UNIVERSITY OF LADAKH

DEPARTMENT OF PHYSICAL EDUCATION & SPORTS Syllabus for the BPEd (Two years) Programme, Session-2022 onward

Preamble:

The Bachelor of Physical Education (B.P.Ed) – Two Years (Four Semesters) Programme is meant to prepare quality teachers in Physical Education for Secondary Schools.

OBJECTIVES:

This program shall strive to achieve the following objectives:

General Objectives:

- 1. To enable the teacher to understand the nature, purpose, and philosophy of Physical Education at the secondary stage.
- 2. To prepare teachers of Physical Education with a broader educational perspective.
- 3. To develop potentialities and organize physical education programs and activities.
- 4. To develop the capacity to organize leisure and recreational activities.
- 5. Empower them to inspire their students to participate in physical and yogic exercises.
- 6. To enable teachers to develop personality, character, willpower, democratic values, and positive games and sports.
- 7. To make teachers capable of imparting basic knowledge about Health, hygiene, and Nutrition
- 8. To develop skills and competencies to organize school and community games and sports.
- 9. To cultivate the spirit of sportsmanship, mental and physical alertness, scientific temper, and optimism.
- 10. To promote mental health, power of self-decision and self-control, correct judgment and action, emotional stability and tranquility, respect for others, and acceptance of authority and rules
- 11. To promote appreciation and interest in indigenous games, sports, and yogic exercises
- 12. To create awareness about health and hygiene in the community.

Specific Objectives

- 1. To lay a sound foundation for higher and advanced studies in Physical Education in India.
- 2. To prepare highly qualified leaders in Physical Education, Sports/Games, and other interdisciplinary subjects.
- 3. To prepare young Physical Education & sports professionals with entrepreneurship spirit/aptitude in sports.
- 4. To prepare young professionals who can perform instructions in a very highly professional manner.
- 5. To prepare young Physical Education & sports professionals with ethical and human values.
- 6. To prepare students for advance coaching Diplomas in disciplines Athletics, Gymnastics, Hockey, Swimming, Basketball, Football, etc.
- 7. To fulfill the eligibility criteria of Foreign Universities to get admission in post graduate courses abroad since it is a basic and global program.
- 8. To generate employment in Health Fitness and Gym-Management, Physiotherapy, Journalism, Aquatics, and Yoga.
- 9. To provide an opportunity for talented students to excel in sports and become outstanding sportspeople.
- 10. To promote mass participation in Physical Education activities (Games, Sports Displays, etc.) through intramural and Extramural programs.

The course of instruction for the B.P.Ed Examination consists of three parts as under:

PART – I	Theory Papers	1400 Marks
PART – II	Practical Course (Teaching, Proficiency, and Prowess)	800 Marks
	Total	2200 Marks

Note I

- Part-I will be evaluated internally.
- Part-II will be evaluated by a panel of one internal and one external examiner appointed by the Dean of Academic Affairs in Consultation with the Coordinator of the Programme.
- Part-III will be evaluated with one external and one internal examiner.

 Since this is a professional course aimed at improving the standard of games and sports, special attention must be given to the practical aspect of Track and Field, Games and Sports. Therefore, specified 20 hours per week must be devoted to practical teaching.

SEMESTER-I

PART-I: THEORY PAPERS							
Paper	Course Code	Title of the Papers	Credit	Internal Marks	External Marks	Total Marks	
		Core	e Course				
I.	BPE-C-101	History, Principles, and Foundation of Physical Education	4	30	70	100	
II.	BPE-C-102	Anatomy and Physiology	4	30	70	100	
III.	BPE-C-103	Educational Technology and Methods of Teaching in Physical Education	4	30	70	100	
		Elective Co	urse (Any One)			
IV.	BPE-E-101	Olympic Movement					
	BPE-E-102	Officiating and Coaching	2	15	35	50	
		PART-II PRACTICAL CO	URSE (SKILL A	AND PROWESS)	1	
V	BPE-P-101	Teaching, Prowess, and Proficiency in Athletic-I	4	30	70	100	
/I	BPE-P-102	Teaching, Prowess, and Proficiency in Games-I	4	30	70	100	

Total Credit= 22

Note for Paper Setter:

The paper setter shall set 04 (four) questions (Medium type) for section A, 01 (one) question from each unit with alternate choice carrying 3.4 marks each.

Section B shall consist of 04 (long answer type).01 (one) question from each unit carrying 14 marks each.

Instructions for Candidates:

The candidate shall have to attempt 04 (four) questions from section 'A' answering about (200-250) words and 04(four) questions from section 'B' answering about (300-350) words (Internal Choice).

BPE-C-101

HISTORY, PRINCIPLES, AND FOUNDATION OF PHYSICAL EDUCATION

Total Marks: 100 External Marks: 70

Internal Marks: 30

Note: Nine questions will be set. Question number one will be compulsory for 20 marks, with ten short types of answers covering the entire syllabus. Four questions are to be attempted selecting one from each unit, and each question will carry 15 marks.

UNIT 1: INTRODUCTION

- Meaning, Definition, and Scope of Physical Education
- Aims and Objectives of Physical Education
- Importance of Physical Education in the present era.
- Misconceptions about Physical Education.
- Relationship of Physical Education with General Education.
- Physical Education as an Art and Science.

UNIT- 2 HISTORICAL DEVELOPMENT OF PHYSICAL EDUCATION IN INDIA

- Indus Valley Civilization Period. (3250 BC 2500 BC)
- Vedic Period (2500 BC 600 BC)
- Early Hindu Period (600 BC 320 AD) and Later Hindu Period (320 AD 1000 AD)
- British Period (Before 1947)
- Physical Education in India (After 1947)
- YMCA and its contributions.
- The early history of the Olympic movement
- The significant stages in the development of the modern Olympic movement
- Educational and cultural values of the Olympic movement
- National Anthem
- National Flag

UNIT-3 FOUNDATION OF PHYSICAL EDUCATION

- Philosophical foundation:
 - Idealism
 - Pragmatism
 - Naturalism
 - Realism
 - Humanism and Existentialism
- Fitness and wellness movement in the contemporary perspectives
- Sports for all and its role in the maintenance and promotion of fitness.

UNIT-4 PRINCIPLES OF PHYSICAL EDUCATION

- Biological
 - Growth and development
 - Age and gender characteristics

- Body Types
- Anthropometric differences
- Psychological
 - Learning types, learning curve
 - Laws and principles of learning
 - Attitude, interest, emotions and sentiments
- Sociological
 - Society and culture
 - Leadership
 - Social integration and cohesiveness

- 1. Atwal & Kansal History of Physical Education, Jalandhar
- 2. Barrow, H. M. 1. (1983). Man and movement: principles of physical Education. 3rd ed. Philadelphia, Lea & Febiger.
- 3. Bucher, C. A. (1972). Foundations of Physical Education, CV Mosby Company, St.
- 4. Butler George D. Introduction to Community Recreation (5th Ed.) New York: M.C. Graw Hill Book Co. 1970.
- 5. Dr. Chandrahas Dubey & Mrs. Alka Nayak Recreation,
- 6. Fitzgerald Gerald B. Leadership in Recreation, New York, AS Barness and Co. 1941.
- 7. Kamlesh, M. L. (2004). Principles and history of physical Education. Friends Publications (India).
- 8. Khan, E. A. (1964). History of Physical Education. Scientific Book Company.
- 9. Khan, Eraj Ahmad, History of Physical Education, Patna, Scientific Book Co. 1964.
- 10. Meyar, Herold D.; and Bright bill, Charles K. Community Recreation, Boston DC. Health Co.1948.
- 11. Mohan, V. M. (1969). Principles of physical Education. Delhi: Metropolitan Book Depot
- 12. Nixon, E. E. & Cozen, FW (1969). An introduction to physical Education. Philadelphia: W.B.Saunders Co.
- 13. Obertuffer (1970). Delbert physical education. New York: Harper & Brothers Publisher.
- 14. Prof. Ajmer Singh Physical Education and Olympic Movement- Kalyani Publishers New Delhi 2012
- 15. Rajgopalan, K.A. Brief History of Physical Educatin in India. Delhi, Army Publishers Pvt. Ltd. 1962.
- 16. Sharman, J. R. (1964). Introduction to physical Education. New York: A.S. Barnes & Co.
- 17. Slavson, S.R. Recreation and the total personality, New York Association Press, 1948.
- 18. Stidder, G., & Hayes, S. (Eds.). (2011). The really useful physical education book. Routledge.
- 19. Uppal, A. K. (1992). Physical fitness: how to develop. Friends.
- 20. Uppal, A. K. (2001). Principles of sports training. Friends Publications.
- 21. Uppal, A. K. (2004). Physical fitness and wellness. Friends Publication, New Delhi, 3.
- 22. Uppal, A. K. (2013). Science of sports training. Friends Publications (India).

- 23. Uppal, A. K., & Gautam, G. P. (2000). Physical Education and Health. Friends Publications.
- 24. William, J. F. (1964). The principles of physical Education. Philadelphia: W.B. Saunders Co.

BPE-C-102

ANATOMY AND PHYSIOLOGY

Total Marks: 100 External Marks: 70

Internal Marks:30

UNIT-I: ANATOMY AND PHYSIOLOGY

- Introduction of Anatomy and physiology and its importance in the field of Physical Education and sports.
- 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
- Gender differences in the skeleton.
- Anatomical terms related to body movements

UNIT-II: SYSTEMS OF THE HUMAN BODY

- Blood and 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, Cardiac output.
- 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.
- **The Digestive system:** structure and functions of the digestive system, Digestive organs, Metabolism,
- Excretory system: Structure and functions of the kidneys and the skin.
- **The Endocrine glands:** Functions of glands pituitary, Thyroid, Parathyroid. Adrenal, Pancreatic and the sex glands.
- Nervous systems: Function of the Autonomic nervous system and Central nervoussystem. Reflex Action,
- Sensory System: Structure and functions of Eye and Ear.

UNIT-III: NEUROMUSCULAR JUNCTIONS

- Muscles: Types of muscles, Properties and functions.
- Neuromuscular junction
- Fuel for muscular activity
- Role of oxygen- oxygen debt, second wind, vital capacity.
- Fatigue: Meaning and sites of fatigue.
- Types of muscular fiber and sliding filament Theory of Muscular Contraction

- Types of muscular Contraction (Isotonic, Isometric, Isokinetic) and their roles in physical activity
- Concept of agonist and antagonist muscles and muscles imbalance.

UNIT-IV: EFFECTS OF EXERCISE ON VARIOUS SYSTEMS

- Effect of exercise and training on the cardiovascular system.
- Effect of exercise and training on the respiratory system.
- Effect of exercise and training on the muscular system
- Physiological concept of physical fitness, warming up, conditioning.
- Effect of exercise on the nervous system.

- 1. Biga, L. M., Dawson, S., Harwell, A., Hopkins, R., Kaufmann, J., LeMaster, M., ... & Runyeon, J. (2020). Anatomy & physiology. OpenStax/Oregon State University.
- 2. Chaurasia, B. D. (2004). Human anatomy (p. 53). CBS Publisher.
- 3. Gupta, A. P. (2010). Anatomy and physiology. Agra: Sumit Prakashan.
- 4. Hoeger, Werner W.K, Hoegen, Sharon A. (2004). Principles and Labs for fitness and wellness.
- 5. Karpovich. Peter V. Philosophy of Muscular Activity London. W.B. Saunders Co.1059.
- 6. Lamb, G. S. (1982). Essentials of exercise physiology. Delhi: Surject Publication, 1982.
- 7. Marieb, E. N., & Hoehn, K. (2007). Human anatomy & physiology. Pearson education.
- 8. Moorthy, A. M. (2014). *Anatomy physiology and health education*. Karaikudi: Madalayam Publications.
- 9. Pearce. E. (1989). Anatomy and Physiology for Nurses, Delhi, Oxford University Press.
- 10. Richardson, Seano, Anderson, Mark B. (2008). Overtraining Athletes: Personal Journey in Sports.
- 11. Rizzo, D. C. (2009). Fundamentals of Anatomy and Physiology (Book Only). Cengage Learning.
- 12. Solomon, E. P. (2015). Introduction to human anatomy and physiology. Elsevier Health Sciences.
- 13. Wilmore, Jack H, and Costill, David L. (1994). Physiology of Sports and Exercise. HumanKinetics.

BPE-C-103

EDUCATIONAL TECHNOLOGY AND METHODS OF TEACHING IN PHYSICAL EDUCATION

Total Marks: 100 External Marks: 7

Internal Marks: 30

UNIT I INTRODUCTION

Education and Education Technology: Meaning and Definitions.

- Types of Education: Formal, Informal, and Non-Formal Education.
- Teaching: Meaning and Principles of teaching.
- Importance of technological devices used for imparting knowledge.

UNIT II TEACHING METHODS AND PRESENTATION TECHNIQUES

- Teaching Methods: Lecture method, Command method, Demonstration method, Imitation method, project method, Whole method, Whole- partwhole method, Partmethod, At will method, etc.
- Factors affecting teaching methods.
- Presentation Techniques: Personal and technical preparation, Steps of presentation.
- Types of class formations and Methods of classification of students.

UNIT III TEACHING AIDS

- Teaching Aids: Meaning, Importance, types of teaching aids.
- Criteria for selecting teaching aids.
- Team Teaching: Meaning, Principles, and advantage of team teaching.
- Difference between Teaching Methods and Teaching Aids.
- Teaching aids Audio aids, Visual aids, Audiovisual aids, Verbal, Chalkboard, Charts, Model, Slide projector, Motion picture, etc

UNIT IV LESSON PLANNING AND TEACHING INNOVATIONS

- Lesson Planning: Meaning, Importance, and Types
- Principles of lesson plans.
- Micro Teaching: Meaning, steps of micro-teaching, advantages, and principles
- Simulation Teaching: Meaning, Types, and steps of simulation teaching.

- 1. Aggarwal, S., & Jca, O. (2010). Teacher And Education In A Developing So. Vikas Publishing House.
- 2. Bhardwaj (2003). A New media of educational planning. New Delhi: Sarup of Sons.
- 3. Bhatia, Bhatia, (1959). The principles and methods of teaching. New Delhi: Doaba House.
- 4. Brar, R.S & Kanwar,S., (2008). Teaching Methodology and Education Technology in Physical Education, Kalyani Publisher, New Delhi.
- 5. Kochar, SK (2014). Methods and techniques of teaching. New Delhi: Sterling Publishers.
- 6. Kochhar, S. K. (1992). Methods and techniques of teaching. Sterling Publishers Pvt. Ltd.
- 7. ML Kamlesh & Sangral, M..S., (1986). Methods in Physical Education, Prakash Brothers, 516, Book Market Ludhiana.
- 8. Mangal, S. K., & Mangal, U. (2019). Essentials of educational technology. PHI Learning Pvt. Ltd..
- 9. Pande, R. S. Principles of Education.
- 10. Pathak, R. P. (2012). Educational technology. Pearson Education India.
- 11. Petrina, S. (Ed.). (2006). Advanced teaching methods for the technology classroom. IGI Global.
- 12. Saettler, P. (2004). The evolution of American educational technology. IAP.
- 13. Sampath, K., Pannirselvam, A. &Santhanam, S. (1981). Introduction to educational technology. New Delhi: Sterling Publishers Pvt. Ltd.
- 14. Spector, J. M. (2015). Foundations of educational technology: Integrative approaches and interdisciplinary perspectives. Routledge.
- 15. Tiwari, R. H. Saphal Path Niyojan. Amravati HVPM Publication.
- 16. Walia, J.S. (1999). *Principles and methods of Education*. Jullandhar: Paul Publishers. Bernard, H. C. Introduction of Teaching.

BPE-E-101

OLYMPIC MOVEMENT

Total Marks: 50 External Marks: 35

Internal Marks: 15

UNIT I ORIGIN OF THE OLYMPIC MOVEMENT

- Philosophy of the 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 the Olympic movement
- Para Olympic Games
- Summer Olympics
- Winter Olympics
- Youth Olympic Games

UNIT II MODERN OLYMPIC GAMES

- Significance of Olympic Ideals, Olympic Rings, Olympic Flag
- Olympic Protocol for member countries
- Olympic Code of Ethics
- Olympism in action
- Sports for All
- International Olympic Committee Structure and Functions
- National Olympic committees and their role in the Olympic movement
- Olympic commission and their functions
- Olympic medal winners of India

- 1. Adams, William. C (1991)- Foundation of Physical Education Exercises and Sports Sciences, Lea and Febigor, Philadelphia.
- 2. Bhatia, K.K. & Narang, C.L. (1984)- Philosophical & Sociological Bases of Education, Prakash Bros., Ludhiana.
- 3. Bucher, C. A. (1975). Foundations of physical Education. Mosby.
- 4. Burbank, J. M., Andranovich, G. D. & Heying Boulder, C. H. (2001). Olympic dreams: the impact of mega-events on local politics: Lynne Rienner.
- 5. Dash, BN (2003)- Principles of Education, Neelkamal publication, Hyderabad.
- 6. Deshpande, S. H. (2014). Physical Education in Ancient India. Amravati: Degree college of Physical Education.
- 7. Dr. Kamlesh ML (2004)- Principles and History of Physical Education and Sports, Friends Publication (India) New Delhi.
- 8. Grasso, J., Mallon, B., & Heijmans, J. (2015). Historical dictionary of the Olympic movement. Rowman & Littlefield.
- 9. Hassan, D., & Mitra, S. (Eds.). (2016). The Olympic Games: Meeting New Global Challenges. Routledge.
- 10. Kamlesh, ML (2002)- Sociological Foundation of Physical Education, Metropolitan Book co.Pvt.Ltd., Delhi.
- 11. Majumdar, B., & Mehta, N. (2009). India and the Olympics. Routledge.
- 12. Osborne, M. P. (2004). Magictree house fact tracker: ancient Greece and the Olympics: a nonfiction companion to magic tree house: hour of the Olympics. New York: Random House Books for Young Readers.
- Pandey, R.S. (1991) Philosophical & Sociological Foundation of Education, Vinod Pustak Mandir, Agra.

BPE-E-102

OFFICIATING AND COACHING

Total Marks: 50 External Marks: 35

Internal Marks: 15

UNIT- I: INTRODUCTION TO OFFICIATING AND COACHING

- Concept of officiating and coaching
- Importance and principles of officiating
- Relation of official and coach with management, players, and spectators
- Measures for improving the standards of officiating and coaching
- Duties of officials in general, pre, during, and post-game.
- Philosophy of officiating
- Mechanics of officiating position, singles, movement, etc.
- Ethics of officiating

UNIT- II: COACH AS A MENTOR

- Duties of a 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
- · Qualities and qualifications 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

- 1. Brar. T. S. (2002). Officiating techniques in Track and Field, Gwalior. Bhargava Press.
- 2. Bunn, J. W. (1968). The art of officiating sports. Englewood cliffs N.J. Prentice
- 3. Butler, R. J. (2020). Sports psychology in action. CRC Press.
- 4. Davis, K. L. (1996). The art of sports officiating. Allyn and Bacon.
- 5. De Souza A. J. (1999). Track Geography and Field Sites. Chennai. DBAC Sports Envisions.
- 6. Dyson, G. H. (1963). The mechanics of Athletics. London: University of London Press Ltd. Lawther, JD (1965).
- 7. Englewood cliffs N. J. Prentice Hall. Dyson, G. H. (1963). The mechanics of athletics. London: University of London Press Ltd.
- 8. Hall. Bunn, J. W. (1972). Scientific principles of coaching.
- Law, H. (2013). The psychology of coaching, mentoring and learning. John Wiley & Sons.
- 10. Mortensen, J. and Cooper J. M. (1963). Track & Field for coach & athlete,. Prentice Hall Inc., Englewood Cliffs.
- 11. Psychology of coaching. New York: Pre. Hall.
- 12. Singer, R. N. (1972). Coaching, athletic & psychology. New York: M.C. Graw Hill.

Part II: Practical Course (Teaching, Proficiency, and Prowess)

Teaching, Prowess, and Proficiency in Athletics-I

Total Marks: 100 External Marks: 70

Internal Marks: 30

Objectives:

- ✓ To develop an understanding of the basic skill of running events.
- ✓ To teach the scientific aspects of the different techniques used in running events.
- ✓ To highlight the importance of different conditional abilities in performance development.

Outcomes:

- ✓ After completion of the course, the student shall be able to understand the basic skill of running events.
- ✓ He would be able to teach the scientific aspects of the different techniques used in running events.
- ✓ Students shall also be able to highlight the importance of different conditional abilities in performance development.

Running Event:

- Starting techniques: Standing start, Crouch start and its variations, Proper use of blocks.
- Finishing Techniques: Run, Through, Forward lunging, Shoulder Shrug
- Ground Marking
- Rules and Officiating

Hurdles:

- Fundamental Skills- Starting, Clearance, and Landing Techniques.
- Types of Hurdles.
- Ground Marking and Officiating.

Relays: Fundamental Skills:

- Various patterns of Baton Exchange
- Understanding of Relay Zones
- Ground Marking
- Interpretation of Rules and Officiating

Teaching, Prowess, and Proficiency in Games-I

Total Marks: 100 External Marks: 70

Internal Marks: 30

Objectives:

✓ To develop an understanding of the basic skill of Gymnastics, Kabaddi, Volleyball, and Football

- ✓ To teach the scientific aspects of the different techniques used in these games.
- ✓ To highlight the importance of different conditional abilities in performance development.

Outcomes:

- ✓ After completion of the course, the student shall be able to understand the basic skill of Gymnastics, Kabaddi, Volleyball, and Football
- ✓ The students would be able to teach the scientific aspects of the different techniques used in these games.
- ✓ Students shall also be able to highlight the importance of different conditional abilities in performance development.

Gymnastics

- Forward Roll
- Backward Roll
- Sideward Roll (with stretched body or in truck position)
- Drive roll
- Hand Stand (hand Stands with forwarding roll).
- Front scale
- Back scale
- Side scale
- Frog stand
- Front limber
- Leg Side Splits
- Leg Front Splits
- Bridge
- Jumps-leap
- Scissors leap
- Vaulting Horse
- Approach Run
- Take off from the beat board
- Cat Vault
- Squat Vault

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KABADDI

- Introduction of the Kabaddi (history: Indian & foreign)
- Fundamental skills and techniques of Kabaddi
- Rules and regulations of Kabaddi with their interpretation.
- General and specific warming up and cooling down (specific exercises for Kabaddi)
- Drills for skill development
- Organization of the Game
- Ground Making/Designing.
- Famous players of the game
- Indian achievement of the game.

Volleyball:

- Introduction to Volleyball (history: Indian & foreign)
- Fundamental skills and techniques of Volleyball
- Rules and regulations of Volleyball with their interpretation.
- General and specific warming up and cooling down (specific exercises for Volleyball)
- Drills for skill development
- Organization of the Game
- Ground Making/Designing.
- Famous players of the game
- Indian achievement of the game.

Football:

- Introduction to Football (history: Indian & foreign)
- Fundamental skills and techniques of Football
- Rules and regulations of Football with their interpretation.
- General and specific warming up and cooling down (specific exercises for Football).
- Drills for skill development
- Organization of the Game
- Ground Making/Designing.
- Famous players of the game
- Indian achievement of the game.

Teaching Practices:

Objectives:

- To induce the science and art of teaching in students
- To provide hands-on experience related to cognitive and motor teaching
- Each student teacher is expected to take at least five lessons during the current semester.

- ➤ The lessons will be supervised by the faculty members and experts who would discuss the merits and demerits of the concerned lesson and guide them for the future. In these lessons, the duration should slowly increase and all the parts of the lesson covered progressively.
- ➤ Both the parts of the practical has to be covered.

Outcomes:

After completion of the course, the student shall be able to enhance knowledge and efficiency in teaching lessons of both practical as well as theoretical classes.

SEMESTER-II

	PART-I: THEORY PAPERS							
Paper	Course Code	Title of the Papers	Credit	Internal Marks	External Marks	Total Marks		
	•	Core	Course			·		
I.	BPE-C-201	Yoga Education	4	30	70	100		
II.	BPE-C-202	Health Education and Environmental Studies	4	30	70	100		
III.	BPE-C-203	Organization and Administration in Physical Education	4	30	70	100		
		Elective Cou	rse (Any One)				
IV.	BPE-E-201 BPE-E-202	Contemporary issues in Physical Education, Fitness, and Wellness Sports Nutrition	2	15	35	50		
	PART-II:	PRACTICAL COURSE (SK	ILL AND P	ROWESS)				
V	BPE-P-201	Teaching, Prowess, and Proficiency in Mass demonstration	4	30	70	100		
VI	BPE-P-202	Teaching, Prowess, and Proficiency in Games - II	4	30	70	100		

Total Credit=22

Note for Paper Setter:

The paper setter shall set 04 (four) questions (Medium type) for section A, 01 (one) question from each unit with alternate choice carrying 3.5 marks each.

Section B shall consist of 04 (long answer type) with internal choice.01 (one) question from each unit carrying 14 marks each.

Instructions for Candidates:

The candidate shall have to attempt 04 (four) questions from section 'A' answering about (200-250) words, and 4(four) questions from section 'B' answering about (300-350) words.

BPE-C-201

YOGA EDUCATION

Total Marks: 100 External Marks: 70

Internal Marks: 30

UNIT I: INTRODUCTION

- Meaning and Definition of Yoga
- Aims and Objectives of Yoga
- Yoga in Early Upanisads
- The Yoga Sutra: General Consideration
- Need and Importance of Yoga in Physical Education and Sports
- Historical Background of Yoga
- Difference between Yogic Practices and Physical Exercises

UNIT II: FOUNDATION OF YOGA

- The Astanga Yoga: Yama, Niyama, Asana, Pranayama, Pratyahara, Dharana, Dhyana andSamadhi
- Yoga in the Bhagavadgita Karma Yoga, Raja Yoga, Jnana Yoga and Bhakti Yoga
- · Relationship of Yoga with different systems
- Skeletal Sys tem
- Cardiovascular System
- Nervous System
- Endocrine System

UNIT - III ASANAS

- Effect of Asanas and Pranayama on various systems of the body
- Classification of asanas with special reference to physical Education and sports
- Influences of relaxative, meditative posture on various systems of the body
- Types of Bandhas and mudras
- Type of kriyas
- Types of Pranayama
- Physical, Mental, and Spiritual effects of Pranayama.

• Safety measures and precautions of Pranayama

UNIT IV YOGA EDUCATION

- Basic, applied, and action research in Yoga
- Difference between yogic practices and physical exercises
- Yoga education centers in India and abroad
- Competitions in Yogasanas

- 1. Amreshkumar (2007), Encyclopedia of yoga. Khel Sahltya KendraYadav and Rachna Yadav (2003) Art of Yoga, Friend publications.
- 2. Brown, F.Y.(2000). How to use yoga, Delhi: Sports Publication.
- 3. Dayanidy, D. & Dayanidy, R. (Not Given) Principles and Methods of Yogic Practices.
- 4. Devananda, S. V. (2011). The complete illustrated book of yoga. Harmony.
- 5. Gharote, M. L. & Ganguly, H.(1988). *Teaching methods for yogic practices*. Lonawala: Kaixydahmoe.
- 6. Gharote, M. M., Devnath, P., & Jha, V. K. (2008). Traditional Theory of Evolution and its Application in Yoga. Lonavla Yoga Institute (India).
- 7. Gharote, M., Jha, V. K., & Devnath, P. (2010). Therapeutic References in Traditional Yoga Texts. Lonavla. Manmath M. Gharote.
- 8. Helen Purperhart (2004), The Yoga Adventure for Children. Netherlands: A Hunter House book.
- 9. Hewitt, J. (2012). The complete yoga book: the yoga of breathing, posture and meditation. Random House.
- 10. Iyengar, B. K. S. (1965). Light on yoga: the definitive guide to yoga practice.
- 11. Iyengar, B. K. S. (1981). Light on pranayama: the yogic art of breathing (p. 294). Crossroad.
- 12. Iyengar, B. K. S. (2007). BKS Iyengar yoga: The path to holistic health. penguin.
- 13. Iyengar, B.K.S.(2000), Light on Yoga. New Delhi: Harper Collins Publishers.
- 14. Jha, V. K., Devnath, P., & Sakhalkar, S. B. (2006). Encyclopaedia of Traditional Asanas. Lonavla Yoga Institute.
- 15. Moorthy AM. & Alagesan.S. (2004) Yoga Therapy. Coimbatore: Teachers Publication House.

- 16. Rajjan, S. M. (1985). *Yoga strengthening of relaxation for sports man*. New Delhi: Allied Publishers.
- 17. Shankar, G.(1998). Holistic ap proach of yoga. New Delh i : Aditya Publishers.
- 18. Shekar, K. C., (2003). Yoga for Health. Delhi: Khel Sahitya Kendra.
- 19. Swami Kuvalayanda. (1998), Asanas. Lonavala: Kaivalyadhama.

BPE-C-202

HEALTH EDUCATION AND ENVIRONMENT STUDIES

Total Marks: 100 External Marks: 70

Internal Marks: 30

Unit I Health Education

- Concept, Dimensions, Spectrum, and Determinants of Health
- Definition of Health, Health Education, Health Instruction, Health Supervision
- Aim, objective, and Principles of Health Education
- Health Service and guidance instruction in personal hygiene

Unit II Health Problems in India

- Communicable and Non-Communicable Diseases
- Obesity, Malnutrition, Adulteration in food, Environmental sanitation, Explosive Population,
- Personal and Environmental Hygiene for schools
- The objective of school health service, role of health education in schools
- Health Services Care of skin, Nails, Eye health service, Nutritional service, Health appraisal, Health record, Healthful school environment, first- aid and emergency care etc.
- Personal and Environmental Hygiene for schools

Unit III Environmental Science

- Definition, Scope, Need and Importance of environmental studies.
- Concept of environmental Education, Historical background of environmental Education,
- Celebration of various days in relation with environment.
- Plastic recycling & probation of plastic bag / cover.
- Role of school in environmental conservation and sustainable development.

Unit IV Natural Resources and related environmental issues:

- Water resources, food resources, and Land resources
- Environmental pollution
- •Definition, effects, and control measures of Air Pollution, Water Pollution, Soil Pollution,
- Noise Pollution, Thermal Pollution
- •Management of environment and Govt. policies, Role of pollution control board.

- 1. Agrawal, K.C. (2001). Environmental biology. Bikaner: Nidhi publishers Ltd.
- 2. Anspaugh, D.J. and Ezell, G. (2003). Teaching today's health. USA: Allyn & Bacon.
- 3. Bensley, R J. and Fisher, J.B (2009). Community Health Education
- 4. Beotra, Alka (2001). Drug Education Handbook on Drug Abuse in Sports. Mumbai: Applied Nutrition Sciences.
- 5. Edward, J.T.(2006). Health and Disease, New Delhi: Sports Publication.
- 6. Frank, H. &Walter, H. (1976). *Turners school health education*. Saint Louis: The C.V. Mosby Company.
- 7. Glanz, K., Rimer, B. K., & Viswanath, K. (Eds.). (2008). Health behavior and health education: theory, research, and practice. John Wiley & Sons.
- 8. Jjemba, P. K. (2004). Environmental Microbiology. Principles and Applications. Enfield New Hampshire: Science Publishers Inc.
- 9. McKenzie, J.F. and Smeltzer, J.L (2001). Planning, Implementing, and Evaluating Health Promotion Programs: A Primer, USA: Allyn & Bacon.
- 10. Methods. Massachusetts: Jones and Bartlett Publishers.
- 11. Odum, E.P. (1971). Fundamental of ecology. USA: W.B. Saunders Co.
- 12. Pande, P. K. (1987). Outline of Sports Medicine, New Delhi : Jaypee Brothers.
- 13. Roy, Steven and Richard, Irvin (1983). Sports Medicine, NJ: Englewood Cliff.
- 14. Sharma, N.P.(2005). Sharir Rachna Tatha Sharir Kriya Vigyan . New Delhi : Khel Sahitya Kendra.

BPE-C-203

Organization and Administration in Physical Education

Total Marks: 100 External Marks: 70

Internal Marks: 30

UNIT I: ORGANIZATION AND ADMINISTRATION

- Meaning, Definition, and importance of Organization and Administration in Physical Education.
- Planning and their basic principles
- Program planning: Meaning, Importance, Principles of program planning in Physical Education.
- Qualification and Responsibilities of Physical Education teacher
- Importance of Pupil leader in Physical Education

UNIT II: 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, and Medical examination Record.
- Budget: Meaning, Importance of Budget making,
- Criteria of a good Budget, Sources of Income, Expenditure, Preparation of Budget.

UNIT III: FACILITIES & TIME-TABLE MANAGEMENT

- Facilities and equipment management: Types of facilities; Infrastructure-indoor, outdoor.
- Playfields: Area, Location, layout, and care
- Equipment: Need, importance, purchase, care, and maintenance.
- Time Table Management: Meaning, Need, Importance and Factor affecting time table.

UNIT IV: COMPETITION ORGANIZATION

- Tournament and its importance.
- Types of Tournament and its organization structure Knock-out Tournaments, League or Round Robin Tournaments, Combination Tournament, consolation tournaments and challenge Tournament.
- Organization structure of Athletic Meet.
- Sports Event Intramurals & Extramural Tournament planning.

- 1. Broyles, F.J. & Rober, H.D. (1979). Administration of sports, Athletic programme: A Managerial Approach. New York: Prentice hall Inc.
- 2. Bucher, C. A. (1985). *Administration of Physical Education and Athletic programme*.St. Lolis: The C.V. Hosby Co.
- 3. Horine, L., & Stotlar, D. (2013). Administration of physical Education and sport programs. Waveland Press.
- 4. Horine, L., & Stotlar, D. (2013). Administration of physical Education and sport programs. Waveland Press.
- 5. ML Kamlesh and M.S. Sangral (1986). Methods in Physical Education, Prakash Brothers, 516,Book Market Ludhiana.
- 6. Pandy, L.K.(1977). Methods in Physical Education. Delhi: Metro politan Book Depo.
- 7. Rink, J. (2010). Teaching physical Education for learning (pp. 350-370). Boston, MA: McGraw-Hill Higher Education.
- 8. Sharma, V.M. & Tiwari, R.H. (1979). Teaching Methods in Physical Education. Amaravati: Shakti Publication.
- 9. Singh, D. (2021). Sports Management and Curriculum Design in Physical Education. Friends Publications (India).
- 10. Thomas, J. P. (1967). Organization & administration of Physical Education. Madras: Gyanodayal Press.
- 11. Tirunarayan and Hariharan (1985). Methods in Physical Education MS CT & S. H. Allagappa College of Physical Education, Karaikuddi U.
- 12. Voltmer, E. F. (1979). The organization and administration of physical Education.
- 13. Voltmer, E.F.& Esslinger, A.A. (1979). The organization and administration of Physical Education. New York: Prentice Hall In

BPE-E-201

CONTEMPORARY ISSUES IN PHYSICAL EDUCATION, FITNESS, AND WELLNESS

Total Marks: 50 External Marks: 35

Internal Marks: 15

UNIT I CONCEPT OF PHYSICAL EDUCATION AND FITNESS

- · Definition, Aims, and Objectives of Physical 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.
- 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 Repetition, etc.
- Concept of designing a different fitness training program for the different age groups.

UNIT II FITNESS, WELLNESS, AND LIFESTYLE

- Fitness Types of Fitness and Components of Fitness
- Understanding of Wellness
- Modern Lifestyle and Hypokinetic Diseases Prevention and Management
- Physical Activity and Health Benefits
- Calculation of fitness index level 1-4.
- Waist-hip ratio, larger heart rate, BMI, and types and principles of exercise (FITT).
- Health and Safety in Daily Life

- 1. Bud, G. (1992) Physical Fitness. A Way of Life. USA: Macmillan Publishing co.
- 2. Carbin, C. B., L. Ruth & G. Welk, (2000) Concepts of Physical Fitness. USA: WC Brown. Congress Cataloging-in-publication data.
- 3. Daryl, S. (1994) Introduction to Physical Education, Fitness and Sport USA: Mayfield Publishing Co;
- 4. Diffore, J. (1998). Complete guide to postnatal fitness. London: A & C Black.
- 5. Giam, C. K & K. C. The, (1994) Sport medicine exercise and fitness. Singapore: P. G. Medical Book
- 6. Greenberg, J. S., Dintiman, G. B., & Oakes, B. M. (2004). Physical fitness and wellness: Changing the way you look, feel, and perform. Human Kinetics.

- 7. Halfield, F. C. (2001) Fitness: The Complete Guide USA: International Sports Science Association.
- 8. Hoeger, W. K., & S. A. Hoeger, (1999) Principles and Labs for Fitness and Wellness. USA: Engle wood Morton.
- 9. Hoeger, W. W., Hoeger, S. A., Hoeger, C. I., & Fawson, A. L. (2018). Lifetime physical fitness and wellness. Cengage Learning.
- 10. J. S., G. B., Dintiman, & B. M. Oakes (1998) Physical Fitness and Wellness. USA: Library of
- 11. Jackson, A. L., J. R. Morrow, (2004) Physical activity for health & fitness. I L: Human kinetics.
- 12. Lancaster S. & R. Teodoressu, (2008) Athletic Fitness for Kids. USA: Human Kinetics.
- 13. Maud, J. R., & Foster, C. (1995) Physiology Assessment of Human Fitness. New Delhi:
- 14. McConnell, K. (2014). Fitness and wellness education. Standards-based physical education curriculum development, 365.
- 15. Mcglynn, G., (1993) Dynamics of fitness. Madison: W. C. B Brown.
- 16. Muller, J. P. (2000) Health, Exercise and Fitness. Delhi: Sports.
- 17. Russell, R. P.(1994) Health and Fitness through Physical Education. USA: Human Kinetics.
- 18. Sharkey, B. J.(1990) Physiology of fitness. Human Kinetics Book.
- 19. Uppal, A. K. (1992) Physical Fitness. New Delhi: Friends Publication.
- 20. Werner, W. K. (1986) Lifetime Physical Fitness and Wellness. USA: Morton Publishing Co.

BPE-E-202

Sports Nutrition

Total Marks: 50 External Marks: 35

Internal Marks: 15

UNIT I INTRODUCTION TO SPORTS NUTRITION

- Meaning and Definition of Sports Nutrition
- Basic Nutrition guidelines
- Role of Nutrition in sports
- Factors to consider for developing a nutrition plan
- Basic components of Nutrition
- Balance diet and its components, Nutritional deficiencies.
- Ketogenic diet and its fundamentals.
- Understanding of malnutrition and nutritional supplements.
- Concept of BMI (Body mass index), Obesity and its hazard, Myth of Spot reduction, Dieting versus exercise for weight control, Common Myths about Weight Loss
- Obesity Definition, meaning and types of obesity,
- Health Risks Associated with Obesity, Obesity Causes and Solutions for Overcoming Obesity.

UNIT II NUTRIENTS: INGESTION TO ENERGY METABOLISM

- Carbohydrates, Protein, Fat Meaning, classification, and its function
- Role of carbohydrates, Fat, and protein during exercise
- Vitamins, Minerals, Water Meaning, classification, and its function
- Role of hydration during exercise, water balance, Nutrition daily caloric requirement, and expenditure.
- Nutrition Daily calorie intake and expenditure, Determination of desirable body weight
- Meaning of weight management Concept of weight management in the modern era Factor affecting weight management and values of weight management
- The physiology of increasing muscle mass
- Gut microbial and its impact on performance and recovery

- Antonio, J., Kalman, D., Stout, J. R., Greenwood, M., Willoughby, D. S., & Haff, G. G. (Eds.). (2009). Essentials of sports nutrition and supplements. Springer Science & Business Media.
- 2. Bates M. (2008). Health Fitness Management (2nd Ed.) USA: Human Kinetics.
- 3. Benardot, D. (2020). Advanced sports nutrition. Human Kinetics Publishers.
- 4. Bessesen, D. H. (2008). Update on obesity. *J ClinEndocrinolMetab.93*(6).
- 5. Butryn, M. L. Phelan, S. &Hill,J.0.(2007). Consistent self-monitoring of weight: a key component of successful weight loss maintenance. Obesity (Silver Spring). 15 (12), 3091-3096.
- 6. Butryn, M.L., Phelan, S., &Hill, J. O. (2007). Consistent self-monitoring of weight: a key component of successful weight loss maintenance. *Obesity(Silver Spring)*. *15*(12).
- 7. Campbell, B. (Ed.). (2013). Sports nutrition: Enhancing athletic performance. CRC Press.
- 8. Chu, S. Y & Kim, L. J (2007).Maternal obesity and risk of stillbirth: a metaanalysis. Am J Obstet Gynecol, 197(3), 223-228
- 9. Chu, S.Y. & Kim, L. J.(2007). Maternal obesity and risk of stillbirth: a metaanalysis. Am J Obstet Gynecol, 197(3).
- 10. De Maria, E.J.(2007).Bariatric surgery for morbid obesity. N Engl J Mect 356 (2I), 2176-2183.
- 11. DeMaria, E. J. (2007). Bariatric surgery for morbid obesity. N Engl J Med,356(21).
- 12. Dixon, J.B., & O'Brien, P.E., Playfair, J. (2006). Adjustable gastric banding and conventional therapy for type 2 diabetes: a randomized.
- 13. Dixon, J.B., O'Brien, P.E., Playfair,1.(n.d.). Adjustable gastric banding and conventional therapy for type 2 diabetes: a randomized controlled trial. JAMA. 299(3), 316-323.
- 14. Fink, H. H, Burgoon, L.A & Mikesky. A. E. (2006). Practical Applications in Sports Nutrition. Canada: Jones and Bartlett Publishers.

- 15. Lancaster S. & Teodoressu, R.(2008). Athletic Fitness for Kids. USA: Human Kinetics.
- 16. Martin Estwood (2005)-Principle of human Nutrition, Atlantic publication, New Delhi.
- 17. Michael J. (2002)-Human Nutrition, Atlantic publication, New Delhi.

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PART-II: PRACTICAL COURSE (SKILL AND PROWESS)

Teaching, Prowess, and Proficiency in Mass demonstration

Total Marks: 100 External Marks: 70

Internal Marks: 30

Objectives:

✓ To develop skillful, creative mastery in a mass demonstration context.

✓ To enhance knowledge and understanding of conducting and organizing mass demonstration activities.

Outcomes:

- ✓ After completion of the course, the students would be able to teach skillful, creative mastery in a mass demonstration context.
- ✓ Students shall also be able to gain knowledge and understanding of conducting and organizing mass demonstration activities as an aesthetic experience.

Introduction

- Introduction of the Mass Demonstration Activity.
- Aim and Objective of Mass Demonstration Activity.
- Advantages and Disadvantages of Mass Demonstration.

Freehand Exercise

- General warming-up activities.
- Commands: verbal command, drum, whistle, and music (Two counts, Four counts, Eight counts, and sixteen counts.)
- Various numbers of Exercises (Standing, Jumping, and Moving exercises).
- Combination Exercises.

Dumbells/ Wands/ Hoop/ Umbrella/ Tipri

- Grip with Light apparatus.
- Attention and Stand at ease with light apparatus.
- Various number of Exercises.
- Combining Exercise.

Organization of the Activity/Game

- Ground Making/Designing.
- Organization and Conducting the Mass Demonstration.

Suggested Readings:

- 1. Johnson, B. L., Chinese Wand Exercise. 1977
- 2. Kalym, A. (2014). Complete Calisthenics. The ultimate guide to bodyweight exercises.
- 3. Kleinman, I., Complete physical education plans for grades 5 to 12.
- 4. Shaw D., Lesson Planning- Teaching Methods and Class Management in Physical

Education, 2010.

5. Sekot, A. (2013). Physical activities as a part of leisure in Czech society...

TITLE: Yoga

Objectives:

- ✓ The purpose of this course is to create awareness among everyone that Yoga helps transform the body and mind and promotes the well-being of society.
- ✓ To teach pedagogy related to basic yogic practices at the school level.
- ✓ To teach knowledge, skills, techniques, and proficiency in Asanas, Kriyas, Pranayams, and Kapalbhati for teaching Yoga.

Outcomes:

✓ After completing the course, the student shall be able to understand the fundamental skills and techniques in Asanas, Kriyas, Pranayams, and Kapalbhati for teaching Yoga.

Breathing Awareness, Abdominal Breathing, Full Yogic Breath, Anuloma Viloma (Alternate Nostril Breathing), Kapalabhati (shining skull or fierce breath).

Surya Namaskara, Practicing techniques of twelve Surya Namaskara poses. Benefits and precautions of Surya Namaskara.

Asanas

Practicing techniques, precautions, and benefits of following asanas-

- Sitting -Padmasana (Baddha tied lotus), Vajrasana (Thunderbolt pose)
- Standing- Vrikshasana (Tree pose), Parvatasana (Mountain pose)
- Laying Prone Position- Shavasana (Corpse pose), Tadagasana (Pond pose)
- Laying Spine Position- Navkasana (Boat Pose), Chakrasana (Bridge Pose)

Bandhas

Practicing techniques, benefits, and precautions of-

Mula Bandha, Uddiyana Bandha, Jalandhara Bandha

Teaching Yoga-

 Instruction, Content preparation, Theming, Classroom Organization, Demonstration, Health Concerns, Language, Posture Modification, Observation, Sequencing Fundamentals, and Creating Intention.

Teaching, Prowess, and Proficiency in Games – II

Total Marks: 100 External Marks: 70

Internal Marks: 30

Objectives:

To develop an understanding of the basic skill of Badminton, Table Tennis, Tennis, and Rock climbing and mountaineering

- ✓ To teach the scientific aspects of the different techniques used in these games.
- ✓ To highlight the importance of different conditional abilities in performance development.

Outcomes:

- ✓ After completion of the course, the student shall be able to understand the basic skill of Badminton, Table Tennis, Tennis and Rock climbing and mountaineering
- ✓ The students would be able to teach the scientific aspects of the different techniques used in these games.
- ✓ Students shall also be able to highlight the importance of different conditional abilities in performance development.

Badminton

- Introduction to Badminton (history: Indian & foreign)
- Fundamental skills and techniques of Badminton
- Rules and regulations of Badminton with their interpretation.
- General and specific warming up and cooling down (specific exercises for Badminton)
- Drills for skill development
- Organization of the Game
- Ground Making/Designing.
- Famous players of the game
- Indian achievement of the game.

Table Tennis

- Introduction to Table Tennis (history: Indian & foreign)
- Fundamental skills and techniques of Table Tennis
- Rules and regulations of Table Tennis with their interpretation.
- General and specific warming up and cooling down (specific exercises for Table Tennis)

- Drills for skill development
- Organization of the Game
- · Ground Making/Designing.
- Famous players of the game
- Indian achievement of the game.

Tennis

- Introduction to Tennis (history: Indian & foreign)
- Fundamental skills and techniques of Tennis
- Rules and regulations of Tennis with their interpretation.
- General and specific warming up and cooling down (specific exercises for Tennis)
- Drills for skill development
- Organization of the Game
- Ground Making/Designing.
- Famous players of the game
- Indian achievement of the game.

Rock climbing and mountaineering

- Introduction to Rock climbing and mountaineering (history: Indian & foreign)
- Fundamental skills and techniques of Rock climbing and mountaineering
- Rules and regulations of Rock climbing and mountaineering with their interpretation.
- General and specific warming up and cooling down (specific exercises for Rock climbing and mountaineering)
- Drills for skill development
- camping
- Famous players of the game
- Indian achievement of the game.

Teaching Practices:

Objectives:

- To induce the science and art of teaching in students
- To provide the hands on experience related to cognitive and motor teaching
- Each student teacher is expected to take at least five lessons during the course of the current semester.
- The lessons will be supervised by the faculty members and experts who would discuss the merits and demerits of the concerned lesson and guide them for the future. In these lessons, the duration

- should slowly increase and all the parts of the lesson covered progressively.
- ➤ Both the parts of the practical has to be covered.

Outcomes:

After completion of the course, the student shall be able to enhance knowledge and efficiency in teaching lessons of both practical as well as theoretical classes.

SEMESTER-III

	PART-I: THEORY PAPERS							
Paper	Cours e Code	Title of the Papers	Credit	Internal Marks	Extern al Marks	Total Marks		
		Core	Course					
I.	BPE-C- 301	Computer Application in Physical Education	4	30	70	100		
II.	BPE-C- 302	Educational & Sports Psychology	4	30	70	100		
III.	BPE-C- 303	Sports Training	4	30	70	100		
		Elective Cou	ırse (Any	One)				
IV.	BPE-E- 301	Athletic Care & Rehabilitation	2	15	35	50		
	BPE-E- 302	Curriculum Design						
PART-II: PRACTICAL COURSE (SKILL AND PROWESS)								
V	BPE-P- 301	Prowess and Proficiency in Athletics - II	4	30	70	100		

VI		Prowess and Proficiency	4	30	70	100
• •	302	in Games - III				

Total Credit:22

Note for Paper Setter:

The paper setter shall set 04 (four) questions (Medium type) for section A, 01 (one) question from each unit with alternate choice carrying 12 marks each.

Section B shall consist of 04 (long answer type).01 (one) question from each unit carrying 16 marks each.

Instructions for Candidates: The candidate shall have to attempt 04 (four) questions from section 'A' answering about (200-250) words and 02 (two) questions from section 'B' answering about (300-350) words.

BPE-C-301

COMPUTER APPLICATION IN PHYSICAL EDUCATION

Total Marks: 100 External Marks: 70

Internal Marks: 30

UNIT I: INTRODUCTION TO COMPUTER

- Meaning, need, and importance of information and communication technology (ICT) in Physical Education.
- Application of Computers in Physical Education
- Components of computer, input, and output device
- Introduction to Software applications supporting Olympic Games:
 - Results Systems
 - Information Diffusion Systems, and
 - Games Management Systems.
- Introduction to SAP HANA Cloud Platform, SAP Lumira, and DRS software used in Cricket.

UNIT II: MS WORD

- Introduction to MS Word
- Creating, saving and opening a document
- Formatting Editing features Drawing table
- Page setup, paragraph alignment, spelling and grammar check printing option, insertingpage number, graph, footnote and notes

UNIT III: MS EXCEL

- Introduction to MS Excel
- · Creating, saving, and opening a spreadsheet
- Creating formulas
- Format and editing feature adjusting columns width and row height understanding charts.

UNIT IV: MS POWER POINT

- Introduction to MS Power Point
- Creating, saving and opening a ppt. file
- Format and editing features slide show, design, inserting slide number
- Picture, graph, table
- Preparation of Power point presentations

- 1. Barrett, R. (2007). Administrator's Guide to Microsoft Office 2007 servers.
- 2. Eric, L. Einspruch (2005). AN Introductory Guide to SPSS for Windows, Sage.
- 3. Foulkes, L. (2020). Learn Microsoft Office 2019: A Comprehensive Guide to Getting Started with Word, PowerPoint, Excel, Access, and Outlook. Packt Publishing Ltd.
- 4. Irtegov, D.(2004). Operating system fundamentals. Firewall Media.
- 5. Kegg, D., Guilmette, A., Mandich, L., & Fisher, E. (2017). Microsoft Office 365 Administration Inside Out (Includes Current Book Service). Microsoft Press.
- 6. Kilman, Shin (1995). SPSS GUIDE Mc Graw Hill Higher Education.
- 7. Milke, M. (2007). Absolute beginners guide to computer basics. Pearson Education Asia.
- 8. Murray, K. (2007). Faster smarter Microsoft office XP: Take charge of your Microsoft office programme.
- 9. Sanders Donald H. Computers Today. New York: McGraw Hill Book Co., 1988
- 10. Sinha ,P.K. computer fundamentals; Concepts Systems and Applications. New Delhi: BPB publications.
- 11. Timothy, J.O. and Leavy Linda Microsoft Office. New York: McGraw Hill Book Co. 2000
- 12. Underdahl, Brian & Underdahl. Internet with Web page/ Web site Design Bible, Keith. New Delhi: IDG Books India (P) Ltd. 2000

BPE-C-302

EDUCATIONAL & SPORTS PSYCHOLOGY

Total Marks: 100 External Marks: 70

Internal Marks: 30

UNIT -I: INTRODUCTION

Meaning Definition and nature of Psychology and Educational

- Psychology, Psychology as a Science, Schools of Psychology, and Importance of
- Psychology in Education with special reference to Physical Education.
- Mind: The concept of mind-Cognition, Affection, Conation. Characteristics of mind: Conscious, Unconscious, Subconscious, Super Conscious, Stages of mind
- Psychological factors affecting s ports performances.

UNIT-II: SPORTS PSYCHOLOGY

- Growth and Development: Meaning of growth and development;
- Physical, Mental, Social and Language development during following stages:
- Early childhood, Middle childhood, Late childhood, Adolescence.
- Development of Psycho motor skills, Neuro-biology of skill acquisition
- General characteristics of Various Stages of growth and development
- Types and nature of individual differences; Factors responsible -Heredity And environment
- Psycho-sociological aspects of Human behavior in relation to physical Education and sports

UNIT-II: Learning, Personality and Motivation in Sports

- Nature of learning, theories of learning, Laws of learning,
- Plateau in Learning; & transfer of training
- · Meaning and Definition of personality, characteristics of personality,
- Dimension of personality, Personality and Sports performance
- Nature of motivation: Factors influencing motivation; Motivation and techniques and itsimpact on sports performance.

UNIT-III PSYCHOLOGICAL SKILLS TRAINING

- Mental Preparation Strategies: Attention focus, Self-talk, Relaxation, Imaginary.
- Aggression and Sports, Meaning and nature of anxiety, Kinds of anxiety

 Meaning and nature of stress; Types of stress, Anxiety, Stress, Arousal and their effects onsports performance

References:

- 1. Alison and Robinson. (2018),Excelling in Sport Psychology: Planning, Preparing, and Executing Applied Work, Sean Fitzpatrick
- 2. Coumbe Lilley, (2018), Complex Cases in Sport Psychology, Routledge
- 3. Cox, R. H., & Cox, R. H. (2002). Sport psychology: Concepts and applications.
- 4. Jarvis, M. (2006). Sport psychology: A student's handbook. Routledge.
- 5. Kamlesh. M.L.(1998). Psychology in physical Education and s port. New Delhi: Metropolitan Book Co.
- 6. Mangal, S. K. (2002). Advanced educational psychology. PHI Learning Pvt. Ltd..
- 7. Mangal, S. K. (2002). Statistics in psycholohy and Education. PHI Learning Pvt. Ltd..
- 8. Mangal, S. K. (2007). Essentials of educational psychology. PHI Learning Pvt. Ltd..
- 9. Mangal, S. K., & Mangal, U. (2019). Essentials of educational technology. PHI Learning Pvt. Ltd..
- 10. Skinnner, C.E., (1984.). Education psychology. New Delhi; Prentice Hall of India
- 11. Taylor, Jim, (2018), Assessment in Applied Sport Psychology, Human kinetics
- 12. Weinberg, R. S., & Gould, D. (2019). Foundations of sport and exercise psychology, 7E. Human kinetics.

BPE-C-303

SCIENCE OF SPORTS TRAINING

Total Marks: 100 External Marks: 70

Internal Marks: 30

UNIT I INTRODUCTION TO SPORTS TRAINING

Meaning and Definition of Sports Training o Aim and Objective of Sports Training

- Principles of Sports Training
- System of Sports Training Basic Performance, Good Performance, and High-Performance Training
- Characteristics of Sports Training

UNIT II TRAINING COMPONENTS

- Strength Mean, types, and Methods of Strength Development
- Speed Mean and Methods of Speed Development
- Endurance Mean, types, and Methods of Endurance Development
- Coordination Mean and Methods of Coordination Development
- Flexibility Mean, types, and Methods of Flexibility Development

UNIT III TRAINING PROCESS

- Training Load- Definition and Types of Training Load
- Principles of Intensity and Volume of stimulus
- Technical Training Meaning and Methods of Technique Training
- Tactical Training Meaning and Methods of Tactical Training

UNIT IV TRAINING PROGRAMMING AND PLANNING

- Periodization Meaning and types of Periodization
- Aim and Content of Periods Preparatory, Competition, Transitional etc.
- Planning Training session
- Talent Identification and Development

- 1. Babu, N. S. (2018). Sports training. Lulu. com.
- 2. Bompa, T. O., & Carrera, M. (2005). Periodization training for sports (Vol. 3). Champaign: Human Kinetics.
- 3. Bompa, Tudor, O. (1999). Periodisations Training for sports: Human Kinetic (U.S.A).
- 4. Books. Harre, D.(1982). Principles of sports training. Berlin: Speculated.
- 5. Dick, W. F. (1980). Sports training principles. London: Lepus Books.
- 6. Dr. Sharad Chandra Mishra 92006), Sports Training, Sports Publication.
- 7. Harre . Dictrich. (1982). Principles of Sports Training. Beslin : Sportulag.
- 8. Jensen, R. C.& Fisher, A.G. (1979). Scientific basis of athletic conditioning. Philadelphia: Lea and Fibiger, 2nd Edn.
- 9. Mathyew, L.P. (1981). Fundamental of sports training. Moscow: Progress Publishers.
- 10. SchliehMonfred (2003), Circuit Training for all sports, sports book publisher Toronto.
- 11. Singh, Hardyal (1991). Science of Sports Training. D, V, S Publications. New Delhi.
- 12. Uppal, A.K. (1999). Sports Training. New Delhi: Friends Publication.

BPE-E-301

ATHLETIC CARE AND REHABILITATION

Total Marks: 50 External Marks: 35

Internal Marks: 15

UNIT-I: - ATHLETIC CARE

• 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.
- 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, Finger Joints, Hips, Knee, ankle, and Foot joints Trunk. Head and Neck exercises.

UNIT-II: PHYSIOTHERAPY

- Definition Guiding principles of physiotherapy
- Importance of physiotherapy
- Introduction and demonstration of treatments Electrotherapy infrared rays Ultraviolet rays short wave diathermy ultrasonic rays.
- Introduction and demonstration of treatments of Cry therapy, 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.

- 1. Anderson, M. K. (2003). Fundamentals of sports injury management. Lippincott Williams & Wilkins.
- 2. Bedi, Yashpal, Social and Preventive Medicine, New Delhi: Atmaram and Sons, 1985.
- 3. Christine, M. D. (1999). *Physiology of sports and exercise*. USA: Human Kinetics.
- 4. Colson, John H.C. Armorer, William, J. Sports Injuries and their treatment, London, Stainley

- Paul, 1975.
- 5. Conley, M.(2000). *Bioenergetics of exercise training*. In T.R. Baechle, & R.W. Earle, (Eds.), Essentials of Strength Training and Conditioning (pp. 73-90). Champaign, IL: Human Kinetics.
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- 7. France, R. C. (2010). Introduction to Sports Medicine and Athletic Training (Book Only). Cengage Learning.
- 8. Gosh, BN Hygiene and Public Health, Calcutta: Scientific publishing Co.,1989.
- 9. Hunter, M. D.(1979). A *dictionary for physical educators*. In H. M. Borrow & R. McGee, (Eds.), A Practical approach to measurement in Physical Education (pp. 573-74). Philadelphia: Lea &Febiger.
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- 11. Joseph, R.B. Manipulation, Traction and Massage New York, William and Wilkins, 1971.
- 12. Khanna, G.L. (1990). Exercise physiology & sports medicine. Delhi:Lucky Enterprises.
- 13. Pandey, P.K. (1987). Outline of sports medicine, New Delhi: JP Brothers Pub., 1987.
- 14. Reddy, V. S. D. T. O. ATHLETIC CARE & REHABILITATION. Archers & Elevators Publishing House.
- 15. Singh, A. (2021). Athletic Care and Rehabilitation. Friends Publications (India).
- 16. Tucker, W.E. & castle Molley, Sportman and their injuries Pelham Books Ltd. 1978.
- 17. Ward, K. (Ed.). (2015). Routledge handbook of sports therapy, injury assessment and rehabilitation. Routledge.
- 18. Warner, Kuprian, Physical therapy for Sports, Philadelphia W.B. Saunders Co. 1982.

BPE-E-302

CURRICULUM DESIGN

Total Marks: 50 External Marks: 35

Internal Marks: 15

UNIT I MODERN CONCEPT OF THE CURRICULUM

 Need and importance of curriculum, Need, and importance of curriculum development, therole of the teacher in curriculum development.

- Factors affecting curriculum Social factors Personnel qualifications Climaticconsideration Equipment and facilities -Time suitability of hours.
- National and Professional policies, Research finding
- Introduction to curriculum and curriculum design (concept of curriculum and curriculum design, types of curriculum).
- Basic principles of curriculum construction.
- Curriculum Design, Meaning, Importance, and factors affecting curriculum design.
- Principles of Curriculum design according to the needs of the students and state and national level policies.
- Role of Teachers

UNIT II BASIC GUIDELINE FOR CURRICULUM CONSTRUCTION; CONTEST (SELECTION AND EXPANSION).

- Focalization
- Socialization
- Individualization
- Sequence and operation
- Steps in curriculum construction.
- Popular curriculum designs have advantages and limitations: Student or Learner-Centered, Subject-Centered, and Problem-Centered.
- Professional Competencies to be developed-Facilities and special resources for the library, laboratory, and other facilities.

- Anthony Laker (2001) Developing Personal, Social and Moral, Education through Physical Education-A
- 2. Barrow, H. M. (1983). *Man and movement: principles of physical Education*. Philadelphia:Lea and Febiger.
- Bucher, C. A. (1986). Foundation of physical Education: St. Louis: The
 V. Mosby & Company.
- 4. Cassidy, R. (1986). *Curriculum development in physical Education*. New York: Harper & Company.
- Cowell, C.C. & Hazelton, H.W.(1965).Curriculum designs in physical Education. Englewood Cliffs: NJ Developing_ Personal ,_Social_ and_ Mo(BookZZ.org).pdfhttp://dlx.bookzz.org/genesis/628000/f399d36a517l d9b973l5d73554d7c944/_as/ [Anthony_ Laker]_planning and implementation.
- Jacobs, H. H. (1989). Interdisciplinary curriculum: Design and implementation. Association for Supervision and Curriculum Development, 1250 N. Pitt Street, Alexandria, VA 22314.
- 7. Kelly, L. E., Kelly, L., & Melograno, V. (2004). Developing the physical education curriculum: An achievement-based approach. Human kinetics.
- 8. Kirk, D. (2014). Physical education and curriculum study (Routledge Revivals): A critical introduction. Routledge.
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- Lund, J., & Tannehill, D. (2014). Standards-based physical education curriculum development. Jones & Bartlett Publishers.
- 11. Mishra, S. R., & Ghosh, B. (2021). An Introduction to Sports Management and Curriculum Design in Physical Education. The Readers Paradise.

- 12. Singh, D. (2021). Sports Management and Curriculum Design in Physical Education. Friends Publications (India).
- 13. Underwood, G. L. (1983). The physical education curriculum in secondary school: planning and implementation. England: Taylor and Francis Ltd.
- 14. Willgoose, C.E.(1979).Curriculum in physical Education. 3rd Ed. Englewood Cliffs: N.J. Prentice Hall, Inc.

PART-II: PRACTICAL COURSE (SKILL AND PROWESS)

Teaching, Prowess, and Proficiency in Athletics - II

Total Marks: 100 External Marks: 70

Internal Marks: 30

Objectives:

- ✓ To develop an understanding of the basic skill of Jumping Events: High Jump, Long Jump, Triple Jump.
- ✓ To teach the scientific aspects of the different techniques used in these events.
- ✓ To highlight the importance of different conditional abilities in performance development.

Outcomes:

- ✓ After completion of the course, the student shall be able to understand the basic skill of Jumping Events: High Jump, Long Jump, Triple Jump.
- ✓ The students would be able to teach the scientific aspects of the different techniques used in these events.
- ✓ Students shall also be able to highlight the importance of different conditional abilities in performance development.

introduction to Jumping Events

- Classification of Jumping Events in Track & Field
- Basic equipment required & their Measurement for Jumping Events
- Marking Area of Jumping Events and its Measurements
- Rules, Officials Required & Officiating and Scoring in Jumping Events

Basic Skills (Individual performance) Jumping Events (High Jump)

- High Jump (Eastern cut-off)- Approach run, take off, clearance over the Bar and landing.
- (Western roll) Approach run, take off, clearance over the Bar, and landing.
- (Straddle roll) Approach run, take off, clearance over the Bar, and landing.

Basic Skills (Individual performance) Jumping Events (Long Jump)

 Long Jump (Sail Style & Hang Style) – Approach run, take off, flight in the air, and landing

Basic Skills (Individual performance) Jumping Events (Triple Jump)

• Triple Jump – Approach run, take off (Hop, Step, and Jump), flight in the air, and landing.

Teaching, Prowess, and Proficiency in Games - III

Total Marks: 100 External Marks: 70

Internal Marks: 30

Objectives:

- ✓ To develop an understanding of the basic skill of Cricket, Kho-Kho, Martial arts, Aerobics
- ✓ To teach the scientific aspects of the different techniques used in these games.
- ✓ To highlight the importance of different conditional abilities in performance development.

Outcomes:

- ✓ After completion of the course, the student shall be able to understand the basic skill of Cricket, Kho-Kho, Martial arts, Aerobics
- ✓ The students would be able to teach the scientific aspects of the different techniques used in these games.
- ✓ Students shall also be able to highlight the importance of different conditional abilities in performance development.

Cricket

- Introduction to Cricket (history: Indian & foreign)
- Fundamental skills and techniques of Cricket
- Rules and regulations of Cricket with their interpretation.
- General and specific warming up and cooling down (specific exercises for Cricket)
- Drills for skill development
- Organization of the Game
- Ground Making/Designing.
- Famous players of the game
- Indian achievement of the game.

Kho-Kho

- Introduction to Kho-Kho (history: Indian & foreign)
- Fundamental skills and techniques of Kho-Kho
- Rules and regulations of Kho-Kho with their interpretation.
- General and specific warming up and cooling down (specific exercises for Kho-Kho)
- Drills for skill development
- Organization of the Game
- Ground Making/Designing.
- · Famous players of the game
- Indian achievement of the game.

Martial arts

- Fundamental skills of Boxing and judo
- Self-defense
- Officiating
- Rules and regulations

Aerobics

Objectives:

- ✓ To teach each student why it is essential to be physically fit and to allow them to improve their fitness level through daily exercise and activities.
- ✓ To know about various techniques of aerobic and anaerobic exercise and their benefits.
- ✓ To know about flexibility exercise and its role in sports performance.

Outcomes:

✓ The students will know about various aerobic and anaerobic exercise techniques, their benefits, and their role in sports performance.

Aerobics:

- Introduction to the concept of fitness, aerobics, and types of aerobics.
- Music and queuing

- March, Side to side, double side, Grapevine.
- Knee up; Leg curls: Toe touch, Side lunge.
- Scientific principles of exercise.
- Aerobic exercise program design.
- Theory and principles of body conditioning.
- Flexibility, agility, and coordinative abilities.

Teaching Practices:

Objectives:

- To induce the science and art of teaching in students
- To provide the hands on experience related to cognitive and motor teaching
- > Each student teacher is expected to take at least five lessons during the course of the current semester.
- ➤ The lessons will be supervised by the faculty members and experts who would discuss the merits and demerits of the concerned lesson and guide them for the future. In these lessons, the duration should slowly increase and all the parts of the lesson covered progressively.
- ➤ Both the parts of the practical has to be covered.

Outcomes:

After completion of the course, the student shall be able to enhance knowledge and efficiency in teaching lessons of both practical as well as theoretical classes.

Semester-IV

PART-I: THEORY PAPERS						
Paper	Course	Title of the Papers	Credit	Internal	Externa	Total
	Code			Marks	IMarks	Marks
Core Course						
I.	BPE-C-401	Measurement and Evaluation in Physical Education	4	30	70	100
II.	BPE-C-402	Kinesiology and Biomechanics	4	30	70	100
III.	BPE-C-403	Research and Statistics in Physical Education	4	30	70	100
Internship						
IV.	BPE-E-401	Internship	2	15	35	50
PART-II: PRACTICAL COURSE (SKILL AND PROWESS)						
V	BPE-P-401	Prowess and Proficiency in Athletic - III	4	30	70	100
VI	BPE-P-402	Prowess and Proficiency in Games - IV	4	30	70	100

Total Credit:22

Note for Paper Setter:

The paper setter shall set 04 (four) questions (Medium type) for section A, 01 (one) question from each unit with alternate choice carrying 12 marks each.

Section B shall consist of 04 (long answer type).01 (one) question from each unit carrying 16 marks each.

Instructions for Candidates:

The candidate shall have to attempt 04 (four) questions from section 'A' answering about (200-250) words, and 02 (two) questions from section 'B' answering about (300-350) words.

BPE-C-401

MEASUREMENT AND EVALUATION IN PHYSICAL EDUCATION

Total Marks: 100 External Marks: 70

Internal Marks: 30

UNIT-I INTRODUCTION TO TEST & MEASUREMENT & EVALUATION

- Meaning of Test & Measurement & Evaluation in Physical Education
- Need & Importance of Test & Measurement & Evaluation in Physical Education
- Principles of Evaluation

UNIT-II CRITERIA, CLASSIFICATION, AND ADMINISTRATION OF TEST

- Criteria of good Test
- Criteria of tests, scientific authenticity (reliability, objectivity, validity, and availability of norms)
- Type and classification of Test
- Administration of test

UNIT- III PHYSICAL FITNESS TESTS

- AAHPER youth fitness test
- National Physical Fitness Test
- Indiana Motor Fitness Test
- JCR test

UNIT-IV SPORTS SKILL TESTS

- Lockhart and McPherson Table Tennis test
- Johnson basketball test
- McDonald soccer test
- SA.I volleyball test

- 1. Bangsbo, J. (1994). Fitness training in Football: A scientific approach. Bagsvaerd, Denmark.
- 2. Barron, H. M., & Mchee, R. (1997). *A practical approach to measurement in physicalEducation*. Philadelphia: Lea and Febiger.
- 3. Baumgartner, T. A., & Jackson, A. S. (1998). Measurement for evaluation in physical Education and exercise science (No. Ed. 6). WCB/McGraw-Hill. DVS Publications.
- 4. Kansal, D.K. (1996). Test and measurement in sports and physical Education. New Delhi:
- Lacy, A. C., & Williams, S. M. (2018). Measurement and evaluation in physical Education and exercise science. Routledge.
 Mathews, D.K. (1973). Measurement in physical Education, Philadelphia: W.B.Sounders Company.
- **6.** Miller, D. (2013). Measurement by the physical educator why and how. McGraw-Hill Higher Education.
- 7. Pheasant, S.(1996). Body space: anthropometry, ergonomics and design of work. Taylor & Francis, New York.
- 8. Phillips, D. A., &Hornak, J. E. (1979). Measurement and evaluation in physical Education. New York: John Willey and Sons.
- 9. Safrit, M. J., & Wood, T. M. (1995). Introduction to measurement in physical Education and exercise science. William C. Brown.
- **10.** Sodhi, H.S., & Sidhu, L.S. (1984). Physique and selection of sports- a kinanthropometricstudy. Patiala: Punjab Publishing House.
- 11. Tenenbaum, G. E., Eklund, R. C., & Kamata, A. E. (2012). Measurement in sport and exercise psychology. Human Kinetics.

BPE-C-402

KINESIOLOGY AND BIOMECHANICS

Total Marks: 100 External Marks: 70

Internal Marks: 30

UNIT I INTRODUCTION TO KINESIOLOGY AND SPORTS BIOMECHANICS

Meaning and Definition of Kinesiology and Sports Biomechanics

- Importance of Kinesiology and Sports Biomechanics to Physical Education Teachers, Athletes, and Sports Coaches.
- Terminology of Fundamental Movements
- Fundamental concepts of the following terms Axes and Planes, Centre of Gravity, Equilibrium, Line of Gravity

UNIT II FUNDAMENTAL CONCEPT OF ANATOMY AND PHYSIOLOGY

- Classification of Joints and Muscles
- Types of Muscle Contractions
- Posture Meaning, Types, and Importance of good posture.
- Fundamental concepts of the following terms- Angle of Pull, All or None Law, ReciprocalInnovation
- Origin, Insertion, and Action of Muscles- Pectoralis Major and Minor, Deltoid, Biceps, Triceps (Anterior and Posterior), etc.

UNIT III MECHANICAL CONCEPTS

- Force Meaning, Definition, types, and its application to sports activities
- Lever Meaning, Definition, types, and its application to the human body.
- Newton's Laws of Motion Meaning, Definition, and its application to sports activities.
- Projectile Factors influencing projectile trajectory.
- The Biomechanics of the Human Upper Extremity.
- The Biomechanics of the Human Lower Extremity.

UNIT IV KINEMATICS AND KINETICS OF HUMAN MOVEMENT

- Linear Kinematics Distance and Displacement, speed and velocity, Acceleration
- Angular kinematics Angular Distance and Displacement, Angular Speed and velocity, Angular Acceleration.
- Linear Kinetics Inertia, Mass, Momentum, Friction.
- Angular Kinetics Moment of inertia, Couple, Stability.
- Basic concept related to kinetics

- Centre of Gravity
- Pressure
- Density
- Torque
- Impulse

- 1. Amrit K. R, Moses. (1995). Introduction to Exercise Physiology.' Madras: Poompugar Pathipagam.
- 2. Anthony J. Blaz¢vich (2017) Sports Biomechanics: The Basics: Optimising Human Performance: bloomsburry
- 3. Beotra Alka. (2000) Drug Education Handbook on Drug Abuse in Sports: Sports Authority of India Delhi.
- 4. Bird, J. (2019). Kinesiology in Physical Education. Scientific e-Resources.
- 5. Bunn, J. W. (1972). *Scientific principles of coaching*. Englewood Cliffs, NJ: Prentice HallInc.
- 6. Clarke, DJI. (1975). Exercise Physiology. New Jersey: Prentice Hall. Inc., Englewood Cliffs.
- 7. Copper, Jhon M. & Glasson, R.W. Kinesiology St. Louis C.V. Mosby Co. 1963.
- 8. David, L Costill. (2004). Physiology of Sports and Exercise Human Kinetics. Englewood Cliffs, NJ: prentice Hall Inc.
- 9. Fox, E.L., and Mathews, D.K. (1981) the Physiological Basis of Physical. Education and Athletics. Philadelphia: Sanders College Publishing.
- 10. Guyton, A.C.(1976).Text book of Medical Physiology. Philadelphia: W. B. Sanders co.
- 11. Hay, J. G. & Reid, J. G.(1988). *Anatomy, mechanics and human motion*. Englewood Cliffs, NJ: prentice Hall Inc.
- 12. Hay, J. G. (1970). The biomechanics of sports techniques. Englewood Cliffs, NJ: Prentice Hall, Inc. Simonian, C. (1911). Fundamentals of sport biomechanics. Englewood Cliffs, NJ: Prentice Hall Inc.
- 13. Hoffman, S. J. (2009). Introduction to kinesiology: studying physical activity.

Human Kinetics.

- 14. Klein-Vogelbach, S. (2012). Functional kinetics: observing, analyzing, and teaching human movement. Springer Science & Business Media.
- 15. Knudson, D. V., & Knudson, D. V. (2007). Fundamentals of biomechanics (Vol. 183). New York: Springer.
- 16. Nelson, R. C. (1973). Biomechanics of sport. In Biomechanics III (Vol. 8, pp. 336-341). Karger Publishers.
- 17. Oglesby, C. A., Henige, K., McLaughlin, D. W., & Stillwell, B. (2021). Foundations of kinesiology. Jones & Bartlett Learning.
- 18. Peter M. (2013), Biomechanics of Sport and Exercise: Human Kinetics
- 19. Rash, Philip J. and Burke RK Kinesiology and Applied Anatomy. Philadelphia Len & Febiger 1967.
- 20. Richard, W Bowers. (1989). Sports Physiology. W M C: Brown Publishers.
- 21. Sandhya Tiwari. (1999). Exercise Physiology. Sports Publishers.
- 22. Shaver, L.(1981). Essentials of Exercise Physiology. New Delhi: Subject Publications.
- 23. Wells, Katharine F. Kinesiology. Philadelphia, W.B. Sannders Co. 1667.
- 24. Winter, D. A. (2009). Biomechanics and motor control of human movement. John Wiley & Sons.

BPE-C-403

RESEARCH AND STATISTICS IN PHYSICAL EDUCATION

Total Marks: 100 External Marks: 70

Internal Marks: 30

UNIT I INTRODUCTION TO RESEARCH

Definition of Research

- Need and importance of Research in Physical Education and Sports.
- Scope of Research in Physical Education & Sports.
- Classification of Research
- Research Problem, Meaning of the term, Location, criteria of Selection of Problem, Formulation of a Research Problem, Limitations, and Delimitations.

UNIT II SURVEY OF RELATED LITERATURE

- Need for surveying related literature.
- Literature Sources, Library Reading
- Research Proposal, Meaning, and Significance of Research Proposal.
- Preparation of Research proposal/project.
- Research Report: A group project is to be undertaken by a small batch of students under thesupervision of a teacher, wherein it is expected to survey school facilities of physical Education, health assessment programme evaluation, fitness status of the students, staff, and other stakeholders, etc. and submit the report to the institution.

UNIT-III BASICS OF STATISTICAL ANALYSIS

- Statistics: Meaning, Definition, Nature, and Importance
- Class Intervals: Raw Score, Continuous and Discrete Series, Class Distribution. Construction of Tables
- Graphical Presentation of Class Distribution: Histogram, Frequency Polygon, FrequencyCurve. Cumulative Frequency Polygon, Ogive, Pie Diagram

UNIT- IVSTATISTICAL MODELS IN PHYSICAL EDUCATION AND SPORTS

Measures of Central Tendency: Mean, Median and Mode-Meaning, Definition,

- Importance, Advantages, Disadvantages and Calculation from Group and Ungrouped data
- Measures of Variability: Meaning, importance, computing from the group and ungroup data
- Percentiles and Quartiles: Meaning, importance, computing from the group and ungroup data

- 1. Armour, K., & MacDonald, D. (Eds.). (2012). Research methods in physical Education and youth sport. Routledge.
- 2. Best, J. W., & Kahn, J. V. (2016). Research in Education. Pearson Education India.
- 3. Caulcutt, R. (2014). Statistics in research and development. Chapman and Hall/CRC.
- 4. Clark, H. H., & Clark, D. H. (1975). Research process in physical Education. Englewoodcliffs, New Jersey: Prentice Hall, Inc.
- 5. Creswell, J. W. (2014). Qualitative, quantitative and mixed methods approaches.
- 6. Creswell, J.W. (2013). Research design: Qualitative, quantitative. and mixed methods approaches. Sage Publications. Incorporated.
- 7. Garrett, H.E. (1981). Statistics in psychology and Education. New York: VakilsFeffer andSimon Ltd.
- 8. Gratton, C., & Jones, I. (2010). Research methods for sports studies. Routledge.
- 9. Kumar, R. (2018). Research methodology: A step-by-step guide for beginners. Sage.
- 10. Mishra, S. B., & Alok, S. (2022). Handbook of research methodology.
- 11. O'donoghue, P. (2009). Research methods for sports performance analysis. Routledge.
- 12. O'Donoghue, P. (2013). Statistics for sport and exercise studies: An introduction. Routledge.
- 13. Oyster, C. K., Hanten, W. P., & Llorens, L. A. (1987). Introduction to research: A guide forthe health science professional. Landon: J.B. Lippincott Company.
- 14. Sansanwal, D. N. (2015). Methodological issues in experimental research.
- 15. Sudeshna and Dan. S. (2016) limitations and weakness of qua tentative research methods.
- 16. Thomas, J.R., & Nelson J.K. (2005). Research method in physical activity.

- USA: Champaign, IL: Human Kinetics Books.
- 17. Thomas, J.R., Nelson, J.K. & Silverman, S.J. (2011). Research method in physical activity.USA: Champaign, IL: Human Kinetics Books.
- 18. Veal, A. J., & Darcy, S. (2014). Research methods in sport studies and sport management: A practical guide. Routledge.
- 19. Verma, J. P. (2000). A text book on sports statistics. Gwalior: Venus Publications.
- 20. Verma, J. P. (2019). Statistics and research methods in psychology with excel. Springer Singapore.
- 21. Verma, J. P., & Abdel-Salam, A. S. G. (2019). Testing statistical assumptions in research. John Wiley & Sons.
- 22. Verma, J. P., & Verma, P. (2020). Determining sample size and power in research studies. Springer Singapore.

Internship

Credit: 02 Marks=50

Objectives:

- ✓ Developing professional capacities, teacher sensibilities, and sustained engagement of student-teachers with learners and schools.
- ✓ Exposing the student-teacher to multicultural contexts of the society which influence the school environment and its functioning
- ✓ Validating the theoretical and practical understanding of the student-teachers developed through various perspective and pedagogic courses.

Outcomes:

✓ After completion of the course, the student shall be able to understand the professional capacities, teacher sensibilities, and sustained engagement of student-teachers with learners and schools.

Structure of the program

- The program will be of one month.
- Preparation of lesson plan by the student-teacher in their concerned method subjects
- Delivery of practice lessons with supervisory support and feedback from faculty members.
- Each student-teacher shall deliver 20 lessons excluding the criticism lesson. 10 lessons should be delivered in the upper primary level and another lesson should be in the secondary.
- Observation of five peer-lesson and recording of the performance of the peer student-teacher with authentication by concerned supervisors.
- Feedback session in the Teacher Education institution after wash spell of ten-day practice teaching to be attended by all student-teachers for sharing their experiences.
- Attendance in school assembly
- Participation in campus cleaning and beautification activities
- Taking arrangement classes when required
- Organization and participation in literary and recreational activities of the school
- Participation in school games and sports activities
- Organization of awareness campaign on HIV/AIDS blood donation, conservation, and protection of the environment, etc.
- Preparation of report on Annual sports and celebration of important occasions and events
- Preparation of report on maintenance of registers and records by the school

• Sharing learner perceptions, teacher perceptions, and parental community perceptions

Assessment of Internship Performance

- Assessment of overall activities of the student-teacher in the school during the internship
- Assessment of lesson plan record
- Peer assessment of lessons delivered
- Faculty assessment of lessons delivered
- Assessment of repos prepared on school activities

PART-II: PRACTICAL COURSE (SKILL AND PROWESS)

Teaching, Prowess, and Proficiency in Athletics - III

Total Marks: 100 External Marks: 70

Internal Marks: 30

Objectives:

- ✓ To develop an understanding of the basic skill of Decathlon Events:
- ✓ To teach the scientific aspects of the different techniques used in these events.
- ✓ To highlight the importance of different conditional abilities in performance development.

Outcomes:

- ✓ After completion of the course, the student shall be able to understand the basic skill of Decathlon Events..
- ✓ The students would be able to teach the scientific aspects of the different techniques used in these events.
- ✓ Students shall also be able to highlight the importance of different conditional abilities in performance development.

Track and Field

Decathlon Events:

- 100 metres, 400 metres
- Long Jump, High Jump
- Shot put

- 110 m Hurdles
- Discuss throw, Javelin throw
- Pole vault, 1500 m
- Officiating, Scoring, Layout & Marking
- Rules and Interpretation
- Officiating for Decathlon Events
- Layout and Standard Measurement for Decathlon Events
- Scoring/ Point System:
- Formula for combined events scoring system
- Points system in Decathlon events (Men)
- Points system in Decathlon events (Women)

Teaching, Prowess, and Proficiency in Games - IV

Total Marks: 100 External Marks: 70

Internal Marks: 30

Objectives:

- ✓ To develop an understanding of the basic skill of Skating, Handball, and Swimming
- ✓ To teach the scientific aspects of the different techniques used in these games.
- ✓ To highlight the importance of different conditional abilities in performance development.

Outcomes:

- ✓ After completion of the course, the student shall be able to understand the basic skill of Skating, Handball, and Swimming.
- ✓ The students would be able to teach the scientific aspects of the different techniques used in these games.
- ✓ Students shall also be able to highlight the importance of different conditional abilities in performance development.

Skating:

- Introduction to Skating (history: Indian & foreign)
- Fundamental skills and techniques of Skating
- Rules and regulations of Skating with their interpretation.
- General and specific warming up and cooling down (specific exercises for Skating)
- Drills for skill development

- Organization of the Game
- Ground Making/Designing.
- · Famous players of the game
- Indian achievement of the game.

Handball

- Introduction to Handball (history: Indian & foreign)
- Fundamental skills and techniques of Handball
- Rules and regulations of Handball with their interpretation.
- General and specific warming up and cooling down (specific exercises for Handball)
- Drills for skill development
- Organization of the Game
- Ground Making/Designing.
- · Famous players of the game
- Indian achievement of the game.

Swimming

- Fundamental skills
- Styles
- Officiating
- Organizing the competitions

Teaching Practices:

Objectives:

- To induce the science and art of teaching in students
- > To provide hands-on experience related to cognitive and motor teaching
- Each student teacher is expected to take at least five lessons during the course of the current semester.
- ➤ The lessons will be supervised by faculty members and experts who will discuss the merits and demerits of the concerned lesson and guide them for the future. In these lessons, the duration should slowly increase, and all the parts of the lesson should be covered progressively.
- ➤ Both parts of the practicals have to be covered.

Outcomes:

After completion of the course, the student shall be able to enhance knowledge and efficiency in teaching lessons in both practical as well as theoretical classes.