GURU KASHI UNIVERSITY

Bachelor of Physical Education

(B.P.Ed)

Session: 2026-27

Department of Physical Education

Graduate Attributes of the Programme:

Types of learning outcomes	**The Learning Outcomes Descriptors**
Graduates should be able to demonstrate the acquisition of:	
Learning outcomes that are specific to interdisciplinary areas of learning	Demonstrate a comprehensive understanding of human anatomy, physiology, exercise science, biomechanics, sports psychology, sports medicine, and yogic science.
	Integrate knowledge from health education, environmental studies, communication skills, and sports management to promote holistic development in physical education.
	Apply scientific principles to sports training, adventure activities, rehabilitation, fitness, and wellness programs.
	Utilize technological tools and educational methods for effective sports instruction, event management, and fitness entrepreneurship.
	Analyze and interpret statistical data for performance evaluation and research in physical education and sports sciences
Generic learning outcomes	Exhibit leadership, communication, critical thinking, and problem-solving skills in diverse educational, fitness, and sports settings.
	Demonstrate professional ethics, human values, and social responsibility while working in teams and multicult ural environments.
	Apply entrepreneurial skills in setting up and managing fitness centers, sports academies,

	outdoor camps, and consultancy services.
	Communicate effectively across various platforms including educational institutions, sports organizations, and community wellness programs.
	Engage in lifelong learning, adapt to technological advancements, and contribute to the evolving field of physical education and sports sciences.
	Display creativity, innovation, and managerial capabilities necessary for fitness entrepreneurship and sports event organization.

Programme Learning Outcomes: An Undergraduate Degree is awarded to students who have demonstrated the achievement of the outcomes located at level 5.5

Element of the Descriptor	**Programme learning outcomes relating to Undergraduate Certificate**
The graduate should be able to demonstrate the acquisition of:	
Knowledge and understanding	❖ Students will understand the historical, scientific, and philosophical foundations of physical education. Courses like History, Principles & Foundations of PE and Anatomy & Physiology provide essential theoretical knowledge.
General, technical and professional skills required to perform and accomplish tasks	❖ Learners gain core practical skills through physical activities such as gymnastics, track & field, mass demonstration, and combative sports. Courses like Teaching Practice and Educational Technology build pedagogical expertise.
Application of knowledge and skills	❖ Hands-on courses allow students to demonstrate real-world application of acquired skills. Fitness Centers & Testing, Sports Academies, and Training Centers offer exposure to sports industry settings.
Generic learning outcomes	❖ Communication skills, teamwork, leadership, discipline, and presentation skills are embedded across various courses (e.g., Communication Skills, Mass Demonstration, Teaching Practice).
Constitutional, humanistic, ethical and moral values	❖ Human Values and Professional Ethics and Indian Knowledge System instill a sense of civic responsibility, ethical conduct, and appreciation

	of indigenous knowledge.
Employability and job-ready skills and entrepreneurship skills and capabilities/qualities and mindset	❖ Courses like Fitness Centers & Testing, Sports Academies, and Entrepreneurship components equip students with job-ready and entrepreneurial skills. Electives such as Officiating & Coaching further enhance employability.
Credit requirements	❖ Completion of **44 credits** across two semesters (22 credits each).
Entry requirements	❖ Bachelor degree in Physical Education, Bachelor degree in any discipline studied Physical Education course and Bachelor degree in any discipline with sports participations.

Programme Structure

SEMESTER-I									
Course Code	**Course Title**	**Type of Courses**	**L**	**T**	**P**	**No. of Credits**	**Int.**	**Ext.**	**Total Marks**
BPD1100	History, Principles and Foundations of Physical Education	Core Course	3	1	0	4	30	70	100
BPD1101	Anatomy and Physiology	Core Course	3	1	0	4	30	70	100
BPD1102	Communication Skills	Ability Enhancement Course	2	0	0	2	30	70	100
BPD1103	Gymnastics	Skills Based	0	0	4	2	30	70	100
BPD1104	Mass Demonstration	Skills Based	0	0	4	2	30	70	100
BPD1105	Fitness Centers and Testing	Multidisciplinary Course	0	0	4	2	30	70	100
VAC0002	Human Values and Professional Ethics	Value Added Course	2	0	0	2	30	70	100
Discipline Elective-I (Opt any one of the following)									
BPD1106	Health Education and Environmental Studies	Discipline Elective-I	4	0	0	4	30	70	100
BPD1107	Yoga Education								
Total			**14**	**2**	**12**	**22**	**240**	**560**	**800**

SEMESTER-II									
Course Code	**Course Title**	**Type of Courses**	**L**	**T**	**P**	**No. of Credits**	**Int.**	**Ext.**	**Total Marks**
BPD2150	Educational Technology and Methods of Teaching	Core Course	3	1	0	4	30	70	100
BPD2151	Sports Training	Core Course	4	0	0	4	30	70	100
BPD2152	Track and Field-I	Skills Based	0	0	4	2	30	70	100
BPD2153	Combative Sports	Skills Based	0	0	4	2	30	70	100
BPD2154	Teaching Practice	Skill Based	0	0	4	2	30	70	100
BPD2155	Sports Academies and Training Centers	Entrepreneurship	0	0	4	2	30	70	100
IKS0012	The Outreach of Indian Knowledge System	Value Added Course	2	0	0	2	30	70	100
Discipline Elective-II (Opt any one of the following)									
BPD2156	Computer Applications	Discipline Elective-II	4	0	0	4	30	70	100
BPD2157	Officiating and Coaching								
		Total	**13**	**1**	**16**	**22**	**240**	**560**	**800**

Programme Learning Outcomes: An Undergraduate Degree is awarded to students who have demonstrated the achievement of the outcomes located at level 5.5

Element of the Descriptor	Programme learning outcomes relating to Undergraduate Certificate
The graduate should be able to demonstrate the acquisition of:	
Knowledge and understanding	❖ Graduates will demonstrate comprehensive knowledge of fundamental concepts in physical education, sports sciences, human anatomy, kinesiology, biomechanics, sports medicine, and pedagogy. ❖ They will understand the principles of fitness, training, health education, and contemporary wellness practices. ❖ They will be able to critically analyze movement mechanics, physical development, and injury prevention strategies in physical activity contexts.
General, technical and professional skills required to perform and accomplish tasks	❖ Students will acquire practical skills in teaching, coaching, officiating, and fitness assessment. ❖ They will be capable of organizing sports events, managing teams, operating fitness centers, and conducting testing protocols. ❖ Students will demonstrate technical proficiency in gymnastics, athletics, combative and racket sports, as well as rehabilitative techniques.
Application of knowledge and skills	❖ Learners will apply classroom theory in practical sessions, internships, field assignments, research projects, and real-world athletic and fitness settings. ❖ They will execute lesson planning, exercise prescription, health screening, and sports programming in educational or training institutions. ❖ Graduates will be equipped to work in schools, clubs, training academies, gyms, or to independently offer consultancy or training services.

Generic learning outcomes	❖ Graduates will develop effective communication, teamwork, time management, problem-solving, leadership, and interpersonal skills. ❖ They will be able to engage with diverse groups and adapt to evolving professional scenarios in the physical education domain. ❖ They will participate in group demonstrations, collaborative field work, and project-based learning.
Constitutional, humanistic, ethical and moral values	❖ Students will understand and uphold ethical conduct, fairness, integrity, gender sensitivity, inclusiveness, and respect for diversity in sports and education. ❖ They will be familiar with the Olympic ideals, value-based education, and environmental awareness. ❖ The curriculum emphasizes human values, social responsibility, and ethical decision-making.
Employability and job-ready skills and entrepreneurship skills and capabilities/qualities and mindset	❖ Students will gain competencies to work as fitness trainers, sports instructors, school PE teachers, event organizers, assistant coaches, or rehab aides. ❖ They will demonstrate a strong entrepreneurial mindset, enabling them to start their own sports academies, gyms, coaching classes, or wellness consultancies. ❖ Internship, project meet, consultancy, and field exposure will enhance their job readiness and adaptability.
Credit requirements	❖ The Undergraduate Degree consists of **92 credits** in alignment with NCTE, NEP 2020 and UGC guidelines. ❖ Credits are distributed across core courses, skill-based labs, multidisciplinary, value-added and elective modules, ensuring holistic development.
Entry requirements	❖ Bachelor degree in Physical Education, Bachelor degree in any discipline studied Physical Education course and Bachelor degree in any discipline with sports participations.

SEMESTER-III									
Course Code	**Course Title**	**Type of Courses**	**L**	**T**	**P**	**No. of Credits**	**Int.**	**Ext.**	**Total Marks**
BPD3200	Kinesiology and Biomechanics	Core Course	3	1	0	4	30	70	100
BPD3201	Sports Medicine	Core Course	3	1	0	4	30	70	100
BPD3202	Sports Management and Curriculum Design	Multidisciplinary Course	2	0	0	2	30	70	100
BPD3203	Track and Field-II	Skills Based	0	0	4	2	30	70	100
BPD3204	Racket Sports	Skills Based	0	0	4	2	30	70	100
Discipline Elective-III (Opt any one of the following)									
BPD3205	Test, Measurement and Evaluation	Discipline Elective-III	4	0	0	4	30	70	100
BPD3206	Nutrition and Weight Management								
Discipline Elective-IV (Opt any one of the following)									
BPD3207	Sports Psychology and Sociology	Discipline Elective-IV	4	0	0	4	30	70	100
BPD3208	Olympic Movement								
Total			**16**	**2**	**8**	**22**	**240**	**560**	**800**

SEMESTER-IV									
Course Code	**Course Title**	**Type of Courses**	**L**	**T**	**P**	**No. of Credits**	**Int.**	**Ext.**	**Total Marks**
BPD4250	Research and Statistics	Core Course	4	0	0	4	30	70	100
BPD4251	Physiotherapy and Rehabilitation	Core Course	3	1	0	4	30	70	100
BPD4252	Contemporary Issues in Physical Education, Fitness and Wellness	Core Course	4	0	0	4	30	70	100
BPD4253	Research Project (Practical)	Vocational Course	0	0	4	2	30	70	100
BPD4254	Physical Education Consultancy	Entrepreneurship	0	0	4	2	30	70	100
BPD4255	Project Meet (Athletics)	Skill Based	0	0	4	2	30	70	100
BPD4256	Internship (04 Week)	Skill Based	0	0	0	4	30	70	100
Discipline Elective-V (Opt any one of the following)									
BPD4257	Organization and Administration	Discipline Elective-V	4	0	0	4	30	70	100
BPD4258	Theory of Sports and Games								
Total			**15**	**1**	**12**	**26**	**240**	**560**	**800**
Grand Total			**58**	**6**	**48**	**92**	**960**	**2240**	**3200**

Semester-I

Course Name: History, Principles and Foundations of Physical Education	L	T	P	Cr
Course Code: BPD1100	3	1	0	4

Total Hours: 60

Course Learning Outcomes: After completion of this course, the learner will be able to:

1. Understand the history and evolution of physical education, from its origins to the present-day practices.
2. Identify and analyze the key principles and foundations of physical education as they relate to educational systems.
3. Evaluate the impact of physical education on society, culture, and health, recognizing its role in human development.
4. Critically assess the relationship between physical education and other disciplines, such as psychology, sociology, and pedagogy, in promoting holistic well-being.

Course Content

Unit-I **15 Hours**

Introduction to Physical Education: Definition and scope of physical education. Overview of the role of PE in education and society. Early history of physical education. Key milestones and figures in the development of PE (ancient Greece, Roman Empire, Renaissance).

Unit-II **15 Hours**

The impact of major historical events on PE (Industrial Revolution, World Wars). The development of physical education in various cultures. The growth of PE as an academic discipline. International contributions to PE (Germany's gymnastics, Sweden's physical culture).

Unit-III **15 Hours**

Principles and Foundations of Physical Education Educational and philosophical foundations of PE. The principles of physical fitness, motor skills development and sport. The relationship between physical education and general education. The psychology and sociology of physical education and sport. Approaches to inclusive and adaptive PE for diverse populations.

Unit-IV **15 Hours**

The Impact and Future of Physical Education The role of PE in

modern education systems. Social, cultural and health-related benefits of physical education. Global perspectives on PE and sports education. Current trends, challenges and innovations in physical education.
The future of PE: technology, wellness and lifelong learning.

Transaction Mode:
Lecture, Seminar, e-Team Teaching, e-Tutoring, Dialogue, Peer Group Discussion, Mobile Teaching, Self-Learning, Collaborative Learning and Cooperative Learning

Suggested Readings:

- *Siedentop, Daryl. The History and Philosophy of Sport and Physical Education. McGraw-Hill Education, 2019.*
- *Hellison, Donald R. Foundations of Physical Education and Sport. Wm. C. Brown Publishers, 2000.*
- *Findlay, John E. Physical Education: A Cultural History. Routledge, 2000.*
- *Morgan, William J. Philosophy of Physical Education and Sport. Wm. C. Brown Publishers, 2001.*
- *Coakley, Jay. Sport in Society: Issues and Controversies. McGraw-Hill Education, 2020.*
- *Krebs, Kirsten and Marcia L. N. Heffernan. Physical Education for Lifelong Fitness: The Physical Best Teacher's Guide. Human Kinetics, 2011.*
- *Ennis, Catherine D. Curriculum and Instructional Methods for Physical Education. Wm. C. Brown Publishers, 1999.*

Course Name: Anatomy and Physiology	L	T	P	Cr
Course Code: BPD1101	3	1	0	4

Total Hours: 60

Course Learning Outcomes: After completion of this course, the learner will be able to:

1. Learn about the structural organization of the human body and its functioning.
2. Comprehend the regulatory mechanism of every organ system.
3. Become competent to plan workout regime based on an individual's physiology.
4. Gain knowledge about the effect of physical workout on different systems of the human body.

Course Content

Unit -I **13 Hours**

Introduction to Anatomy and Physiology: Brief Introduction of Anatomy and physiology in the field of Physical Education, Introduction of Cell and Tissue, The arrangement of the skeleton, Function of the skeleton, Ribs and Vertebral Column and the extremities, Joints of the body and their types, Elementary concept of ligament and tendon, Gender differences in the skeleton.

Unit -II **14 hours**

Systems of Human Body:

Muscular System: Meaning, types of muscles, structure of muscles and their functions

Cardiovascular/Circulatory system: Constituents of blood and their function, Blood groups and blood transfusion, clotting of blood, the structure of the heart, properties of the heart muscle, circulation of blood, cardiac cycle, blood pressure, Lymph and Lymphatic circulation, Cardiac output, stroke volume, heart rate

Unit -III **17 hours**

The Respiratory system: The Respiratory passage, the lungs and their structure and exchange of gases in the lungs, mechanism of respiration (internal and external respiration), lung capacity, tidal volume, second wind, oxygen debt, vital capacity, residual volume.

The Digestive system: structure and functions of the digestive system, Digestive organs, Metabolism.

The Endocrine glands: Functions of glands pituitary, Thyroid, Parathyroid, Adrenal, Pancreatic and the sex glands.

Unit -IV **16 hours**

The Excretory system: Structure and functions of the kidneys and the skin.

Nervous systems: Function of the Autonomic nervous system and Central nervous system, Reflex Action

Sense organs: A brief account of the structure and functions of the Eye and Ear.

Transaction Mode:

Lecture, Seminar, e-Team Teaching, e-Tutoring, Dialogue, Peer Group Discussion, Mobile Teaching, Self-Learning, Collaborative Learning and Cooperative Learning

Suggested Readings:

- *Gupta, M., & Gupta, M.C. (1980). Body and Anatomical Science. Guyton, A.C. (1996), Text book of Medical Physiology, 9th edition Philadelphia.*
- *Moorthy, A.M. (2014). Anatomy Physiology and Health Education. Karaikudi: Madalayam Publications Morehous.*

Course Name: Communication Skills (AEC)	L	T	P	Cr
Course Code: BPD1102	2	0	0	2

Total Hours: 30

Course Learning Outcomes: After completion of this course, the learner will be able to:

1. Demonstrate oral, written, and visual communication skills.
2. Extend and conclude label of human communication and language processes.
3. Discover verbal and non-verbal communication techniques in the professional environment.
4. Learn the dynamics of social communication.

Course Content

Unit -I **05 Hours**

Communication: An Introduction, Definition, Nature and Scope of Communication, Importance and Purpose of Communication, Process of Communication, Types of Communication.

Non- Verbal Communication, Personal Appearance, Gestures, Postures, Facial Expression, Eye Contacts, Body Language (Kinesics), Time language, Silence, Tips for Improving Non-Verbal Communication.

Unit -II **05 Hours**

Effective Communication: Essentials of Effective Communication, Communication Techniques, Barriers to Communication.

Communication Network in an Organization: Personal Communication, Internal Operational Communication, External Operational Communication.

Unit -III **10 Hours**

Reading Skills: Purpose, Process, Methodologies, Skimming and Scanning, Levels of Reading, Reading Comprehension, Academic **Reading Tips Listening Skills:** Purpose of Listening, Listening to Conversation (Formal and Informal),

Active Listening: an Effective Listening Skill, Benefits of Effective Listening, Barriers to Listening, Listening to Announcements (railway/bus-stations/airport/sports-announcement and commentaries), Academic Listening (Listening to Lectures), Listening to Talks and Presentations, Note Taking Tips

Unit -IV **10 Hours**

Oral Communication Skills (Speaking Skills): Importance of Spoken English, Status of Spoken English in India, International Phonetic Alphabet (IPA) Symbols, Spelling and Pronunciation, Asking for and giving information, Offering and responding to offers Request in grand responding to requests, Congratulating. People on their success Expressing condolences, Asking questions and responding politely, Apologizing and forgiving.

Effective Writing Skills: Elements of Effective Writing (What is Writing?), The Sentence, Phrases and Clauses, Types of Sentences, Main Forms of Written Communication, Paragraph Writing (Linkage and Cohesion), Letter Writing (formal and informal), Essay writing, Notices.

Transaction Mode:

Lecture, Seminar, e-Team Teaching, e-Tutoring, Dialogue, Peer Group Discussion, Mobile Teaching, Self-Learning, Collaborative Learning and Cooperative Learning.

Suggested Readings:

- *Ian Tuhovsky (2015), Communication Skills Training, Create Space Independent Publishing Platform.*
- *Debra Fine (2014), The Fine Art of Small Talk (2005), Hachette Books.*
- *Thich Nhat Hanh (2014), The art of communicating (2013), Harper Collins Publishers LL*
- *James W. Williams (2020), Communication Skills Training,*

Course Name: Gymnastic	L	T	P	Cr
Course Code: BPD1103	0	0	4	2

Total Hours: 60

Course Learning Outcomes: After completion of this course, the learner will be able to:

1. Learn the rules of gymnastics.
2. Develop skills in athletic events and gymnastics.
3. Acknowledge the basic and advanced techniques of the game.
4. Demonstrate officiating signals of the game

Course Content

Total Hours: 60

- **Floor gymnastic for Boys and Girls**
- **Floor Exercise:** Forward Role, Backward Role, Cart wheel, Straddle Role, Dive and Role, Hand Stand and Role, different kinds of scales, Leg Split, Bridge, Dancing steps, Head stand, Jumps-leap, scissors leap.
- **Parallel bar for Boys:**
- **Swing Skills:** Glide swing, Stride swing
- **Balancing Skills:** L-sit, Planch, Dismounts
- **Balancing Beam for Girl:** Handsprings, backhand springs, back saltos, turns and split jumps

Course Name: Mass Demonstration	L	T	P	Cr
Course Code: BPD1104	0	0	4	2

Total Hours: 60

Course Learning Outcomes: After completion of this course, the learner will be able to:

1. Demonstrate basic and advanced skills in synchronized group physical movements.
2. Execute mass drills and rhythmic activities using props like dumbbells, lezims, sticks, flags, or hoops.
3. Coordinate large group formations with precision, timing, and aesthetic appeal.
4. Design and perform thematic and cultural mass demonstration routines for events and public displays.
5. Lead and manage group practice sessions effectively, showing responsibility and teamwork.

Course content

- **Basic commands:** attention, stand-at-ease, turnings
- **Drill formations:** lines, blocks, Arm and leg movements in rhythm, Body alignment and posture, Synchronization with music or drum beats
- Dumbbells, leziums, sticks, flags, hoops or ribbons
- Partner and multi-group formations
- Theme-based choreography (Republic Day, Fitness Day)

Course Name: Fitness Centers and Testing (MDSC)	L	T	P	Cr
Course Code: BPD1105	0	0	4	2

Total Hours: 60

Course Learning Outcomes: After completion of this course, the learner will be able to:

1. Demonstrate the ability to manage day-to-day operations within a fitness centre environment.
2. Operate and maintain functional training equipment such as medicine balls and resistance bands safely and effectively.
3. Design and conduct structured fitness sessions using Pilates and functional strength training principles.
4. Assess and guide clients on proper exercise techniques, form corrections, and personalized fitness routines.

Course Content

Total Hours: 60

- **Medicine Ball Training**: Core exercises, partner drills, power training
- **Resistance Band Training**: Full-body strength exercises, joint mobility, injury prevention
- **Foam Rollers, Stability Balls**: Warm-up, mobility, recovery drills
- Progressive overload and exercise programming

- **Pre-Participation Screening**: PAR-Q, health history forms
- **Anthropometric Measurements**: Height, weight, BMI, waist-to-hip ratio
- **Cardiovascular Endurance**: Harvard Step Test, Cooper 12-Minute Run
- **Muscular Strength & Endurance**: Push-up test, sit-up test, grip strength
- **Flexibility Tests**: Sit-and-reach, shoulder flexibility
- **Body Composition Analysis**: Skinfold calipers, bioelectrical impedance (if available)
- **Agility and Power**: Vertical jump, shuttle run (optional for advanced)

Course Name: Human Values and Professional Ethics (VAC)	L	T	P	Cr
Course Code: VAC0002	2	0	0	2

Total Hours: 30

Course Learning Outcomes: After completion of this course, the learner will be able to:

1. Understand the essence of Indian ethos, cultural values and ethical principles derived from scriptures, integrating self-exploration with scientific inquiry.
2. Analyze human values, self-awareness and ethical decision-making by distinguishing between perspectives, ideologies and universal moral principles.
3. Evaluate constitutional values, global responsibilities and the role of ethics in citizenship while promoting inclusivity and social welfare.
4. Develop essential life skills, stress management techniques and holistic well-being through mindfulness, self-discipline and personality development.

Course Content

Unit –I **7 Hours**

Introduction to Indian Ethos

Meaning of ethos and cultural essence of India, Scriptures as the base of the Indian Knowledge System (IKS),

Integrating the two methodologies: interiorization process for self-exploration and exterior scientific pursuit for the prosperity of world, The Law of Karma and Nishkama Karma (The Law of action and selfless action),

Practical: Five hours of Yoga practice per week, Ethics through Music and Indian Poetry, Community Engagement

Unit -II **8 Hours**

Human Values and Ethics:

Knowing the Self and the universal values that we stand for. This is self-enquiry & self-discovery, Background conversations and deep listening, recognizing the assumptions that we make, the biases we have and the implications for ethical action.

Self-identity: distinguishing and embracing oneself (and others) four profiles (inner potential, social, professional, personality), Distinguish ideology, perspectives beliefs from embodying values.

Practical: Self-discovery, self-enquiry and Mindfulness, Yama & Niyama of Ashthang Yoga

Unit -III **7 Hours**

Constitutional Values, Global Responsibility & Skills for Youth:
Values embedded in the Preamble of the Indian Constitution, Integration of Human Rights and duties.
Principles and responsibilities: as citizens of India, towards global environment, Loksangraha and Vasudhaiva Kutumbakam, Conscious Full Spectrum Response model. Distinguishing judgement from discernment,
Practical: Development of concentration among students through music, fine arts, mathematics, sports, yoga and mindfulness

Unit -IV **8 hours**

Integrated Personality and Well-being:
The three gunas (qualities of sattva-purity and harmony, rajas-activity and passion, tamas -darkness and chaos), the four antah-karanas (inner instruments) and panch kosha (five sheaths), Stress management, Oneness, non-duality and equanimity, Physical, mental, social and spiritual well-being.
Practical: Talks on importance of the Ayurvedic concept of well-being and nutrition, sports activities.

Reference Books:

- *Mahadevan, B., Bhat, V.R. and Nagendra, P.R.N. 2022. Introduction to Indian Knowledge System. Delhi: PHI.*
- *Human Values and Professional Ethics by RR Gaur, R Sangal, GP Bagaria, Excel Books, New Delhi, 2010.*
- *Kashyap, Subhash C. 2019. Constitution of India. A handbook for students. New Delhi: Book Trust.*
- *Dr. Awadesh Pradhan, Mahamana ke Vichara". (B.H.U., Vanarasi 2007) Harold Koontz & Heinz Weihrich, Essentials of Management, Tata McGraw Hill.*
- *Lama, D. 2012. Beyond Religion: Ethics for a Whole World. India: Harper Collins. Shrimad Bhagavad-Gita (Part of the Mahabharata). 1994. Gorakhpur: Gita Press.*
- *Swami Harshananda. 2000. The Birds' Eye View of the Vedas. Bangalore: Ramakrishna Math.*
- *Fontaine, D. K., Rushton, C. H. and Sharma, M. 2013. Cultivating Compassion and Empathy. In: M. Plews-Ogan and G. Beyt (Eds.), Wisdom Leadership in academic Health Science*

Centers- Leading Positive Change. London: Radcliffe Publishing.

- *Blanchard, Kenneth and Peale, Norman Vincent. 1988. The Power of Ethical Management. New York: William Morrow and Company, Inc.*
- *Gandhi, Karamchand. 1971. Pathway to God compiled by MS Deshpande. Ahmedabad: Navajivan Mudranalaya, Navjivan Trust.*
- *Gardner, H. 2006. Five Minds for the Future. Boston: Harvard Business School Press.*
- *Rodriguez, S. and Juvva, S. 2018. Embodying Universal Values and Ethical Leadership in Higher Education: Creating Change Agents for Social Transformation. In B. Chatterjee, A. Banerji and P. Arya (Eds.). Resolution to Resolve: Sustainability Practices in Industry and Education. New Delhi: Bloomsbury [ISBN: 978-938-74-7168-91*
- *Sharma, M. 2017. Radical Transformational Leadership: Strategic Action for Change Agents. Berkeley, US: North Atlantic Books.*
- *Web Sources:*
- *https://www.holy-bhagavad-gita.org/*
- *https://iksindia.org/*
- *NPTEL Course: Exploring Human Values: Visions of Happiness and Perfect Society https://ebooks.inflibnet.ac.in/hrmp01/*

Course Name: Health Education and Environmental Studies (Discipline Elective–I)	L	T	P	Cr
Course Code: BPD1106	4	0	0	4

Total Hours: 60

Course Learning Outcomes: After completion of this course, the learner will be able to:

1. Explain the fundamental concepts and principles of health education and environmental studies.
2. Identify the causes, effects and preventive measures of major communicable and non-communicable diseases.
3. Analyze the impact of environmental issues such as pollution, climate change and population growth on individual and community health.
4. Demonstrate knowledge of personal hygiene, healthy living, and sustainable lifestyle practices.

Course content

Unit -I **15 Hours**

Foundations of Health Education and Environmental Studies
Health Education: Meaning, scope, objectives, principles, Importance of personal and community health, Role of health education in schools and society
Environment: Components, importance of environmental awareness, Interrelationship between environment and health

Unit -II **15 Hours**

Environmental Pollution and Human Health
Types of pollution: air, water, soil, noise, radiation, Causes, effects and control measures of pollution, Climate change, global warming, ozone layer depletion
Waste management: solid, liquid, biomedical, Role of individuals and government in pollution control

Unit -III **15 Hours**

Diseases, Hygiene and Lifestyle Management, Communicable and non-communicable diseases, Nutrition, malnutrition and dietary disorders
Importance of hygiene: personal and environmental
Substance abuse: causes, effects, prevention (alcohol, tobacco, drugs), Physical activity, rest and mental health

Unit -IV **15 Hours**

Sustainable Development and Health Promotion
Sustainable development: meaning, principles and SDG

Conservation of natural resources: water, energy, forests, Population explosion and its health impacts
Health services: immunization, first aid, school health programs, Community participation in health and environment protection

Transaction Mode:
Lecture, Seminar, e-Team Teaching, e-Tutoring, Dialogue, Peer Group Discussion, Mobile Teaching, Self-Learning, Collaborative Learning and Cooperative Learning.

Suggested Readings:

- *Park, K. – Preventive and Social Medicine, Banarsidas Bhanot Publishers*
- *Ghosh, B.N. – Treatise on Hygiene and Public Health, Scientific Publishing*
- *Odum, E.P. – Fundamentals of Ecology, W.B. Saunders Co.*
- *Sharma, P.D. – Ecology and Environment, Rastogi Publications*
- *Hanlon, John J. – Principles of Public Health Administration, C.E. Turner*
- *Agarwal, K.C. – Environmental Biology, Nidi Publishers*
- *WHO Publications – Health and Environment Reports*
- *Barrow, C.J. – Environmental Management, Routledge*
- *United Nations – Sustainable Development Goals Report*

Course Name: Yoga Education (Discipline Elective–I)	L	T	P	Cr
Course Code: BPD1107	4	0	0	4

Total Hours: 60

Course Learning Outcomes: After completion of this course, the learner will be able to:

1. Articulate various concepts of yogic practice in their own words.
2. Demonstrate yoga asanas (poses) and elucidate their benefits.
3. Engage in teaching practice and conduct research in the field of yoga.
4. Explain the fundamentals and advantages of Yoga using their own words.

Course Content

Unit -I **15 Hours**

Introduction to Yoga: Meaning, Definition, types, aims and objectives of yoga Importance of yoga in education & other fields of life, Historical development of yoga from ancient to modern times, **Meaning and definition of ashtanga yoga:** Yama, niyama, aasna, pranayama, prathyahara, dharana, dhyana, Samadhi

Unit -II **15 Hours**

Nadis, Aasanas and Pranayam: Loosening exercise: Techniques and benefits.

Asanas & Pranayam: Types, techniques and benefits, suryanamaskar, Methods and benefits.

Nadis: Meaning, methods and benefits,

Asana: types of asana, preparation & technique of different asana and their effects on the body

Unit -III **15 Hours**

Kriyas Shat Kriyas: Meaning, techniques and benefits of neti, dhati, kapalabhati, trataka, nauli, basti

Bandhas: Meaning, techniques and benefits of jalendra bandha, jihvabandha, uddiyana bandha, mula bandha

Mudras Meaning, techniques and benefits of hastamudras, asamyuktahastam, samyuktahastam, mana mudra, kaya mudra, banda mudra, adhara mudra.

Meditation: Meaning, Techniques and benefits of meditation, Passive and active meditation, saguna meditation and nirguna meditation.

Unit -IV **15 Hours**

Yoga and Sports Yoga Supplemental exercise: Yoga compensation exercise, yoga regeneration exercise, Power Yoga, **role of Yoga in Psychological Preparation of athlete:** Mental wellbeing, anxiety, depression concentration, self-actualization **Effect of yoga on physiological system:** Circulatory, skeletal, digestive, nervous, respiratory, excretory System

Transaction Mode:

Lecture, Seminar, e-Team Teaching, e-Tutoring, Dialogue, Peer Group Discussion, Mobile Teaching, Self-Learning, Collaborative Learning and Cooperative Learning

Suggested Readings:

- *Feuerstein, G. (1975). Suggested Readings of Yoga. Motilal Bansaridass Publishers (P) Ltd., London.*
- *Gore (1990). Anatomy and Physiology of Yoga Practices. Kanchan Prakashan, Lonavata.*
- *Purperhart, H. (2004). The Yoga Adventure for Children. A Hunter House book, Netherlands.*
- *Iyengar, B.K.S. (2000). Light on Yoga. HarperCollins Publishers, New Delhi.*
- *Karbelkar, N.V. (1993). Patanjal Yogasutra Bhashya (Marathi Edition). Hanuman Vyayam Prasarak Mandal.*

Semester –II

Course Name: Educational Technology and Methods of Teaching	L	T	P	Cr
Course Code: BPD2150	3	1	0	4

Total Hours: 60

Course Learning Outcomes: After completion of this course, the learner will be able to:

1. Understand and apply various methods of teaching physical education, enhanced with educational technology.
2. Integrate audio-visual media, interactive tools and online platforms to create dynamic learning experiences.
3. Evaluate and adopt innovative educational technologies, such as interactive video, teleconferencing and VR, in the context of physical education.
4. Design and implement technology-rich lesson plans and projects for physical education classrooms.

Course Content

Unit -I **15 Hours**

Education Technology, Definition and need of educational technology, Nature and scope of educational technology, Effective teaching principles, Teacher's responsibilities, Phases and levels of teaching, A review of methods of teaching employed in physical education

Unit -II **15 Hours**

Systems Approach to Physical Education and Communication, Systems approach to education and its components, Goal setting, Task analysis, Content analysis, Context analysis and evaluation strategies, Instructional strategies and media for instruction **Effectiveness of communication in the instructional system:** Modes of communication, Barriers and processes of communication, **Instructional design:** Concept and views, Process and stages of development of instructional design.

Unit -III **15 Hours**

Audio-Visual Media in Physical Education, Meaning, importance and various forms of audio-visual media,

Audio/Radio: Broadcast and audio recordings: strengths and limitations, Criteria for selection of instructional units, Scriptwriting, Pre-production and post-production processes and practices, Audioconferencing and interactive radio conferencing

Video/Educational Television: Telecast and video recordings: strengths and limitations, Video conferencing, SITE experiment and country-wide classroom project.

Unit -IV **15 Hours**

Direct Instruction in physical education uses educational technology to enhance learning. Teachers use PowerPoint or interactive whiteboards to explain tools like fitness trackers and sports apps. Instructional videos demonstrate their impact on performance, while online quizzes assess students' understanding and engagement with these technologies.

Transaction Mode:

Lecture, Seminar, e-Team Teaching, e-Tutoring, Dialogue, Peer Group Discussion, Mobile Teaching, Self-Learning, Collaborative Learning and Cooperative Learning

Suggested Readings:

- *Introduction to Teaching Physical Education by Andrew J. C. McNeill – Explores teaching methods and the role of technology in physical education.*
- *Using Technology in Physical Education by Shawn S. S. A. K. – Practical strategies for using digital tools in physical education.*
- *Physical Education 2.0: Technology and Learning by David S. A. Becker – Discusses innovative uses of technology in physical education classrooms.*
- *Digital Tools for Teaching Physical Education by Laura T. Keating – Focuses on integrating digital tools to enhance physical education teaching.*
- *The Technology-Enhanced Physical Education Classroom by Robert L. M. Collins – Explores how emerging technologies can transform physical education teaching.*
- *The Role of Technology in Physical Education and Health by Michael J. L. Murphy – Examines how technology supports health, fitness, and physical education practices.*

Course Name: Sports Training	L	T	P	Cr
Course Code: BPD2151	4	0	0	4

Total Hours: 60

Course Learning Outcomes: Upon completion of this course, learners will be able to:

1. Undertake training and coaching roles in physical education.
2. Identify recent developments in sports and integrate them into the training process.
3. Design training programs tailored to the specific needs of athletes.
4. Develop effective physical training techniques.

Course Content

Unit -I **14 Hours**

Introduction to Sports Training: Definition, aims, characteristics and principles of sports training.

Overload: Definition, causes, symptoms and effects of overload on sports performance.

Remedial Measures: Super compensation, altitude training, cross-training.

Unit -II **15 Hours**

Methods of Training: Importance, principles and types of training.

Weight training, circuit training, interval training, Fartlek training, cross-country training, plyometric training.

Training Means and Methods: Types and classification of physical exercises, basic methods of conditioning.

Muscular Adaptations: Aerobic and anaerobic training effects, fiber composition, oxygen delivery and energy production.

Unit -III **15 Hours**

Flexibility: Methods to improve flexibility, including the stretch and hold method, ballistic method and proprioceptive neuromuscular facilitation (PNF)

Special Types of Training: Plyometric training, coordinative ability training, sensory methods, variation in movement execution and stretching exercises.

Unit -IV **16 Hours**

Training Plans: Macrocycle, mesocycle, microcycle, short-term, and long-term planning. Understanding periodization type's single, double and multiple.

Doping: Definition, side effects of drugs, dietary supplements and the IOC list of doping classes and methods.

Blood Doping: Erythropoietin use, blood doping control, testing programs, problems in drug detection and the regulation of blood testing.

Transaction Mode:

Lecture, seminar, e-team teaching, e-tutoring, dialogue, peer group discussion, mobile teaching, self-learning, collaborative and cooperative learning.

Suggested Readings:

- *Beotra, Alka (2000). Drug Education Handbook on Drug Abuse in Sports. Sports Authority of India, Delhi.*
- *Bunn, J.N. (1998). Scientific Principles of Coaching. Prentice Hall Inc., Englewood Cliffs, New Jersey.*
- *Cart, E. Klafs & Daniel, D. Arnheim (1999). Modern Principles of Athletic Training. C.V. Mosby Company, St. Louis.*
- *Daniel, D. Arnheim (1991). Principles of Athletic Training. Mosby Year Book, St. Louis.*
- *David, R. Mottram (1996). Drugs in Sport. School of Pharmacy, John Moore University, Liverpool.*
- *Gary, T. Moran (1997). Cross Training for Sports. Human Kinetics, Canada.*

Course Name: Track and Field-I	L	T	P	Cr
Course Code: BPD2152	0	0	4	2

Total Hours: 60

Course Learning Outcomes: After completion of this course, the learner will be able to:

1. Learn about the starting and finishing techniques of running.
2. Become competent in ground marking for athletic events.
3. Interpret and apply the rules and regulations of running events.
4. Gain expertise in clearance and landing techniques.
5. Course Content

Course Content

- **Starting and Finishing Techniques of Running Events and Their Rules:**
- **Starting Techniques:** Standing start, crouch start and its variations, proper use of blocks.
- **Finishing Techniques:** Run-through, forward lunging, shoulder shrug.
- **Hurdles:** Fundamental skills, including starting, clearance and landing techniques. Types of hurdles and their specific techniques.
- **Relays:** Fundamental skills of relay races, various patterns of baton exchange. Understanding and applying the rules of relay zones.
- **Marking and Officiating:** Detailed processes for marking the track for athletic events and officiating responsibilities. Understanding and interpreting the rules for effective officiating.

Course Name: Combative Sports	L	T	P	Cr
Course Code: BPD2153	0	0	4	2

Total Hours: 60

Course Learning Outcomes: After completing this course, the learner will be able to:

1. Exhibit and assess fundamental and advanced techniques of selected combative sports.
2. Understand, interpret, and apply the official rules of the chosen games.
3. Officiate matches with confidence and accuracy.
4. Demonstrate advanced-level skills and strategies in selected combative games.

Course Content

- Fundamental and Advanced Skills of Any Two Combative Games (from the following list):
- Karate
- Judo
- Fencing
- Boxing
- Taekwondo
- Wrestling
- Wushu

Course Name: Teaching Practice	L	T	P	Cr
Course Code: BPD2154	0	0	4	2

Total Hours: 60

Course Learning Outcomes: After completion of this course, the learner will be able to:

1. Contrast the fundamentals of teaching practice.
2. Prepare and maintain records in the school.
3. Exhibit the assessment work done in the school.
4. Participate in co-curricular and extracurricular activities organized in the schools.

Course Content

- A minimum10 lessons shall be coaching lessons in the college/institution/department itself.

Course Name: Sports Academies and Training Centers (Entrepreneurship)	L	T	P	Cr
Course Code: BPD2155	0	0	4	2

Total Hours: 60

Course Learning Outcomes: By the end of this course, students will be able to:

1. To develop entrepreneurial skills for establishing sports academies and training centers.
2. To understand the practical aspects of sports facility management.
3. To engage in real-life case studies and field experiences.
4. To prepare business and operational plans for sports centers.

Course Content

- **Market Survey and Feasibility Study**
  - Conduct a local survey to assess the demand for specific sports academies.
  - Prepare a short feasibility report.
- **Sports Academy Business Model Development**
  - Design a business model for a selected sport (e.g., football, cricket, athletics, etc.).
  - Components include vision & mission, objectives, services offered, infrastructure, staffing needs.
- **Financial Planning and Resource Management**
  - Prepare a basic budget for setting up a sports academy.
  - Identify funding sources (private, government schemes, and sponsorships).
  - Create a pricing plan for academy services.
- **Infrastructure and Equipment Planning**
  - Design a layout plan of the academy (indoor/outdoor).
  - List essential sports equipment and training aids.
  - Visit a local sports academy and prepare a report on infrastructure and operations.
- **Marketing and Promotion Strategies**
  - Prepare a promotional plan (social media, brochures, events, etc.).
- **Legal, Safety and Compliance Aspects *(4 Hours)***
  - List legal formalities to register a sports training centre.
  - Prepare a safety protocol manual for athletes.
  - Identify and describe relevant government policies/schemes for sports entrepreneurs.

Course Name: The Outreach of Indian Knowledge System (VAC)	L	T	P	Cr
Course Code: IKS0012	2	0	0	2

Total Hours: 30

Course Learning Outcomes: After successful completion of this course, learners will be able to:

1. Understand to Gain knowledge about the historical development, philosophical roots and interdisciplinary nature of the Indian Knowledge System (IKS), including its contributions to science, mathematics, medicine and arts.
2. Analyze the traditional wisdom in fields like Ayurveda, Yoga, Astronomy, Metallurgy, and Linguistics and how they have influenced both ancient and modern scientific advancements.
3. Examine the impact of Indian knowledge on global civilizations, including its contributions to trade, education and cultural exchange and how it shaped modern intellectual traditions.
4. Development the relevance of IKS in the modern world, including its role in sustainable development, environmental conservation and its integration into contemporary education, research and innovation.

Course Content

Unit -I **7 Hours**

Introduction, the outreach of Indian Knowledge System beyond Indian boundaries forms the ancient times.

Unit -II **8 Hours**

Outreach to East, Southeast, Central and Southeast Asia of Indian phonetic script, decimal value place system-based arithmetic, algebra, astronomy and calendar, medical pharmacopeia, architecture, methods of making iron and steel, cotton textiles, etc.

Unit -III **8 Hours**

The transmission of Indian linguistics, knowledge of plants, iron and steel metallurgy, textiles and dyeing, shipbuilding etc., to Europe in 17/18/19th centuries.

Unit -IV **7 Hours**

Current global outreach of Ayurveda, History, merits and demerits, characteristics, future impacts of Yoga and Indian Fine Arts.

Transaction Mode:

Seminars, Group discussion, Team teaching, Focused group discussion, Assignments, Project-based learning, Simulations, reflection and Self-assessment

Suggested Readings:

- *Dharampal (1995). The Beautiful Tree: Indigenous Indian Education in the Eighteenth Century. Biblia Impex.*
- *Michel Danino (2010). The Lost River. On the Trail of the Sarasvati. Penguin India.*
- *Pingree, D. (1978). The Astronomical Works of Brahmagupta. Journal of the American Oriental Society.*
- *Sastry, T. A. (2008). Indian Traditional Knowledge: Opportunities for Sustainable Development. Indian Journal of Traditional Knowledge.*
- *P.P. Divakaran (2018). The Mathematics of India: Concepts, Methods, Connections. Hindustan Book Agency.*
- *Kapil Kapoor & Avadhesh Kumar Singh (2005). Indian Knowledge Systems.*

Course Name: Computer Applications (Discipline Elective-II)	L	T	P	Cr
Course Code: BPD2156	4	0	0	4

Total Hours: 60

Course Learning Outcomes: After completing this course, the learner will be able to:

1. Understand the role of computer applications in modern physical education.
2. Use software for sports management, data analysis and performance tracking.
3. Develop digital lesson plans, fitness assessments and reports.
4. Utilize multimedia tools for coaching, training and presentation.

Course Content

Unit -I **15 Hours**

History and Basics of Computer: Brief history of development of computers, Generations of computers, Types of PCs-Desktop, Laptop, Notebook, Laptop, Workstations etc.

Basic components of computer system

Memory: RAM, ROM and other types of memory

Unit -II **15 Hours**

Computer Software & hardware: Using Mouse and moving icons on the screen, My Computer, Recycle Bin, Status Bar, Start-menu selection, running an application, Window Explorer to view files, folders and directories, creating and renaming of files and folders, Operating and Closing of different Windows, Minimize, Restore and Maximize forms of windows.

Unit -III **15 Hours**

Basic components of a window: Desktop, Frame, Title Bar, Menu, Bar, Status Bar, Scroll Bars, Using right button of the Mouse, creating shortcut

Basic Windows Accessories: Power Point, Presentation, Notepad, Paint, Calculator, Word pad, using Clipboard MS excel, Mail, **Internet:** Introduction of MS Excel, Internet- Create account on any mail, Uses of Internet, Types of Word Processor.

Unit -IV **15 Hours**

Creating and Saving a documents, Editing and Formatting– Changing color, Size Font, alignment of text, Formatting paragraphs with line or paragraph spacing, adding, Headers and footers, numbering pages Using grammar and spell check utilities, etc, printing a document.

Inserting Word Art, Clipart and Pictures, Page Setting, Bullet and Numbering, Borders, shading Format Painter find and replace.

Practical Work:

Visit to Computer lab: Identification and familiarization of computer components and peripherals.

Demonstration of computer operation

Familiarization with keyboard and switches

Demonstration of Printer Controls

Practical of MS-Office (word, PowerPoint, excel): Loading of papers of printer, creating a document, editing, copy, move, sentence/blocks, tab setting, search formatting of output and printing

Transaction Mode:

Lecture, Seminar, e-Team Teaching, e Tutoring, Dialogue, Peer Group Discussion, Mobile Teaching, Self-Learning, Collaborative Learning and Cooperative Learning.

Suggested Readings:

- *Sinha, P.K. (1980). Introduction to Computer*
- *Subramanian. (1890). Introduction to Computers, Tata McGraw Hill*
- *Kumar, S. K. (2004) Computer Education Patiala: Twenty First Century Publishers*

Course Name: Officiating and Coaching	L	T	P	Cr
Course Code: BPD2157	4	0	0	4

Total Hours: 60

Course Learning Outcomes: After completing this course, the learner will be able to:

1. Demonstrate a thorough understanding of the rules and regulations of their chosen sports.
2. Successfully layout and mark the dimensions of the court or playing field for their chosen sports.
3. Competentlyorganizeandofficiateinsportseventsrelatedtotheir chosensports.
4. Acquire coaching skills for their chosen sports, enabling them to effectively lead and guiding sports teams. Additionally, students will be capable of organizing and officiating in sports events.

Course Content

Unit -I **15 Hours**

Introduction of Officiating and coaching:

Concept of officiating and coaching, Importance and principles of officiating.

Relation of official and coach with management, players and spectators.

Measures of improving the standards of officiating and coaching.

Unit -II **15 Hours**

Coach as a Mentor:

Duties of coach in general, pre, during and post-game.

Philosophy of coaching.

Responsibilities of a coach on and off the field.

Psychology of competition and coaching.

Unit -III **15 Hours**

Duties of Official:

Duties of official in general, pre, during and post-game.

Philosophy of officiating.

Mechanics of officiating – position, singles and movement etc.

Ethics of officiating.

Unit -IV **15 Hours**

Qualities and Qualifications of Coach and Official:

Qualities and qualification of coach and official.
General rules of games and sports.
Eligibility rules of intercollegiate and inter-university tournaments, preparation of TA, DA bills.
Integrity and values of sports.

Transaction Mode:

Lecture, Seminar, e Team Teaching, e Tutoring, Dialogue, Peer Group Discussion, Mobile Teaching, Self-Learning, Collaborative Learning and Cooperative Learning

Suggested Readings:

- *Bunn, J Bunn, J. W. (1972). Scientific principles of coaching. Englewood cliffs N. J. Prentice Hall.*
- *Dyson, G. H. (1963). The mechanics of athletics. London: University of London Press Ltd.*
- *Dyson, G. H. (1963). The mechanics of Athletics. London: University of London Press Ltd.*
- *Lawther, J.D. (1965). Psychology of coaching. New York: Pre. Hall.*
- *Singer, R. N. (1972). Coaching, athletic & psychology. New York: M.C. Graw Hill. (1968). The art of officiating sports. Englewood cliffs N.J. Prentice Hall.*

Semester III

Course Name: Kinesiology and Biomechanics	L	T	P	Cr
Course Code: BPD3200	3	1	0	4

Total Hours: 60

Course Learning Outcomes: After completion of this course, the learner will be able to:

1. Comprehend the laws of physics and identify their role in human body locomotion.
2. Grasp the anatomical and biomechanical bases of human movement.
3. Recognize the physiological bases of human movement.
4. Identify the role of biomechanics in exercise and games.

Course Content

Unit -I **15 Hours**

Introduction: Meaning, nature, role and scope of applied kinesiology and sports biomechanics.

Definition and types of axes and planes, body movements in axes and planes.

Branches of mechanics: kinematics, kinetics, statics.

Concepts of center of gravity, line of gravity, vectors and scalars.

Unit -II **15 Hours**

Muscle Action: Structural classification of muscles and characteristics of muscle tissue.

Muscle fiber types, reciprocal innervation, all-or-none law.

Types of muscle contractions, role of muscles, angle of pull, two-joint muscles.

Reflex action, muscle tone, origin, insertion and action of muscles (pectoralis major and minor, deltoid, biceps, and triceps).

Unit -III **14 Hours**

Motion: Meaning and definition of motion,

Types of motion: linear, angular, general, uniform motion.

Principles related to the law of inertia, law of acceleration and law of counterforce.

Force: Meaning and definition of force, sources and components of force.

Force applied at an angle, pressure, centripetal and centrifugal forces, friction, buoyancy and spin.

Unit -IV **16 Hours**

Projectile and Lever: Freely falling bodies, projectiles, equation of projectiles.

Stability: Factors influencing equilibrium, guiding principles for stability, static and dynamic stability.

Meaning of work, power, and energy (kinetic and potential).

Leverage, classes of levers, practical applications. Water resistance, air resistance, and aerodynamics.

Analysis of Movement:

Types of analysis: kinesiological, biomechanical, and cinematographic. **Methods of analysis:** qualitative, quantitative, and predictive. Principles and analysis of movements such as throwing, striking, jumping, squat and deadlift.

Transaction Mode:

Lecture, Seminar, e-Team Teaching, e-Tutoring, Dialogue, Peer Group Discussion, Mobile Teaching, Self-Learning, Collaborative Learning, and Cooperative Learning.

Suggested Readings:

- *Deshpande, S.H. (2002). Manav Kriya Vigyan – Kinesiology (Hindi Edition). Amravati: Hanuman Vyayam Prasarak Mandal.*
- *Hoffman, S.J. (2005). Introduction to Kinesiology. Human Kinesiology Publications.*
- *Steven Roy & Richard Irvin. (1983). Sports Medicine. Prentice Hall Inc., New Jersey.*
- *Thomas. (2001). Manual of Structural Kinesiology. McGraw Hill, New York.*
- *Uppal, A.K. & Lawrence, Mamta. (2004). MP Kinesiology. Friends Publication, India.*
- *Uppal, A. (2004). Kinesiology in Physical Education and Exercise Science. Friends Publications, Delhi.*
- *Williams, M. (1982). Biomechanics of Human Motion. Saunders Co., Philadelphia.*

Course Name: Sports Medicine	L	T	P	Cr
Course Code: BPD3201	3	1	0	4

Total hours: 60

Course Learning outcomes: After completion of this course, the learner will be able to:

1. Demonstrate a breadth of knowledge across the spectrum of the exercise sciences and a deeper understanding in the areas of physiology, motor behavior and biomechanics.
2. Apply the scientific method to understand, evaluate and solve problems in the exercise sciences.
3. Utilize the central components of a liberal education, including critical thinking, information literacy, oral and written communication and quantitative reasoning skills, in analyzing problems in the exercise sciences.
4. Understand the concept of Upper limb and thorax injuries

Course Content

Unit -I **15 Hours**

Sports Medicine: Meaning, Definition, Aims, Objectives, Modern Concepts and Importance

Athletes Care and Rehabilitation: Contribution of Physical Education Teachers and Coaches, Need and Importance of the study of sports injuries in the field of Physical Education

Prevention of injuries in sports: Common sports injuries, Diagnosis, First Aid, Treatment, Laceration, Blisters, Contusion, Strain, Sprain, Fracture, Dislocation and Cramps

Bandages: Types of Bandages, trapping and supports.

Unit -II **15 Hours**

Basic Rehabilitation: Basic Rehabilitation, Strapping/tapping, definition, principles precautions contraindications

Proprioceptive neuromuscular facilitation: Definition hold, relax, repeated contractions

Show reversal technique exercises: Isotonic, Isokinetic, Isometric, Stretching Definition, types of stretching, advantages, dangers of stretching, manual muscle grading.

Unit -III **14 Hours**

Upper limb and thorax injuries: Shoulder-sprain, strain, dislocation, and strapping

Elbow: Sprain, strain, strapping
Wrist and Fingers: Sprain strain, strapping Thorax,
Rib fracture: Breathing exercises, relaxation techniques, freehand exercise, stretching and strengthening exercise for shoulder, elbow, wrist and hand, Supporting and aiding techniques and equipment for upper limb and thorax injuries

Unit -IV **16 Hours**

Lower limb and abdomen injuries: Hip-adductor strain, dislocation, strapping.
Knee: sprain, strain, strain, strapping
Ankle: sprain, train, strapping
Abdomen: Abdominal wall, contusion, abdominal muscles train
Free exercises: Stretching and strengthening, Exercise for Hip, knee, ankle and Foot, Supporting and aiding techniques and equipment for lower limb and abdomen injures
Practical lab:
Practical and visit to physiotherapy center to observe treatment procedure of sports injuries; data collection of sports injury incidences.

Transaction Mode:
Lecture, Seminar, e-Team Teaching, e-Tutoring, Dialogue, Peer Group Discussion, Mobile Teaching, Self-Learning, Collaborative Learning and Cooperative Learning.

Suggested Readings:

- *Christopher M. Norris. (1993). Sports Injures Diagnosis and Management for Physiotherapists. East Kilbride: Thomson Litho Ltd.*
- *James, A. Gould & George J. Davies, (1985), Physical Therapy, Toronto: C.V. Mosby Company.*
- *Morris B. Million (1984) Sports Injuries and Athletic Problem, New Delhi: Surjeet Publication,*
- *Pande. (1998). Sports Medicine. New Delhi: Khel Shitya Kendra*
- *The Encyclopedia of Sports Medicine, (1998), The Olympic Book of Sports Medicine, Australia: Tittel Blackwell Scientific publications*
- *Practical: Anthropometric Measurements,*

Course Name: Sports Management and curriculum Design (MDSC)	L	T	P	Cr
Course Code: BPD3202	2	0	0	2

Total hours: 30

Course Learning outcomes: After completion of this course, the learner will be able to:

1. Understand the concept of sports management.
2. Manage events of physical education and sports
3. Develop skills of financial management and budget making during sports events.
4. Development and knowledge of various sports Events

Course Content

Unit -I **8 Hours**

Introduction to Sports Management: Meaning, definition, scope, principles, functions of management, Planning, Organizing, Staffing, Directing, Controlling, Coordinating, Evaluating and innovating

Skills of management: Personal skills, Human skills, Conceptual skills, technical skills and Conjoined Skills Styles of management

Roles of manager: Interpersonal roles, Informational roles, Decisional roles Qualities of a manager

Unit -II **7 Hours**

Tournament organization:

Types of tournaments:

Knockout or Elimination, League or Round Robin, Combination, Consolation, Challenge Tournaments.

Intramural Competitions: Meaning and Importance of Intramural, Objectives of Intramural.

Importance of programme development and the role of management.

Unit -III **8 Hours**

Equipment's and Public Relation:

Purchase and care of supplies of equipment, Guidelines for selection of equipment and supplies, purchase of equipment's and supplies, equipment room, equipment and supply manager. Guidelines for checking, storing, issuing, care and maintenance of supplies and equipment's.

Public relations in sports: Planning the public relation program, principles of public relation.

Unit -IV **7 Hours**

Curriculum Meaning and definition of curriculum.

Principles of curriculum construction: Students centered, activity centered, community centered, forward-looking principle, principles of integration. Theories of curriculum development, conservative (Preservation of Culture).

Transaction Mode:

Lecture, Seminar, e-Team Teaching, e-Tutoring, Dialogue, Peer Group Discussion, Mobile Teaching, Self-Learning, Collaborative Learning and Cooperative.

Learning Suggested Readings:

- *Aggarwal, J. C. (1990). Curriculum Reform in India–World overviews, Doaba World Education Series–3. Doaba House, Bookseller and Publisher, Delhi.*
- *Arora, G. L. (1984). Reflections on Curriculum. NCERT, New Delhi.*
- *Bonnie, L. (1991). The Management of Sports. Mosby Publishing Company, Park House, St. Louis.*
- *Bucher A, Charles. (1993). Management of Physical Education and Sports (10th Edition). Mobsy Publishing Company, St. Louis.*
- *Carl, E. & Will, Goose. (1982). Curriculum in Physical Education. Prentice Hall, London.*
- *Chakraborthy & Samiran. (1998). Sports Management. Sports Publication, New Delhi.*
- *Charles, A, Bucher. & March, L, Krotee. (1993). Management of Physical Education and Sports. Mosby Publishing Company, St.*

Course Name: Track & Field-II	L	T	P	Cr
Course Code: BPD3203	0	0	4	2

Total Hours: 60

Course Learning Outcomes: After completion of this course, the learner will be able to:

1. Develop skills to participate and perform in throwing events.
2. Gain competency in Ground Marking/Sector Marking for the events.
3. Undertake officiating duties during throwing events.
4. Interpret the signals used by referees during a throwing event.

Course Content

Total Hours: 60

- Fundamental skills, rules, officiating and ground layout of Throwing Events:
- Discus Throw,
- Javelin Throw,
- Hemmer throw,
- Shot-put

Course Name: Racket Sports	L	T	P	Cr
Course Code: BPD3204	0	0	4	2

Total Hours: 60

Course Learning Outcomes: After completion of this course, the learner will be able to:

1. Develop skills to analyze and interpret the rules of the Indoor sports (Racket).
2. Gain expertise in fundamental skills and techniques of racket games.
3. Perform officiating duties during a Racket sports event.
4. Learn the defensive techniques of racquet games.

Course Content

Total Hours: 60

- Fundamental skills, rules, officiating and duties of officials of Badminton and Table Tennis
- **Badminton:**
- **Fundamental Skills:** Racket parts, Racket grips, Shuttle Grips, the basic stances
- **The basic strokes:** Serves, Fore hand, overhead and underarm, Back hand-overhead and underarm, Drills and lead up games
- Types of games-Singles, doubles, including mixed doubles, Rules and their interpretations and duties of officials
- **Table Tennis:**
- **Fundamental Skills:** The Grip-The Tennis Grip, Pen Holder Grip, Service-Forehand, Backhand, Side Spin, High Toss, Strokes-Push, Chop, Drive, Half Volley, Smash, Drop-shot, Balloon, Flick Shit, Loop Drive
- Stance and Ready position and footwork, Rules and their interpretations and duties of officials
- **Tennis:**
- **Fundamental Skills:** Grips-Eastern Forehand grip and Backhand grip, Western grip, Continental grip, Chopper grip, Stance and Footwork, Basic Ground strokes, Forehand drive, Backhand drive, Basic service, Basic Volley, Over-head Volley, Chop
- **Tactics:** Defensive, attacking in game, Rules and their interpretations and duties of officials

Course Name: Test, Measurement and Evaluation (Discipline Elective-III)	L	T	P	Cr
Course Code: BPD3205	4	0	0	4

Total Hours: 60

Course Learning Outcomes: After completion of this course, the learner will be able to:

1. Identify the need & importance of test, measurement and evaluation in physical education
2. Analysis the different motor fitness and physical fitness tests.
3. Perform anthropometric measurements
4. Analyse and interpret the results of tests and measurements used in the field of physical education

Course Content

Unit -I **13 Hours**

Introduction to test, measurement and evaluation: Meaning and Definition of test, measurement, evaluation, Principle and Scope of test, measurement and evaluation, Need and Importance of measurement and evaluation in physical education, Approach to measurements

Unit -II **17 Hours**

Motor Fitness Tests: Meaning and definition of motor fitness test, **Test for motor fitness:** Indiana motor fitness test (for elementary and high school boys, girls and college men), Oregon motor fitness Test (separately for boys and girls), JCR test Motor ability, Barrow motor ability test, Newton motor ability Test

Muscular Fitness test: Kraus-weber minimum muscular fitness test

Physical fitness test: American Alliance for Health, Physical Education, Recreation and Dance (AAHPERD) health related fitness battery (revised in 1984), American Alliance for Health, Physical Education, Recreation and Dance (AAHPERD) youth physical fitness test, American College of Sports Medicine (ACSM) health related physical fitness test, Roger's physical fitness Index

Cardio vascular test: Harvard step test, 12 minutes run/walk test, Multi stage fitness test (Beep test)

Unit -III **15 Hours**

Physiological testing:

Aerobic capacity: The Bruce treadmill test protocol, 1.5mile run test for college age males and females

Anaerobic Capacity: Margariakala men test, Wingate anaerobic test

Anthropometric measurements: Method of measuring height, standing height, sitting height

Method of measuring Circumference: Arm, waist, hip, thigh,

Method of measuring skin folds: Triceps, sub-scapular, suprailiac and pectoral major

Unit -IV **15 Hours**

Sports Skills Test:

Basketball: Johnson basketball test, Knox basketball test, Harrison basketball test

Badminton: Lockhart Mc. Pherson badminton test, French short & long serve test

Hockey: Henry Fridal field hockey test, Schmithal's goal shooting, field & drive test

Soccer: Johnson soccer test.

Shautele's volleying, passing & recovery test, Shautele's Judgment in passing test

Volleyball: Brady's volleying test, French & Cooper's repeated volleying test, French & Cooper's serve test

Transaction Mode:

Lecture, Seminar, e-Team Teaching, e-Tutoring, Dialogue, Peer Group Discussion, Mobile Teaching, Self-Learning, Collaborative Learning and Cooperative Learning

Suggested Readings:

- *Authors Guide, (2013). ACSM's Health Related Physical Fitness Assessment Manual. ACSM Publications, USA*
- *Collins, R.D., & Hodges P. B. (2001) A Comprehensive Guide to Sports Skills Tests and Measurement, (2nd edition). Scarecrow Press, Lanham.*
- *Cureton, T.K. (1947). Physical Fitness Appraisal and Guidance. The C. Mosby Company, St. Louis.*
- *Getchell, B. (1979). Physical Fitness A Way of Life, 2nd Edition. John Wiley and Sons, Inc, New York.*
- *Measurement in Physical Education and Athletics Macmillan*

Course Name: Nutrition and Weight Management (Discipline Elective-III)	L	T	P	Cr
Course Code: BPD3206	4	0	0	4

Total Hours: 60

Course Learning Outcomes: After completion of this course, the learner will be able to:

1. Understand the foundational concepts of nutrition including the roles of macronutrients and micronutrients and their importance in health and athletic performance.
2. Apply nutrition principles to design effective diet plans and fueling strategies for different types of physical activities, including exercise and sports.
3. Evaluate and manage body composition by assessing BMI, BMR, and understanding obesity and weight management strategies through diet and exercise.
4. Promote sustainable lifestyle habits for wellness, focusing on healthy eating, stress management and behavior change for long-term weight management.

Course content

Unit -I **15 Hours**

Fundamentals of Nutrition, Meaning and Definition of Nutrition, **Macronutrients:** Carbohydrates, Proteins and Fats, functions, sources, daily requirements

Micronutrients: Vitamins and Minerals – roles in metabolism and immunity, Water and Electrolyte Balance, Basic Digestion and Absorption, Nutrition guidelines (RDA, ICMR, WHO)

Unit -II **15 Hours**

Nutrition in Exercise and Sports, Role of Nutrition in Athletic Performance

Energy Systems: ATP-PC, Glycolytic and Oxidative systems

Timing of Nutrition: Pre, during and post-exercise fueling, Hydration and Electrolyte Balance during Sports, Ergogenic aids (caffeine, creatine, protein supplements, pros and cons), Nutrition for endurance vs. strength athletes

Unit -III **15 Hours**

Body Composition and Weight Management

Body Mass Index (BMI): Calculation, classification, interpretation

Obesity and Overweight: Causes, types (android vs. gynoid), health risks, Underweight and Eating Disorders (anorexia, bulimia)

Approaches to Weight Control:

Dieting: Balanced diet, fad diets, calorie restriction

Exercise: Aerobic vs. anaerobic exercise for fat loss

Combined approach: Long-term behavior change strategies, Basal Metabolic Rate (BMR) and factors affecting metabolism

UNIT-IV **15 Hours**

Lifestyle, Wellness, and Sustainable Nutrition

Healthy Lifestyle Habits: Sleep, stress management, hydration, meal timing

Psychological Aspects: Emotional eating, stress-induced weight gain, Developing a Personal Nutrition Plan, Label Reading and Food Choices, Nutrition Myths and Facts, Creating Sustainable Weight Management Goals (SMART goals, tracking, support systems)

Transaction Mode:

Lecture, Seminar, e-Team Teaching, e-Tutoring, Dialogue, Peer Group Discussion, Mobile Teaching, Self-Learning, Collaborative Learning and Cooperative Learning

Suggested Readings:

- *Nancy Clark's Sports Nutrition Guidebook by Nancy Clark – A practical guide on nutrition for athletes and active individuals.*
- *Nutrition for Health, Fitness & Sport by Melvin Williams – Comprehensive resource on sports nutrition and health.*
- *Exercise Physiology: Nutrition, Energy, and Human Performance by McArdle, Katch, & Katch – In-depth analysis of exercise, energy systems, and nutrition.*
- *Fundamentals of Foods, Nutrition, and Diet Therapy by M. S. Swaminathan – Introduction to food science and nutrition.*
- *Sports Nutrition: A Practice Manual for Professionals by Karen S. Wallace – A manual for understanding athletes' nutritional needs.*
- *The Science and Fine Art of Food and Nutrition by Arnold Ehret – A historical exploration of nutrition science and the importance of whole foods.*
- *The Obesity Code: Unlocking the Secrets of Weight Loss by Dr. Jason Fung – A critical approach to obesity and effective weight management strategies.*
- *Body Composition and Weight Control by G. E. Wilmore – A detailed approach to understanding body composition and weight control.*

Course Name: Sports Psychology and Sociology (Discipline Elective-IV)	L	T	P	Cr
Course Code: BPD3207	4	0	0	4

Total Hours: 60

Course Learning Outcomes: After completion of this course, the learner will be able to:

1. Analyze psychological principles such as motivation, stress, personality, and mental skills and apply them to enhance athletic performance and well-being.
2. Evaluate sociological concepts related to gender, race, class, and culture to understand their impact on access, identity and equity in sport.
3. Demonstrate the ability to critically assess current issues in sports such as media influence, doping, commercialization and deviance through psychological and sociological lenses.
4. Apply theoretical knowledge by designing evidence-based interventions or strategies to improve team dynamics, athlete development or mental health support in sports settings.

Course Content

Unit -I **15 Hours**

Foundations of Sports Psychology and Sociology: Nature, scope, and significance of Sports Psychology and Sociology
Historical development and interdisciplinary approach
Role of a sports psychologist and sociologist, Scientific method in sport psychology research, Ethical considerations in sports psychology and sociology,
Socialization: how athletes are shaped by and shape society.

Unit -II **15 Hours**

Psychological Dimensions of Sports Performance:
Motivation theories: intrinsic vs. extrinsic motivation, self-determination theory, Goal setting strategies (SMART goals, process vs. outcome goals)
Personality theories: Big Five traits, mental toughness, competitiveness, Stress, anxiety and arousal theories (Drive Theory, Inverted-U, Catastrophe Model)
Coping strategies: emotion-focused vs. problem-focused coping,
Attention and focus: selective attention, concentration training, Visualization, imagery and mental rehearsal techniques.

Unit -III **15 Hours**

Sociological Perspectives in Sport: Functionalist, conflict, interactionist and feminist perspectives on sport

Group dynamics: cohesion, communication, leadership in teams,

Leadership styles in coaching: autocratic, democratic, laissez-faire

Gender and sport: stereotypes, inclusion and equity, Race, ethnicity, and nationalism in sport

Disability and adaptive sports: inclusion and representation.

Unit -IV **15 Hours**

Contemporary Issues and Applications

Deviance in sport: aggression, cheating, doping and hazing

Media portrayal of athletes: gender, race and commercialization, Globalization and politics in sport (e.g., Olympic Games, FIFA World Cup)

Role of sport in peacebuilding and diplomacy

Sports and mental health: stigma, access to support, elite athlete challenges.

Transaction Mode:

Lecture, Seminar, e-Team Teaching, e-Tutoring, Dialogue, Peer Group Discussion, Mobile Teaching, Self-Learning, Collaborative Learning and Cooperative Learning

Suggested Readings:

- *Weinberg, R.S. & Gould, D. (2020). Foundations of Sport and Exercise Psychology. Human Kinetics.*
- *Coakley, J. (2021). Sports in Society: Issues and Controversies. McGraw-Hill Education.*
- *Sage, G.H. & Eitzen, D.S. (2015). Sociology of North American Sport. Oxford University Press.*
- *Vealey, R.S. (2007). Mental Skills Training in Sport. In G. Tenenbaum & R.C. Eklund (Eds.), Handbook of Sport Psychology. Wiley.*
- *Jarvie, G. (2013). Sport, Culture and Society: An Introduction. Routledge.*
- *Anderson, E. (2010). Sport, Theory and Social Problems: A Critical Introduction. Routledge.*
- *Kerr, J.H. (2008). Rethinking Aggression and Violence in Sport. Routledge.*
- *Ryba, T.V., Schinke, R.J., & Stambulova, N.B. (Eds.). (2016). The Cultural Turn in Sport Psychology*

Course Name: Olympic Movement (Discipline Elective-IV)	L	T	P	Cr
Course Code: BPD3208	4	0	0	4

Total Hours: 60

Course Learning Outcomes: After completion of this course, the learner will be able to:

1. Acknowledge basic Memorize of Olympic movement
2. Identify Significance of Olympic Ideals, Olympic Rings, Olympic Flag
3. Memorize about different Olympic games
4. Study about IOC, IOA

Course Content

Unit -I **15 Hours**

Origin of Olympic Movement: Philosophy of Olympic movement, the early history of the Olympic movement, the significant stages in the development of the modern Olympic movement, Educational and cultural values of Olympic movement

Unit -II **15 Hours**

Modern Olympic Games: Significance of Olympic Ideals, Olympic Rings, Olympic Flag, Olympic Protocol for member countries, Olympic motto, Olympic Code of Ethics, Olympism in action, Sports for All

Unit -III **15 Hours**

Different Olympic Games: Para Olympic Games, Summer Olympics, Winter Olympics, Youth Olympic Games

UNIT-IV **15 Hours**

Committees of Olympic Games: International Olympic Committee, Structure and Functions, National Olympic committees and their role in Olympic movement, Olympic commission and their functions, Olympic medal winners of India

Transaction Mode:

Lecture, Seminar, e-Team Teaching, e-Tutoring, Dialogue, Peer Group Discussion, Mobile Teaching, Self-Learning, Collaborative Learning and Cooperative Learning

Suggested Readings:

- *Osborne, M.P. (2004). Magic Tree House Fact Tracker: Ancient Greece and the Olympics: A Nonfiction Companion to Magic Tree House: Hour of the Olympics. New York: Random House Books*

Semester – IV

Course Name: Research And Statistics	L	T	P	Cr
Course Code: BPD4250	4	0	0	4

Total Hours: 60

Course Learning Outcomes: After completion of this course, the learner will be able to:

1. Students will learn the meaning, nature, types, and objectives of research, how to select research problems and understand various research designs and methods of data collection.
2. Students will understand different sampling methods, determine appropriate sample sizes and learn how to structure and present research reports both in written and oral formats.
3. Students will grasp the role of statistics in physical education, understand different statistical processes and learn how to organize data using frequency distributions and measures of central tendency (mean, median, mode).
4. Students will learn about probability, normal distribution, graphical data representation, measures of dispersion (range, standard deviation, etc.) and how to use statistical scales like Z, Sigma, and Hull scales

Course Content

Unit -I **13 Hours**

Research: its concept, nature, scope, need and Objectives of Research, Research types, Research methodology, Selection of research problem.

Research Design: Different research designs, important experimental designs

Methods of Data Collection and Presentation: Types of data collection and classification

Unit -II **13 Hours**

Sampling Methods: Probability Sampling methods, Random Sampling, Systematic Sampling, Stratified Sampling, Cluster Sampling and Multistage Sampling, Non-probability Sampling methods, Sample size

Report writing and Presentation: Types of reports, Report Format, Cover page, Introductory page, Text, Bibliography, Appendices, Typing instructions, Oral Presentation

Unit -III **17 Hours**

Introduction: Meaning, Definition, Need and Importance of Statistics in Physical Education

Types of Statistical Process: descriptive, comparative, inferential, predictive.
Attribute and variable. Frequency distribution, Raw scores, Single scores.
Tabulation and Measures of Central Tendency: Meaning, uses and construction of frequency table. Meaning, purpose, calculation and advantages of Measures of central tendency, Mean, median and mode.

Unit -IV **17 Hours**

Probability Distributions and Graphs: Normal curve: Meaning of probability, principles of normal curve and properties of normal curve
Graphical representation in Statistics: Line diagram, bar diagram, Histogram, Frequency Polygon
Measures of Dispersions and Scales: Meaning, purpose, calculation and advances of Range, Quartile deviation, Mean deviation, Standard deviation, Probable error, meaning, purpose, calculation and advantages of scoring scales- Sigma scale, Z scale, Hull scale.

Transaction Mode:
Lecture, Seminar, e-Team Teaching, e-Tutoring, Dialogue, Peer Group Discussion, Mobile Teaching, Self-Learning, Collaborative Learning and Cooperative Learning

Suggested Readings:

- *Best, J. W. (1971). Research in Education, Prentice Hall, Inc, New Jersey.*
- *Clark, D. H. (1999). Research Problem in Physical Education, IIedition. Prentice Hall, Inc., Eagle wood Cliffs.*
- *Jerry, R Thomas. & Jack, K Nelson. (2000). Research Methods in Physical Activities. Human Kinetics, Illonosis.*
- *Kamlesh, M.L. (1999). Research Methodology in Physical Education and Sports. KSK Publishers, New Delhi.*
- *Rothstain, A. (1985). Research Design and Statistics for Physical Education. Prentice Hall, Inc., Engle wood Cliffs.*
- *Sivarama Krishnan, S. (2006). Statistics for Physical Education. Friends Publication, Delhi.*
- *Thirumalaisamy, (1998). Statistics in Physical Education. Senthilkumar Publications, Karaikudi.*

Course Name: Physiotherapy and Rehabilitation	L	T	P	Cr
Course Code: BPD4251	3	1	0	4

Total Hours: 60

Course Learning Outcomes: After completion of this course, the learner will be able to:

1. Identify and comprehend the modern concepts of Physiotherapy.
2. Plan training activities, which assists in preventing sports injuries.
3. Provide first aid treatment in sports related injuries.
4. Gain knowledge about the principles and importance of physiotherapy in sports injuries.

Course Content

Unit -I **15 Hours**

Rehabilitation: Meaning and Contribution of Physical Education Teachers and Coaches in rehabilitation. Need and Importance of the study of sports injuries in the field of Physical Education.

Common sports injuries: Diagnosis, First Aid, Treatment, Laceration, Blisters, Contusion, Strain, Sprain, Fracture, Dislocation and Cramps

Bandages: Types of Bandages, trapping and supports. Principle of PRICE. Prevention of injuries in sports

UNIT-II **15 Hours**

Physiotherapy: Definition, Guiding principles of physiotherapy, Importance of physiotherapy, Introduction and demonstration of treatments

Electrotherapy: infrared rays, Ultraviolet rays, short wave diathermy, ultrasonic rays.

Unit -III **15 Hours**

Hydrotherapy: Introduction and demonstration of treatments of Cryotherapy, Thermo therapy, Contrast Bath, Whirlpool Bath, Steam Bath, Sauna Bath, Hot Water Fomentation

Massage: History of Massage, Classification of Manipulation (Swedish System) physiological Effect of Massage.

Unit -IV **15 Hours**

Therapeutic Exercise: Definition and Scope, Principles of Therapeutic Exercise, Classification, Effects and uses of Therapeutic

exercise, passive Movements (Relaxed, Forced and passive stretching), active movements (concentric, Eccentric and static)

Application of the therapeutic exercise: Free Mobility Exercise, Shoulder, Elbow, Wrist and Finger Joints, Hips, Knee, ankle and Foot joints, Trunk. Head and Neck exercises. Self-Stretching techniques.

Transaction Mode:

Lecture, Seminar, e-Team Teaching, e-Tutoring, Dialogue, Peer Group Discussion, Mobile Teaching, Self-Learning, Collaborative Learning and Cooperative Learning

Suggested Readings:

- *Christine, M. D., (1999). Physiology of sports and exercise. Human Kinetics. Conley, USA.*
- *Baechle, T.R. & R.W. Earle, (Eds.), Essentials of Strength Training and Conditioning (pp. 73-90). Champaign, IL: Human Kinetics.*
- *David, R. M. (2005). Drugs in sports, (4th Ed). Taylor and Francis Group, Routledge*
- *Jeyaprakash, C. S. (2003), Sports Medicine, J.P. Brothers Pub., New Delhi,*
- *Khanna, G.L., (1990). Exercise physiology & sports medicine. Lucky Enterprises, Delhi.*
- *Mathew, D.K. & Fox, E.L, (1971). Physiological basis of physical education and athletics. W.B. Saunders Co. Philadelphia*

Course Name: Contemporary Issues in Physical Education, Fitness and wellness	L	T	P	Cr
Course Code: BPD4252	4	0	0	4

Total Hours: 60

Course Learning Outcomes: After completion of this course, the learner will be able to:

1. Gain expertise in providing first aid and emergency care.
2. Comprehend the modern concept of Fitness and Wellness.
3. Grasp the principles of fitness and wellness to maintain holistic health.
4. Competent in application fitness and wellness management techniques.

Course Content

Unit -I **15 Hours**

Concept of Physical Education and Fitness: Definition, Aims and Objectives of Physical Education, fitness and Wellness. Importance and Scope of fitness and wellness. Modern concept of Physical fitness and Wellness. Physical Education and its Relevance in Inter Disciplinary Context.

Unit -II **15 Hours**

Fitness, Wellness and Lifestyle: Fitness, Types of Fitness and Components of Fitness. Understanding of Wellness. Modern Lifestyle and Hypo Kinetic Diseases, Prevention and Management. Physical Activity and Health Benefits. Current trends in fitness and conditioning, components of total health fitness and the relationship between physical activity and lifelong wellness.

Unit -III **15 Hours**

Principles of Exercise Program: Means of Fitness development, aerobic and anaerobic exercises. Exercises and Heart rate Zones for various aerobic exercise intensities. Concept of free weight Vs Machine, Sets and Repetition etc. Concept of designing different fitness training program for different age group.

Unit -IV **15 Hours**

Safety Education and Fitness Promotion: Health and Safety in Daily Life. First Aid and Emergency Care. Common Injuries and their Management.

Modern Life Style and Hypo-kinetic Disease: Prevention and Management.

Transaction Mode:
Lecture, Seminar, e-Team Teaching, e-Tutoring, Dialogue, Peer Group Discussion, Mobile Teaching, Self-Learning, Collaborative Learning and Cooperative Learning

Suggested Readings:

- *Di Fiore, J. (2013). The complete guide to postnatal fitness. A & C Black.*
- *Mcglynn, G., (1993). Dynamics of fitness. W.C.B Brown, Madison.*
- *Sharkey, B. J. (1990). Physiology of fitness, Human Kinetics Book.*

Course Name: Research Project (Practical)	L	T	P	Cr
Course Code: BPD4253	0	0	4	2

Total Hours: 60

Course Learning Outcomes: After completion of this course, the learner will be able to:

1. To provide hands-on experience in conducting a small-scale research project.
2. To develop basic skills in data collection, analysis, and presentation.
3. To enhance students' understanding of research methodology and statistical tools.

Course Content

- **Selection of Research Problem**
  - Identifying and defining a simple research topic (related to physical education, sports, health, or fitness).
  - Preparing research title and objectives.
- **Review of Literature**
  - Collecting relevant references.
  - Writing a brief literature review.
- **Methodology**
  - Formulation of hypotheses or research questions.
  - Selection of sample and tools.
  - Description of procedure and data collection methods.
- **Data Collection & Analysis**
  - Collecting data using appropriate tools (questionnaires, tests, observation, etc.).
  - Tabulation and analysis using basic statistical methods (mean, SD, percentage, graphs, etc.).
- **Report Writing & Presentation**
  - Writing the report in a structured format (Introduction, Methodology, Results, Conclusion, and References).
  - Presentation of the research project (oral or poster presentation).

Suggested Readings:

- *Best, J. W., & Kahn, J. V. (2014). Research in Education (10th Ed.). Pearson Education. A foundational book covering all aspects of educational research, including practical elements.*
- *Kothari, C. R. (2004). Research Methodology: Methods and Techniques (2nd Ed.). New Age International Publishers. Comprehensive guide on research types, sampling, data collection, and report writing.*
- *Thomas, J. R., Nelson, J. K., & Silverman, S. J. (2015). Research*

Methods in Physical Activity (7th Ed.). Human Kinetics. Focuses specifically on research in physical activity and sports sciences.

- *Baumgartner, T. A., Jackson, A. S., Mahar, M. T., & Rowe, D. A. (2011). Measurement for Evaluation in Physical Education and Exercise Science (9th Ed.). McGraw-Hill. Useful for understanding data collection and evaluation in sports and exercise settings.*
- *Verma, J. P. (2015). Statistics and Research in Physical Education. Sports Publication, New Delhi. Combines research and statistics, tailored to physical education contexts.*
- *Creswell, J. W. (2014). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches (4th Ed.). SAGE Publications.*

Course Name: Physical Education Consultancy (Entrepreneurship)	L	T	P	Cr
Course Code: BPD4254	0	0	4	2

Total Hours: 60

Course Learning Outcomes: After completion of this course, the learner will be able to:

1. Understand the consultancy framework in physical education.
2. Develop and present a consultancy business model.
3. Apply entrepreneurial skills in real-world sports and fitness settings.
4. Explore self-employment opportunities in the fitness and wellness industry.

Course Content

- **Introduction to Consultancy and Entrepreneurship**
  - Meaning and nature of consultancy in physical education and sports.
  - **Role of a consultant:** skills, ethics and responsibilities.
  - **Entrepreneurship:** definition, characteristics and importance.
  - Difference between a trainer, coach and consultant.
- **Setting up a Consultancy Business**
  - Identifying consultancy opportunities in physical education, fitness and wellness sectors.
  - **Steps in starting a consultancy firm**: legal requirements, business registration and licenses.
  - **Business plan preparation:** mission, vision, services offered, financial planning.
- **Marketing and Client Management**
  - Promotion and branding strategies.
  - **Online presence:** use of websites, social media and digital platforms.
  - Client acquisition and relationship building.
  - Service pricing, contracts and invoicing.
- **Practical Component**
  - Prepare a mock consultancy proposal (individual or group project).
  - Presentation of business plan or service model.

Suggested Readings:

- *Kotler, P., & Keller, K. L. (2016). Marketing Management (15th ed.). Pearson Education.*
- *Taneja, S., & Gupta, S. L. (2001). Entrepreneurship Development.*

Galgotia Publishing.

- *Sharma, V. M. (2014). Entrepreneurship in Physical Education and Sports. Sports Publication.*
- *Chadha, R. N. (2002). Sports Marketing. Friends Publications, New Delhi.*
- *Hisrich, R. D., Peters, M. P., & Shepherd, D. A. (2016). Entrepreneurship (10th Ed.). McGraw-Hill Education.*

Course Name: Project Meet (Athletics)	L	T	P	Cr
Course Code: BPD4255	0	0	4	2

Total Hours: 60

Course Learning Outcomes: After completion of this course, the learner will be able to:

1. Develop effective project management skills, including project planning, scheduling, resource allocation and risk assessment, to successfully execute Project Meet initiatives.
2. Analyze and apply advanced tools and techniques for project monitoring and control, ensuring that Project Meet stays on track, within scope and on budget.
3. Demonstrate leadership and team work abilities by collaborating with diverse stakeholders, managing conflicts, and fostering a positive project environment during Project Meet execution.
4. Evaluate the outcomes and impact of Project Meet on the targeted audience or community, and prepare comprehensive reports and presentations to communicate project results effectively.

Course Content

- Students will organize project meet of Athletics.

Course Name: Internship (04 Week)	L	T	P	Cr.
Course Code: BPD4256	0	0	0	4

Total Hours: 60

Course Learning Outcomes: After completion of this course, the learner will be able to:

1. Apply classroom knowledge to real-world physical education and sports settings.
2. Demonstrate effective coaching and teaching skills in various activities.
3. Organize and manage sports events and fitness programs efficiently.
4. Communicate professionally with students, athletes and staff.

Course content

Total Lessons: A minimum of 20 lessons to be conducted in schools.
Internship includes a minimum of 20 teaching lessons in schools. It involves classroom teaching, practical sports coaching and community engagement. Students observe, plan and deliver lessons under supervision, with continuous assessment and reflection.

Course Name: Organization and Administration (Discipline Elective-V)	L	T	P	Cr
Course Code: BPD4257	4	0	0	4

Total Hour: 60

Course Learning outcomes: After completion of this course, the learner will be able to:

1. Acquire administrative and managerial skills required in the field of physical education.
2. Demonstrate advanced professional and educational capabilities using appropriate interpersonal, written communication and critical thinking essential for successful performance and progress in an organization.
3. Become competent in assessment and evaluation of the academic work done by the team members.
4. Abide by personal and professional ethics while undertaking organizational decisions.

Course Content

Unit -I **15 Hours**

Organization and administration: Meaning and importance of Organization and Administration in physical education. Qualification and Responsibilities of Physical Education teacher and pupil leader. Planning and their basic principles.

Program planning: Meaning, Importance, Principles of program planning in physical education. Functions of Planning, organizing, staffing, directing, communicating, co-ordination, controlling, evaluating and innovating.

Unit -II **15 Hours**

Office Management, Record, Register & Budget:

Office Management: Meaning, definition, functions and kinds of office management.

Records and Registers: Maintenance of attendance Register, stock register, cash register, physical efficiency record, medical examination Record.

Budget: Meaning, Importance of Budget making.

Criteria of a good Budget, Sources of Income, Expenditure, Preparation of Budget.

Unit -III **15 Hours**

Facilities, & Time-Table Management:

Facilities and equipment management: Types of facilities Infrastructure-indoor, outdoor. Care of school building, Gymnasium, swimming pool, Playfields, Playgrounds.

Equipment: Need, importance, purchase, care and maintenance.

Time Table Management: Meaning, Need, Importance and Factor affecting timetable.

Unit -IV **15 Hours**

Competition Organization: Importance of Tournament.

Types of tournaments and its organization structure, Knock-out Tournaments, League or Round Robin Tournaments, Combination Tournament and challenge Tournament.

Organization structure of Athletic Meet Sports Event Intramurals & Extramural Tournament planning. Criteria for Selection of College/University Team.

Transaction Mode:

Lecture, Seminar, e-Team Teaching, e-Tutoring, Dialogue, Peer Group Discussion, Mobile Teaching, Self-Learning, Collaborative Learning and Cooperative Learning

Suggested Readings:

- *Broyles, F. J. & Rober, H. D. (1979). Administration of sports, Athletic programme: A Managerial Approach. Prentice hall Inc. New York.*
- *Bucher, C. A. (1983). Administration of Physical Education and Athletic programme. The C.V. Hosby Co. St. Lolis.*
- *Kozman, H.C. Cassidly, R. & Jackson, C. (1960). Methods in Physical Education. W.B. Saunders Co. London.*

Course Name: Theory of Sports (Discipline Elective-V)	L	T	P	Cr
Course Code: BPD4258	4	0	0	4

Total Hour: 60

Course Learning outcomes: After completion of this course, the learner will be able to:

1. Describe and apply knowledge of field/court dimensions, markings, and ground preparation for each sport covered.
2. Identify and evaluate the standard equipment used in different sports, including their specifications and usage.
3. Understand and promote the ethics of sports and the value of sportsmanship in both individual and team settings.
4. Gain foundational technical knowledge necessary for coaching, officiating, or organizing events in Athletics, Badminton, Basketball, Cricket, Football, Gymnastics, Hockey, Handball, Kabaddi, Kho-Kho, Tennis, and Volleyball.
5. Develop observational and practical skills by comparing rules, equipment, and playing conditions across various sports.

Course Content

Unit-I **16 Hours**

General Introduction of specialized games and sports: Athletics, Badminton, Basketball, each game or sports to be dealt under the following heads.

History and development of the Game and Sports. Ground preparation, dimensions and marking.

Standard equipment and their specifications. Ethics of sports and sportsmanship.

Unit II **15 Hours**

Cricket, Football, Gymnastic, each game or sports to be dealt under the following heads.

History and development of the Game and Sports. Ground preparation, dimensions and marking.

Standard equipment and their specifications.

Unit III **14 Hours**

Hockey, Handball, Kabaddi, each game or sports to be dealt under the following heads.

History and development of the Game and Sports. Ground

preparation, dimensions and marking.
Standard equipment and their specifications.

Unit IV **15 Hours**

Kho-Kho, Tennis, Volleyball each game or sports to be dealt under the following heads.
History and development of the Game and Sports. Ground preparation, dimensions and marking.
Standard equipment and their specifications.

Transaction Mode:

Lecture, Seminar, e-Team Teaching, e-Tutoring, Dialogue, Peer Group Discussion, Mobile Teaching, Self-Learning, Collaborative Learning and Cooperative Learning.

Suggested Readings:

- *Bunn, J.W. (1968). The art of officiating sports. N.J. Prentice Hall, Englewood cliffs.*
- *Bunn, J.W. (1972). Scientific principles of coaching. N. J. Prentice Hall, Englewood cliffs.*
- *Dyson, G.H. (1963). The mechanics of athletics. University of Londo*