, Radius and Ulna, Scapula, Femur and Bones of Skull - Joints: Definition and Classification of Joints.					
Module III: Nervous and Digestive Systems					9
Nervous System: Neuron - Central Nervous System (CNS): Brain and Spinal Cord - Peripheral Nervous System (PNS): Cranial Nerves and Spinal Nerves. Digestive System: Structure & Functions - Digestive Process - Liver, Pancreas - Functions.					
Module IV: Respiratory and Circulatory Systems					9
Respiratory System - Respiration - Respiratory Track - Alveoli - Lungs: Structure & Functions - Gas Exchange - Vital Capacity. Circulatory System - Heart: Structure & Functions - Cardiac Cycle, Cardiac Output and Stroke Volume.					
Module V: Endocrine Systems					9
Endocrine Glands - Functions of Endocrine Glands: Pituitary, Thyroid, Para-Thyroid, Thymus, Pancreas, Adrenal & Sex – their role, in growth, development and regulations of body functions.					
Reference					
<ol style="list-style-type: none"> 1. Curton, A.C." Function of the Human Body", London W.B. Saunders Company 1986. 2. Srivastava, etc. "Text book of practical Physiology", Calcutta, Scientific Book Agency, 1976. 3. Morehouse and Miller, "Physiology of Exercise", St. Louis the C.V. Mosby Company, Latest (ed.). 4. Kapovich and Sinnser, "Physiology of Muscular Activity", London W.B. Saunders company 1965. 5. Anderson T.Mc. CLurg, "Human Kinetics and Analysing Body Measurements, London. William Heinmann Medical Books Ltd., 1961. 6. Davis, D.V. "Gray's Anatomy", London Longman Green and Company Ltd., 1967. 7. Dyal, Ellen Neil Kinesiology. The Anatomy of motion. 8. Pearse Evelyn, B., "Anatomy and Physiology for Nurses" London, Faber and Faber Ltd., 1967. 9. Pearce J.W., "Anatomy for Students and Teachers of Physical Education, London, Edward Arnold and Company, 1959. 					

Course Title	Theories of Major Games - I (Badminton, Hand Ball & Kabaddi)			Credits	3
Course Code	PDB1103	Course Category	PC	L-T-P-S	3-0-0-0
CIA	60%			ESE	40%
Learning Level	BTL				
CO	Course Outcomes				PO
1	Impart the theoretical knowledge on wide range such as origin, growth, development and organization set-up at various levels of selected games				2, 3
2	To know the markings of selected games				4
3	To discuss about the rules and regulations of selected games				4
4	To elaborate the mechanics of officiating in selected games				4, 5
5	To know the Sports bodies of selected games				5, 6
Prerequisites:					
Module I: History					9
Origin and development - Badminton, Hand Ball, Kabaddi, Table Tennis & Tennis.					
Module II: Marking					9
Layout & markings of field / court - Badminton, Hand Ball, Kabaddi, Table Tennis & Tennis.					
Module III: Rules and Regulation					9
Rules and their interpretations of Badminton, Hand Ball, Kabaddi, Table Tennis & Tennis					
Module IV: Mechanics of Officiating					9
Duties of officials - official signals, system of officiating, score sheet - Badminton, Hand Ball, Kabaddi, Table Tennis & Tennis					
Module V: Sports Bodies					9
International, national and state level sports bodies. International Olympic committee, Indian Olympic association. Organizational setup of various sports bodies.					
Reference					
<ol style="list-style-type: none"> 1. Aibara, E.B., (1975). Badminton. Patiala: National Institute of Sports 2. Anand. R.L. (1986). Play field manual, Patiala: NIS publication. 3. Book of rules of games and sports, (2005). New Delhi: National council of Y.M.C.A of India. 4. Rao, C. V. (1971). Kabaddi, Patials, N.I.S. Publications. 5. Colberk A.L. (1966). Modern Badminton-A Fundamental Analysis of Skills and Tactics. London: Nicholas Kaya. 6. Dhanaraj, V. Hubert, (1991). Kabaddi - A Modern Approach. Patiala: Sainsoris 7. Perinbaraj, S.B., & et al. (2009). Play field: Dimensions and its requirements, Karaikudi: vinis publication. 8. Rao, E.Prasad (2002). The complete hand book on Kabaddi. Vizianagaram: Jagadamba publication. 9. Wein, Horts, (1979). The Science of Hockey. London: Pelham Books. 					

Course Title	Major Games - I (Badminton, Handball & Kabaddi)			Credits	2
Course Code	PDB1131	Course Category	PC	L-T-P-S	0-0-4-0
CIA	80%			ESE	20%
Learning Level	BTL				
CO	Course Outcomes				PO
1	To provide adequate practice on fundamental, advance skills and techniques in selected sports discipline				1, 2
2	To train on coaching, officiating in selected sports discipline				2
3	To know the markings of selected games				2, 3
4	To develop and practicing the officiating rules in various games				6
Prerequisites:					
Module I: Fundamental and Advance Skills					12
Fundamental and advance - skills, techniques, drills and lead-up games in Badminton, Handball & Kabaddi.					
Module II: Playing Ability / Performance					12
Assessment of playing ability / performance - Badminton, Handball & Kabaddi. Specific conditioning / training for Badminton, Handball & Kabaddi.					
Module III: Marking					12
Layout & Markings of court/field - Badminton, Handball & Kabaddi.					
Module IV: Officiating					12
Rules and interpretations, duties of the officials, official signals, system of officiating, equipment specifications and score sheet for Badminton, Handball & Kabaddi.					
Module V: Record Note					12
Preparation of record for Badminton, Handball & Kabaddi. History, organizational set-up at International, national and state level sports bodies, skill, technique, tactics, major competitions for Badminton, Handball & Kabaddi.					
Reference					
<ol style="list-style-type: none"> 1. Anand. R.L. (1986). Play field manual, Patiala: NIS publication. 2. Book of rules of games and sports, (2005). New Delhi: National Council of Y.M.C.A of India. 3. Rao, E.Prasad (2002). The complete hand book on Kabaddi. Vizianagaram: Jagadamba publication. 4. Dhanaraj, V. Hubert, (1991). Handball – A Modern Approach. Patiala: Sainsoris 5. Part, Davic, (1979) Better Badminton Learn in yourself Book. London: Orient Paper Books. 6. Perinbaraj, S.B., & et al. (2009). Play field: Dimensions and its requirements, Karaikudi: Vinis publication. 7. Rao, C. V. (1971). Kabaddi, Patials, N.I.S. Publications. Yadav, Yogesh. (1969). Kho-Kho, Maharashtra Kho-Kho Association. 					

Course Title	Enrichment Course - I			Credits	2
Course Code	PDB1132	Course Category	CF	L-T-P-S	0-0-4-0
CIA	80%			ESE	20%
Learning Level	BTL				
CO	Course Outcomes				PO
1	Demonstrate a critical understanding of the importance of letter writing and develop a thorough understanding of the impact of letters in communication				4
2	Analyzing the various situations in an Office environment and drafting the letters appropriate for the situation in precise and concise manner				3
3	Applying the concept of letter writing in external business correspondence and the importance of persuading etc. in the letter				3
4	Understanding the power of Resume while applying for a job and the impact it is likely to create				5, 6
5	Applying the communication concepts for writing reports effectively and persuasively				6
Prerequisites: Prerequisites: Thorough knowledge in Sentence making, Punctuation, basic business vocabulary Thorough knowledge in Sentence making, Punctuation, basic business vocabulary					
Module I: Letter Writing					12
Letter Writing, Sales Letter, Claim and Adjustment Letter and Social Correspondence					
Module II: Inter-Office Correspondence					12
Memorandum, Inter-Office Memo, Notices, Agenda, Minutes					
Module III: External Correspondence					12
Inviting Quotation, Sending Quotation, Placing Orders, Inviting Tenders					
Module IV: Job Application					12
Job Application Letter, Preparing Resumes					
Module V: Report Writing					12
Report Writing, Types of Reports, Basic Formats of Reports and Importance of Including Visuals Such as Including Tables and Charts					
Text Books					
1. Powell. In Company. MacMillan. 8th Edison 2016 2. Pease, Allan. 1998. Body Language: How to Read Others Thoughts by their Gestures. Sudha Publications. New Delhi. 5th Edison 2015					
Reference Books					
1. Gardner, Howard. 2011. Multiple Intelligences: The Theory in Practice: A Reader. Basic Books. New York. 2. De Bono, Edward. 2015. Six Thinking Hats. 4th Edition. Penguin Books					
E Books					
1. http://www.mantex.co.uk/improve-your-writing-skills/ 2. https://www.bloomsbury-international.com/images/ezone/ebook/writing-skills-pdf.pdf					
MOOC					
1. https://www.mooc-list.com/course/writing-your-world-finding-yourself-academicspacecoursera					

Course Title	Health Education, Safety Education and First Aid			Credits	3
Course Code	PDB1116	Course Category	PC	L-T-P-S	3-0-0-0
CIA	50%			ESE	50%
Learning Level	BTL				
CO	Course Outcomes				PO
1	Understand the basics concepts of health education.				1, 2
2	To examine the life style choices and how they impact to overall health issues				2
3	To enable the students to understand the various communicable diseases.				2
4	Understand the basics concepts of safety education.				2, 6
5	To develop the skills and techniques for first aid.				6
Prerequisites:					
Module I: Introduction to Health Education					9
Meaning and definition of Health Education Aim, Scope of Health Education - role of International Organizations (WHO, UNICEF), National, State Level Health Organizations.					
Module II: Mental Health					9
Meaning of mental health - factors of mental health - mental health problem of college student - principles of mental health - characteristics of a health personality.					
Module III: Communicable Diseases					9
Communicable Diseases - Causes, modes of spread - Prevention of Tuberculosis, Malaria, Small box, Chicken box and AIDS.					
Module IV: Safety Education					9
Definition of Safety Education- factors affecting Safety Education - Need and Importance of Safety Education - Safety in Play fields, Swimming pool, Gymnasium.					
Module V: First Aid					9
Definition - Importance of First Aid - Athletic injuries: Sprain, Strain, Contusion, Fracture, Dislocation, Muscle Cramp, Abrasion and Puncture.					
Reference					
1. Wellgoose. (1977). Health Teaching in secondary Carl. E. Schools: W.B. Saunders.					
2. Wilson, Kathleen J. W. (1987). Anatomy and Physiology, Health and illness. 6 th Edition. Churchill Livingstone Edinburgh.					
3. Anderson.T. Mc. Clerg, (1961). Human Kinetics and Analyzing Body Movements, London: William Heinman Medical Books Ltd.					
4. Frank, H. &Walter, H., (1976). Turners school health education. Saint Louis: The C.V. Mosby Company.					
5. Nemir, A. (n.d.). The school health education. New York: Harber and Brothers.					
6. Prarce, J.W. (1984). Anatomy for students and Teachers of Physical Education, Edward Arnold & Co.					

Course Title	Theories of Yoga and Gymnastics			Credits	2
Course Code	PDB1117	Course Category	PC	L-T-P-S	2-0-0-0
CIA	60%			ESE	40%
Learning Level	BTL				
CO	Course Outcomes				PO
1	Understand the fundamental skills and history of Yoga				1, 2
2	To attain the knowledge about various Asanas and Medication				2
3	To acquire knowledge about Association and Organization of Gymnastics				4, 5
4	To discuss rhythmic patterns using gymnastics and rhythmic exercises				1, 2
5	To develop the skills for officiating and organizing the events				4
Prerequisites: Nil					
Module I: Introduction & Objectives of Yoga					6
Meaning of yoga - Aim and objectives of Yoga - Concept of yoga, Systems of Yoga - Eight limbs of yoga - Asanas - Classification of Asanas - Guidelines for practicing Asanas.					
Module II: Asanas					6
Procedure of doing Asanas. Asanas in Long Sitting Position - Prone Position - Supine Position - Standing Position - Kneeling Position. Physiological Benefits of Asanas. Pranayama - Types & Concepts of Prnayama - Closing the nostrils - Controlling the breath - Bhandhas - Practice regulation - Importance of suspension (Kumbhaka) - Kriyas and its types. Meditation and its Types. Role of Meditation in Physical Education and Sports					
Module III: History of Gymnastics					6
History of Gymnastics: India. Warming-up, Specific Exercises for Gymnasts, Training Qualities, Load, Safety Hints, Warm-down					
Module IV: Floor Exercises					6
Floor Exercises for Men; Exercises and Techniques on Pommel Horse, Exercises and Techniques on Vaulting, Exercises and Techniques on Roman Rings, Exercises and Techniques on Parallel Bar, Exercises and Techniques on Horizontal bar. Floor Exercises for Women; Exercises and Techniques on Vaulting, Exercises and Techniques on Balance Beam, Exercises and Techniques on Asymmetric Bar.					
Module V: Rule and Regulation					6
Important Competitions, Rules, Officiating, Equipments and their specification, Maintenance of Equipments.					
References:					
1. Coopn Phyllis and Milan Trnka, Teaching Gymnastic Skills to men and Women, Delhi, Surject Publications, 1982.					
2. Modakpintum Gymnastics: A Scientific Approach, Pilani: Runthala Publisher's and Printers, 1996.					
3. Elango. M, Kandasamy. M, Sivagnanam. P. Basic Gymnastics: Krishna Publications, 2007					
4. B.K.S., Iyengar Light on Yoga, London: Unwin Paperbacks, 1989.					
5. K. Chandrasekaran, "Sound health through yoga" Prem Kalyan Publication, Sedapatti, 1999.					
6. Kumaresan P, yogasanam, Tirunelveli: Abinaya Publications, 2002.					

Course Title	Environmental Science			Credits	2
Course Code	PDB1118	Course Category	HS	L-T-P-S	2-0-0-0
CIA	50%			ESE	50% Internal Exam
Learning Level	BTL				
CO	Course Outcomes				PO
1	To understand our natural resources, ecosystem and the biodiversity of the planet				1, 6
2	Obtain basic knowledge on environment pollutions, its types and pollutants				2, 6
3	Understanding the Social Issues and the impact of Population on the Environment				2, 6
Prerequisites: Nil					
Module I: Natural Resources					6
<p>Definition, scope and importance, of environmental studies, Need for public awareness. Renewable and non-renewable resources: Natural resources and associated problems.</p> <ol style="list-style-type: none"> Forest resources: Use and over-exploitation, deforestation, case studies. Timber extraction, mining, dams and their effects on forest and tribal people. Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams-benefits and problems. Mineral resources: Use and exploitation, environmental effects of extracting and using mineral resources, case studies. Food resources: World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity, case studies. Energy resources: Growing energy needs, renewable and non-renewable energy sources, use of alternate energy sources. Case studies. Land resources: Land as a resource, land degradation, man induced landslides, soil erosion and desertification. <p>Role of an individual in conservation of natural resources. Equitable use of resources for sustainable lifestyles.</p>					
Module II: Ecosystems					6
<p>Structure and function of an ecosystem, Concept of an ecosystem, Producers, consumers and decomposers, Energy flow in the ecosystem, Ecological succession, Food chains, food webs and ecological pyramids, Introduction, types, characteristic features, structure and function of the following ecosystem: - Forest ecosystem, Grassland ecosystem, Desert ecosystem, Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries).</p>					
Module IV: Environmental Pollution					6
<p>Definition, Cause, effects and control measures of: - Air pollution, Water pollution, Soil pollution, Marine pollution, Noise pollution, Thermal pollution, Nuclear hazards, Solid waste Management: Causes, effects and control measures of urban and industrial wastes. Role of an individual in prevention of pollution. Pollution case studies. Disaster management: floods, earthquake, cyclone and landslides.</p>					

Module IV: Social issues and the Environment**6**

From Unsustainable to Sustainable development, Urban problems related to energy, Water conservation, rain water harvesting, watershed management, Resettlement and rehabilitation of people; its problems and concerns. Case Studies, Environmental ethics: Issues and possible solutions. Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust. Case Studies. Waste land reclamation. Consumerism and waste products. Environment Protection Act. Air (Prevention and Control of Pollution) Act. Water (Prevention and control of Pollution) Act, Wildlife Protection Act, Forest Conservation Act, Issues involved in enforcement of environmental legislation. Public awareness.

Module V: Human Population and the Environment**6**

Population growth, variation among nations. Population explosion - Family Welfare Program Environment and human health. Human Rights. Value Education. HIV/AIDS. Women and Child Welfare. Role of Information Technology in Environment and human health. Case Studies.

Suggested Reads

Case Studies on Environmental Pollution

Reference

1. Cunningham, W.P. Cooper T.H. Gorhani, E & Hepworth, M.T. 2001, Environmental Encyclopedia, Jaico Publ. House, Mumbai, 1196p
2. Text Book for environmental Studies for UGC, ErachBharucha, 2004
3. <http://www.ugc.ac.in/oldpdf/modelcurriculum/env.pdf>
4. <http://academicearth.org/environmental-studies/>

Course Title	Value Education			Credits	2
Course Code	PDF1119	Course Category	PC	L-T-P-S	2-0-0-0
CIA	50%			ESE	50% Internal Exam
Learning Level	BTL				
CO	Course Outcomes				PO
1	Understand the values and its importance in the current scenario				1, 6
2	To attain knowledge about human rights and identifying the social evils in society				1, 6
3	To discuss about the awareness of injustice in human values				2
4	To attain knowledge about environment and ecological balance system				2, 6
5	To discuss about unethical activities in the society				6
Prerequisites: Nil					
Module I: Introduction					6
Value education-its purpose and significance in the present world - Value system - The role of culture and Civilization-Holistic living - Balancing the outer and inner - Body, Mind and Intellectual level- Duties and responsibilities.					
Module II: Salient Values for Life					6
Truth, commitment, honesty and integrity, forgiveness and love, empathy and ability to sacrifice, care, unity, and inclusiveness, Self-esteem and self-confidence, punctuality-Time, task and resource management- Problem solving and decision-making skills- Interpersonal and Intra personal relationship - Team work - Positive and creative thinking					
Module III: Human Rights					6
Universal Declaration of Human Rights - Human Rights violations - National Integration - Peace and non-violence - Dr. AP J Kalam's ten points for enlightened citizenship - Social Values and Welfare of the citizen - The role of media in value building.					
Module IV: Environment and Ecological Balance					6
Environment and Ecological balance - interdependence of all beings - living and non-living. The binding of man and nature - Environment conservation and enrichment.					
Module V: Social Evils					6
Corruption, Cybercrime, Terrorism - Alcoholism, Drug addiction - Dowry - Domestic violence - untouchability - female infanticide - atrocities against women- How to tackle them					
Suggested Reads					
Watch Female Problem Centric Movies					
Reference					
1. M.G. Chitakra: Education and Human Values, A.P.H. Publishing Corporation, New Delhi, 2003 2. https://www.researchgate.net/publication/293755836_value_education_need_of_the_hour 3. http://cbseportal.com/e-books/download-free-ncert-e-book-education-for-values-inschool-a-framework					

Course Title	Asanas, Pranayama, Kriyas and Gymnastics			Credits	2
Course Code	PDB1141	Course Category	PC	L-T-P-S	0-0-4-0
CIA	80%			ESE	20%
Learning Level	BTL				
CO	Course Outcomes				PO
1	To acquire the practical knowledge of Asanas				2, 4
2	To accomplish the practical knowledge of Bandha and Kriyas				2, 4
3	To provide practical exposure in selected floor Exercises in Gymnastics				2, 4
4	To provide practical exposure in selected Pommel Horse in Gymnastics				2, 4
5	To provide practical exposure in selected parallel bar and roman rings				2, 4
Prerequisites: Nil					
Module I: Asanas					12
Asanas - Swastickasana, Padmasana, Vajrasana, Matsyendrasana, Samasana, Vipareetakarani, Bhujangasana, Dhanurasana, Matsyasana, Shalabasana, Halasana, Patchimotanasana, Yogamudra, Vakrasana, Sarvangasana, Shirsasana, Mayurasana, Vrikshasana, Tadasana, Makarasana, Shavasana					
Module II: Bandha and Kriyas					12
Bandha and Kriyas - Jalaneti, Sutraneti Uddyana, Nauli, KapalaBhati. Pranayama - Suryabandha, Ujjayi, Bhastrika, Nadishodhana, Sheetali, Shitkari					
Module III: Floor Exercises					12
Floor Exercises - Forward Roll, Backward Roll, Handstand Forward Roll, Jump Forward to Roll Forward, Head Spring, Hand Spring, Cart Wheel, Round Off					
Module IV: Pommel Horse					12
Pommel Horse (Any one of the Apparatus in the following) - Supports, (Front, Rear, Straddle, Split, Feint), Single leg Circle Clockwise (Right leg and Left leg), Single leg Circle Anti Clockwise (Right leg and Left leg), Double leg Circle, Scissors.					
Module V: Parallel Bar and Roman Rings					12
(Any one of the Apparatus in the following) Parallel Bar - Perfect Swing, Straddle Seat, L-Support, Forward Roll, Backward Roll, Shoulder Stand, Dismount. Horizontal Bar, Perfect Swing, Free Hip Circle, Mill Circle Forward, Mill circle Backward, Dismount. Roman Rings - Perfect Swing, Invested Hang, Rear Hang, Upstart, L-Support, Shoulder Stand, Dismount.					
References:					
1. Coopn Phyllis and Milan Trnka, Teaching Gymnastic Skills to men and Women, Delhi, Surject Publications, 1982.					
2. Modakpintum Gymnastics: A Scientific Approach, Pilani: Runthala Publisher's and Printers, 1996.					
3. Elango. M, Kandasamy. M, Sivagnanam. P. Basic Gymnastics: Krishna Publications, 2007					
4. B.K.S., Iyengar Light on Yoga, London: Unwin Paperbacks, 1989.					
5. K. Chandrasekaran, "Sound health through yoga" Prem Kalyan Publication, Sedapatti, 1999.					
6. Kumaresan P, yogasanam, Tirunelveli: Abinaya Publications, 2002.					

Course Title	Enrichment Course - II			Credits	2
Course Code	PDB1142	Course Category	CF	L-T-P-S	0-0-4-0
CIA	80%			ESE	20%
Learning Level	BTL				
CO	Course Outcomes				PO
1	Clear understanding of the words that are important in oral communication and need for the apt pronunciation				3
2	Demonstrate the ability to effectively deliver formal presentations before a variety of audiences				4
3	Demonstrate the ability to gather information and present it to the audience to make an impact				4
4	Developing the skill of making effective presentation with persuasion and clarity of thought				4, 6
5	Applying the oral communication and written communication skills to prepare oneself for different occasions				4, 6
Prerequisites: Thorough knowledge in Sentence making, Punctuation, basic business vocabulary					
Module I: Vocabulary					12
Importance of business language, Vocabulary words often confused, often misspelled, common errors in English					
Module II: Oral Presentation					12
Oral Presentation, Importance, characteristics, presentation plan, power point presentation, visual aids					
Module III: Public Speaking - 1					12
Communicating in Teams, Groups, Meetings and Public Speaking					
Module IV: Public Speaking - 2					12
Overcoming Fear of Speaking, Analyzing and Adapting to Audiences					
Module V: Speeches					12
Preparing and Presenting Informative Speeches; Preparing and Presenting Argument Speeches					
Reference					
1. Mile, D.J. (2004). Power of positive thinking. Delhi: Rohan Book Company.					
2. Hurlock, E.B. (2006). Personality Development, 28th Reprint. New Delhi: Tata McGraw Hill					
3. Pravesh Kumar. (2005). All about self-motivation. New Delhi: Goodwill Publishing House.					
4. Dudley, G.A. (2004). Double you are learning power. Delhi: Konark Press. Thomas publishing Group Ltd.					
5. https://www.mindtools.com/page8.html					
6. https://www.makeuseof.com/tag/improve-communication-skills-7-websites/					
7. https://smartenings.com/product/public-speaking-improve-speaking-skills-ebook/					
8. https://www.pdfdrive.net/speaking-english-books.html					
MOOC					
1. https://www.mooc-list.com/course/speaking-inform-discussing-complex-ideas-clear-explanations-and-dynamic-slides-coursera					

Course Title	Methods in Physical Education			Credits	3
Course Code	PDB1201	Course Category	PC	L-T-P-S	3-0-0-0
CIA	50 %			ESE	50 %
Learning Level	BTL				
CO	Course Outcomes				PO
1	Understanding the meaning of methods in physical education to analyze the factors of influencing methods				1, 2
2	To discuss about the presentation techniques in physical education				1, 3
3	To elaborate on the teaching aids to study about the lesson, plan in physical education				1, 3
4	To summarize the teaching methods in physical education				5
5	To develop the skills for organizing the tournaments in various levels				3, 6
Prerequisites:					
Module I: Introduction					9
Meaning of method and the factors influencing method - subject matter - the past experience of the pupils - situations - time and material at the disposal of the teacher.					
Module II: Presentation Technique					9
Presentation Technique: Planning - presentation - steps in the way of presentation.					
Module III: Teaching Aids					9
Teaching Aids - Community - co-curricular activities - Audio-visual aids. Lesson plan - Meaning of lesson plan - value of lesson plan - types of lesson plan (General lesson plan. Particular lesson plan) - Commands - Response command - Rhythmic command.					
Module IV: Methods of Teaching Physical Activities					9
Methods of Teaching Physical Activities - Command method - oral method - Demonstration method - imitation method - at-will method - set-drill method - whole method – part method - whole part - whole method - progressive part method- observation and visualization method - dramatization method.					
Module V: Tournaments					9
Tournaments - Knock-out or Elimination Tournaments - League or round robin tournament - combination Tournament - Challenge Tournament. Group competitions - Games tours - incentives and awards intramural competition - extramural competition - sports meet.					
Reference					
<ol style="list-style-type: none"> 1. Bhardwaj, A. (2003). New media of educational planning. New Delhi: Sarup of Sons. 2. Bhatia, & Bhatia, (1959). The principles and methods of teaching. New Delhi: Doaba House. 3. Kochar, S.K. (1982). Methods and techniques of teaching. New Delhi: Sterling Publishers Pvt. Ltd. 4. Sampath, K., Pannirselvam, A. & Santhanam, S. (1981). Introduction to educational technology. New Delhi: Sterling Publishers Pvt. Ltd. 5. Walia, J.S. (1999). Principles and methods of education. Jullandhar: Paul Publishers 					

Course Title		Test, Measurement and Evaluation in Physical Education		Credits	3
Course Code	PDB1202	Course Category	PC	L-T-P-S	3-0-0-0
CIA	50%			ESE	50%
Learning Level	BTL				
CO	Course Outcomes				PO
1	To impart the fundamentals of Test, Measurement and Evaluation				1, 2
2	To understand the concept of test classification and administration in Physical Education				2, 3
3	To explain about the Criteria of physical fitness test				2, 3
4	To explain about the Criteria of motor fitness test				1, 3
5	To understand various fitness tests and sports skill tests				1, 3
Prerequisites: Nil					
Module I: Introduction to Test, Measurement and Evaluation					9
Meaning and definition of Test, Measurement and Evaluation in Physical Education. Need and importance of Test, Measurement and Evaluation in Physical Education.					
Module II: Test classification and administration					9
Classification of test - Sports Knowledge test. Standardized and Teacher made test - Skill test classification - Objective test - subjective test - qualities of the test -Administration of the test. Criteria of test Selection-Validity, reliability, Objectivity, Norms, Administrative feasibility.					
Module III: Physical Fitness Test					9
Strength test - Bend knee sit ups test. Flexibility test - Sit and reach test. Speed test - 50 mts run. Cardio respiratory Endurance - Cooper 12-minute Run / Walk test. Explosive strength test - Standing broad jump					
Module IV: Motor Fitness Test					9
AAHPERD Youth Fitness test. Motor fitness - JCR test. Barrow motor ability test. Harward step test. Beep test.					
Module V: Sports Skill Test					9
Johnson Basketball ability test. McDonald soccer test. Brady Volleyball test. Henry Friedel field Hockey test. Badminton French Short Serve test.					
Reference					
1. Barrow, Harold M. Rosomany (1964). A physical approach to measurement in physical education, Philadelphia: Lea and Febiger					
2. Clarke, H. (1967). Application of measurement in Health and Physical Education. Prentice Hall Inc.					
3. Donald, Mathews K. (1977). Measurement in Physical Education. London W.S. Saunders Company.					
4. Bosco, James S. (1983). Measurement and Evaluation in Physical Education and Sports. New Jersey: Prentice Hall Inc.					
5. Kansal, K. Devinder (2012). A practical approach to test, measurement and evaluation. New Delhi: SSS publication					
6. Michael, P. Reiman, Robert C. Manske (2009), Functional Testing in Human Performance, United states of America: Human kinetics.					
7. Safrit, Margarat J. (1986). Measurement in Physical Education and Exercise Science. St. Louis: Times Mirror Mosby College publishing.					
8. Yobu, A, (1988). Test, Measurement and Evaluation. Madras: Rajmohan pathippagam.					

Course Title		Theories of Major Games - II (Basketball, Table Tennis & Tennis)		Credits	3
Course Code	PDB1203	Course Category	PC	L-T-P-S	3-0-0-0
CIA	60%			ESE	40%
Learning Level	BTL				
CO	Course Outcomes				PO
1	To impart the theoretical knowledge on wide range such as origin, growth, development and organization set-up at various levels of selected games				1, 2
2	To know the markings of selected games.				3, 4
3	To know the rules and regulations of selected games.				4, 5
4	To understanding the theoretical knowledge of officiating				4, 5
5	To know the Sports bodies of selected games.				5, 6
Prerequisites:					
Module I: History					9
Origin and development - Basketball, Table Tennis & Tennis.					
Module II: Marking					9
Layout & markings of field / court - Basketball, Table Tennis & Tennis.					
Module III: Rules and Regulation					9
Rules and their interpretations of Basketball, Table Tennis & Tennis.					
Module IV: Mechanics of Officiating					9
Duties of officials - official signals, system of officiating, score sheet Basketball, Table Tennis & Tennis.					
Module V: Sports Bodies					9
International, national and state level sports bodies. International Olympic committee, Indian Olympic association. Organizational setup of various sports bodies.					
Reference					
<ol style="list-style-type: none"> 1. Aibara, E.B., (1975). Cricket. Patiala: National Institute of Sports 2. Anand. R.L. (1986). Play field manual, Patiala: NIS publication. 3. Book of rules of games and sports, (2005). New Delhi: National council of Y.M.C.A of India. 4. Rao, C. V. (1971). Kabaddi, Patials, N.I.S. Publications. 5. Colberk A.L. (1966). Modern Basketball-A Fundamental Analysis of Skills and Tactics. London: Nicholas Kaya. 6. Dhanaraj, V. Hubert, (1991). Volleyball – A Modern Approach. Patiala: Sainsoris 7. Perinbaraj, S.B., & et al. (2009). Play field: Dimensions and its requirements, Karaikudi: vinis publication. 8. Rao, E.Prasad (2002). The complete hand book on Kabaddi. Vizianagaram: Jagadamba publication. 9. Wein, Horts, (1979). The Science of Hockey. London: Pelham Books. 					

Course Title	Statistics in Physical Education			Credits	3
Course Code	PDB1204	Course Category	PC	L-T-P-S	3-0-0-0
CIA	50%			ESE	50%
Learning Level	BTL				
CO	Course Outcomes				PO
1	To understand the basics concept in statistics in physical education				1, 2
2	To attain the knowledge to measure the central tendency in data				1, 2
3	To discuss about relative position and variability in data				3, 2
4	To summarize the data which is correlation with respect to data				1, 2
5	To understand the basics concept of statistics in physical education				1, 2
Prerequisites:					
Module I:					9
Meaning and Definition of Statistics, Nature, Need and Importance of Statistics, Types of Statistics. Data- Quantitative data and Qualitative data					
Module II:					9
Frequency Distribution - Measure of Central Tendency, Mean, Median and Mode Definition- Computation of mean and median and mode from the ungrouped and discrete data Specific characteristics and use of measure of measure of central tendency					
Module III:					9
Measure of variability - Range - Quartile deviation- Mean deviation- Standard deviation- Definition- Computation of Quartile deviation, Mean deviation, Standard deviation from the ungrouped data - Specific characteristics and uses of measure of variability.					
Module IV:					9
Measure of relative position - Meaning of percentiles, deciles and quartiles - computation of percentiles, deciles and quartiles from the ungrouped data - Standard scales - Computation of T scale and Hull scale - Normal Curve - Divergence from normality - Skewness and Kurtosis.					
Module V:					9
Measure of Relationship - Meaning and definition of correlation - computation of product movement correlation from the ungrouped data - rank order correlation					
Reference					
<ol style="list-style-type: none"> 1. Clarke David H and H Harrison Clarke - Research Processes in Physical Education, Eaglewood Cliffs: Prentice Hall INC., 1984. 2. Gupta, Sp., Advanced Practical Statistics, New Delhi: S. Chand & Co., 1982. 3. Wilks, S.S., Elementary Statically Analysis, Deford & I, IBH publishing Co., Calcutta, 1984. 					

Course Title	Sports Psychology and Sociology			Credits	3
Course Code	PDB1205	Course Category	PC	L-T-P-S	3-0-0-0
CIA	50%			ESE	50%
Learning Level	BTL				
CO	Course Outcomes				PO
1	Understand the basic concept of Sports Psychology				1, 2
2	To discuss about the behavior and motivation of sports				3
3	To explain the task of psychological aspects in sports				2, 3
4	To discuss the scope and nature of sociology of physical education				3, 6
5	To develop the social significance and leadership quality in sports				3, 6
Prerequisites: Nil					
Module I: Sports Psychology					9
Meaning and scope of Sports Psychology - Importance of Sports Psychology - types of psychology. Motor learning - factors that effect on motor learning, stages of learning theories, role of perception in physical education and sports					
Module II: Anxiety, Stress and Personality					9
Definition and Meaning of Anxiety - nature of anxiety - Types of anxiety - Definition and meaning of stress - nature of stress - Types of stress. Anxiety, Stress, Arousal and their effects on sports performance. Meaning and definition of personality - Measuring the personality - Personality and Sports performance.					
Module III: Motivation and Mental Preparation Strategies					9
Definition of motivation: Types of motivation - Factors influencing motivation - Motivational techniques and its impact on sports performance. Mental Preparation Strategies: Preparatory arousal, Attention focus, Self- talk, Relaxation, Imaginary. Aggression and Sports.					
Module IV: Introduction to Sociology					9
Meaning, Scope and nature of Sociology. Physical Education and Sports as a social phenomenon product of culture and its relationship with					
Module V: Leadership in Sports					9
Meaning and Definition of leadership - Types of leadership - Qualities of a Leader - Need & Importance of leadership in Physical Education & Sports.					
Reference					
<ol style="list-style-type: none"> 1. Alderman, R.S. (1974). Psychological behavior in Sports, Philadelphia: Saunders Company. 2. Cratty, Bryant, J. (1975). Psychology of Contemporary Sports, Englewood Cliffs, N, J, prentice Hall Inc. 3. Butt, Doras Susan, (1989). Psychology of Sports, New York: Van. Nostrand Reinhold Co. 4. Cratty, Bryant, J. (1975). Movement Behaviour and Motor Learning, Philadelphia: Lea & Fogger. 5. Kamlesh, M.L. (1998). Psychology in Physical Education and Sport, New Delhi: Metropolitan Book Co. 6. Mathew, Gita (1997). Sports Psychology. Karaikudi: Shaju and Shiju Brother publication. 					

Course Title	Major Games - II (Basketball, Table Tennis & Tennis)			Credits	2
Course Code	PB1231	Course Category	PC	L-T-P-S	0-0-4-0
CIA	80%			ESE	20%
Learning Level	BTL				
CO	Course Outcomes				PO
1	To provide adequate practice on fundamental, advance skills and techniques in selected sports discipline				4, 5
2	To train on coaching, officiating and marking in selected sports discipline				4
3	To know the markings of selected games				4, 5
4	To develop and practicing the officiating rules in various games				5
Prerequisites:					
Module I: Fundamental and Advance Skills					12
Fundamental and advance - skills, techniques, drills and lead-up games in Basketball, Table Tennis & Tennis.					
Module II: Playing Ability / Performance					12
Assessment of playing ability / performance - Basketball, Table Tennis & Tennis. Specific conditioning / training for Basketball, Table Tennis & Tennis.					
Module III: Marking					12
Layout & markings of court/field - Basketball, Table Tennis & Tennis.					
Module IV: Officiating					12
Rules and interpretations, duties of the officials, official signals, system of officiating, equipment specifications and score sheet for Basketball, Table Tennis & Tennis.					
Module V: Record Note					12
Preparation of record for Basketball, Table Tennis & Tennis. History, organizational set-up at International, national and state level sports bodies, skill, technique, tactics, major competitions for Basketball, Table Tennis & Tennis.					
Reference					
<ol style="list-style-type: none"> Anand. R.L. (1986). Play field manual, Patiala: NIS publication. Book of rules of games and sports, (2005). New Delhi: National Council of Y.M.C.A of India. Rao, E.Prasad (2002). The complete hand book on Kabaddi. Vizianagaram: Jagadamba publication. Colberk A.L. (1966). Modern Basketball-A Fundamental Analysis of Skills and Tactics. London: Nicholas Kaya. Dhanaraj, V. Hubert, (1991). Volleyball – A Modern Approach. Patiala: Sainsoris Part, Davic, (1979) Better Badminton Learn in yourself Book. London: Orient Paper Books. Perinbaraj, S.B., & et al. (2009). Play field: Dimensions and its requirements, Karaikudi: Vinis publication. Rao, C. V. (1971). Kabaddi, Patials, N.I.S. Publications. Yadav, Yogesh. (1969). Kho-Kho, Maharashtra Kho-Kho Association. 					

Course Title	Enrichment Course - III			Credits	2
Course Code	PDF1232	Course Category	CF	L-T-P-S	0-0-4-0
CIA	80%			ESE	20%
Learning Level	BTL				
CO	Course Outcomes				PO
1	Demonstrate the importance of software and hardware of computers				6
2	Demonstrate the ability of Creating documents in Microsoft Word, typing text, numbers and dates into a document, Easy formatting, Checking the spelling in your document, Making and saving changes to your document				6
3	Demonstrate the ability in Managing Windows Explorer, Creating, moving, renaming and deleting folders and files, understanding file extensions, viewing storage devices and network connections, Managing USB flash drives				4, 6
4	Understanding spreadsheet functionality, creating spreadsheets in Microsoft Excel, typing text numbers and dates into a worksheet, Easy formulas, Easy formatting, Charting the data, Making and saving changes to the workbook				4, 6
5	Ability to visit a specific website and bookmarking, understanding how to search/Google effectively, Copy and paste Internet content into documents and emails, Stopping and refreshing pages, Demystifying the Cloud, Computer security best practices				5, 6
Prerequisites: Nil					
Module I: Introduction to Computers					12
Introduction to Computers - Classification of Computers; Role of Computers in society; Inside the Computers - Hardware (processing, memory, i/o, storage), Software (systems, application), CPU, OS, (DOS, Windows, Unix, Linux), Storage Devices; Programming - Overview, need for languages, skills; Networking Basics; Virus; Hacking.					
Module II: Word Processing					12
Word Processing - Open, Save and close word document; Editing text - tools, formatting, bullets; Spell Checker; Navigating in word - keyword, Mouse; document formatting - paragraph alignment, indentation, headers and footers, numbering; printing - preview, options					
Module III: File Management					12
File Management - Understanding the importance of file management; backing of files, navigating thru My Computer and Windows Explorer; Files and Folders - editing, retrieving, deleting, renaming, subfolders - manipulate windows - maximize, minimize; Power point basics - terminology, templates, viewing					
Module IV: Spread Sheets					12
Spreadsheets -MS Excel -opening, entering text and data, formatting, navigating; Formulas - entering, handling and copying; Charts - creating, formatting and printing, header and footer, centering data, printing					
Module V: Internet					12
Networks - Internet Explorer - components; www - working, browsing, searching, saving - Bookmark - favorite, create, delete - Printing a web page; email - creating, receiving, reading and sending messages.					
Reference					
1. Introduction to Computers - Peter Norton, Tata McGraw-Hill. 2. Microsoft 2003 - Jennifer Ackerman Kettel, Guy Hat-Davis, Curt Simmons, Tata McGraw-Hill.					
Software Package					
1. MS Office Package					

Course Title	Sports Management			Credits	3
Course Code	PDB1216	Course Category	PC	L-T-P-S	3-0-0-0
CIA	50%			ESE	50%
Learning Level	BTL				
CO	Course Outcomes				PO
1	To attain the basics knowledge of organization and administration scheme of physical education				1, 2
2	To educate on sports management and its various dimensions				5
3	To help to develop managerial skills among Physical Education students				5, 6
4	To discuss about the time management for various games				5, 6
Prerequisites: Nil					
Module I: Introduction to Sports Management					9
Meaning and definition of Sports Management and its functions. Importance and Historical Background of Sports Management. Interpersonal Roles in Manpower planning. Meaning of Recruitment.					
Module II: Organization					9
Nature, Principles and Purpose of Organization - Systems of Organization - Leadership: Meaning - Personal Traits - Attitude and Behaviour approach - Qualities of a Leader - Positional power.					
Module III: Motivation and Public Relation					9
Concepts and Need of Motivation in Sports Organization -Job feedback - Types of Public Relation - Role of Government, Media, and Conference - Finances - Qualities of Good Public Relation Organization.					
Module IV: Guidance					9
Concepts, Objectives and Need for Strategies for Vocational Guidance; Principles - Approaches - Career Talk - Industrial visit - Personal, Social, Vocational Counseling, Social Guidance; Purpose-Types of Social Problems - Social Needs and Social Life. Personal Guidance: Concepts, Purpose - Emotional Characteristics of Adolescents.					
Module V: FINANCE					9
Infrastructure - Equipment - Salaries and Wages - Raising of Funds - Budget, Record maintenance and Purchase of Equipment - Advantages - Essentials - Types of Budget - Research and Development, Budget – Funds collection prices.					
Reference					
<ol style="list-style-type: none"> 1. Janet A. Wessel, Luke Keely, (1986). Achievement – Based Curriculum Development in Physical Education: Lea & Febiger. 2. Tirunarayanan, C. & Hariharan, S. (1969). Methods in Physical Education. Karaikudi: South India Press. 3. Broyles, F. J. & Rober, H. D. (1979). Administration of sports, Athletic programme: A Managerial Approach. New York: Prentice hall Inc. 4. Kozman, H.C. Cassidly, R. & Jackson, C. (1960). Methods in Physical Education. London: W.B. Saunders Co. 5. Samiran, Chakrabarty, (1998) Sports Management. Delhi Sports: Publications. 6. Thomas, J. P. (1967). Organization & administration of Physical Education. Madras: Gyanodayal Press. 7. Voltmer, E. F. & Esslinger, A. A. (1979). The organization and administration of Physical Education. New York: Prentice Hall Inc. 					

Course Title	Applied Kinesiology & Bio-Mechanics			Credits	3
Course Code	PDB1217	Course Category	PC	L-T-P-S	3-0-0-0
CIA	50%			ESE	50%
Learning Level	BTL				
CO	Course Outcomes				PO
1	To acquire knowledge about the importance of Kinesiology and Biomechanics				2
2	To analyze the fundamental movements of joints in human body				2, 6
3	To explain about the linear kinematics and bio-mechanical principles				2, 6
4	To understand the mechanical advantages of angular and levers through biomechanics				2, 6
5	To understand the mechanical advantages of force through biomechanics				2, 6
Prerequisites: Nil					
Module I: Introduction to Kinesiology and Biomechanics					9
Definition & Meaning of Kinesiology & Biomechanics - Scope - Need and importance of Kinesiology and Biomechanics - Historical development of Kinesiology and Biomechanics.					
Module II: Origin, Insertion and Action of the Muscles					9
Involvement of various muscles during different fundamental and auxiliary movements of hip, knee, shoulder, elbow joint, shoulder girdle and trunk region. Origin, insertion and action of the muscles with special reference to the following muscles: Pectoralis major - Deltoid - Biceps - Sartorius - Quadriceps.					
Module III: Linear Kinematics & Kinetics					9
Definition & meaning - Distance, displacement, speed, velocity, acceleration due to gravity, inertia, mass, force, weight, momentum. Newton's law of motion - Law of Inertia, Law of acceleration, Law of action and reaction. Forms of motion - Linear, Angular and General motion.					
Module IV: Levers					9
Definitions & meaning - angular distance, angular displacement, angular velocity, angular acceleration. Levers - Types of levers, Advantages of levers in sports movement. Definition of Centre of gravity and its importance.					
Module V: Force					9
Force - Definition of forces, types of forces, internal and external forces, centripetal and centrifugal force. Biomechanical analysis of walking, running, jumping and throwing.					
Reference					
<ol style="list-style-type: none"> Hay, J. (1993). The Biomechanics of Sports Techniques. New Jersey: Prentice Hall Inc. Thompson. (1998). Structural Kinesiology. New York: McGraw-Hill. Wells, Katherine F., and Kathryn, Luttgens. (1976). Kinesiology the scientific basis of human motion. Philadelphia: Saunders Company. Gladys, Scott., M. (2005). Text book in Kinesiology. New York: Warren's Books. Peter, McGinnis. (2005). Biomechanics of Sport and Exercise. Champaign: Human Kinetics. Shaw, Dhananjoy., (1998). Pedagogic Kinesiology, Delhi: Sports publication. Susan, J., Hall. (2004). Basic Biomechanics. New York: McGraw Hill Education. 					

Course Title	Sports Medicine			Credits	3
Course Code	PDB1218	Course Category	PC	L-T-P-S	3-0-0-0
CIA	50%			ESE	50%
Learning Level	BTL				
CO	Course Outcomes				PO
1	To acquire knowledge about sports medicines				2, 6
2	To be able to implement and identify their individual exercise				2, 6
3	To demonstrate the skills to safely engage women in physical activity				2, 6
4	To acquire knowledge about the sports injuries.				2, 6
5	Understand the basic treatment in sports physiotherapy.				2, 6
Prerequisites:					
Module I: Introduction					9
Definition, Need, Nature and Scope of Sports Medicine. Importance of Sports Medicine in Physical Education and Sports					
Module II: Physical Fitness					9
Different sports rate in promoting Physical Fitness - Walking, Jogging, Swimming, Cycling, Dancing and Skipping.					
Module III: Women in Sports					9
Women in Sports: - Performance and Sexual differences, Drugs and Doping.					
Module IV: Injuries					9
Injuries: Blisters, - contusions Flaematornas, Cramps and Muscle Strain, Joint Sprain, Dislocation, Fracture.					
Module V: Sports Physiotherapy					9
Sports Physiotherapy - Methods, Effect, Indication and Contra indication. Exercise - Classification and Therapeutic uses. Bandage - Types, Application. Strapping for major joint & body parts.					
Reference					
<ol style="list-style-type: none"> 1. Starkey, Chad/Therapeutic Modalities of Athletic trainers, F.A. Davis Company, Philadelphia, 1990. 2. Prentice Williams, E., Therapeutic Modalities Sports Medicine: ST. Louis, 1990. 3. Sundararajan / Sports Medical Lectures: Rosan Publication, Chennai. 4. Edward Donald, Physiotherapy Occupations Therapy and gymnastics, London. 5. St. John Ambulance, etc., First Aid Manual: St. John Ambulance, London, 1997. 6. Pande P.K. and L.C, Gupta, Outline of Sports Medicine: Jaypee Brothers, New Delhi, 1987. 					

Course Title	Teaching Practice			Credits	3
Course Code	PDB1241	Course Category	PC	L-T-P-S	0-0-6-0
CIA	80%			ESE	20%
Learning Level	BTL				
CO	Course Outcomes				PO
1	To help them understand varied responsibilities of a teacher.				2, 4
2	To understand the concept and physical activities of callisthenic exercise.				2
3	To help them understand with and without exercise equipment & its effective use in the teaching process.				3, 4
4	To help them understand the teaching skills on major games. General lesson Plan and Particular Lesson Plan.				3, 4
5	To help them understand general lesson plan and particular lesson plan & its effective use in the teaching process.				3, 4
Prerequisites: Nil					
Module I: Introduction					12
Assembly and roll call; class handling, Assembly and disposal, march past					
Module II: Callisthenic Exercise					12
Callisthenic Exercises (Free arm Exercises); Sitting exercises, standing exercises, bending exercises, stepping exercises, moving exercises, lunging exercises, clapping exercises					
Module III: Exercise with and without Equipment					12
Exercise with Equipment's; Dumbbells, Indian-clubs, Vands, Scoop, Ploe drill. Exercise without Equipments; Baithaks, Dhands, Minor games					
Module IV: Teaching skills on Major Games					12
Teaching skills on major games and athletic events; Demonstration, Teaching, Correcting the mistakes, Lead up activities					
Module V: Lesson Plan					12
General Lesson Plan and Particular Lesson Plan					

Course Title	Science of Sports Training			Credits	3
Course Code	PDB1301	Course Category	PC	L-T-P-S	3-0-0-0
CIA	50%			ESE	50%
Learning Level	BTL				
CO	Course Outcomes				PO
1	Understand the meaning of sports training, load and to analyze the principles of trainings				2, 6
2	Top acquire knowledge of training methods				2, 6
3	To educate the development of motor components in training				2, 6
4	To develop the technical and tactical preparation for high performance in competition				2, 6
5	To develop the planning and Periodization				2, 6
Prerequisites: Nil					
Module I: Sports training and Training Load					9
Definition and Meaning of Sports training, Meaning of Coaching - Aim and Objectives of Sports training - Principles of Sports training. Load, Recovery, Intensity, Density, Duration and Frequency - Over Load, Fatigue - causes, symptoms and remedial measures.					
Module II: Training Methods					9
Principles of training concern to fitness & sports - Types of different training method - Circuit training - Fartlek training - Interval training - Weight training - Plyometric training - Muscle Contraction - Isometric, Isotonic, Isokinetic.					
Module III: Development of Motor Components					9
Definition, importance, classification & methods of development - Strength - Endurance - Speed - Flexibility - Coordinative abilities.					
Module IV- Technical and Tactical Preparation					9
Technique: Meaning, definition and importance - Stage of technical development, correction of faults - Methods of technique training - Strategy & tactics:					
Module V: Planning and Periodization					9
Meaning and importance of planning - Types of Plan: Short term, Medium term and long-term training programme. Periodization: Meaning & importance - Types of Periodization. Warming-up and cooling down.					
Reference					
<ol style="list-style-type: none"> 1. J. Bunn Scientific Principles of coaching. 2. Hardayal Singh. Sports Training: 3. Dr M.Elango, M.Kandasamy, P.Sivagnanam Fundamentals of Sports Training 					

Course Title	Exercise Physiology			Credits	3
Course Code	PDB1302	Course Category	PC	L-T-P-S	3-0-0-0
CIA	50%			ESE	50%
Learning Level	BTL				
CO	Course Outcomes				PO
1	To acquire knowledge about nature and nature and scope of exercise physiology.				2, 3
2	Understanding the effects of exercise physiology on energy system of the body.				3, 6
3	Understanding the effects of exercise physiology on oxygen and carbon dioxide transports of the body.				3, 6
4	Understanding the effects of exercise physiology on hear and circulation of the body.				3, 6
5	To develop the physiological principles on physical education and sports.				3, 6
Prerequisites:					
Module I: Introduction					9
Definition of Exercise Physiology. Nature, Aim and Scope of Exercise Physiology. Physical Fitness and Physiological fitness. Physiological bases warm-up and cool down-conditioning and training.					
Module II: Energy System					9
Introduction to energy system, aerobic and anaerobic energy, ATP-P1-ADP. Relationship between nutrition and energy. Sliding filament theory.					
Module III: Muscular Physiology					9
Muscular Physiology - Structural Properties of skeletal muscles -Types of muscles. Muscle fiber types - slow - twitch and fast - twitch (A, B, C) - slow oxidative and fast glycolitic. Fiber distribution (percentage of fibers) and performance - anaerobic and aerobic activity. Hypertrophy and hyperplasia of muscles types of muscle contraction.					
Module IV: Cardiovascular System and its Improvement Through Exercise					9
Shape and structure of the heart - heartbeat, pulse rate and stroke volume. Cardiac cycle - cardiac out-put before and after activity. Stroke volume response to exercise, regulation of stroke volume, diastolic and systolic, Electrocardiogram.					
Module V: Respiratory System and its Development through Exercise					9
Physiological aspect of exercise and sports - Concept of physical fitness and physical training - Physiological aspects of developments of basic motor qualities like strength, speed, endurance, flexibility and coordination - Effect of exercise on high altitude - Effect of alcohol, drugs and smoking on athletic performance					
Reference					
1. Srivastava et. al, (1976). Text Book of Practical Physiology. Calcutta: Scientific Book Agency					
2. Wilson, Kathleen J. W. (1987). Anatomy and Physiology, Health and illness. 6 th Edition. Churchill Livingstone Edinburgh.					
3. Gupta, A.P., (2010). Anatomy and physiology. Agra: Sumit Prakashan					
4. Pearce, Evelyn B., (1979) Anatomy and physiology for Nurses. London: Faber and Faber Ltd.					
5. Sivaramakrishnan, S., (2002). Anatomy and Physiology. New Delhi: Friends Publication.					
6. Wilmore, Jack H and Costill, David L. (1994). Physiology of Sports and Exercise.					

Course Title	Theories of Games (Cricket, Football, Hockey, & Volleyball)			Credits	3
Course Code	PDB1303	Course Category	PC	L-T-P-S	3-0-0-0
CIA	60%			ESE	40%
Learning Level	BTL				
CO	Course Outcomes				PO
1	To impart the theoretical knowledge on wide range such as origin, growth, development and organization.				2, 3
2	To know the markings of selected games.				4, 5
3	To discuss about the rules and regulations of selected games.				4, 5
4	To elaborate the theoretical knowledge of officiating rules in various games.				4, 5
5	To know the Sports bodies of selected games.				4, 5
Prerequisites: Nil					
Module I: History					9
Origin and development - Cricket, Football, Hockey, & Volleyball					
Module II: Marking					9
Layout & markings of field / court -Cricket, Football, Hockey, & Volleyball					
Module III: Rules and Regulation					9
Rules and their interpretations of Cricket, Football, Hockey, & Volleyball					
Module IV: Mechanics of Officiating					9
Duties of officials - official signals, system of officiating, score sheet - Cricket, Football, Hockey, & Volleyball					
Module V: Sports Bodies					9
International, national and state level sports bodies. International Olympic committee, Indian Olympic association. Organizational setup of various sports bodies.					
Reference					
<ol style="list-style-type: none"> 1. Aibara, E.B., (1975). Cricket. Patiala: National Institute of Sports 2. Anand. R.L. (1986). Play field manual, Patiala: NIS publication. 3. Book of rules of games and sports, (2005). New Delhi: National council of Y.M.C.A of India. 4. Rao, C. V. (1971). Kabaddi, Patials, N.I.S. Publications. 5. Colberk A.L. (1966). Modern Basketball-A Fundamental Analysis of Skills and Tactics. London: Nicholas Kaya. 6. Dhanaraj, V. Hubert, (1991). Volleyball - A Modern Approach. Patiala: Sainsoris 7. Perinbaraj, S.B., & et al. (2009). Play field: Dimensions and its requirements, Karaikudi: vinis publication. 8. Rao, E.Prasad (2002). The complete hand book on Kabaddi. Vizianagaram: Jagadamba publication. 9. Wein, Horts, (1979). The Science of Hockey. London: Pelham Books. 					

Course Title	Major Games - III (Cricket, Football, Hockey, & Volleyball)			Credits	3
Course Code	PDB1331	Course Category	PC	L-T-P-S	0-0-6-0
CIA	80%			ESE	20%
Learning Level	BTL				
CO	Course Outcomes				PO
1	To provide adequate practice on fundamental, advance skills and techniques in selected sports discipline.				2, 3
2	To develop the playing ability and performance in games				3, 4
3	To provide adequate practice for play field marking in selected sports discipline.				4, 5
4	To train on coaching, officiating and marking in selected sports discipline.				4, 5
Prerequisites: Nil					
Module I: Fundamental and Advance Skills					18
Fundamental and advance - skills, techniques, drills and lead-up games in Cricket, Football, Hockey, & Volleyball.					
Module II: Playing Ability / Performance					18
Assessment of playing ability / performance - Cricket, Football, Hockey, & Volleyball. Specific conditioning / training for Cricket, Football, Hockey, & Volleyball.					
Module III: Marking					18
Layout & markings of court/field -, Cricket, Football, Hockey, & Volleyball.					
Module IV: Officiating					18
Rules and interpretations, duties of the officials, official signals, system of officiating, equipment specifications and score sheet for Cricket, Football, Hockey, & Volleyball.					
Module V: Record Note					18
Preparation of record for Cricket, Football, Hockey, & Volleyball. History, organizational set-up at International, national and state level sports bodies, skill, technique, tactics, major competitions for Cricket, Football, Hockey, & Volleyball.					
Reference					
<ol style="list-style-type: none"> 1. Anand. R.L. (1986). Play field manual, Patiala: NIS publication. 2. Book of rules of games and sports, (2005). New Delhi: National Council of Y.M.C.A of India. 3. Rao, E.Prasad (2002). The complete hand book on Kabaddi. Vizianagaram: Jagadamba publication. 4. Colberk A.L. (1966). Modern Basketball-A Fundamental Analysis of Skills and Tactics. London: Nicholas Kaya. 5. Dhanaraj, V. Hubert, (1991). Volleyball – A Modern Approach. Patiala: Sainsoris 6. Part, Davic, (1979) Better Badminton Learn in yourself Book. London: Orient Paper Books. 7. Perinbaraj, S.B., & et al. (2009). Play field: Dimensions and its requirements, Karaikudi: Vinis publication. 8. Rao, C. V. (1971). Kabaddi, Patials, N.I.S. Publications. Yadav, Yogesh. (1969). Kho-Kho, Maharashtra Kho-Kho Association. 					

Course Title	Modern Trends in Physical Education			Credits	3
Course Code	PDB1316	Course Category	PC	L-T-P-S	3-0-0-0
CIA	50%			ESE	50%
Learning Level	BTL				
CO	Course Outcomes				PO
1	To adequate the knowledge in physical education programme in India				1, 2
2	To explain about the career option in physical education.				1, 2
3	To discuss about the modern sports facilities.				2, 3
4	To know the modern trends in sports infrastructure.				3
5	To develop the individual talent identification in sports.				3, 6
Prerequisites: Nil					
Module I: Physical Education Programme					9
Physical Education Teacher Training programme in India: B.Sc., B.P.Ed., M.P.Ed., Research programme: M.Phil., Ph.D. Coaching programmes: NIS Certificate, Diploma and M.S.					
Module II: Avenues for Placements					9
School: Physical Education Teacher, Physical Director, RIPE, CIPE. College & University: Asst. Director of Physical Education, Deputy Director of Physical Education, Director of Physical Education, Assistant Professor, Associate Professor, Professor, Principal – Sports Council: Coaches, DSO, RSM, DGM and GM.					
Module III: Modern Sports Facilities					9
Play area - synthetic track - Turf field - Toro flex surface - Grass field – Wooden surface - Indoor stadium - Structure and facilities - Flood lit matches.					
Module IV: Sports Infrastructure					9
Assistance for building infrastructure - playfields, Gymnasium, Swimming pool, Stadium and Equipments - Assistance for coaching and training programme - Rural and urban - different levels - advance training and coaching - Assistance for competitions - District, State, National, International - Incentives.					
Module V: Talent Identification					9
Talent Identification in sports and games - The compulsory Physical Education programme in Schools and Colleges.					
Reference					
<ol style="list-style-type: none"> 1. Bunn, John W. (1955). Scientific Principles of Coaching. New York: Prentice Hall Inc. 2. Charles, Bucher A., (1972). Foundations of Physical Education. Saint Louis: The C.V.Kosby Company. 3. Hey, James, G., (1973). The Biomechanics of Sports Techniques, Prentice Hall Inc. Englewood Cliffs N.S. 4. Singh, Ajmer., et. al. (2005). Essential of Physical Education. New Delhi: Kayani Publication. 					

Course Title	Theories of Track and Field			Credits	4
Course Code	PDB1317	Course Category	PC	L-T-P-S	4-0-0-0
CIA	60%			ESE	40%
Learning Level	BTL				
CO	Course Outcomes				PO
1	To attain the knowledge about history of track and field events.				1, 2
2	To impart the knowledge of marking of track and field events.				1, 4
3	To explain the Rules and Regulation of track and field events				1, 2
4	To impart the theoretical knowledge of officiating in track and field events.				2, 4
5	To know the organizational set-up of athletics federation at various levels.				4, 5
Prerequisites: Nil					
Module I: History					12
Origin and development of track and field events.					
Module II: Marking					12
Layout & markings of 200 and 400 metres track. Marking for field events.					
Module III: Rules and Regulation					12
Rules and their interpretations of all track and field events including Combined events, Steeple chase and Cross country.					
Module IV: Mechanics of Officiating					12
Duties of officials - official signals, score sheet - all track and field events including Combined events, Steeple chase and Cross country.					
Module V: Sports Federation / Association					12
Organizational setup of International, national and state level federations / association. Marathon race. Major competitions. World and Olympic records.					
Reference					
<ol style="list-style-type: none"> 1. Anand. R.L. (1986). Play field manual, Patiala: NIS publication. 2. Book of rules of games and sports, (2005). New Delhi: National Council of Y.M.C.A of India. 3. Bosen, Ken O. (1994). Track & Field Fundamental Techniques, Patiala: MS Publication. 4. Conling, David, (1980) Athletics, London: Robert Hale 5. Joseph, Rogers L. (2000) USA Track & Field Coaching Manual. Champaign: Human Kinetics Publications. 6. Mariayyah,P., (2005). Track and Field, Coimbatore: Teachers publication. 7. Perinbaraj, S.B., & et al. (2009). Play field: Dimensions and its requirements, Karaikudi: Vinis publication. 					

Course Title	Track and Field - Practical			Credits	4
Course Code	PDB1341	Course Category	PC	L-T-P-S	0-0-8-0
CIA	80%			ESE	20%
Learning Level	BTL				
CO	Course Outcomes				PO
1	To train for track events on scientific and systematic lines.				2, 3
2	To explain the innumerable techniques and methods of running events.				2, 3
3	To find out the assessment of track and field performance				3, 4
4	To discuss the rules and interpretations of track and field events.				3, 4
Prerequisites: Nil					
Module I: Fundamental and Advance Skills					18
Fundamental and advance skills, techniques, drills and lead-up games / activities - Sprints, Middle distance, Long distances, Relays, Steeple chase, Walking races, Hurdles and Cross country. Fundamental and advance skills, techniques, drills and lead-up games for jumps throw and combined events.					
Module II: Performance					18
Assessment of performance - Sprints, Middle distance, Long distances, Relays, Steeple chase, Walking races, Hurdles and Cross-country events. Specific conditioning / training for above said events. Assessment of performance - jumps, throws and combined events. Specific conditioning / training for above said events.					
Module III: Marking					18
Markings of 200 m and 400 m track. Specific marking for Sprints, Middle distance, Long distances, Relays, Steeple chase, Walking races, Hurdles and Cross-country events. Equipment's and their specifications. Markings of jumps, throws and combined events. Specific marking for jumps, throws and combined events. Equipment's and their specifications.					
Module IV: Officiating					18
Rules and interpretations, duties of the officials, official signals and score sheet for Sprints, Middle distance, Long distances, Relays, Steeple chase, Walking races, Hurdles and Cross-country events. Rules and interpretations, duties of the officials, official signals and score sheet for jumps, throwing and combined events.					

Module V: Record Note**18**

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

Reference

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

COMPETITIONS / TRAINING / SURVEY/ SCHEMES

Course Title	Competitions / Training / Survey/ Schemes			Credits	6
Course Code		Course Category	PC	L-T-P-S	0-0-12-0
CIA	80%			ESE	20%

The students are requested to contribute to organize training / competition / survey or related activities as approved by Department advisory committee.

Course Title	Fitness and Wellness			Credits	3
Course Code	PDC1211	Course Category	PE	L-T-P-S	3-0-0-0
CIA	50%			ESE	50%
Learning Level	BTL				
CO	Course Outcomes				PO
1	To impart the fundamental concepts of Fitness and Physical fitness.				1, 2
2	Understand the fundamental concepts of Physical fitness activities.				1, 2
3	To acquire the practical knowledge of training, its types and assessment of Physical fitness.				2, 3
4	Understand the Health and Wellness to create awareness fitness & its importance in life.				2, 3
5	To choose appropriate activities for development of specific fitness components.				3, 6
Prerequisites: Nil					
Module I: Fitness					9
Meaning & Definition: Fitness, Mental fitness and Physical fitness - General & Specific fitness - Need & importance of Physical fitness - Types: Performance related Physical fitness and Health related Physical fitness - Performance related Physical fitness Components (Speed, Strength, Endurance, Agility, Power and Flexibility) - Health related Physical fitness Components (Cardio-respiratory Endurance, Muscular Strength, Muscular Endurance, Flexibility and Body Composition).					
Module II: Physical Fitness Activities					9
Warm-up - General & Specific warming-up - advantages of warming-up. Cool down exercise & its benefits. Exercise, Training and Conditioning. Walking - Jogging - Running - Spot running Bounding strides - High knee - Fast arms - Hopping - Skipping - Stepping on the bench - Side stepping - Sand running, Uphill running - Swimming - Cycling - Free hand exercises.					
Module III: Training Methods					9
Aerobics exercises, anaerobic exercises, weight training, stretching exercises and circuit training. Basic method of conditioning: Continuous method (Slow & Fast) - Interval methods (Intensive & Extensive). Repetition method - Resistance training (own body weight, with partners, with equipment's) - Playing sports & games.					
Module IV: Health and Wellness					9
Meaning and definition of Health, Wellness and Nutrition. Need and importance of good Health. Human Anatomy - Skeletal system and Muscular system. Disease Management - Obesity - Diabetes - Heart ailments - Arthritis.					
Module V: Assessment of Physical Fitness					9
AAPHERD Physical Fitness Test Battery. Body Mass Index and its Evaluation. Muscular Strength - Muscular endurance - Cardio-respiratory Endurance.					
Reference					
<ol style="list-style-type: none"> Dick, Frank W. (2006). Sports training Principals Fourth Edition. New Delhi: Friends Publication. Harre, Dietrich, (1982). Principles of Sports training, (ed). Berlin. Sport Verlag. Singh, Hardayal. (1995). Science of Sports training. New Delhi: D.V.S. Publications. Uppal, A.K. (2009). Science of Sports Training. New Delhi: Friends Publication. Baechle, Thomas. R, & Earle, Roger. W., (2000). Essentials of Strength Training and Conditioning, Champaign: Human Kinetics. Brooks, Douglas. S., (2004). The Complete Book of Personal Training, Champaign: Human Kinetics. James and Leona Hart, (2000). Fitness and Wellness, New Delhi: Goodwill Publishing House. 					

Course Title	Olympic Movement			Credits	3
Course Code	PDC1212	Course Category	PE	L-T-P-S	3-0-0-0
CIA	50%			ESE	50%
Learning Level					
CO	Course Outcomes				PO
1	To provide basic knowledge of Olympic movement.				3
2	To analyze the values and significance of Olympics.				3
3	To study the ancient and modern Olympics games.				1, 3
4	To explain the different Olympics games.				3
5	To discuss about the various committees in Olympic Games				3, 6
Prerequisites: Nil					
Module I: Origin of Olympic Movement					9
Philosophy of Olympic movement. The early history of the Olympic movement. The significance stages in the development of the modern Olympic movement.					
Module II: Values and Significance of Olympics					9
Educational and cultural values of the Olympic movement. Significance of Olympic Ideals, Olympic Rings, Olympic Flag. Marathon run.					
Module III: Ancient and Modern Olympic Games					9
Ancient and modern Olympics. Olympic protocol for member countries. Olympic code of Ethics. Olympics in action. Sports for all.					
Module IV: Different Olympic Games					9
Origin, hosted nations & cities and list of sports discipline in Para Olympic Games, Summer Olympics, Winter Olympics and Youth Olympic Games. Doping - WADA.					
Module V: Committees of Olympic Games					9
International Olympic Committee - Structure and Functions. National Olympic Committees and their role in Olympic movement. Summer Olympic medal winners of India. International Para Olympic committee.					
Reference					
<ol style="list-style-type: none"> 1. Singh, Ajmer., et. al. (2005). Essential of Physical Education. New Delhi: Kayani Publication. 2. Burbank, J.M., Andranovich, G.D. & Heying Boulder, C.H. (2001). Olympic dreams: the impact of mega-events on local politics: Lynne Rienner. 3. Anand, Shyam. (2013). Upkar's UGC NET/JRF/SET Physical Education. Agra: Upkar Prakashan 4. Osborne, M.P (2004). Magic tree house fact tracker: Ancient Greece and the Olympic: A non-fiction companion to magic tree house: hour of the Olympic. New York: Random House Books for Young Readers. 					

Course Title		Sports Nutrition		Credits	3
Course Code	PDC1213	Course Category	PE	L-T-P-S	3-0-0-0
CIA	50%			ESE	50%
Learning Level					
CO	Course Outcomes				PO
1	Understand the classification of foods and nutrition				1, 2
2	To analyze fluid intake required for various levels and types of physical activity.				2, 3
3	To explain about the nutrients: ingestion to energy metabolism				2, 3
4	To discuss about the balance diet for players				2, 6
5	To discuss about the relationships between diet and training for optimum performance.				3, 6
Prerequisites: Nil					
Module I: Introduction to Nutrition					9
Food and Nutrition: Classification of foods. Meaning and definition of Sports Nutrition. Basic Nutrition guidelines. Role of nutrition in sports. Factor to consider for developing nutrition plan.					
Module II: Nutrients: Ingestion to Energy Metabolism					9
Carbohydrates, Protein, Fat-Meaning, classification and its function. Role of carbohydrates, Fat and protein during exercise. Vitamins, Minerals, Water-Meaning, classification and its function. Role of hydration during exercise, water balance, Nutrition-daily caloric requirement and expenditure.					
Module III: Food and Macro-Nutrients					9
Functions of food - Nutritional, Emotional, Social, and Classification of food. Sources, Functions, Deficiency and excess effects of carbohydrates, protein, fat and water.					
Module IV: Balance Diet					9
Definition - Balanced Diet - Principles of preparing the balanced diet. Balanced diet for Indian Players / School children. Malnutrition and Adulteration of food.					
Module V: Diet Analysis					9
Pre-Competition, Competition and Post Competition meals. Diet analysis and planning. Fluid intake during exercise. Nutrition for Special Population.					
Reference					
<ol style="list-style-type: none"> 1. Srilakshmi, B. (2012) Nutrition science. Delhi: New Age International (p) Limited Publishers. 2. Srilakshmi, B. (2015) Human Nutrition (For B.Sc., Nursing students) Delhi: New Age International (p) Limited Publishers. 3. Bessesen, D.H. (2008). Update on obesity. J Clin Endocrinol Metab.93 (6), 2027-2034. 4. 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. 5. DeMaria, E.J. (2007). Bariatric surgery for morbid obesity. N Engl J Med, 356(21),2176-2183. 					

Course Title	Sports Journalism			Credits	3
Course Code	PDC1311	Course Category	PE	L-T-P-S	3-0-0-0
CIA	50%			ESE	50%
Learning Level	BTL				
CO	Course Outcomes				PO
1	Understand the importance and needs of Sports Journalism				3, 6
2	To discuss about the principles of general news reporting and Sport reporting				3, 6
3	To explain about the learn techniques of proof reading				3, 6
4	To develop the skills of commentary skills				3, 6
5	To develop the skills of organization and advertising techniques				5, 6
Prerequisites: Nil					
Module I: Introduction					9
Sports Journalism - Meaning, Need, Nature and Scope, Aim and Objectives of Mass Communication. Purpose of mass media for the propagation of sports and games Growth of sports communication and periodicals Sports coverage on AIR, T.V and Films					
Module II: Basic Principles of Sports reporting					9
Basic Principles of sports reporting. Difference between general news reporting and Sport reporting, source of sports news, Sports spot news Advanced story and flash back Follow up story Basic of Athletic reporting, Basics of Games Reporting, Interviews, Photos, News, Tit-bits.					
Module III: Editing					9
Editing - Techniques Editor - Sub Editors Copy reading and handling sports news Design and makeup of the sports page Typography and various process of printing newspaper styles and slant news structure					
Module IV: Commentary					9
Radio & TV Commentary. Differences between Radio & TV Commentary. Experts comments Sports reviews for the radio and T.V					
Module V: Advertising					9
Advertising and Newspaper Management. Radio and T.V Advertising newspaper organization and management of newspaper circulation Ethics and Responsibilities of Sport Journalists.					
Reference					
<ol style="list-style-type: none"> 1. Gurusamy, Ithazial Kalai, Dindigul : Guru - Themozhi, 2001. 2. Ahuja A.N., Theory and Practice of Journalism, Subject Publication, New Delhi, 1984. 3. Kamath, M.V., Professional Journalism, Vikas Publishing House Ltd., New Delhi, 1981. 4. Puri G.K., 'Journalism, Sudha Publication, Pvt., Ltd., New Delhi. 					

Semester - III

Course Title	Sports Physiotherapy			Credits	3
Course Code	PDC1312	Course Category	PE	L-T-P-S	3-0-0-0
CIA	50%			ESE	50%
Learning Level					
CO	Course Outcomes				PO
1	Understand the importance of Physiotherapy				1, 2
2	To discuss about the technologies for treatment of various injuries in human body				2, 6
3	To explain about Massage Therapy for recovery				2, 6
4	To elaborate the structure and functions of respiratory and circulatory systems				5, 6
5	To explain the role of Dis-order and Conditions of the blood vessels and cardio vascular system of human body				2, 6
Prerequisites: Nil					
Module I: Introduction					9
Meaning, Nature, Need and Importance of Physiotherapy					
Module II: Electricity and Conductor					9
Electricity and Conductor, Short wave diathermy, Microwave diathermy, Diapulse Diathermy, Ultra Sound Waves, Infra-red rays, Ultra-violet rays - Sources - Effect and uses - Techniques for infra-red and ultra violet irradiation.					
Module III: Massage Therapy					9
Massage Therapy - Brief History of Massage, Points to be considered in giving massage, classification of the Manipulations used in massage. The Technique, the Effect, uses, Indication and contra-Indications of all manipulations.					
Module IV: Rheumatic Conditions					9
Rheumatic Conditions - Classification - Rheumatoid Arthritis - Spondylitis - Acute respiratory conditions - Chronic respiratory conditions - Conditions of the Nervous System. Introduction, Sign and Symptoms of neurological disorders like Paraplegia, Hemiplegia, Cerebral Palsy. Various infections of the Nervous System-Meningitis, Poliomyelitis, cerebral palsy.					
Module V: Conditions of the cardio vascular					9
Conditions of the cardio vascular system - Introduction, heart failure, classification carditis. - Sign and symptoms and Prevention-Chronic vascular disorders, coronary occlusion and Efforts requiring hypertension - Disorders of the blood vessels - Atherosclerosis, cold extremities, various thrombosis - Fracture of the upper extremity and lower extremity - Dislocation					
Reference					
<ol style="list-style-type: none"> 1. Joan, N. Laan, "Physiotherapy in Medical Conditions" 2. Thorndike, "Athletic Injuries" 3. Joan, "Physiotherapy in Surgical conditions" 4. Henry, C. Kondal and Florence P. Kondal, Muscle and Functions. 5. I.B. Clayton, "Text Book of Electrotherapy" and Actiontherapy 6. Branda Savage, "Preliminary electricity for the Physiotherapist" 					

Semester - III

Course Title	Sports Technology			Credits	3
Course Code	PDC1313	Course Category	PE	L-T-P-S	3-0-0-0
CIA	80%			ESE	20%
Learning Level	BTL				
CO	Course Outcomes				PO
1	Understand the fundamental concepts of technology using in Sports				1, 2
2	Understand the science of sports materials used in sports and games				2, 6
3	To attain the knowledge of playfield surface				4
4	To discuss about various modern equipment				6
5	To elaborate on the steps and stages of training gadgets				2, 3
Prerequisites: Nil					
Module I: Importance of technology in Sports:					9
Meaning, Definition - General Principles and purpose of instrumentation in sports - Technological impacts on sports.					
Module II: Science of Sports Materials:					9
Adhesives - Nano glue - Nano Moulding Technology - Nano turf - Foot wear production - Factors and applications in sports - Constraints - Foams - Polyurethane - Polystyrene - Styrofoam - closed cell and open-cell foams - Neoprene - Foam - Smart Materials: Shape Memory Alloy (SMA) - Thermo chromic film - High - density modeling foam.					
Module III: Surfaces of Playfields:					9
Modern surfaces for playfields - Construction and installation of sports surfaces - Types of materials: synthetic, wood, polyurethane - Artificial turf - Modern technology in the construction of indoor and outdoor facilities - Use of computer and software in Match Analysis and Coaching.					
Module IV: Modern Equipment's:					9
Playing Equipment's - Balls: Types, Materials and Advantages – Bat / Stick / Racquets: Types, Materials and Advantages - Clothing and shoes: Types, Materials and Advantages - Measuring equipment's: Running, Throwing and Jumping Events - Protective Equipment: Types, Materials and Advantages - Sports equipment with Nano technology and Advantages.					
Module V: Training Gadgets:					9
Basketball: Ball Feeder - Mechanism and Advantages; Cricket: Bowling Machine - Mechanism and Advantages; Tennis: Serving Machine - Mechanism and Advantages; Volleyball: Serving Machine - Mechanism and Advantages; Lighting Facilities: Method of erecting Flood Light and measuring luminous; Video Coverage: Types, Size, Capacity; Place and Position of Camera in Live coverage of sporting events; Use of computer and software in mater analysis and coaching					
Reference					
1. Brar, R.S. et al. Teaching Methodology and Educational Technology in Physical Education, Kalyani Publisher: New Delhi, 2008.					
2. Bosco, James S. "Sports Technology", New Jersey, Prentice Hall Inc., 1983.					
3. Hoover, Kenneth H. The Professional Teacher's Handbook, Boston, Allyn and Bacon, 1972.					
4. Krik, David. Physical Education and Curriculum Study, Kent, Croom Helm, 1988.					
5. Mohanty, J. Educational Technology, New Delhi, 1992.					