

B. Sc., PHYSICAL EDUCATION, HEALTH EDUCATION AND SPORTS (PHS)

PROGRAMME OUTCOMES (PO)

PO1: Students will be familiar with sports skills, rules and regulations of the games and healthy life.

PO2: Students will gain innovative ideas to face various challenges in the society and ability to apply the knowledge of Physical Education, sports and health in the field of sports.

PO3: Competency to choose a prominent career in fitness centre, schools, police and military and Students will acquire creative thinking to face various competitive examinations.

PO4: Students are able to enhance their writing and reading skills through reading short stories.

PO5: Students are able to develop their listening and speaking skills by practising public speeches.

PROGRAMME SPECIFIC OUTCOMES (PSO)

PSO1: Students will be exposed to a wide range of games, basic science and health and also they will understand the rules and regulation of games like cricket, football, basket ball, etc...

PSO2: Students will obtain skills to improve health and fitness by understanding the concepts of physical education that provides a strong foundation for the development their career.

PSO3: Students will identify the talent and train them in concerned sports and games.

PSO4: Students are able to enhance their skill of writing and reading letters, sports reports and articles

PSO5: Students are able to improve their soft skills and communication through listening to famous speeches and practising public speaking skills.

B. Sc., PHYSICAL EDUCATION, HEALTH EDUCATION AND SPORTS (PHS)**CHOICE BASED CREDIT SYSTEM (CBCS)****SCHEME OF EXAMINATIONS****Program Code : Updated April 2020 (June Onwards)****SEMESTER – I**

PROGRAMME CODE	PART	PROGRAMME TITLE	Hrs / WEEK	CREDITS	EXAM Hrs	MAX. MARKS		
						Int	Ext	Total
20UGC1TP1 / 1HI1	I	TAMIL –I / HINDI –I	4	3	3	50	50	100
20UGC1EP1	II	ENGLISH –I	4	3	3	50	50	100
20UPE1C01	III	CORE -1 FOUNDATIONS OF PHYSICAL EDUCATION	4	4	3	50	50	100
20UPE1C02	III	CORE-2 THORIES OF GAMES-I (KABADDI, KHO KHO, VOLLEY BALL, THROW BALL)	4	4	3	50	50	100
20UPE1AL1	III	ALLIED -1 SPORTS PSYCOLOGY AND SOCIOLOGY	4	5	3	50	50	100
20UPE1CP1	III	CORE PRACTICAL -1 GAME OF SPECIALIZATION (SELECT ANY ONE FROM GROUP 'A' AND 'B' GAMES)	10	4	3	50	50	100
Total			30	23	TOTAL MARK			600

SEMESTER – II

PROGRAMME CODE	PART	PROGRAMME TITLE	Hrs / WEEK	CREDITS	EXAM Hrs	MAX. MARKS		
						Int	Ext	Total
20UGC2TP2 / 2HI2	I	TAMIL –II / HINDI – II	4	3	3	50	50	100
20UGC2EP2	II	ENGLISH –II	4	3	3	50	50	100
20UPE2C03	III	CORE -3 ANATOMY AND PHYSIOLOGY	4	4	3	50	50	100
20UPE2C04	III	CORE-4 THORIES OF GAMES-II (HAND BALL, BASKET BALL, BADMINTON BALL BADMINTON)	4	4	3	50	50	100
20UPE2AL2	III	ALLIED -2	4	5	3	50	50	100

		TEST, MEASUREMENT AND EVALUATION IN PHYSICAL EDUCATION						
20UPE2CP2	III	CORE PRACTICAL -2 GAME OF SPECIALIZATION (SELECT ANY ONE FROM GROUP 'A' AND 'B' GAMES)	10	4	3	50	50	100
20UGC2EN S	IV	ENVIRONMENTAL STUDIES		2	3	--	50	50
Total			30	25	TOTAL MARK			650

SEMESTER – III

PROGRAM MECODE	PAR T	PROGRAMMETITLE	Hrs / WEE K	CREDIT S	EXAM Hrs	MAX. MARKS		
						Int	Ext	Total
20UGC3TP3 / 3HI3	I	TAMIL –III / HINDI - III	4	3	3	50	50	100
20UGC3EP3	II	ENGLISH -III	4	3	3	50	50	100
20UPE3C05	III	CORE -5 ORGANIZATION AND ADMINISTRATION IN PHYSICAL EDUCATION	4	4	3	50	50	100
20UPE3C06	III	CORE-6 THORIES OF GAMES-III (FOOT BALL, HOCKEY, TENNIS, TABLE TENNIS)	4	4	3	50	50	100
20UPE3AL3	III	ALLIED -3 MODERN SPORTS TECHNOLOGIES	4	5	3	50	50	100
20UPE3CP3	III	CORE PRACTICAL -3 GAME OF SPECIALIZATION (SELECT ANY ONE FROM GROUP ‘A’ AND ‘B’ GAMES)	10	4	3	50	50	100
20UPE3NM1 / 20UGC3TB1	IV	NME -1 PC SOFTWARE / BASIC TAMIL I		2	2	--	50	50
Total			30	25		TOTAL MARK		650

SEMESTER – IV

PROGRAM MECODE	PAR T	PROGRAMMETITLE	Hrs / WEE K	CREDI TS	EXAM Hrs	MAX. MARKS		
						Int	Ext	Tota l
20UGC4TP4 / 4HI4	I	TAMIL –IV / HINDI -IV	4	3	3	50	50	100
20UGC4EP4	II	ENGLISH -IV	4	3	3	50	50	100
20UPE4C07	III	CORE -7 METHODS OF PHYSICAL EDUCATION	4	4	3	50	50	100
20UPE4C08	III	CORE-8 THORIES OF GAMES-IV (CRICKET, SOFTBALL, GYMNASTICS)	4	4	3	50	50	100

20UPE4AL4	III	ALLIED -4 FOUNDATION OF YOGA	2	2	3	25	25	50
20UPE4CP4	III	CORE PRACTICAL -4 GAME OF SPECIALIZATION (SELECT ANY ONE FROM GROUP 'A' AND 'B' GAMES)	10	4	3	50	50	100
20UPE4AP1	III	ALLIED PRACTICAL -1 YOGA	2	2	2	50	--	50
20UPE4NM2 / 20UGC4TB2	IV	NME -2 FITNESS AND NUTRITION / BASIC TAMIL II		2	2	--	50	50
20UGC4VAE	IV	VALUE EDUCATION		2	2	--	50	50
20UGC4SPO	V	Extension Activities - SPORTS		1	2	25	25	50
Total			30	27	TOTAL MARK			750

SEMESTER – V

PROGRAMME CODE	PART	PROGRAMME TITLE	Hrs / WEEK	CREDITS	EXAM Hrs	MAX. MARKS		
						Int	Ext	Total
20UPE5C09	III	CORE -9 KINESIOLOGY AND BIO- MACHANICS	5	4	3	50	50	100
20UPE5C10	III	CORE -10 THEORIES OF TRACK EVENTS	5	4	3	50	50	100
20UPE5C11	III	CORE -11 HEALTH EDUCATION, SAFETY EDUCATION	4	4	3	50	50	100
20UPE5CP5	III	CORE PRACTICAL -5 ATHLETICS TRACK EVENTS	12	5	3	50	50	100
@	III	ELECTIVE-1 FROM GROUP I@	4	3	3	50	50	100
Total			30	20	TOTAL MARK			500

SEMESTER – VI

PROGRAMME CODE	PART	PROGRAMME TITLE	Hrs / WEEK	CREDITS	EXAM Hrs	MAX. MARKS		
						Int	Ext	Total
20UPE6C12	III	CORE -12 FUNDAMENTALS OF SPORTS TRAINING	5	4	3	50	50	100
20UPE6C13	III	CORE -13 THEORIES OF FIELD EVENTS	5	4	3	50	50	100
20UPE6C14	III	CORE -14 SPORTS INJURIES AND PHYSIOTHERAPY	4	4	3	50	50	100
20UPE6CP6	III	CORE PRACTICAL -6 ATHLETICS FIELD EVENTS	12	5	3	50	50	100
@	III	ELECTIVE-2 FROM GROUP I@	4	3	3	50	50	100
20UPE6CPR	III	PROJECT WORK		5	3	50	50	100
Total			30	25		TOTAL		600
CREDIT GRAND TOTAL			145		MARK GRAND TOTAL			3750

@ List of Elective Courses

Programme code	Programme Title
Group I	
20UPE5EA1 / 6EA2	SPORTS JOURNALISM AND MASS MEDIA
20UPE5EB1 / 6EB2	PHYSICAL EDUCATION FOR PERSON WITH DISABILITY
20UPE5EC1 / 6EC2	OBESITY AND WEIGHT MANAGEMENT

Programme : B.Sc., PHS

Course Code: 20UPE1C01

Course Title: CORE-1- FOUNDATIONS OF PHYSICAL EDUCATION

Hours /

Week: 4

Year: I

Semester: I

Credits: 4

COURSE OBJECTIVE:

- 1.To understanding the meaning, need of physical education and sports with scientific principles.
- 2.To gain the knowledge about the ancient and modern Olympic games.
- 3.To know the body types and biological foundations of physical education
- 4.To learn the history of physical education and history of Olympics
- 5.To know the national and international competitions, national coaching schemes and sports awards

COURSE OUTCOMES:

After learning the course, the students will be able to

CO1	Understand the meaning, nature, need and scope of physical Education and sports	K3
CO2	Be familiar with the scientific principles from various allied subjects in the field of Physical Education and sports.	K3
CO3	Knowledge about the national coaching scheme and awards in India	K3
CO4	Knowledge of the various Olympic movements to the international understanding	K4
CO5	Impart the historical review of Physical Education and sports in Indian heritage.	K2

K1- Remember; K2 – Understand; K3 – Apply; K4- Analyze

	PO1	PO2	PO3	PO4	PO5		PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S	S	L	M	S		S	S	L	M	S
CO2	M	L	S	S	M		M	L	S	S	M
CO3	S	S	L	L	S		S	S	L	L	S
CO4	S	L	S	S	S		S	L	S	S	S
CO5	L	L	L	L	L		L	L	L	L	L

S- Strong; M- Medium; L-Low

UNIT - I

Meaning and Definition of Education and Physical Education - Physical Training and Physical Culture - Aims and objectives of Physical Education – Development of physical mental, social, emotional aspects and neuromuscular co-ordination.

UNIT - II

Body types – Sheldon and Kretchmer classification - Biological foundations of Physical Education – Muscle tone, Athletic heart, Vital capacity, Reciprocal innervations and Synchronized and Unsynchronized development - Chronological, Anatomical, Physiological and Mental ages - Difference between male and female during adolescence.

UNIT – III

History of Physical Education in India - History of Physical Education in Sparta and Athens - Olympic Games – Ancient and Modern – Origin – Organization and conduct of the game - Olympic Flag, Torch, Oath, Emblem and Motto – The Marathon Race.

UNIT – IV

Y.M.C.A and its contributions - Recent developments in India – SPIPES, NSNIS, SAI, All India Council of Sports, National Physical Efficiency Drive - National and International Federations or Associations -

UNIT-V

National and International Competitions - Asian Games, commonwealth Games, SAF, SGFI, RDS AND BDS - Awards and Scholarships – Arjuna Award, Dhronochariya Award and Rajiv Gandhi Khel Ratna Award.

Text books:

- 1.Pangrazi, Robert "Dynamic Physical Education for Elementary School Children" 15th Edition(2007)
- 2.Tinning, R. Seeking a realistic contribution: Considering physical education within HPE in New Zealand and Australia. (2000).
- 3.Trudeau, F. & Shephard, RContribution of school programmes to physical activity levels and attitudes in children and adults. *Sports Medicine.* . (2005)

Reference Books:

1. Jain. D, “Physical Education and Recreation Activities”, Khel Sathya Kendra, New Delhi (2002).
2. Koushik. H.K., “Foundations of Physical Education, sublime publications, Jaipur. (2009)
3. Shekar. C. K., “Foundation of Physical Education and Sports”, First Edition. Khel Sathya Kendra, New Delhi (2002).
4. Jain, D.“Principles of Physical Education”, Khel Sathya Kendra, New Delhi 2002.
5. Sharma O.P., “History of Physical Education”, First Edition. Khel Sathya Kendra, New Delhi. (2005)
6. Narayanan.C, and Harriharrasarma.S, “An Analytical History of Physical Education”, South India Press, Karaikudi. (2002).

Web links:

- 1.<https://www.educationcounts.govt.nz/publications/schooling/25204/9>
- 2.<https://www.sanfoundry.com/best-reference-books-physical-education>

Programme : B.Sc., PHS

Course Code: 20UPE1C02

Course Name: CORE-2- THEORIES OF GAMES

(VOLLEYBALL, KABADDI, KHO-KHO & THORW BALL)

Hours / Week: 4

Year: I

Semester: I

Credits: 4

COURSE OBJECTIVE:

1. To understanding the origin and history of the game
2. To learn the layout and maintain the play field
3. To obtain the fullest knowledge about the games and make them specialized in fundamental skills, training, officiating and scoring.
4. To gain the knowledge about the techniques, tactics and training methods
5. To gain the knowledge about the rules and regulations, officiating and scoring

COURSE OUTCOMES:

After learning the course, the students will be able to

CO1	Know the history and working federations of the games	K3
CO2	To know the methods of lay-outing the play fields and their maintenance	K3
CO3	To obtain the knowledge of specification	K3
CO4	Develop the various fundamental and techniques in volleyball, kabaddi, kho kho and throw ball	K4
CO5	Learn about the officiating & scoring skills in volleyball, kabaddi, kho kho and throw ball.	K2

K1- Remember; K2 – Understand; K3 – Apply; K4- Analyze

	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S	L	L	M	M	S	L	L	M	M
CO2	S	S	S	M	L	S	S	S	M	L
CO3	S	S	S	S	S	S	S	S	S	S
CO4	S	M	L	S	S	S	M	L	S	S
CO5	S	M	M	S	S	S	M	M	S	S

S- Strong;

M- Medium;

L-Low

UNIT - I

Introduction - Origin and development of the games - History of the Games: World & India – Organizations of Games: (Working Federations): World and India.

UNIT - II

Play field: Layout and maintenance of the play field - Equipment: specifications and dimensions.

UNIT - III

Fundamental skills – drills for development of skills - lead-up games

UNIT - IV

Techniques and Tactics – Training - Specific Warm up - Warming down - Essential fitness Components and Conditioning – various systems of play

UNIT – V

Officiating: Rules of the game – interpretation – method of officiating and scoring

Text Books

1. Pellett, T. L. Skills, Drills & Strategies for Volleyball. Taylor & Francis (2017).
2. Schreiber, J. Game Over, Pete Watson. Houghton Mifflin Harcourt (2014).
3. Bunn, J. W. The Art of Officiating Sports. Englewood cliffs N.J. Prentice Hall. (2010).
4. Bunn, J. W. Scientific principles of coaching. Englewood cliffs N. J. Prentice Hall. 9th edition. (2012).
5. Karikalan, I. Identification of Factors Correlated to Kabaddi Playing Ability (2015).
6. Sen, R. Nation at play: A history of sport in India. Columbia University Press. (2015).
7. Rules of Kho-Kho and Kho-Kho Federation of India. (2015).
8. Selvaraj K., Game Kho-Kho Teachers Publishing House. Coimbatore. (2008).
9. Alagesan S., Rules of Kho-Kho, Coimbatore, Teachers publishing House (2010).
10. Dr M.L. Kamlesh field manual of sports and games. Nageen prakashan Pvt. Ltd. Meerut.
11. Goel. R. G, "Encyclopedia of sports and games," Vikas publishing house Pvt., Ltd., Delhi, (2000)

Reference Books

1. Buck H.C., Rules of games and sports. New Delhi, National council of YMCA.
2. Rules of Throwball. (2014). TNTBA.
3. Rules of Games and Sports Y.M.C.A Publishing House, Masse Hall, New Delhi. (2012).
4. American Volleyball Coaches Association, & Reynaud, C. (Eds.). (2015).
5. The Volleyball Coaching Bible, Volume II (Vol. 2). Human Kinetics. (2012).
6. Pellett, T. L. Skills, Drills & Strategies for Volleyball. Taylor & Francis. (2017).
7. J Radcliffe, R Farentinos High-Powered Plyometrics, 2E, Human Kinetics (2015).
8. I Jeffreys, J Moody Strength and Conditioning for Sports Performance, Taylor & Francis
9. Grant, S. (2016). Talking to my country. Scribe Publications (2016).

Web Links

1. <http://www.sportspublication.net/book-on-kabaddi-2760285.html>
2. www.sportspublication.net/book-on-kabaddi-2760285.html
3. <https://www.theartofcoachingvolleyball.com/product/volleyball-drill-book/>
4. <https://en.wikipedia.org/wiki/Throwball>
5. https://en.wikipedia.org/wiki/Kho_kho
6. <https://gameslords.com/games/2014-kabddi?page=CGAQAA>
7. <https://www.strength-and-power-for-volleyball.com> › Basic Volleyball Rules.
8. hraf.yale.edu/ehc/summaries/games-and-sports
9. www.tribuneindia.com/news/comment/game-theory-in...life...sport/288770.html

Programme : B.Sc., PHS

Course Code: 20UPE1AL1

Course Name: ALLIED-1- SPORTS PSYCHOLOGY AND SOCIOLOGY

Hours / Week: 4

Year: I

Semester: I

Credits: 5

COURSE OBJECTIVE:

1. To know meaning, need and importance and nature and scope of psychology and sociology in the field of physical education and sports
2. To know theories of learning and laws of learning
3. To know theories of perception and types and factors affecting motivation

COURSE OUTCOMES:

After learning the course, the students will be able to

CO1	Able to understand various theories of learning	K2
CO2	Ability to apply psychological and sociological principals in game situations	K3
CO3	To learn motivation and factors affecting motivation	K4
CO4	Ability to apply personality and aggression	K2
CO5	Able to understand anxiety and leadership in sports	K4

K1- Remember; K2 – Understand; K3 – Apply; K4- Analyze

	PO1	PO2	PO3	PO4	PO5		PSO1	PSO2	PSO3	PSO4	PSO5
CO1	L	S	S	M	S		L	S	S	M	S
CO2	M	M	L	L	M		M	M	L	L	M
CO3	S	S	S	S	L		S	S	S	S	L
CO4	S	M	M	L	M		S	M	M	L	M
CO5	M	M	L	S	S		M	M	L	S	S

S- Strong; M- Medium; L-Low

UNIT -I

Introduction, Meaning and Definition of Psychology and sports psychology-Need and importance of psychology in the field of physical education and sports.

UNIT- II

Learning process: Theories of learning – Trial and error learning, conditioned response theory and insightful theory -Laws of learning – Readiness, exercise, effect, frequency, regency and intimacy –Learning curve –Intelligence quotient

UNIT- III

Perceptual Mechanism: Definition of Perception-Theories of Perception – Gestalt Theory and Witkin’s Theory -Motivation – Types and factors affecting motivation.

UNIT -IV

Personality and aggression: Anxiety – Types of anxiety – Its role in sports and games. Personality – Personality traits of sports person – composition of personality -Aggression – Theories of aggression.

UNIT- V

Sociology: Meaning, nature and scope of sociology in physical education and sports. **Social factors in sports -Leadership in sports - Spectators and fans –Group cohesion.**

Text books:

1. Kakkar, S B Educational Psychology Prentice-hall of India New Delhi
2. Shekar, K C Aspects of Psychology in Physical Education and Sports Khel Sahitya Kendra New Delhi(2005)
3. Verma, V K Education and Sports Psychology Educational Publishers and Distributors New Delhi (2011)

Reference books:

1. Jay Coakley. Sports in Society - Issues and Controversies in International Education, (2001).
2. Mc-Craw Seventh Ed. John D Lauther. Psychology of Coaching. NerJersy: Enginewood Cliffs, Prenticce Hall Inc. (2001).
3. Jain. Sports Sociology, Heal SahetyKendre Publishers. (2002).
4. John .Lauther. Sports Psychology. Englewood, Prentice Hall Inc.
5. MiroslawVauks and Bryant Cratty. Psychology and the Superior Athlete London: The Macmillan Co. (2002).
6. Richard, J. Crisp. Essential Social Psychology. Sage Publications. Robert N. Singer. Motor Learning and Human Performance. New York: (2012).
7. The Macmillan Co. Robert N. Singer. The Psychology Domain Movement Behaviour. Philadelphia: Lea and Febiger. (2001).
8. Thelma Horn. Advances in Sports Psychology. Human Kinetic. Whiting, (2002).
9. Karman. L.B. Hendry & M.G. Jones. Personality and Performance in Physical Education and Sports. London: Hendry Kimpton Publishers. (2001).

Web Links:

1. www.apa.org > ... > Graduate and Postgraduate > Specialties and Proficiencies
2. <https://study.com/academy/lesson/what-is-sports-psychology-definition-history.html>
3. https://www.westernsydney.edu.au/.../why_sport_needs_sociology_and_why_sociolo.

Programme : B.Sc., PHS

Course Code: 20UPE2C03

Course Name: CORE-3- ANATOMY AND PHYSIOLOGY

Hours / Week: 4

Year: I

Semester: II

Credits: 4

COURSE OBJECTIVE:

1. Understanding the basic concepts of anatomy and physiology and acquire the knowledge of structure and function of various systems of the body.
2. To acquire the knowledge of anatomy and physiology their and the implications in the field of physical education.

COURSE OUTCOMES:

After learning the course, the students will be able to

CO1	Understand the basic concepts of anatomy and physiology	K2
CO2	Imparting the knowledge of structure and function of the skeletal system	K2
CO3	Learn about the structure and function of circulatory and respiratory system	K3
CO4	Importance of knowing the structure of kidney, brain and sensory system	K2
CO5	Acquire the knowledge about anatomical structure of endocrine system and reproductive system	K2

K1- Remember; K2 – Understand; K3 – Apply; K4- Analyze

	PO1	PO2	PO3	PO4	PO5		PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S	L	S	L	M		S	L	S	L	M
CO2	L	S	L	M	L		L	S	L	M	L
CO3	M	L	S	L	S		M	L	S	L	S
CO4	L	M	L	S	L		L	M	L	S	L
CO5	M	L	M	L	S		M	L	M	L	S

S- Strong; M- Medium; L-Low

UNIT - I

Concept of anatomy and physiology and their implications - Meaning of anatomy and physiology - Need and importance of anatomy and physiology for physical education and sport - cell – Structure Functions of various parts of the cell - Tissues – Types and functions of various tissues.

UNIT - II

Skeletal system: bones - Classification and functions of bones – General features of different bones of the body – Scapula, Radius and Ulna – Humerus - Pelvic Bone – femur - tibia – fibula typical rib - vertebral column bones of skull - Joints – Definitions and classification of Joints – Anatomical structure of a synovial joints.

UNIT - III

Muscular system: Structural and functional – Classification of muscles – Structure of muscles – Skeletal muscle – Cardiac muscle – Smooth muscle significance. Cardio- Vascular system: Structure and functions of heart – Major blood vessels in different parts of the body - Cardiac cycle – Pumping action of the heart and its regulation during rest – Exercise – Stroke Volume and Cardiac output - Blood – Constituents of Blood – Main functions of blood – Blood clotting - Blood groups.

UNIT - IV

Respiratory system: Structure of lungs and mechanism of respiration – Tidal volume and residual volume. Digestive system: Structure and functions of various parts of the intestinal tract – Secretions – Functions of digestive juice – Absorption of food – Structure and functions of liver. Excretory system: Structure of kidney – Urinary tract – Various channels of excretion such as kidney – skin – rectum.

UNIT - V

Nervous system: Structure and functions of brain - Spinal cord – Peripheral nerve – reflex – reflexes – Functions of importance functions of nervous system – Spinal cord – Medulla – Cerebrum – cerebellum – Autonomic nervous system – Central nervous system - Sensory system: Structure of sense organs for vision – Hearing – Taste – Touch – Smell. Endocrine system: Anatomical structure of pituitary – Thyroid – Pancreas – Adrenals glands – functions. Reproductive system: Structure – Functions of various parts of male – Female genital tract.

Text books:

1. DN Shier, J Butler, R Lewis Hole's essentials of human anatomy & physiology, South Lyon Community School(2017)
2. G Jenkins, C Kemnitz, GJ Tortora (2011), Anatomy and physiology(2017)
3. DC Rizzo Fundamentals of anatomy and physiology ,Cengage learning(2015)

Reference books:

1. Murugesh. N., “Anatomy, Physiology and Health Education”, Sathya Publishers, Chennai. (2006)2.
2. Elaine N., “Essentials of Human Anatomy and Physiology”, Pearson Education, River, New Jersey. (2010)
3. Albert. B, “Human Physiology”, First Edition, Sports Publications, Chennai. (2006)
4. Sivaramakrishnan.S, “Anatomy and Physiology for Physical Education” Friends Publication, Chennai. (2006)
5. Sivaramakrishnan.S, “Physiology of sports” Friends Publication, Chennai. (2006)

6. Pearce Evelyu C Anatomy and physiology for nurses, 15th Edition, Oxford University Press. . (1978)
7. Wilson Kathleer J. W Anatomy and physiology in health and illness, 6th Edition, Churchill Livingstone, Edinburgh. . (1978)

Web Links:

1. <https://www.khanacademy.org/science/health-and-.../human-anatomy-and-physiology>
2. <https://opentextbc.ca/anatomyandphysiology/>
3. <https://www.getbodysmart.com/>

Programme : B.Sc., PHS

Course Code: 20UPE2C04

Course Name: CORE-4- THEORIES OF GAMES – II

(HAND BALL, BASKET BALL, BADMINTON, BALL BADMINTON)

Hours / Week: 4

Year: 1

Semester: II

Credits: 4

COURSE OBJECTIVE:

1. To understanding the origin and history of the game
2. To learn the layout and maintain the play field
3. To obtain the fullest knowledge about the games and make them specialized in fundamental skills, training, officiating and scoring.
4. To gain the knowledge about the techniques, tactics and training methods
5. To gain the knowledge about the rules and regulations, officiating and scoring

COURSE OUTCOMES:

After learning the course, the students will be able to

CO1	Know the history and working federations of the games	K2
CO2	To know the methods of lay-outing the play fields and their maintenance	K3
CO3	To obtain the knowledge of specification	K3
CO4	Develop the various fundamental and techniques in hand ball, basket ball, badminton, ball badminton	K4
CO5	Learn about the officiating & scoring skills in hand ball, basket ball, badminton, ball badminton.	K3

K1- Remember; K2 – Understand; K3 – Apply; K4- Analyze

	PO1	PO2	PO3	PO4	PO5		PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S	S	S	M	M		S	S	S	M	M
CO2	M	L	M	L	S		M	L	M	L	S
CO3	S	M	S	S	M		S	M	S	S	M
CO4	M	L	S	M	S		M	L	S	M	S
CO5	S	S	L	S	L		S	S	L	S	L

S- Strong

M- Medium

L-Low

UNIT - I

Introduction - Origin and development of the games - History of the Games: World & India – Organizations of Games: (Working Federations): World and India.

UNIT -II

Play field: Layout and maintenance of the play field - Equipment: specifications and dimensions.

UNIT - III

Fundamental skills – drills for development of skills - lead-up games

UNIT - IV

Techniques and Tactics – Training - Specific Warm up - Warming down - Essential fitness Components and Conditioning – various systems of play

UNIT – V

Officiating: Rules of the game – interpretation – method of officiating and scoring

Text books:

1. Wei, X. H., & Ji, L. L. Effect of handball training on cognitive ability in elderly with mild cognitive impairment. *Neuroscience letters*, 566, 98-101. (2014).
2. Xu, B., The Role of Physical Training in Badminton Teaching. In 2nd International Conference on Civil, Materials and Environmental Sciences. Atlantis Press. (2015).
3. Aneja, O P Ed., How to play Badminton Prena Prakashan Delhi(2016)
4. Tiwari, Sandeep Ed., Encyclopaedic Dictionary of Games and Sports Friends Publications (India) New Delhi (2006)
5. John W. Bunn The Basketball Coach. Englewood cliffs. N.J. Prentice Hall Inc., (1961)
6. Frank Mc Guire Team Basketball Offense and Defence. Englewoods Cliffs, Prenticehall, Inc. New Jersey. (1966)
7. Seaton Doncash Physical Education Handbook. Englewood Cliffs, PrenticeHall Inc., New Jersey. (2007).
8. D Paup - 2017 Skills, Drills & Strategies for Badminton, Taylor & Francis Group.
9. Madsen, Christian M., Anders Karlsen, and Lars Nybo. "Novel speed test for evaluation of badminton-specific movements." *The Journal of Strength & Conditioning Research* 29.5 (2015)
10. Grundy, P., & Shackelford, S. Shattering the Glass: The Remarkable History of Women's Basketball. UNC Press Books. (2017).
11. Bunn, J. W. (2010). *The Art of Officiating Sports*. Englewood cliffs N.J. Prentice Hall.
- Bunn, J. W. (2012).
12. *Scientific principles of coaching*. Englewood cliffs N. J. Prentice Hall. 9th edition
13. Dr M.L. Kamlesh field manual of sports and games. Nageen prakashan Pvt. Ltd. Meerut.
- Goel. R. G, "Encyclopedia of sports and games," Vikas publishing house Pvt., Ltd., Delhi, 2000

Reference Books:

1. Karcher, C., & Buchheit, M. On-court demands of elite handball, with special reference to

playing positions. Sports medicine, (2014)

2.Rules of Ball badminton International Badminton Federation(2010)

3.Du, N. Analysis on the badminton sports teaching mode based on data mining. RISTI (Revista Iberica de Sistemas e Tecnologias de Informacao), (E10), 241- 251.(2016)

4.ED Jucker Power Basketball. Englewood Cliffs, PrenticeHall Inc., New Jersey.(2004)

5.Simmons, Bill The Book of Basketball: The NBA According to The Sports Guy. ESPN Books.(2009)

6.Jacob, Alvin, Wan Nurshazwani Wan Zakaria, and MohdRazali Bin MdTomari. "Quantitative 7.Analysis of Hand Movement in Badminton." Advanced Computer and Communication Engineering Technology. Springer, Cham, (2016)

8.Buck H.C., Rules of games and sports. New Delhi, National council of YMCA(2012).

9.Rules of Games and Sports Y.M.C.A Publishing House, Masse Hall, New Delhi. (2012).

10Dashper, K., Fletcher, T., &McCullough, N. (Eds.) Sports events, society and culture. Routledge. (2014).

11.Sigmund, K. Games of life: explorations in ecology, evolution and behavior. Courier Dover Publications. (2017).

Web Links:

1.<http://www.handball-planet.com/handball-book-from-the-begginer-to-top-player/>

2.<https://www.bookdepository.com/category/3041/Badminton>

3.https://en.wikipedia.org/wiki/Ball_badminton

4.www.handball-planet.com › News › Balkan

5.<https://web.mst.edu/~ima/rules/Badmintonrules.html>

6.ballbadmintonindia.com/rules_regulation.php

7.<https://en.wikipedia.org/wiki/Basketball>

8.www.metasysteme.eu

9.<https://books.google.co.in/books?isbn=1558707875>

Programme : B.Sc., PHS

Course Code: 20UPE2AL2

Course Name: ALLIED-2-TEST, MEASUREMENT

AND EVALUATION IN PHYSICAL EDUCATION

Hours /

Week: 4

Year: I

Semester: II

Credits: 5

COURSE OBJECTIVE:

1.To know about the importance and uses of test and measurement.

2.To know about various tests for fitness components and sports skills

COURSE OUTCOMES:

After learning the course, the students will be able to

CO1	Ability to conduct tests for measuring fitness components.	K4
CO2	Ability to organize skill tests in various games.	K3
CO3	Able to understand the physical fitness test	K2
CO4	To know about the games skill test	K3
CO5	Development of the various fundamental fitness and skill test	K3

K1- Remember; K2 – Understand; K3 – Apply; K4- Analyze

	PO1	PO2	PO3	PO4	PO5		PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S	S	L	L	M		S	S	L	L	M
CO2	L	S	S	M	L		L	S	S	M	L
CO3	M	L	S	S	S		M	L	S	S	S
CO4	S	M	M	S	M		S	M	M	S	M
CO5	M	S	S	M	S		M	S	S	M	S

S- Strong;

M- Medium;

L-Low

UNIT - I

Meaning and definition of the terms – test, measurement and evaluation - Need and importance of

measurement and evaluation in Physical Education

UNIT - II

Criteria of test selection – validity, reliability, objectivity, norms and administrative feasibility - classification of test – standardized test and teacher made test - rating scales – subjective rating and objective rating. Test Methods – Administration of test

UNIT - III

Fitness – Meaning and Definition – components of fitness – Health related fitness and skill related physical fitness - Physical fitness test –AAPHERD Youth Fitness Test – AAPHERD – Health Related Fitness Test; Motor Fitness Tests - JCR test – Oregon Motor Fitness Test; Motor Ability Tests– Barrow Motor Ability Test

UNIT -IV

Cardio vascular endurance tests – Harvard step test – Cooper’s 12/9 minutes run/walk test – Queen’s college step test – Posture tests – Woodruff body alignment postural test – Foot print angle test; Strength test– Kraus Weber minimum muscular strength test - Dip strength test – Grip strength test – Leg dynamometer test;

UNIT - V

Test of Specific Sports skills.

Badminton – French short serve test - Miller wall volley test

Basketball – Lealich Basketball Ability test – Knox Basketball test

Hockey – Schmithals French field Hockey test - Friedal field Hockey test

Soccer – McDonald Soccer test - Warner Soccer test

Tennis – Broer- miller Tennis test - Dyer Tennis test

Volleyball – Russel – Lange Volleyball test – Brady Volleyball test

Text Books:

- 1.Lacy, A. C., & Williams, S. M. Measurement and evaluation in physical education and exercise science.Routledge. (2018).
- 2.Bishop, P. A. Measurement and Evaluation in Physical Activity Applications: Exercise Science, Physical Education, Coaching, Athletic Training & Health. Routledge (2017)..
- 3.Morrow Jr, J. R., Mood, D., Disch, J., & Kang, M. (2015). Measurement and Evaluation in Human Performance, 5E. Human Kinetics. (2017).

Reference Books:

1. Barrow, Harold M. Rosomany "Physical Approach to measurement in Physical Education." Philadelphia, Lea and Febiger . (1964)
2. Bosco, James S. "Measurement and Evaluation in physical Education and Sports", New Jersey, Prentice Hall Inc., 1983.
3. Bovarrd john F. Freederich W. Hagmanm, Patrelcial E., "Test and Measurement in Physical Education" Philadelphia, W.B. Saunders Company, (1949)
4. Campbell, W.R, and Tauker, N.M."An Introduction to Test and Measurement in Physical Education", London, G.Bell& Sons ltd. (1967)
5. Clarke H. "Application of measurement in Health and Physical Education, Pretice Hall Inc., 1967.
6. Clarke H. & David H. C, "Application of Measurement to Physical Education", Sixth Edition, (1987)
7. Hunsicker, Paul A. and Monteyer, Hendry J"Applied to Test Measurement in Physical Education New York, prentice Hall. (1953)
8. Mathews K. Donald, "Measurement in Physical Education" London W.S. Saunders Company, (1973)
9. Myers Carlton R. and Blesh, Erwon T, "Measurement in Physical Education", New York, the Ronald Press Company. (1962)
10. Safrit Margarat J. "Measurement in Physical Education and Exercise Science". St. Louis, Times Mirror Mosby College publishing, (1986)
11. WigooseCrle; "Evaluation in Health Education and Physical Education" New York, McGraw-Hill Book co., Inc. (1978)

Web Links:

1. [https://www.researchgate.net/..](https://www.researchgate.net/)
2. <https://www.missouriwestern.edu/hper/wp-content/>
3. <https://edurev.in/>

Programme : B.Sc., PHS

Course Code: 20UPE3C05

**Course Name: CORE- 5 ORGANIZATION AND ADMINISTRATION
IN PHYSICAL EDUCATION**

Hours /

Week: 4

Year: II

Semester: III

Credits: 4

COURSE OBJECTIVE:

1. Understanding the basic concepts organization, and administration in various aspects of physical education and sports.

2. To acquire the knowledge of required qualification for the holistic profession.

COURSE OUTCOMES:

After learning the course, the students will be able to

CO1	Understand the concepts of organization, administration in physical education	K3
CO2	Acquire the organization scheme of physical education at various levels	K3
CO3	Know about the qualification of teachers, various physical education periods	K4
CO4	Understand the Preparation and Administration of a Budget	K2
CO5	Able to understand awards	K2

K1- Remember;

K2 – Understand;

K3 – Apply;

K4- Analyze

	PO1	PO2	PO3	PO4	PO5		PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S	S	L	L	M		S	S	L	L	M
CO2	L	S	S	M	L		L	S	S	M	L
CO3	M	L	S	S	S		M	L	S	S	S
CO4	S	M	M	S	M		S	M	M	S	M
CO5	M	S	S	M	S		M	S	S	M	S

S- Strong

M- Medium

L-Low

UNIT – I

Meaning of Organization and Administration – Importance of Organization and Structure of Administration, Organization and Administration of- Schools, Colleges, University, Districts, States etc responsibility

UNIT –II

Facilities and equipment : Playgrounds – Outdoor and Indoor – Gymnasium - Swimming Pools - Types of Pool (fill and draw type) Perennial type – Perpetual Circulation type – Construction of a Pool – Care and Maintenance.- Standards for Educational Institutions – layout of Play Grounds and Athletic Track – Problem of lack of Play Space for Schools in Crowded cities and their Solution – Public Play Grounds – Construction and care.

UNIT –III

Equipment: Minimum requirement for an Educational Institution – Purchase of Equipment (Policies and Procedure) Care of Equipment (General and specific), Staff and leadership: Need for Trained leaders – Qualifications of physical education teacher – Teaching load and teacher pupil ratio – Relationship of Physical Education Teacher with the Headmaster, Supervisor, Classroom Teachers, Students, Parent and Community – Student leadership.

UNIT –IV

Programme planning - Curriculum-Need and Importance of Curriculum – Preparation and Development of Programme of Studies. Types of Programme – Factors Influencing Programme Planning – Characteristics of a Sound Programme. Preparation of time table- Filling Physical Education into school time table – Types of physical education – Types of Physical Education Periods – Daily, Periodicals and Annual Schedules. Intramurals – Objectives – Need & Importance – Awards and Incentives

UNIT –V

Finance and Budget- Source of Income –Grant – Sponsor – Donation, Subsidies, Gate fee, Old stock sale etc. Approved items of Expenditure – Rules for the Utilization of Games Fund or physical education Fund – Preparation and Administration of a Budget – Accounting. Office Management: Maintaining Various Types of Records and Registers and Reports

Text Books:

1. Veena Verma Organization and Administration in Physical Education. Lokesh Thani Sports. New Delhi. (2012)
2. Mrs. Sushil Gosain. Sports Management. Friends Publications, New Delhi. (2014):
3. Metzler, M. Instructional models in physical education. (2017):
4. Chelladurai, P Managing organizations for sport and physical activity: A systems perspective. Taylor & Francis. (2014):

Reference Books:

1. Heghes & French "The administration of Physical Education", Ronald pres co., (1898)
2. Jaems G. Nason Jim Paul "Modern Sports Administration", Pub prentice Hall. (1998)
3. K. Chandrashekar "Sports Administration", Vinek Thani Knel Sahitya Kendra pub., (2004)
4. Marcia L. Walker David K. Stolter "Sports facility management", Pub Jones & Bartlett (1997).
5. Scott and Westhaomper, "From Program to facilities in Physical Education". New york: Harper & bros . (1958)
6. Veena Verma "Organization & Administration in Physical Education", Sports Publications, 2005
7. Voltmer & Esslinger "Organization and Administration of Physical Education", Appleton-Century crofts. (1994)

Web Links:

1. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1528427>
2. <https://archive.org/details/organizationadmi00willrich>
3. <https://usao.edu/course/organization-and-administration-physical-education>
4. www.vedamsbooks.com/.../administration-organisation-physical-education-sports-j-kr

Programme : B.Sc., PHS

Course Code:

20UPE3C06

**Course Name: CORE-6- THEORIES OF GAMES – III
(FOOT BALL, HOCKEY, TENNIS AND TABLE TANNIS)**

Hours / Week: 4

Year: II

Semester: III

Credits: 4

COURSEOBJECTIVE:

1. To understanding the origin and history of the game
2. To learn the layout and maintain the play field
3. To obtain the fullest knowledge about the games and make them specialized in fundamental skills, training, officiating and scoring.
4. To gain the knowledge about the techniques, tactics and training methods
5. To gain the knowledge about the rules and regulations, officiating and scoring

COURSEOUTCOMES:

After learning the course, the students will be able to

CO1	Know the history and working federations of the games	K2
CO2	To know the methods of lay-outing the play fields and their maintenance	K3
CO3	To obtain the knowledge of specification	K2
CO4	Develop the various fundamental and techniques in foot ball, hockey, tennis and table tennis.	K4
CO5	Learn about the officiating & scoring skills in foot ball, hockey, tennis and table tennis	K4

K1- Remember; K2 – Understand; K3 – Apply; K4- Analyze

	PO1	PO2	PO3	PO4	PO5		PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S	L	L	M	M		S	L	L	M	M
CO2	S	S	S	M	L		S	S	S	M	L
CO3	S	M	S	S	S		S	M	S	S	S

CO4	S	M	L	S	S	S	M	L	S	S
CO5	S	M	M	S	S	S	M	M	S	S

S- Strong; M- Medium; L-Low

UNIT - I

Introduction - Origin and development of the games - History of the Games: World & India – Organizations of Games: (Working Federations): World and India.

UNIT -II

Play field: Layout and maintenance of the play field - Equipment: specifications and dimensions.

UNIT - III

Fundamental skills – Drills for development of skills - Lead-up games

UNIT -IV

Techniques and Tactics – Training - Specific Warm up - Warming down - Essential fitness Components and Conditioning – Various systems of play

UNIT – V

Officiating: Rules of the game – Interpretation – Method of officiating and scoring

Text Books:

1. MacDonald, A., Goodwin, J., & Pielichaty, H. Football Mad(2014).
2. Tovar, J., Clavijo, A., & Cárdenas, J. A strategy to predict association football players' passing skills. (2017).
3. HG Wells - Floor games, Frankfurt am Main, Gemany. (2018)
4. IR Faber - 2016 Diamonds in the rough. Searching for high potential in youth table tennis players, London: Icon Books Ltd.
5. Hoskins-Burney, Tina, and Lex Carrington. The Tennis Drill Book, 2E. Human Kinetics, 2014.
6. Fontes P, Fontes PRR, BBB de Hollanda, Hurst & Company, London(2014).
8. Bunn, J. W. The Art of Officiating Sports. Englewood cliffs N.J. Prentice Hall. (2010).
9. Bunn, J. W. Scientific principles of coaching. Englewood cliffs N. J. Prentice Hall. 9th edition(2012).
10. Dr M.L.Kamlesh field manual of sports and games. Nageen prakashan Pvt. Ltd. Meerut. (2017).
11. Goel. R. G, "Encyclopedia of sports and games," Vikas publishing house Pvt., Ltd., Delhi, (2000)

Reference Books:

1. Gems, G. R. Bibliography of Books about American Football, 1891–2015 by Ralph Hickok. *Journal of Sport History*, 44(1), 110-111. (2017).
2. Chambers, D. *The Hockey Drill Book, 2E*. Human Kinetics(2016).
3. Hoskins-Burney, Tina, and Lex Carrington. *The Tennis Drill Book, 2E*. Human Kinetics,(2014)
4. Pill, Shane, and Mitchell Hewitt. "Tennis Coaching: Applying the Game Sense Approach." *Strategies* 30.2 (2017)
5. Buck H.C., *Rules of games and sports*. New Delhi, National council of YMCA(2017).
6. *Rules of Games and Sports* (2012). Y.M.C.A Publishing House, Masse Hall, New Delhi. (2017).
7. J Schell *The Art of Game Design: A book of lenses*, Taylor & Francis Group(204).
8. P Booth *Game play: paratextuality in contemporary board games*, Blossumbury Publishing Inc., (2015).
9. Rodman, Dennis (1994). *Rebound: The Dennis Rodman Story*. (2017).

Web Links:

1. <https://inews.co.uk/sport/football/football-books-2017/>
2. <https://www.esquire.com/uk/culture/books/news/g6094/11-best-football-books/>
3. www.rulesofsport.com/sports/tennis.html
4. www.skysports.com/football
5. www.fih.ch/hockey-basics/history/
6. https://en.wikipedia.org/wiki/Sport_of_athletics
7. https://en.wikipedia.org/wiki/Track_and_field
8. https://www.barnesandnoble.com/b/books/olympics.../track-field/_/N-29Z8q8Z19r1

Programme : B.Sc., PHS

Course Code: 20UPE3AL3

Course Name: ALLIED-3- MODERN SPORTS TECHNOLOGIES

Hours /

Week: 4

Year: II

Semester: III

Credits: 5

COURSEOBJECTIVE:

1. Understand about the modern Sports technologies.
2. Acquire the fundamental concepts of sports technologies
3. Knowledge of various types surfaces and sports materials

COURSEOUTCOMES:

After learning the course, the students will be able to

CO1	Understand about the Sports technologies.	K2
CO2	About the fundamental concepts of Sports technologies.	K2
CO3	Know about the various types' sports materials and its importance in the sports.	K3
CO4	Know about the various play fields.	K3
CO5	To learn the advanced sports technology	K4

K1- Remember; K2 – Understand; K3 – Apply; K4- Analyze

	PO1	PO2	PO3	PO4	PO5		PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S	S	L	M	S		S	S	L	M	S
CO2	M	L	S	S	M		M	L	S	S	M
CO3	S	S	S	L	S		S	S	S	L	S
CO4	S	S	L	S	S		S	S	L	S	S
CO5	L	M	L	L	L		L	M	L	L	L

S- Strong; M- Medium; L-Low

UNIT – I

Sports technology – meaning - need and importance – Current trends in sports technology in western countries and in India

UNIT -II

Modern Technological impacts of sports - modern equipments - playing equipments: types, materials and advantages. Ball/bat/stick/racquets: types, materials and advantages. Clothing and shoes: types, materials and advantages. Measuring equipments: distance and high events protective equipments: types materials and advantages.

UNIT -III

Types of Sports Materials – Adhesive – Nanoglue – Nano moulding technology in sports– Nano turf. Sports equipment with Nanotechnology, advantages.

UNIT -IV

Modern surfaces for playfields, construction and installation of sports surfaces. Types of materials – synthetic, wood, polyurethane. Artificial turf, modern technology in the construction of indoor and outdoor facilities. Technology in manufacture of modern play equipments – electronic equipments. Use of computer and software in Match Analysis and coaching.

UNIT –V

Modern Scientific training gadgets for fitness, tennis, cricket, badminton, basket ball - scientific gadgets for prevention of injuries – software based instruments for assessment

Text Books:

- 1.Sharma, R.A Educatiounal tecchnology and Management, R.Lall Books Depot.Meerut. (2008).
- 2.Vanja, M.(2006).Educational Technology, Neelkamal publications pvt. Ltd.Hyderabad. (2008).
- 3.Mangal, S.K.(2001). Foundations of Educational Technology, Tandon Publications.Ludhiana. (2008).
- 4.Romesh varma and Suresh sarma, (1998), Modern trends in teaching technology, Anmol Publishers.New Delhi. (2008).
- 5.Kumar, k.l.(1996).Educational Technology, Newage International Poublishers, New Delhi. (2008).

Reference Books:

- 1.Brar, R.S Teaching Methodology and Educational Technology in Physical Education,Kalyani Publishers, New Delhi. (2008).
- 2.Richey, R.C Reflections on the 2008 AECT. TechTrends. (2008).
- 3.Luskin, B Media Psychology: A Field whose time is here. The California Psychologist, California. (1996).
- 4.Bloom B. S Taxonomy of Educational Objectives, Handbook I: The Cognitive Domain. David McKay Co Inc.New York(1956).
- 5.Charles J.A Crane, F.A.A and Furness , J.A. “Salaction of Engineering Materials” Uk : Butterworth Heiremann. (1987)
- 6.Finn, R.A and Trojan “Engineering Materials and their Applications” UK: jaico publisher.
- 7.John mongillo, “nano technology 101 “ new York : green wood publisher group.. (2001).

Web Links:

- 1.<http://www.indiaclass.com/computer-reference-books/>
2. <http://www.bms.co.in/computer-applications-in-business-syllabus-and-reference-books/>

Programme : B.Sc., PHS

ProgrammeCode:20UPE4C07

Course Name: CORE-7-METHODS OF PHYSICAL EDUCATION

Hours /

Week: 4

Year: II

Semester: IV

Credits: 4

COURSEOBJECTIVE:

1. Know the methods of teaching various physical activities.
2. Learn about the methods of drawing fixtures.
3. Know about the various competitions and organizing methods.
4. Understand the various methods of organization and conduct.
5. Know about the Method of organizing and conducting sports.

COURSEOUTCOMES:

After learning the course, the students will be able to

CO1	Understand the concepts of physical activities	K2
CO2	know about the methods of drawing fixtures	K3
CO3	Know about the various competitions and organizing methods	K2
CO4	Understand the various methods of organization and conduct	K3
CO5	Know about the Method of organizing and conducting sports.	K4

K1- Remember; K2 – Understand; K3 – Apply; K4- Analyze

	PO1	PO2	PO3	PO4	PO5		PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S	S	L	M	S		S	S	L	M	S
CO2	M	L	S	S	M		M	L	S	S	M
CO3	S	S	S	L	S		S	S	S	L	S
CO4	S	S	L	S	S		S	S	L	S	S
CO5	L	M	L	L	L		L	M	L	L	L

S- Strong;

M- Medium;

L-Low

UNIT – I

Meaning and Importance of Method – Factors Influencing Method. **Presentation Techniques -**

Personal Preparation – Technical Preparation – Class Management. Steps in Presentation – Orientation – Explanation – Demonstration – Exploration – Correction and Repetition, Discussion – Evaluation.

UNIT – II

Various Methods of Teaching of Activities – Command Method – Demonstration Method – Imitation and Dramatization Method – At will method – Set drill Method – Part Method, Whole method and Whole Part Whole Method, Selection and Teaching of Activities: Formal activities including indigenous exercise - Gymnastics-Rhythmic activities - Major Games-Minor Games - Track and Field -Defensive arts – Aquatics.

UNIT – III

Drawing of fixtures for competitions and tournaments - Single knock – out- seeding – special seeding methods; League – cyclic and stair case method- Combination Tournaments challenge tournament – ladder, Pyramid, spider, bridge. Merits and Demerits of Knock – out and League tournaments. Tie breaking system in League tournament.

UNIT – IV

Intramural competition – Objectives – Method of organizing and conducting – units for competition – intramural committee. Extramural competition benefits – drawbacks .

UNIT – V

Sports Meet – Standard and Non – standard – Method of organizing and conducting sports meet. Play days – Method of organization and conduct. Courses of Opening and Closing ceremony of the sports meet.

Text Books:

1. Berg, K. E., & Latin, R. W. Essentials of research methods in health, physical education, exercise science, and recreation. Lippincott Williams & Wilkins. (2008).
2. Thomas, J. R., Silverman, S., & Nelson, J. Research methods in physical activity, 7E. Human kinetics. (2008).
3. Campbell, L., Campbell, B., & Dickinson, D. Teaching & Learning through Multiple Intelligences. (1996).
4. Allyn and Bacon, Simon and Schuster Education Group, 160 Gould Street, Needham Heights, MA 02194-2315 (Order No. H63373, \$27.95, plus shipping and handling)

Reference Books:

1. McNeill, C., Cory-Wright, J., & Renfrew, T. *Teaching orienteering*. Human Kinetics, 1607 North Market St., PO Box 5076, Champaign, IL 61825-5076 (1998).
2. Armour, K. M., & Jones, R. L. *Physical education teachers' lives and careers: PE, sport and educational status*. Psychology Press. (1998).
3. Green, K. *Understanding physical education*. Sage. (2008).
4. Thirunarayanan, C. and S. Harihara Sharma, *Methods in Physical Education* Karaikudi, C.J. and S.H. (1989)
5. Voltmer & Esslinger/*organization and administration of physical education: Apleton, Country u crofts*.
6. Kamlesh, M.L., *Management concepts physical education and sport*, Metropolitan Book Co., Pvt., Ltd., Nethaji Subhash Marg, New Delhi.
7. Kamlesh, M.L., *Scientific Art of Teaching Physical Education*, New Delhi: Metroplitan, (1995)
8. Bucher, Chales and Krotee, Mar L, *Management of physical Education and Sport*, Mospy, London, (1997)
9. Sharma, Sita Ram, *Organization and administration of games and sports: Book Enclave, Jaipur*, (1997)

Web Links:

1. www.mie.ac.mu > ... > Physical Educatio
2. www.ggu.ac.in/.../Dr.%20M.K.%20Singh%20
3. www.mun.ca/educ/ed4361/virtual_academy/campus_a/dykek/page7.html

Programme: B.Sc., PHS

Course Code: 20UPE4C08

Course Name: CORE-8-THEORIES OF GAMES – IV

(CRICKET, SOFT BALL AND GYMNASTICS)

Hours / Week: 4

Year: II

Semester: IV

Credits: 4

COURSE OBJECTIVE:

1. To understanding the origin and history of the game
2. To learn the layout and maintain the play field
3. To obtain the fullest knowledge about the games and make them specialized in fundamental skills, training, officiating and scoring.
4. To gain the knowledge about the techniques, tactics and training methods
5. To gain the knowledge about the rules and regulations, officiating and scoring

COURSE OUTCOMES:

After learning the course, the students will be able to

CO1	Know the history and working federations of the games	K3
CO2	To know the methods of lay-outing the play fields and their maintenance	K3
CO3	To obtain the knowledge of specification	K3
CO4	Develop the various fundamental and techniques in cricket, soft ball and gymnastics	K4
CO5	Learn about the officiating & scoring skills in cricket, soft ball and gymnastics	K2

K1- Remember; K2 – Understand; K3 – Apply; K4- Analyze

	PO1	PO2	PO3	PO4	PO5		PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S	L	L	M	M		S	L	L	M	M
CO2	S	S	S	M	L		S	S	S	M	L
CO3	S	S	S	S	S		S	S	S	S	S
CO4	S	M	L	S	S		S	M	L	S	S
CO5	S	M	M	S	S		S	M	M	S	S

S- Strong;

M- Medium;

L-Low

UNIT - I

Introduction - Origin and development of the games - History of the Games: World & India – Organizations of Games: (Working Federations): World and India.

UNIT - II

Play field: Layout and maintenance of the play field - Equipment: specifications and dimensions.

UNIT - III

Fundamental skills – drills for development of skills - lead-up games

UNIT - IV

Techniques and Tactics – Training - Specific Warm up - Warming down - Essential fitness Components and Conditioning – various systems of play

UNIT – V

Officiating: Rules of the game – interpretation – method of officiating and scoring

Text Book

1. Baker, J. An Insider's Guide to Softball. The Rosen Publishing Group. (2014).
2. Wulf L McFarland & Company (2016).
3. Schreiber, J. Game Over, Pete Watson. Houghton Mifflin Harcourt (2014).
4. Bunn, J. W. The Art of Officiating Sports. Englewood cliffs N.J. Prentice Hall (2010).
5. Bunn, J. W. Scientific principles of coaching. Englewood cliffs N. J. Prentice Hall. 9th edition (2012).
6. Bateman A Cricket, Literature and Culture: Symbolising the Nation, Destabilising Empire, Taylor & Francis (2016).
7. M.L. Kamlesh field manual of sports and games. Nageen prakashan Pvt. Ltd. Meerut. (2014).
8. Goel. R. G, "Encyclopedia of sports and games," Vikas publishing house Pvt., Ltd., Delhi, (2000)
9. Kondrič, Miran. "The fastest ball games from the viewpoint of science." Journal of human kinetics 55.1 (2017)

Reference Books

1. Santillan, R. A., Enders, E., Flores, P. G., López, D., & Iber, J. Mexican American Baseball in El Paso. Arcadia Publishing. (2017)
2. Baker, J. An Insider's Guide to Softball. The Rosen Publishing Group. (2014).
3. Dutra, T., & Razzante, M. Baseball and Softball. In Athletic Footwear and Orthoses in Sports Medicine Springer, Cham. (2017).
4. Thorn J, Palmer P, Reuther D The hidden game of baseball: A revolutionary approach to

baseball and its statistics, University of Chicago Press(2015).

5.Wagg S Cricket: A Political History of the Global Game, 1945-2017, Taylor & Francis(2017).

6.Buck H.C., Rules of games and sports. New Delhi, National council of YMCA(2012).

7.Rules of Games and Sports (2012). Y.M.C.A Publishing House, Masse Hall, New Delhi.

8.Russell, Bill; McSweeny, William (1966). Go Up for Glory. Coward-McCann.

9.Russell Bill; Steinberg, Alan (2009).Red and Me: My Coach, My Lifelong Friend. (2009).

10.Winnick, J., & Porretta, D. (Eds.). Adapted Physical Education and Sport,. Human Kinetics. (2016).

Web Links

1. <https://www.goodreads.com/shelf/show/softball>
2. <https://www.alibris.com/search/books/subject/Softball>
3. <https://www.amazon.com/Softball-Skills-Drills-Judi-Garman/dp/0736090746>
4. www.elbosquedetrapo.com/softball-skills-drills-english.pdf
5. <https://www.nytimes.com/section/sports/baseball>
6. <https://www.sportskeeda.com/cricket>
7. www.rulesofsport.com/sports/softball.html

Programme : B.Sc., PHS

Course Code: 20UPE4AL4

Course Name: ALLIED-4-FOUNDATION OF YOGA

Hours / Week: 2

Year: II

Semester: IV

Credits: 2

COURSE OBJECTIVE:

1. Understand the concept of yoga and pranayama.
2. Acquire the procedure of doing asana and pranayama.
3. Know about the Importance of asana and pranayama.

COURSE OUTCOMES:

After learning the course, the students will be able to

CO1	Understand the concept of yoga.	K2
CO2	Acquire the procedure of doing asana.	K3
CO3	Know about the concepts of pranayama	K2
CO4	To able to foundation of yoga and benefits'	K3
CO5	Know about the yoga therapy and effectics of yogic practice	K4

K1- Remember; K2 – Understand; K3 – Apply; K4- Analyze

	PO1	PO2	PO3	PO4	PO5		PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S	S	L	M	S		S	S	L	M	S
CO2	M	L	S	S	M		M	L	S	S	M
CO3	S	S	S	L	S		S	S	S	L	S
CO4	S	S	L	S	S		S	S	L	S	S
CO5	L	M	L	L	L		L	M	L	L	L

S- Strong; M- Medium; L-Low

UNIT – I

Meaning of yoga - Aim and objectives of Yoga - concept of yoga, History of yoga – benefits of yoga, Need and importance of yoga, Physical, Physiological, psychological and social benefits of yoga, types of yoga (kama yoga – gnana yoga – ashtanga yoga – bhakti yoga – kundalini yoga – hatha yoga – concepts and misconcepts about yoga Systems of Yoga

UNIT – II

Eight limbs of yoga - Asanas - Classification of Asanas - Differences between Physical exercises and yogic exercises - Guidelines for practicing Asanas.

UNIT – III

Procedure of doing Asanas. Asanas in Long sitting Position - Prone Position - Supine Position - Standing Position - Kneeling Position. suyanamaskar – swastikasana – yogamudhra – padmasana – vakasana, vajasana – audha – matsyendasan, - samasana – mayurasana – shalabasana – vrikshasana – halasana – patchimotasana – makasana – shavasana

UNIT – IV

Pranayama - Types & Concepts of Pranayama - Closing the nostrils - Controlling the breath - Bhandhas -Practice regulation - Importance of suspension (Kumbhaka) - Kriyas and its types.

UNIT –V

Yoga therapy: Meaning and Definition of Yoga therapy – effects of Yogic practice for various systems of the human body –yogic practices for prevention and curing of life style diseases obesity, diabetes, blood pressure, cardiac diseases

Text Books:

- 1.G Feuerstein (2007) Yoga morality: Ancient teachings at a time of global crisis, Hohm Press (2007).
- 2.EG Horovitz, S Elgelid Yoga therapy: Theory and practice, Yoga Journal Magazine (2015).
- 3.P Brunton The Hidden Teaching Beyond Yoga: The Path to Self-Realization (2015).

Reference Books:

- 1.B.K.S. Iyankar, Light on Yoga Harper Collins Publications, Delhi. (2012).
- 2.Dr. K. Chandrasekaran, Sound Health Through Yoga, Prem Kalyan Publications, Sedapatti, Madurai. (1999).
- 3.Dr. P. Mariayyah, Asanas, Sports Publishers, Raja Street, Coimbatore-
- 4.Dr. P. Mariayyah, Suriyanamaskar, Jaya Publishing House, Perunthurai, Erode.
- 5.Swami Kunalayananda, (1982), Asanas, Kaivalyadhama, Lonavala, Pune.
- 6.A WertmanAV Wister, BA Mitchell On and Off the Mat: Yoga Experiences of Middle-Aged and Older Adults, Canadian Journal on Aging(2016)
- 7.CI Wenger Yoga minds, writing bodies: Contemplative writing pedagogy,The WAC Clearinghouse and Parlor Press(2015)

Web Links:

1.<http://repository.kln.ac.lk/handle/123456789/15165>

2.<https://www.artofliving.org/in-en/yoga>

3.<https://www.yogajournal.com/>

Programme : B.Sc., PHS

Course Code:

20UPE4NM2

Course Name: NME-2-FITNESS AND NUTRITION

Hours / Week: 2

Year: II

Semester: IV

Credits: 2

COURSEOBJECTIVE:

1. To understanding the human body functions
2. To gain the knowledge about the effects of exercise on various body systems.
3. Know about the nutritional values of a food.
4. Know the energy requirements and weight lose techniques of an individual

COURSEOUTCOMES:

After learning the course, the students will be able to

CO1	know about the value of fitness.	K1
CO2	knowledge about the fitness	K2
CO3	Know about the endocrine system of the human body function	K3
CO4	portance of knowing the nutritional values of a food	K2
CO5	Know the energy requirements and weight lose techniques of an individual.	K3

K1- Remember; K2 – Understand; K3 – Apply; K4- Analyze

	PO1	PO2	PO3	PO4	PO5		PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S	S	L	M	S		S	S	L	M	S
CO2	M	L	S	S	M		M	L	S	S	M
CO3	S	S	S	L	S		S	S	S	L	S
CO4	S	S	L	S	S		S	S	L	S	S
CO5	L	M	L	L	L		L	M	L	L	L

S- Strong; M- Medium; L-Low

UNIT - I

Definition and meaning of fitness- Dimensions of fitness–Relationship between fitness - Wellness and Health - Benefits of Fitness – Role of Fitness among various populations and age groups –

Misconceptions about fitness- National solutions for fitness problems. Factors influencing fitness – Age - Sex – Climate – Diet – Exercise and training.

UNIT - II

Meaning Need, Nature and Importance of Nutrition - Role of Nutrition on Higher Performance in sports - Basics of Nutrition, Classification of food - Carbohydrates, Fats, Proteins, Vitamins, Minerals, Water, Balanced diet, Nutritive value of Food stuffs. Adulteration of food - Nutrition for Athletes and players, Energy requirements in Sports- Carbohydrate in loading.

UNIT-III

Percentage of energy derived from foods, Glycemic Index of food, Dietary fiber of food. Nutritive value of food stuffs. Principles of weight control, Exercise. Key for successful weight loss management - designing weight loss programme.

Text Books:

- 1.Jerrold S Physical Fitness- A Wellness Approach – Second Edition. Prentice Hall, Englewood Cliffs. (1985).
- 2.Robert V Physical Fitness the Pathway of Healthful Living Second Edition . The C.V.Mosby Company, Saint Louis. (1975).
- 3.Bud Getchell Physical Fitness- A Way of Life, Second Edition. John Wiley and Sons Inc, New York. (1985).
- 4.Edward L Fox Life Time Fitness. Saunders College Publishing. New York. (1975).

Reference Books:

1. Frank Vitale (2000) Individualized Fitness Programs. Prentice Hall, Englewood Cliffs. (2000).
- 2.McArdle,W D Exercise Physiology, Energy, Nutrition and Human Performance- 5thedition. Philadelphia. (2001).
- 3.Faley D and A William Fit and Well. Glass Publishers, United Kingdom. (2005).
- 4.Fink Hedrick Practical Applications in Sports Nutrition. Jones and Barlett Publishers, New York. (2006).
- 5.Jurek and Scott (2012). Eat and Run. Bloomsbury, London. (2012).
- 6.Curley S and Mark The Natural Guide to Good Health, Supreme Publishing, Lafayette, Louisiana. (1990).
- 7.Peter Maud and Carl Foster Physiological Assessment of Human Fitness - 2nd Edition(2005).
8. Goswami Shashikant, Nutrition for sports, SAINSNIS, Patiala, (1996)

Web Links:

1. www.humankinetics.com/excerpts/.../the-importance-of-health-fitness-and-wellness
2. <https://cru.ucdavis.edu/fitnessandwellness>
3. <https://transfer.asu.edu/ecexwbs>
4. <https://www.topendsports.com/testing/references.htm>
5. <https://www.penguinrandomhouse.com/books/health-fitness>

Programme : B.Sc., PHS

Course Code: 20UPE5C09

Course Name: CORE-9-KINESIOLOGY AND BIO- MECHANICS

Hours / Week: 5

Year: III

Semester: V

Credits: 4

COURSEOBJECTIVE:

1. Understand the meaning, aim and objectives of kinesiology and biomechanics
2. Acquire the fundamental muscular concepts of kinesiology
3. Obtain knowledge of various types of motions and application of motion in games and sports
4. Analyze knowledge of liner kinetics and angular kinetics
5. Learn about the principles of biomechanics with suitable examples

COURSEOUTCOMES:

After learning the course, the students will be able to

CO1	Know the meaning, aim and objectives of kinesiology and biomechanics.	K1
CO2	Know about the fundamental and principles of biomechanics with suitable examples.	K2
CO3	Learning the various types of motions and application of motion in games and sports	K3
CO4	Know about Analyze knowledge of liner kinetics and angular kinetics	K4
CO5	To understand kinematic and biomachnical in sports	K2

K1- Remember; K2 – Understand; K3 – Apply; K4- Analyze

	PO1	PO2	PO3	PO4	PO5		PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S	S	L	M	S		S	S	L	M	S
CO2	M	L	S	S	M		M	L	S	S	M
CO3	S	S	S	L	S		S	S	S	L	S
CO4	S	S	L	S	S		S	S	L	S	S
CO5	L	M	L	L	L		L	M	L	L	L

S- Strong; M- Medium; L-Low

UNIT - I

Introduction: meaning – History – Aim – objectives of kinesiology for physical education and sports. Fundamental concepts: Centre of gravity – Axis and planes of Motion– terminology of fundamental movements – classification of muscles.

UNIT - II

Location and action of muscles at various joints: upper extremity – pectoralis major – pectoralis minor – deltoid – biceps brachii – triceps – teres major – latissimus dorsi – trapezius. Lower extremity: Rectus femoris – sartorius – biceps femoris – semi membranous – semi tendinous – gluteus maximus – vastus group – gastrocnemius muscles. Muscular analysis of Fundamental movements: walking – running – throwing – structure of motor action: Cyclic – acyclic motor action – movement condition.

UNIT - III

Introduction: meaning – History – aim – objectives – Importance of bio mechanics for physical education and sports. Types of motion: linear motion – angular motion

UNIT - IV

Linear kinematics: speed – velocity – acceleration – uniform acceleration motion projectile motion. Angular kinematics: angular speed – angular velocity – angular acceleration – relationship between linear and angular motion.

UNIT - V

Linear kinematics: mass – weight – force – pressure – work – power – energy – impulse – momentum – impact – friction – Newton's laws of motion. Angular kinetics: moment of inertia – conservation of momentum – transfer of momentum – levers – equilibrium. Bio-mechanical principles: principles of internal force – principles of optimum path of acceleration – principles of conservation – Momentum – Principles of counter action.

Text Books:

- 1.Sundararjan Biomechanics of sports and games, Roshan Publications, New Delhi. (2006).
- 2.Devid L. Kelly Kinesiology and fundamentals of motion description, Prentice Hall, USA. (2006).
- 3.Souza, T. A Differential Diagnosis and Management for the Chiropractor: Protocols and

Algorithms (4th ed.). Sudbury, MA: Jones and Bartlett Publishers. (2009).

4. Starkey, C Therapeutic Modalities (4th ed.). Philadelphia: F. A. Davis Company. (2013).

5. Turchin, C Light and Laser Therapy: Clinical Procedures. (5th ed.). Redwood City, CA: C. Turchin. (2011).

Reference Books:

1. Dhanajoy. S, "Mechanical Basics of Biomechanics/" Sports Publication, New Delhi., (2000)

2. Bijlani. R and Manchanda, S.K., "The Human Machine", National Book Trust India, (2002)

3. Dhanajoy. S, "Mechanical Basics of Biomechanics," Sports Publication, Chennai, (2003)

4. Clug. A. "Biomechanics of Human motion", Sports Publication, Chennai, (2003)

5. Vijaylakshmi. L, "Biomechanics of Body movements in Sports" Sports Publication Chennai, (2005).

Web Links:

1. <https://study.com/.../principles-of-biomechanics-kinesiology-related-to-motor-skills>

2. [https://www.researchgate.net/.../16691330_Kinesiology_versus_Biomechanics_A Perspectives](https://www.researchgate.net/.../16691330_Kinesiology_versus_Biomechanics_A_Perspectives)

3. <https://www.topendsports.com/biomechanics/index.html>

Programme : B.Sc., PHS

Course Code: 20UPE5C10

Course Name: CORE-10-THEORIES OF TRACK EVENTS

Hours / Week: 5

Year: III

Semester: V

Credits: 4

COURSE OBJECTIVE:

1. To understanding the origin and history of the game
2. To learn the layout and maintain the play field
3. To obtain the fullest knowledge about the games and make them specialized in fundamental skills, training, officiating and scoring.
4. To gain the knowledge about the techniques, tactics and training methods
5. To gain the knowledge about the rules and regulations, officiating and scoring

COURSEOUT COMES:

After learning the course, the students will be able to

CO1	know the history and working federations of the Athletics	K3
CO2	To know the methods of lay-outing the track and their maintenance	K3
CO3	To obtain the knowledge of specification	K3
CO4	Develop the various fundamental of track events.	K4
CO5	Learn about the officiating and scoring of track events	K2

K1- Remember; K2 – Understand; K3 – Apply; K4- Analyze

	PO1	PO2	PO3	PO4	PO5		PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S	L	L	M	M		S	L	L	M	M
CO2	S	S	S	M	L		S	S	S	M	L
CO3	S	S	S	S	S		S	S	S	S	S
CO4	S	M	L	S	S		S	M	L	S	S
CO5	S	M	M	S	S		S	M	M	S	S

S- Strong; M- Medium; L-Low

UNIT – I

History of track and field: world, Asia and India, - Federations & Associations: World, India track and field events. Warm-up – warm-down - physical fitness qualities - load and safety measures in track events.

UNIT – II

Track events: **Rules and officiating** - Equipments and their specifications, Standard and Non Standard track - guiding principles of standard track - **Layout of 200 m and 400 m Track and maintenance of track - various types of surfaces in track.**

UNIT – III

Sprinting: Rules and interpretations - types of starts – crouch start - techniques in Sprint running - acceleration technique – maximum speed – curve running technique - finishing techniques – relay events. Hurdles: equipments and their specifications.

UNIT – IV

Middle and long distance events: **Rules and interpretations - starts - running techniques - acceleration technique – maximum speed – curve running technique - finishing techniques. Steeple chase – track and hurdle specifications.**

UNIT – V

Combined events: **Rules and interpretations – organizing methods – track events for men & Women – decathlon and Heptathlon track events.** **Rules and officiating - duties of officials in track events.**

Text Books

1. Bishop, P. A. Measurement and Evaluation in Physical Activity Applications Exercise Science, Physical Education, Coaching, Athletic Training & Health. Routledge. (2017).
2. Thakur, M. E. (Ed.). The American psychiatric publishing textbook of geriatric psychiatry. American Psychiatric Pub. (2015).
3. Nelson, L., Groom, R., & Potrac, P. (Eds.). Learning in sports coaching: Theory and application. Routledge. (2016).
4. Prabha R Saravana Fundamentals of track and field – A guide for students. (2016).
4. L Feather THE BOOK OF JAZZ-A Guide to the Entire Field, Horizon Press(2017).
5. J Lederach Little book of conflict transformation: Clear articulation of the guiding principles by a pioneer in the field, Skyhorse Publications(2015).

6. J Schell The Art of Game Design: A book of lenses,CRC Press (2015).
- 7..Rosenbaum, Mike. Track and field's greatest events and top competitors. Track and field. (2010).
- 8.Bunn, J. W. The Art of Officiating Sports. Englewood cliffs N.J. Prentice Hall. (2010).
- 9.Bunn, J. W. Scientific principles of coaching. Englewood cliffs N. J. Prentice Hall. 9th edition (2012).
- 10.Dr M.L.Kamlesh field manual of sports and games. Nageen prakashan Pvt. Ltd. Meerut.
- 11.Goel. R. G, "Encyclopedia of sports and games," Vikas publishing house Pvt., Ltd., Delhi, (2000)

Reference Books

- 1.Ecker, T. Track and Field: Technique Through Dynamics(1976).
- 2.Lampitt, D. Book Review: Introduction to Intercollegiate Athletics. (2016).
- 3.Journal of Higher Education Athletics & Innovation, 1(1), 85-86.
- 4..Gerry A Carr. Fundamentals of Track and Field. West Center. (2017).
- 5.Levinson *Encyclopedia of World Games*, (3 ed.) Berkshire publishe (2017).
- 6.Doherty.K. Track and field. Omnibook.(8thed). Los Altos.CA Tapnews (2014).
- 7.Buck H.C., Rules of games and sports. New Delhi, National council of YMCA(2017).
- 8.Rules of Games and Sports Y.M.C.A Publishing House, Masse Hall, New Delhi. (2012).
- 9.Chodkiewicz, H., & Trepczyńska, M. (Eds.). Language Skills: Traditions(2014).
- 10.Transitions and Ways Forward. Cambridge Scholars Publishing. (2017).
- 11.Bishop, P. A. Measurement and Evaluation in Physical Activity Applications: Exercise Science, Physical Education, Coaching, Athletic Training & Health. Routledge. (2017).
- 12.Van Nieuwerburgh, C. An introduction to coaching skills: A practical guide. Sage. (2017).

Web Links

- 1.https://www.barnesandnoble.com/b/books/sports.../track-field.../_/N-29Z8q8Zt2m
- 2.https://en.wikipedia.org/wiki/Track_and_field
- 3.https://en.wikipedia.org/wiki/Combined_track_and_field_events
- 4.[https://www.bcathletics.org/.../16-01-18%20BC%20Athletics%20-%20Terms%20of%](https://www.bcathletics.org/.../16-01-18%20BC%20Athletics%20-%20Terms%20of%20)
- 5.https://en.wikipedia.org/wiki/Combined_track_and_field_events
- 6.www.oxfordreference.com/view/10.1093
- 7.www.virtualreferencelibrary.ca/search.jsp
- 8.www.oxfordreference.com/view/10.1093
- 10 .www.virtualreferencelibrary.ca/search.jsp
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- 12.www.virtualreferencelibrary.ca/search.jsp

Programme : B.Sc., PHS

Course Code: 20UPE5C11

Course Name: CORE-11-HEALTH EDUCATION AND SAFETY EDUCATION

Hours / Week: 4

Year: III

Semester: V

Credits: 4

COURSEOBJECTIVE:

1. Understand the various aspects of health.
2. Learn about the physical fitness and its components.
3. Know about the various types of communicable diseases.
4. Understand the various safety measures in sports fields
5. Know about the Importance of Personal hygiene and environmental hygiene

COURSEOUTCOMES:

After learning the course, the students will be able to

CO1	Understand the concepts of health.	K2
CO2	Know about the need and importance of physical fitness.	K2
CO3	Know about the various types of communicable diseases	K2
CO4	Understand the various safety measures in sports fields	K3
CO5	Know about the Importance of Personal hygiene and environmental hygiene	K3

K1- Remember; K2 – Understand; K3 – Apply; K4- Analyze

	PO1	PO2	PO3	PO4	PO5		PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S	S	L	M	S		S	S	L	M	S
CO2	M	L	S	S	M		M	L	S	S	M
CO3	S	S	S	L	S		S	S	S	L	S
CO4	S	S	L	S	S		S	S	L	S	S
CO5	L	M	L	L	L		L	M	L	L	L

S- Strong; M- Medium; L-Low

UNIT – I

Meaning – health – mental – emotional – social health – inter relationships among these aspects of health - Definition of Health Education – Aim, Scope of Health Education- role of International Organizations (WHO, UNICEF), National, State Level Health Organizations.

UNIT – II

Physical Health- Physical Fitness – Health related fitness – performance related fitness – components of Health related fitness and performance related fitness – mental health – college health programs – opportunities for student participation.

UNIT – III

Communicable diseases – Agent, causative organism, Incubation period-Mode of spread, sign and symptoms, preventive measure of Typhoid, Cholera, Pulmonary Tuberculosis, Amoebiasis, Malaria, Tetanus, Poliomyelitis - Non-Communicable diseases – Symptoms and prevention of Peptic ulcer, Malignancy, cancer , Hyper tension, Diabetic mellitus.

UNIT – IV

Personal hygiene – environmental hygiene – food poisoning,- food allergies and their prevention – food adulteration and its harmful effect on health. Community health: Environmental pollution: water – air – soil – land - radiation – noise – pesticides. Use of tobacco: chewing – snuffing – smoking – alcohol – drugs and their harmful effects – premarital sex – sexuality transmitted diseases and their prevention.

UNIT –V

Definition of Safety Education- factors affecting safety Education –Need and Importance of Safety Education - Safety in Play fields, swimming pool, Gymnasium – principles of safety – buildings – playfields - Equipments

Text Books:

- 1.Gereige, R. S., Zenni, E. A., & American Academy of Pediatrics Council on School Health. *School Health Policy & Practice*. (2018).
- 2.Keleher, H., & MacDougall, C. *Understanding health* (No. Ed. 4). Oxford University Press. (2015).
- 3.Forgey, M. W. D. *Wilderness medicine: beyond first aid*. Rowman & Littlefield. (2017).

Reference Books:

- Eldredge, L. K. B., Markham, C. M., Ruitter, R. A., Kok, G., & Parcel, G. S. *Planning health promotion programs: an intervention mapping approach*. John Wiley & Sons. (2016).
- Edelman, C. L., Mandle, C. L., & Kudzma, E. C. *Health Promotion Throughout the Life Span- E-Book*. Elsevier Health Sciences. (2017).
- 3.Everly Jr, G. S., & Lating, J. M. (2017). *The Johns Hopkins Guide to Psychological First Aid*. JHU Press. (2017).
- 4."Mannuel Safety Education Review", Washington D.C Americal Association for Health Physical Education and Recreation, (1969)

- 5."Safety at school" (Education pamphlet Number 53), London, Her Majesty's stationery Office, (1969)
- 6."School Safety Policies" Washington D.C Ammerical Association for Health, Physical Education and Recreation, (1968)
- 7."William, Evans, A", Everyday Safety, Lyons and Carnahan, (1952)
- 8.Anderson "School Health Practice" (2017).
- 9.Bedi Yashpal "Social and Preventive medicine". (2017).
- 10.Florio, A.E and Stafford, G.T., "Safety Education", New York, Mc Graw Hill Book Company, (1969)
- 11.Herbert, Stack, U. and Elkow Duke. I., "Education for safety Livine", New Jersey Englewood Cliffs, Prentice Hall Inc., (1966)
- 12.Park and Park "Preventive and social medicine" (2017).
- 13.Royappa, Daisy Joseph and Govindararajulu, J.K."Safety Education", (1972)

Web Links:

- 1.https://en.wikipedia.org/wiki/Health_education
- 2.<https://study.com/.../what-is-health-education-definition-topics-role-in-society.html>.
- 3.www.who.int/topics/health_education/en/

Programme : B.Sc., PHS

Course Code: 20UPE5EA1 /

6EA2

Course Name: ELECTIVE-1- SPORTS JOURNALISM AND MASS MEDIA

Hours /

Week: 4

Year: III

Semester: V/VI

Credits: 3

COURSEOBJECTIVE:

1. To understanding the meaning, and need of the journalism and mass media in physical education and sports.
2. To gain the knowledge about the journalism and mass media.

COURSEOUT COMES:

After learning the course, the students will be able to

CO1	understand the meaning, nature, need and scope of journalism and mass media in physical Education and sports	K1
CO2	To know the role of advertisement in sports	K2
CO3	To understand the report writing in sports	K2
CO4	To know the prepare report of annual sports meet	K3
CO5	To know the interview with elite players	K3

K1- Remember; K2 – Understand; K3 – Apply; K4- Analyze

	PO1	PO2	PO3	PO4	PO5		PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S	M	S	M	S		S	M	S	M	S
CO2	M	M	M	S	M		M	M	M	S	M
CO3	S	S	S	M	S		S	S	S	M	S
CO4	S	L	S	M	S		S	L	S	M	S
CO5	L	M	L	S	L		L	M	L	S	L

S- Strong;

M- Medium;

L-Low

UNIT- I

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

UNIT- II

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

UNIT- III

Mass Media: Mass Media in Journalism: Radio and T.V. Commentary – Running commentary on the radio - Sports expert's comments. Role of Advertisement in Journalism. Sports Photography: Equipment - Editing - Publishing.

UNIT- IV

Report Writing on Sports: Brief review of Olympic Games, Asian Games, Common Wealth Games, World Cup, National Games and Indian Traditional Games. **Preparing report of an annual sports meet for publication in newspaper. Organization of press meet.**

UNIT –V

Sports organization and Sports Journalism: General news reporting and sports reporting. Methods of editing a Sports report. Evaluation of Reported News. Interview with elite Player and Coach. Practical assignments to observe the matches and prepare report and news of the same; visit to **News Paper office and TV Centre to know various departments and their working.** Collection of Album of newspaper cuttings of sports news.

Reference Books:

- 1.Ahiya B.N. Theory and Practice of Journalism: Set to Indian context Ed3. Delhi : Surjeet Publications(1988)
- 2.Ahiya B.N. Chobra S.S.A Concise Programme in Reporting. New Delhi: Surjeet Publication(1990)
- 3.Bhatt S.C. Broadcast Journalism Basic Principles. New Delhi.Haranand Publication (1993)

4. Hananjay Joshi Value Education in Global Perspective. New Delhi: Lotus Press. Kannan K (2009) Soft Skills, Madurai: Yadava College Publication (2010)
5. Mohit Chakrabarti Value Education: Changing Perspective, New Delhi: Kanishka Publication, (2008):
6. Padmanabhan. A & Perumal A Science and Art of Living, Madurai: Pakavathi Publication (2009)
7. Shiv Khera You Can Win, New Delhi: Macmillan India Limited. (2002)
8. Varma A.K. Journalism in India from Earliest Times to the Present Period. Sterling publication Pvt. Ltd. (1993)

Programme : B.Sc., PHS

Course Code: 20UPE5EB1 /

6EB2

Course Name: ELECTIVE-1 PHYSICAL EDUCATION FOR PERSON WITH
DISABILITY

Hours /

Week: 4

Year: III

Semester: V/VI

Credits: 3

COURSEOBJECTIVE:

1. Know the adapted physical education & Special, Para Olympics
2. Know the types of disabilities and respective adapted methods
3. Learn about the Adaptation of motor activities
4. Learn the various Adapted games and sports
5. Know about the inclusive education

COURSEOUTCOMES:

After learning the course, the students will be able to

CO1	To get the knowledge about adapted physical Education	K2
CO2	To learnt about Special Olympics and para Olympics	K2
CO3	To get knowledge about the adapted motor activities	K3
CO4	Adapted sports for the different people	K3
CO5	To get knowledge about the inclusive education	K4

K2 – Understand;

K3 – Apply;

K4- Analyze

	PO1	PO2	PO3	PO4	PO5		PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S	M	S	M	S		S	M	S	M	S
CO2	M	M	M	S	M		M	M	M	S	M
CO3	S	S	S	M	S		S	S	S	M	S
CO4	S	L	S	M	S		S	L	S	M	S
CO5	L	M	L	S	L		L	M	L	S	L

S- Strong;

M- Medium;

L-Low

UNIT-1

Meaning and definition: adapted Physical Education - Definition of disability conditions – physical education for person with disabilities – Benefits of physical education for students with disabilities – recreational sports opportunities, competition opportunities – Special Olympics, Paralympics and Olympics.

UNIT –II

Intellectual disabilities, emotional impairment, visual impairment, hearing impairment, neuromuscular impairment, orthopedic impairment – adapted physical education activities – aims and objectives – specific guidelines – visual impairment, hearing impairment, intellectual disabilities

UNIT – III

Adaptation of motor activities – principal of motor activities – facilities and equipment for different disabilities – orientation of facilities – types of equipment: minimum equipment, additional equipment and evaluation equipment – leisure recreation and sports facilities for persons with disability

UNIT – IV

Adapted games and sports - Adapted games for persons with disabilities : rules of adapted games and class management – Adapted games for the blind : adapted volleyball , kabaddi, tennis , table tennis – adapted minor games and track field events – teaching methods to be adapted by the special educator in the sports , recreation and games – kinesthetic – one-on- one teaching , group teaching , circular method of teaching – unified sports.

UNIT – V

Inclusive education: meaning definition, strategies for including students with disability steps for modifying .

Text books:

- 1.Winnick, J., & Porretta, D. (Eds.). *Adapted Physical Education and Sport, 6E*. Human Kinetics. (2016).
- 2.Nelson, L., Groom, R., & Potrac, P. (Eds.). *Learning in sports coaching: Theory and application*. Routledge. (2016).
- 3.Hodge, S., Lieberman, L., & Murata, N. *Essentials of teaching adapted physical education: Diversity, culture, and inclusion*. Routledge. (2017).

References Books

- 1.Hodge, S., Murata, N., Block, M., & Lieberman, L. (2017). Case studies in adapted physical education: Empowering critical thinking. Taylor & Francis. (2016).
- 2.Murphy, K. P. (2015). *Pediatric rehabilitation: principles and practice*. Demos Medical Publishing. (2016).
- 3.Winnick, J., & Porretta, D. (Eds.). (2016). Adapted Physical Education and Sport, 6E. Human Kinetics. (2016).
- 4.Goel. R. G, "Encyclopedia of sports and games," Vikas publishing house Pvt., Ltd., Delhi, (2000)
5. Jain D., Tennis skills and Rules, Second edition Khel Sahitya Kenda, New Delhi, (2003)
6. Jain D., Hockey skills and Rules, Second edition Khel Sahitya Kenda, New Delhi, (2003)
7. Sheikh A.J and Mannur. H. G., "Coaching in Physical Education." Khel Sahitya Kenda, New Delhi, (2001)

Web Links

- 1.https://en.wikipedia.org/wiki/Adapted_physical_education
- 2.www.teach-nology.com/teachers/special_ed/adaptive_pe/
- 3.https://en.wikiversity.org/wiki/Adapted_Physical_Education

**Programme : B.Sc., PHS
6EC2**

Course Code: 20UPE5EC1 /

Course Name: ELECTIVE-1- OBESITY AND WEIGHT MANAGEMENT Hours /

Week: 4

Year: III

Semester: V/VI

Credits: 3

COURSEOBJECTIVE:

1. To understand the basics of Obesity and its types.
2. To understand the various methods of Obesity assessment.
3. To Understand methods of weight management
4. To know the planning of weight management
5. To know the desirable bodyweight

COURSEOUTCOMES:

After learning the course, the students will be able to

CO1	Restate the role of nutrients and caloric requirement	K2
CO2	Sketch the basic classification, functions and utilization of nutrients	K2
CO3	Point out diet for various competitions and nutrient supplements for performance.	K3
CO4	Evaluate the factors affects weight management and solutions for obesity	K4
CO5	Design caloric requirements for various sports and age groups.	K3

K1- Remember; K2 – Understand; K3 – Apply; K4- Analyze

	PO1	PO2	PO3	PO4	PO5		PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S	M	S	M	S		S	M	S	M	S
CO2	M	M	M	S	M		M	M	M	S	M
CO3	S	S	S	M	S		S	S	S	M	S
CO4	S	L	S	M	S		S	L	S	M	S
CO5	L	M	L	S	L		L	M	L	S	L

S- Strong; M- Medium; L-Low

UNIT- I

Obesity: Obesity - Introduction - Definition – Epidemiology Prevalence - Incidence -variance Etiology of obesity - Psychological correlation – Genesis influence -Types of Obesity - Android Obesity – Gyneoid obesity Patho physiology of obesity -Complications of obesity

UNIT- II

Assessment of obesity: Assessment of obesity- Health related Quality of life assessment-Body composition Assessment - Laboratory methods, field method - Clinical evaluation of obesity- Basics of Body composition: Definition, Meaning and Need Methods of measurements- skin fold measurements Circumference measurements - Body composition Assessment and Report-Skin fold measurement techniques: Sites of measurement Calculation of Body Fat percentage

UNIT- II

Weight Management: Weight Management: Meaning, Concept of Weight Management in the Modern Era Factors affecting Weight Management-Values of Weight Management Maintaining a Healthy Life Style Body Mass Index (BMI)

UNIT -IV

Planning of Weight Management: Planning of Weight Management: Determination of Desirable Body Weight Daily Caloric Intake and Expenditure – Balanced Diet for Indian School Children Weight Management Programme for Sporty Children -Role of Diet and Exercise in Weight Management-Diet Plan and Exercise Schedule for Weight Gain and Loss.

UNIT -V

Desirable body weight:Desirable body weight - Best way to lose weight Unhealthy approaches to lose weight-Causes and Solution for overcoming Obesity Myths of Spot Reduction and Weight Loss Dieting and Exercise for Weight Control

Text Books

- 1.Driskell, J. A., &Wolinsky, I. (Eds.). *Nutritional assessment of athletes*.CRC press. (2016). Prabha R Saravana. Sports Nutrition – (2016).
- 2.Frances Sizer Nutrition Concepts And Controversies, Eighth Edition, Australia, Wards worth Thomson Learning. 4th edition(2014).
- 3.Nancy Clarks Nutrition for Sport Success, The Nutrition Foundation Inc. (2016).
- 4.Butryn, M.L., and Phelan, SJ. O Consistent Self-monitoring of Weight: A Key Component of Successful Weight Loss Maintenance. Silver Spring. (2014).

Reference Books:

1. Mann, J., & Truswell, S. (Eds.). Essentials of human nutrition. Oxford University Press. (2016).
2. Wildman, R. E. (Ed.). Handbook of nutraceuticals and functional foods. CRC press. (2016).
3. Greenwood, M., Cooke, M. B., Ziegenfuss, T., Kalman, D. S., & Antonio, J. (Eds.) Nutritional supplements in sports and exercise. Humana Press. (2015).
4. Allsen, P.E. J.M. Harrison and B.Vance Fitness for life: An individualized Approach. Dubuque, IA: Wm.C. Brown, (1989).
5. Edward T. Howley B. Don Franks Health Fitness Instructors Hand book, Human Kinetics, Canada. (2003)
6. Hawley. E.T. and Franks B.D Health Fitness Instructor's handbook. Third Edition. Human Kinetics, Champaign Illinois (1977)
7. Rick Frey (Ed) Practical Body Composition Guide, Human Kinetics, Canada. (1995)
8. Werner W.K. Hoeger and Sharon A. Hoeger Fitness and Wellness, Morton Publishing Company, Canada (1990)

Web Links:

onlinelibrary.wiley.com › ... › Nutrition › Nutrition for Sport and Exercise
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3805623/>
www.precisionnutrition.com/best-diet
[https://www.elsevier.com/books/nutrition...sports-performance.](https://www.elsevier.com/books/nutrition...sports-performance)

Programme : B.Sc., PHS

Course Code: 20UPE6C12

Course Name: CORE-12-FUNDAMENTALS OF SPORTS TRAINING Hours /

Week: 5

Year: III

Semester: VI

Credits: 4

COURSEOBJECTIVE:

1. Understand the meaning, aim and objectives of sports training
2. Acquire the fundamental concepts of sports training
3. Obtain knowledge of various types of training for various sports activities
4. Get the knowledge about planning the Training schedule
5. Analyze knowledge of Technical and Tactical Training

COURSEOUTCOMES:

After learning the course, the students will be able to

CO1	Understand the meaning, aim and objectives of sports training.	K2
CO2	Know about the methods of sports training.	K2
CO3	Know about the various types of training for various sports activities.	K3
CO4	Understand the fundamental concepts and knowledge about planning the Training schedule.	K4
CO5	Know about the Technical and Tactical Training in sports.	K4

K1- Remember; K2 – Understand; K3 – Apply; K4- Analyze

	PO1	PO2	PO3	PO4	PO5		PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S	S	L	M	S		S	S	L	M	S
CO2	M	L	S	S	M		M	L	S	S	M
CO3	S	S	S	L	S		S	S	S	L	S
CO4	S	S	L	S	S		S	S	L	S	S
CO5	L	M	L	L	L		L	M	L	L	L

S- Strong; M- Medium; L-Low

UNIT - I

Meaning and Definition – Aim, and characteristics of sports Training – Principles of sports Training - Importance of warm - up and warm – down. Training Load and Recovery - Factors of Load- Physical Exercise, Load intensity, Load volume- Judgement of Load- Adaptation - Relationships between Load and Adaptation. Over load- Causes, Symptoms and Remedies

UNIT - II

Training of motor qualities – Strength Forms of strength - Means and Methods to improve strength – Speed Forms - Means and Method to improve speed

UNIT -III

Endurance -Forms of Endurance - Means and Methods to improve Endurance Flexibility - Forms of flexibility Means and Methods to improve flexibility - Coordination - Forms of Coordination - Means and Methods to improve coordination

UNIT - IV

Training plan- Periodisation- Stages of Periodisation- Types of Periodisation - Preparatory period -competition period - Transitional period- long term and Short term plans - Cyclic process of training. Basic Types of Training: Weight training – Circuit training – Plyometric training – Fartlek training –Interval training – Pressure training.

UNIT –V

Technical and Tactical Training: Definitions of Techniques and Tactics – Fundamentals and methods for development of technique in sports - Tactical preparation- Aims of Tactics- Methods of tactical development.

Text Books:

- 1.Singh Hardayal Sports Training: General Theory and methods. National Institute of Sports, Patiala(1984).
- 2.Wilmore J.H Athletic Training and Physical Fitness. Allyn and Bacon Inc, Sydney. (1977).
- 3.Pyke Frank S Towards Better Coaching. Australian Government Publishing Service, Canberra(1980)..

Reference Books:

- 1.MatweyewT Periodization of Sports Training. Hilton Publishers, Germany. (2003).
- 2.Tudor O.Bompa Periodization – Theory and methodology of Training. Human Kinetics. Australia. (2002).

3. Harre Dietrich Training Science. Hilton Publishers, Germany. (2009).
4. Yogaj T, "Sports training, Sports publications, Chennai, (2003)
5. Galloway R.W, "Sports Training, (anatomy and Physiology Aspects), Sports publications, Chennai, (2001)
6. Shaikh A. J and Mannur. H.G., " Coaching in Physical Education, Khel Sathya Kendra, New Delhi, (2001).
7. Singh Hardhayal sports training General theory and methods NIS Patiala (1984)
8. Williams J II Athletic Training and Physical fitness Allyn and Bacon Inc., Sydney (1977)
- Singh H "Science of sports Training"
9. Dick Frank " Sports Training Principles" (2003).
10. Matewewew L.P. Fundamental Sports Training. (2003).

Web Links:

1. [www.humankinetics.com/human-kinetics-coach-education-webinars/human-](http://www.humankinetics.com/human-kinetics-coach-education-webinars/human-kinetics-coach-education-webinars/helping-athletes-perform-at-their-mental-peak)
2. [kinetics-coach-education-webinars/helping-athletes-perform-at-their-mental-peak](http://www.humankinetics.com/human-kinetics-coach-education-webinars/helping-athletes-perform-at-their-mental-peak)

Programme : B.Sc., PHS

Course Code:20UPE6C13

Course Name: CORE-13-THEORIES OF FIELD EVENTS

Hours / Week:5

Year: III

Semester: V

Credits: 4

COURSEOBJECTIVE:

1. Understand the fundamentals of field and combined events.
2. Acquiring the various skills in field and combined events.
3. Be familiar with rules and regulations, and learn the method of officiating for all field and combined events
4. Learn the technique and method of jumps and throws.
5. Know the technique and method of jumps and throws.

COURSEOUTCOMES:

After learning the course, the students will be able to

CO1	Know the various fundamental skills of field and combined events.	K2
CO2	Acquiring the various skills in field and combined events.	K3
CO3	Know about the rules and regulations, and learn the method of officiating for all field and combined events	K3
CO4	Acquire the basic knowledge of technique and method of jumps and throws.	K4
CO5	Able to understand track and field events rules and regulations	K4

K1- Remember; K2 – Understand; K3 – Apply; K4- Analyze

	PO1	PO2	PO3	PO4	PO5		PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S	L	L	M	M		S	L	L	M	M
CO2	S	S	S	M	L		S	S	S	M	L
CO3	S	S	S	S	S		S	S	S	S	S
CO4	S	M	L	S	S		S	M	L	S	S
CO5	S	M	M	S	S		S	M	M	S	S

S- Strong; M- Medium; L-Low

UNIT – I

History of field events: World, Asia and India, - organization of track and field, Federations & Associations: World, India track and field events. Warm-up – warm-down - physical fitness qualities - safety measures in field events.

UNIT – II

Filed Events: Equipments and their specifications of field events – maintenance of field events sectors and jumping arena.

UNIT – III

Jumps: Long jump: Rules and interpretations – Fundamental techniques – approach run – takeoff – flight phase – the hang technique – the hitch-kick technique – the landing, methods of jumping – basic and advanced methods.

Triple jump: Rules and interpretations – Fundamental techniques – approach run – takeoff – step – hop - flight phase – landing techniques, methods of jumping – basic and advanced methods.

High jump & pole vault: Rules and interpretations – fundamental techniques – approach run – takeoff – jump - flight phase – landing techniques, methods of jumping – basic and advanced methods.

UNIT – IV

Throws: Shot-put: Rules and interpretations – Fundamental techniques – holding the shot – placement of the shot – starting position – glide technique – delivery stance – delivery actions and release, methods of throwing the shots – basic and advanced methods.

Discuss throw & Javelin throw: Rules and interpretations – Fundamental techniques – holding discuss – starting position – techniques – standing – rotation - delivery stance – delivery actions and release, methods of throwing discus & javelin – basic and advanced methods.

UNIT – V

Combined events: Rules and interpretations – organizing methods – field events for men & Women – decathlon and Heptathlon field events.

Rules and officiating – scoring – tie breaking – interpretation of field events – duties of officials in field events.

Text Books

1. Srivastava, A How to Coach Hammer Throw Sports Publication New Delhi(2006)
2. Prabha R Saravana (2016). Fundamentals of track and field – A guide for students. (2016)
3. Feather, L. The Book of Jazz Guide to the Entire Field. EdizioniSav (2017)
4. Cedric R. C. (2016). International Association for Ultra Multi events"(2016).
5. Rosenbaum, Mike. (2010). Track and field's greatest events and top competitor and field.(2010)
6. J Lederach (2015) Little book of conflict transformation: Clear articulation of the guiding principles by a pioneer in the field, Skyhorse Publications(2015)
7. J Schell (2014) The Art of Game Design: A book of lenses,CRC Press(2014)
8. Bunn, J. W. (2010). The Art of Officiating Sports. Englewood cliffs N.J. Prentice Hall.(2010)
9. Bunn, J. W. (2012). Scientific principles of coaching. Englewood cliffs N. J. Prentice Hall. 9th edition(2012)
10. Dr M.L.Kamlesh field manual of sports and games. Nageen prakashan Pvt. Ltd. Meerut.
11. Goel. R. G, "Encyclopedia of sports and games," Vikas publishing house Pvt., Ltd., Delhi, (2000)

Reference Books

1. Lampitt, D. (2016). Book Review: Introduction to Intercollegiate Athletics. Journal of Higher Education Athletics & Innovation, 1(1), 85-86.
2. Gerry A Carr.(2017). Fundamentals of Track and Field. West Center. Bombay
3. David Levinson (2016). *Encyclopedia of World Games*, (3 ed.) Berkshire publishe
4. Doherty.K.(2014). Track and field. Omnibook.(8thed). Los Altos.CA Tapnews
5. Buck H.C., Rules of games and sports. New Delhi, National council of YMCA
6. Rules of Games and Sports (2012). Y.M.C.A Publishing House, Masse Hall, New Delhi.
7. Jeffreys, I., & Moody, J. (Eds.). (2016). Strength and Conditioning for Sports Performance. Routledge.
8. Giroux Southall, R. M. (2018). Sport and the Neoliberal University: Profit, Politics, and Pedagogy. Rutgers University Press.
9. Sindelar, B., & Bailes, J. E. (2017). Sports-Related Concussion: Diagnosis and Management. CRC Press

Web Links

1. <https://www.athletic.net/TrackAndField/>
2. https://www.barnesandnoble.com/b/books/sports.../track-field.../_/N-29Z8q8Zt2m
3. www.psychologytoday.com/blog/the-power-prime/201207/sports-why-the-worlds-best-Athletes-use-routines
4. www.teamusa.org/About-the-USOC/Athlete-Development/CochinEducation/Coach-E-
5. <https://www.theguardian.com/sport/athletics>
6. <https://www.iaaf.org/disciplines/jumps/long-jump>
7. <https://www.iaaf.org/disciplines/jumps/high-jump>
8. <https://www.bcathletics.org/.../16-01-18%20BC%20Athletics%20%20Terms%20of%20>
9. https://en.wikipedia.org/wiki/Combined_track_and_field_events

Programme : B.Sc., PHS

Course Code:20UPE6C14

Course Name: CORE-14-SPORTS INJURIES AND PHYSIOTHERAPY Hours /

Week: 4

Year: III

Semester: VI

Credits: 4

COURSEOBJECTIVE:

1. Understand the various types of sports injuries.
 2. Learn about the principles of treatment of injuries.
 - 4.3. Know about the various rehabilitation methods.
- Understand the various Therapeutic modalities and Exercises

COURSEOUTCOMES:

After learning the course, the students will be able to

CO1	Know the various types of sports injuries	K2
CO2	Know about the principles of treatment of injuries.	K3
CO3	Learning the various rehabilitation methods	K3
CO4	Acquire the various Therapeutic modalities and Exercises.	K3
CO5	Know the various types of massage and physiological effects	K4

K1- Remember; K2 – Understand; K3 – Apply; K4- Analyze

	PO1	PO2	PO3	PO4	PO5		PSO1	PSO2	PSO3	PSO4	PSO5
CO1	S	S	L	M	S		S	S	L	M	S
CO2	M	L	S	S	M		M	L	S	S	M
CO3	S	S	S	L	S		S	S	S	L	S
CO4	S	S	L	S	S		S	S	L	S	S
CO5	L	M	L	L	L		L	M	L	L	L

S- Strong; M- Medium; L-Low

UNIT – I

Need and Importance of the Study of Sports injuries in the Field of Physical Education –
 Prevention of injuries in Sports – Common sports injuries – open wound and closed wound -
 incised wound - Laceration – Blisters – Abrasion - Puncture wounds - Strain - Sprains - contusions
 – Fracture – dislocation and muscle cramps.

UNIT – II

Fracture: types – signs and symptoms – management and treatments - Regional injuries – head – neck – thorax – abdomen – upper and lower extremities. Sports specific injuries - Diagnosis, Immediate First -Aid, Treatments – strapping and supports - RICE and ICE Principles

UNIT – III

Physiotherapy: Definition – Guiding Principles of Physiotherapy, Importance of Physiotherapy – Electrotherapy – Infrared rays Ultraviolet rays – Short Wave Diathermy, Ultrasonic rays. Hydrotherapy: Cryotherapy, Thermo therapy, Contrast Bath, Whirlpool Bath – Stream Bath – Sauna Bath – Hot Water Fomentation

UNIT – IV

Therapeutic Exercise: Definition and Scope – Principles of Therapeutic Exercise – Classification and Effective Use of Therapeutic Movements – The Passive Movements (Relaxed, forced and Passive, Stretching) – The Active Movements (Concentric & Eccentric and Static).

UNIT –V

Massage: Brief histories of massage – Classification of manipulations - Massage manipulation techniques and uses indication and contra indications - Physiological effects of Massage.

Text Books:

- 1.David, R.M. Drugs in sports, 4th Edition, Routledge Taylor and Francis group. (2005).
- 2.Chandrasekar, K.C. Sports Physiotherapy KhelSahitya Kendra, New Delhi. (2003).
- 3.Jain, R Sports Medicine, KhelSahitya Kendra, New Delhi. (2002).

Reference Books:

- 1.Freddie, H. and David, A Sports injuries mechanism prevention treatment: Williams and Wilkins, London. . (2004).
- 2.Johnson (2004). Science and Medicine of exercise and sport. Harper row and Brothers, New York. . (2004).
- 3.Dolan Treatments and prevention of athletic injury. The interstate Panvillee, Illinois
- 4.Jain R. Sports Medicine, Kehl Sathya Kendra – New Delhi, 2003 . (2010).
- 5.Chandrasekar. K, Sports Physotherapy Kehl Sathya Kendra – New Delhi,(2002)
- 6.Dolan, Treatment and prevention of Athletic injuries, the interstate Dauville Illinois. . (2004).
- 7.Edward Donald, Physiotherapy, Occupational therapy and Gymnastics, London publishers. . (2004).
- 8.Manual of the St. John Ambulance Association, New Delhi . (2004).

Web Links:

- 1.https://en.wikipedia.org/wiki/Sports_injury
- 2.<https://www.webmd.com>
- 3.https://www.onhealth.com/content/1/sports_injuries

CORE PRACTICAL

GROUP A GAMES	GROUP B GAMES
KADADDI	KHO KHO
VOLLEY BALL	THROW BALL
HAND BALL	BADMINTON
BASKET BALL	BALL BADMINTON
FOOT BALL	TENNIS
HOCKEY	TABLE TENNIS
CRICKET	GYMNASTICS
SOFT BALL	