

**COURSE STRUCTURE FOR
BACHELOR OF PHYSICAL EDUCATION AND SPORTS (BPES)
(Four-Year Bachelor's Programme)**

Bachelor of Physical Education and Sports (BPES) is a four-year duration consisting of eight semesters. The curriculum of this Four-Year Bachelor's Programme comprises different course components based on the LOCF-CBCS system of the UGC with value addition courses, which are envisaged in the NEP 2020. The curriculum contains the Foundational Course, Generic Course, Skill Based, Discipline-Specific, Ability Enhancement, Specialization Course, Laboratory Practical, Sports/Games Practical, Sports/Games Specialization, Research Project and CBCS Course Each semester shall be of six months duration of 24 credits. Total of 192 credits are required to complete the course. The appropriate certifications and award of degrees will be governed by the Ordinance for Undergraduate Programmes, 2021, Manipur University.

SEMESTER- I

FOUNDATIONAL/MAIN/CORE COURSE

Course Code	Title of Course	Internal Assessment	End Semester Assessment	Total	Credits
BPES-FC101	History and Foundation of Physical Education	30	70	100	4
BPES-FC102	Human Anatomy and Physiology	30	70	100	4
BPES-FC103	Kinesiology and Biomechanics	30	70	100	4
Total		90	210	300	12

GENERIC COURSE

Course Code	Title of Course	Internal Assessment	End Semester Assessment	Total	Credits
BPES-GC104	English and Communication Skill	20	30	50	2
Total		20	30	50	2

LABORATORY PRACTICAL

Course Code	Title of Course	Internal Assessment	End Semester Assessment	Total	Credits
BPES-LP105	Anatomy and Physiology	10	15	25	1
BPES-LP106	Kinesiology and Biomechanics	10	15	25	1
Total		20	30	50	2

SPORTS/GAMES PRACTICAL

Course Code	Title of Course	Internal Assessment	End Semester Assessment	Total	Credits
BPES-SP107	Track & Field: Running Events	50	50	100	4
BPES-SP108	Major Ball Games- Basketball, Football, Handball & Volleyball (Any one to be opted for End Semester Exam).	50	50	100	4
Total		100	100	200	8

**Total Marks = 600
Total Credits = 24**

SEMESTER- II**FOUNDATIONAL/MAIN/CORE COURSE**

Course Code	Title of Course	Internal Assessment	End Semester Assessment	Total	Credits
BPES-FC201	Yoga Education	30	70	100	4
BPES-FC202	Officiating and Coaching	30	70	100	4
BPES-FC203	Methods in Physical Education	30	70	100	4
Total		90	210	300	12

GENERIC COURSE

Course Code	Title of Course	Internal Assessment	End Semester Assessment	Total	Credits
BPES-GC204	Environmental Science	20	30	50	2
Total		20	30	50	2

LABORATORY PRACTICAL

Course Code	Title of Course	Internal Assessment	End Semester Assessment	Total	Credits
BPES-LP205	Yogic Practices	10	15	25	1
BPES-LP206	Demonstration of Methods of Officiating and Teaching	10	15	25	1
Total		20	30	50	2

SPORTS/GAMES PRACTICAL

Course Code	Title of Course	Internal Assessment	End Semester Assessment	Total	Credits
BPES-SP207	Track & Field: Jumping and Throwing Events	50	50	100	4
BPES-SP208	Major Games- Hockey, Cricket, Softball & Kabaddi/Kho-Kho (Any one to be opted for End Semester Exam).	50	50	100	4
Total		100	100	200	8

Total Marks = 600
Total Credits = 24

SEMESTER- III**FOUNDATIONAL/MAIN/CORE COURSE**

Course Code	Title of Course	Internal Assessment	End Semester Assessment	Total	Credits
BPES-FC301	Sports Psychology and Sociology	30	70	100	4
BPES-FC302	Sports Management	30	70	100	4
BPES-FC303	Health Education	30	70	100	4
Total		90	210	300	12

GENERIC COURSE

Course Code	Title of Course	Internal Assessment	End Semester Assessment	Total	Credits
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BPES-GC304	Fundamentals of Computer Application	20	30	50	2
Total		20	30	30	2

LABORATORY PRACTICAL

Course Code	Title of Course	Internal Assessment	End Semester Assessment	Total	Credits
BPES-LP305	Computer Application	10	15	25	1
BPES-LP306	Health and Psychological Assessment	10	15	25	1
Total		20	30	50	2

SPORTS/GAMES PRACTICAL

Course Code	Title of Course	Internal Assessment	End Semester Assessment	Total	Credits
BPES-SP307	Yoga	50	50	100	4
BPES-SP308	Racket Games- Badminton, Tennis, Table Tennis (Any one to be opted for End Semester Exam).	50	50	100	4
Total		100	100	200	8

Total Marks = 600

Total Credits = 24

SEMESTER-IV

FOUNDATIONAL/MAIN/CORE COURSE

Course Code	Title of Course	Internal Assessment	End Semester Assessment	Total	Credits
BPES-FC401	Fitness and Conditioning	30	70	100	4
BPES-FC402	Sports Pedagogy	30	70	100	4
BPES-FC403	Adapted Physical Education	30	70	100	4
Total		90	210	300	12

DISCIPLINE SPECIFIC ELECTIVE (ANYONE)

Course Code	Title of Course	Internal Assessment	End Semester Assessment	Total	Credits
BPES-SE404	Sports Entrepreneurship	20	30	50	2
BPES-SE405	Recreation and Adventure Sports				
Total		20	30	50	2

LABORATORY PRACTICAL

Course Code	Title of Course	Internal Assessment	End Semester Assessment	Total	Credits
BPES-LP406	Fitness Training	10	15	25	1
BPES-LP407	Adventure Sports Activity	10	15	25	1
Total		20	30	50	2

SPORTS/GAMES PRACTICAL

Course Code	Title of Course	Internal Assessment	End Semester Assessment	Total	Credits
BPES-SP408	Gymnastics	50	50	100	4

BPES-SP409	Combative and Other Sports- Judo, Wrestling, Boxing, Weight Lifting (Any one to be opted for End Semester Exam).	50	50	100	4
Total		100	100	200	8

Total Marks = 600
Total Credits = 24

SEMESTER-V

FOUNDATIONAL/MAIN/CORE COURSE

Course Code	Title of Course	Internal Assessment	End Semester Assessment	Total	Credits
BPES-FC501	Educational Technology	30	70	100	4
BPES-FC502	Basic Sports Medicine and Physiotherapy	30	70	100	4
BPES-FC503	Traditional Sports of Manipur	30	70	100	4
Total		90	210	300	12

DISCIPLINE SPECIFIC ELECTIVE (ANYONE)

Course Code	Title of Course	Internal Assessment	End Semester Assessment	Total	Credits
BPES-SE504	Movement Education	20	30	50	2
BPES-SE505	Sports Journalism				
Total		20	30	50	2

LABORATORY PRACTICAL

Course Code	Title of Course	Internal Assessment	End Semester Assessment	Total	Credits
BPES-LP506	Educational Teaching Aids	10	15	25	1
BPES-LP507	Therapeutic Modalities and Massage	10	15	25	1
Total		20	30	50	2

SPORTS/GAMES PRACTICAL

Course Code	Title of Course	Internal Assessment	End Semester Assessment	Total	Credits
BPES-SP508	Swimming	50	50	100	4
BPES-SP509	Traditional Sports of Manipur- Sagol Kangjei, Mukna, Kang and Thang-Ta (Any one to be opted for End Semester Exam).	50	50	100	4
Total		100	100	200	8

Total Marks = 600
Total Credits = 24

SEMESTER-VI**FOUNDATIONAL/MAIN/CORE COURSE**

Course Code	Title of Course	Internal Assessment	End Semester Assessment	Total	Credits
BPES-FC601	Basics of Sports Training	30	70	100	4
BPES-FC602	Sports Nutrition	30	70	100	4
Total		60	140	200	8

SKILL BASED COURSE

Course Code	Title of Course	Internal Assessment	End Semester Assessment	Total	Credits
BPES-SC603	Health and Fitness Club Management	30	70	100	4
Total		30	70	100	4

DISCIPLINE SPECIFIC ELECTIVE (ANYONE)

Course Code	Title of Course	Internal Assessment	End Semester Assessment	Total	Credits
BPES-SE604	Organization and Administration of Sports Events	20	30	50	2
BPES-SE605	Sports Talent Identification				
Total		20	30	50	2

LABORATORY PRACTICAL

Course Code	Title of Course	Internal Assessment	End Semester Assessment	Total	Credits
BPES-LP606	Testing of Various Fitness Parameters	10	15	25	1
BPES-LP607	Gym Exercise Modalities	10	15	25	1
Total		20	30	50	2

TEACHING/LEARNING PRACTICE

Course Code	Title of Course	Internal Assessment	End Semester Assessment	Total	Credits
BPES-TP608	General Lesson Plan and Teaching Practice- Classroom and Outdoor Activities.	50	50	100	4
BPES-TP609	Specific Coaching Lesson Plan and Teaching Practice- Major Sports/Games in the Course.				
	1. Sports: Track and Field, Gymnastics and Swimming (Any one to be opted for End Semester Exam).				
	2. Games: Cricket, Football, Hockey, Judo, Softball, Volleyball, Handball, Basketball, Badminton, Kabaddi, Kho-Kho, Table Tennis, Tennis, Weight Lifting, Boxing, Wrestling (Any one to be opted for End Semester Exam).	25	25		
Total		100	100	200	8

Total Marks = 600
Total Credits = 24

SEMESTER-VII**FOUNDATIONAL/MAIN/CORE COURSE**

Course Code	Title of Course	Internal Assessment	End Semester Assessment	Total	Credits
BPES-FC701	Research Methodology	30	70	100	4
BPES-FC702	Sports Statistics	30	70	100	4
Total		60	140	200	8

SKILL BASED COURSE

Course Code	Title of Course	Internal Assessment	End Semester Assessment	Total	Credits
BPES-SC703	Measurement and Evaluation	30	70	100	4
Total		30	70	100	4

CHOICE BASED CREDIT SYSTEM (CBCS) COURSE

Course Code	Title of Course	Internal Assessment	End Semester Assessment	Total	Credits
BPES-CB704	Contemporary Issues in Physical Education and Sports	30	70	100	4
Total		30	70	100	4

SPORT/GAME SPECIALIZATION PRACTICAL

Course Code	Title of Course	Internal Assessment	End Semester Assessment	Total	Credits
BPES-SS705	Major games/sports approved by AIU/IOA. Anyone to be opted from the following disciplines: (i) Badminton (ii) Basketball (iii) Cricket (iv) Football (v) Handball (vi) Hockey (vii) Judo (viii) Kabaddi (ix) Kho-kho (x) Table Tennis (xi) Tennis (xii) Thang -Ta (xiii) Track and Field (xiv) Volleyball (xv) Yoga	50	50	100	4
Total		50	50	100	4

PERSONALITY/ABILITY ENHANCEMENT

Course Code	Title of Course	Internal Assessment	End Semester Assessment	Total	Credits
BPES-PE706	Six weeks Internship in different adopted schools for teaching physical education and sports, and enhancement of students' personality. An original	50	50	100	3

	progress report in the form of teaching lesson plan duly assessed by the Head of the school must be submitted. At least 20 lessons must be completed.				
BPES- PE707	Field Work/Study Tour (Compulsory): A well-prepared original reports should be submitted and a viva-voce will be conducted on the report to assess the completion.	Completed	Completed	Passed	1
Total		50	50	100	4

Total Marks = 600

Total Credits = 24

SEMESTER-VIII

SPECIALIZATION CORE COURSE (Any Two)

Course Code	Title of Course	Internal Assessment	End Semester Assessment	Total	Credits
BPES-CC801	Methods of Sports Training	30	70	100	4
BPES-CC802	Exercise Physiology	30	70	100	4
BPES-CC803	Sports Psychology	30	70	100	4
BPES-CC804	Sports Biomechanics	30	70	100	4
Total (of any two)		60	140	200	8

SKILL BASED COURSE

Course Code	Title of Course	Internal Assessment	End Semester Assessment	Total	Credits
BPES-SC805	Sports Engineering and Technology	50	50	100	4
Total		50	50	100	4

CHOICE BASED CREDIT SYSTEM (CBCS) COURSE

Course Code	Title of Course	Internal Assessment	End Semester Assessment	Total	Credits
BPES-CB806	Curriculum Design	30	70	100	4
Total		30	70	100	4

SPECIALIZATION LABORATORY PRACTICAL

Course Code	Title of Course		Internal Assessment	End Semester Assessment	Total	Credits
BPES-LP807	Methods of Sports Training	Any two- Corresponding to Specialization Core course	25	25	50	2
BPES-LP808	Exercise Physiology		25	25	50	2
BPES-LP809	Sports Psychology		25	25	50	2
BPES-LP810	Sports Biomechanics		25	25	50	2
Total (of any two)			50	50	100	4

RESEARCH PROJECT

Course Code	Title of Course	Internal Assessment	End Semester Assessment	Total	Credits
BPES-RP811	Research Based Project Work on Specialization Core Course	50	50	100	4
Total		50	50	100	4

Total Marks = 600

Total Credits = 24

Semester wise course distribution per credit for Theory, Practical, Teaching Practice, Specialization and Research Project.

Semester	Foundational/ Main/Core Course	Generic Course	Skill Based Course	Discipline Specific Elective	Lab. Practical	Sports/Games Practical	Teaching/Learning And Sports/ Games Practical	Personality/Ability Enhancement	Sports/Games Specialization	Specialization Laboratory Practical	Research Project Work	CBCS	Total Marks
I	3 (100x3=300/12)	1 (50/2)			2 (50/2)	2 (100x2=200/8)							600/24
II	3 (100x3=300/12)	1 (50/2)			2 (50/2)	2 (100x2=200/8)							600/24
III	3 (100x3=300/12)	1 (50/2)			2 (50/2)	2 (100x2=200/8)							600/24
IV	3 (100x3=300/12)			1 (50/2)	2 (50/2)	2 (100x2=200/8)							600/24
V	3 (100x3=300/12)			1 (50/2)	2 (50/2)	2 (100x2=200/8)							600/24
VI	2 (100x2=200/8)		1 (100/4)	1 (50/2)	2 (50/2)		2 (100x2=200/8)						600/24
VII	2 (100x2=200/8)		1 (100/4)					2 (100+Passed/4)	1 (100/4)			1 (100/4)	600/24
VIII	2 (100x2=200/8)		1 (100/4)							1 (100/4)	1 (100/4)	1 (100/4)	600/24
Tally	21 2100/84	3 150/6	3 300/12	3 150/6	12 300/12	10 1000/40	2 200/8	2 100+Passed/8	1 100/4	1 100/4	1 100/4	2 200/8	4800/192

**DEPARTMENT OF PHYSICAL EDUCATION AND SPORTS SCIENCE
MANIPUR UNIVERSITY, CANCHIPUR**

MODULE – I

**BACHELOR OF PHYSICAL EDUCATION AND SPORTS (BPES)
(Four-Year Bachelor's Programme - 8 Semesters)**

(Approved in the Academic Council under Resolution No. 3(I)(2) of its 19th meeting held on 31st May, 2022)

SYLLABUS
For
BACHELOR OF PHYSICAL EDUCATION AND SPORTS (BPES)
Four-Year Bachelor's Programme - 8 Semesters

SEMESTER- I

FOUNDATIONAL/MAIN/CORE COURSE

BPES-FC101: History and Foundation of Physical Education **100 Marks/ 4 Credits**

Learning Outcomes

1. The pass out students would be able to compare the relationship between general education and physical education.
2. Students would be able to identify and relate with the History of Physical Education.
3. Students would be able to comprehend the relationship between Philosophy, Education and Physical Education.
4. Students would be able to identify the works of Philosophers of Education and Physical Education.
5. Students would know recent developments and academic foundation of Physical Education.

Course Contents

Unit-I: Introduction to Physical Education

- 1.1. Meaning, Definition and Scope of Physical Education
- 1.2. Aims and Objective of Physical Education
- 1.3. Importance of Physical Education in present era.
- 1.4. Misconceptions about Physical Education.
- 1.5. Relationship of Physical Education with General Education.
- 1.6. Physical Education as an Art and Science.

Unit-II: Historical Development of Physical Education in India

- 2.1 Vedic Period (2500 BC – 600 BC), Early Hindu Period (600 BC – 320 AD) and Later Hindu Period (320 AD – 1000 AD), Medieval period
- 2.2 Post Mughal British Period (Before 1947) Y.M.C.A. and its contributions.
- 2.3 Physical Education in India (After 1947)
- 2.4 The early history and significant stages in the revival and development of the modern Olympic movement.
- 2.5 Educational and cultural values of Olympic movement.

Unit-III: Philosophical Foundation of Physical Education

- 3.1 Philosophical foundation: Idealism, Pragmatism, Naturalism, Realism.
- 3.2 Philosophy and Culture.
- 3.3 Fitness and wellness movement in the contemporary perspectives
- 3.4 Sports for all and its role in the maintenance and promotion of fitness.

Unit-IV: Foundation of Physical Education

- 4.1 Biological Foundation
 - 4.1.1 Growth and development
 - 4.1.2 Age and gender characteristics
 - 4.1.3 Body Types

4.2 Psychological Foundation

- 4.2.1 Attitude, interest.
- 4.2.2 Cognition, emotions and sentiments.
- 4.2.3 Practical suggestion from psychology.

4.3 Sociological Foundation

- 4.3.1 Society and culture
- 4.3.2 Social acceptance and recognition
- 4.3.3 Leadership in physical education

Teaching Learning Strategies: The class will be taught by using lectures and demonstration, seminars, classroom discussion, videos, charts and presentations method.

Virtual instructional platforms such as **online lectures**, webcast etc. are to be used. Students can participate in coursework through instant messages, emails and video conferencing. Google class room, Cisco WebeX Meeting, OERS, Swayam Platform (www.swayam.gov.in), SwayamPrabha (www.swayamprabha.gov.in) (available on Doordarshan (free dish TV), E-Yantra (www.e-yantra.org), Virtual Labs (www.vlabs.co.in), FOSSEE (www.fossee.in), application of spoken tutorials (www.spoken-tutorial.org), National Digital Library (www.ndl.iitkgp.ac.in), electronic journals (www.ess.infibnet.ac.in) etc. are to be used.. Courses may also integrate DVD videos as part of the training process. Students may examine current topics in the field through the use of e-textbooks and e-physical education journals. Students can complete some portion of the education at approved testing sites for the practical components wherever necessary.

Initiating Brain based learning- A stress free environment will be created. Constant feedback regarding their performance will be given to initiate learning from mistakes. Creative thinking for new ideas and innovations will be encouraged. Break in learning will be filled with recreational and constructive activities for boosting cognitive functions.

Activities: Lecture/ Project Work/ Seminars/ Term Papers/Assignments/ Presentations/ Study etc.

Assessment Rubric: Classroom Test, Project Work, Assignments, Presentations.

References:

1. Bucher, C. A. (n.d.) - Foundation of physical education. St. Louis: The C.V. Mosby Co.
2. Deshpande, S. H. (2014) - Physical Education in Ancient India. Amravati: Degree college of Physical education.
3. Dash, B.N. (2003.) –Principles of Education, Neelkamal publication, Hyderabad,
4. Kamlesh, M.L. (2002) –Sociological Foundation of Physical Education, Metropolitan Book co. Pvt. Ltd., Delhi,
5. Pandey, R.S.(1991) Philosophical & Sociological Foundation of Education, Vinod PustakMandir, Agra,.
6. Bhatia, K.K. & Narang, C.L. (1984.)– Philosophical & Sociological Bases of Education, Prakash Bros., Ludhiana,
7. Adams, William.C (1991.) – Foundation of Physical Education Exercises and Sports Sciences, Lea and Febigor, Philadelphia,
8. Kamlesh, M.L. (2004). Principles and History of Physical Education and Sports, Friends Publication (India) New Delhi.
9. Dr. B.C.Kapri, Fundamentals of Physical Education, Friends Publication, Dariya Ganj, Delhi (India).

BPES-FC102: Human Anatomy and Physiology**100 Marks/ 4 Credits****Learning Outcomes**

1. The student will be oriented with the basic structure and function of human body by identifying, comparing and relating different systems, organs and their functional and structural units.
2. He would be able to relate and interpret the role of exercise on body systems and its relation to well being, through literature reviews and physical conditioning exercises.
3. Adapt the art to apply the knowledge of anatomy and physiology in physical activity classes at school level.
4. Construct anatomy and physiology related pedagogical materials exploring their creative imaginations while working in group and using technology.

Course Contents**UNIT-I: Introduction and Level of Organization:**

- 1.1 Meaning and Concept of Anatomy and Physiology
- 1.2 Need and Importance of Anatomy in the field of physical Education.
- 1.3 Levels of Organization of Human Body- Cell, Tissue, Organ, System and classifications.
- 1.4 Microscopic Structure, Composition and function of Cell, Tissue, Organ and System
- 1.5 Essential Properties of living Organism.

UNIT-II: Musculo-Skeletal System

- 2.1 Skeleton
 - 2.1.1 Different Parts of Human Skeleton
 - 2.1.2 Types of Bones
 - 2.1.3 Gross and Microscopic Structure and function of bones.
- 2.2 Joints- Classification, structure and functions of Joints
- 2.3 Muscles- classification, structure and functions of muscles
- 2.4 Skeleton Muscles- functions of major muscles of different part of body.

UNIT-III: Body Systems and Functions

- 3.1 Cardio-Respiratory System:
 - 3.1.1. Anatomical position and gross structure of the Heart
 - 3.1.2. Systemic and Pulmonary Circulation
 - 3.1.3. Blood Vessels – Artery, Vein and Capillaries
- 3.2 Respiratory System:
 - 3.2.1. External and Internal Respiration
 - 3.2.2. Organs of Respiration
 - 3.2.3. Structure of Lungs
 - 3.2.4. Introduction of Mechanism of Respiration
- 3.3 Digestive System:
 - 3.3.1. Parts of Digestive Tract, Structure and Function
 - 3.3.2. Steps of Digestion
 - 3.3.3. Digestive Glands – Structure and Function
- 3.4 Excretory System:
 - 3.4.1 Routes of Excretion from Human Body
 - 3.4.2 Organs of Urinary System
 - 3.4.3 Structure and Function of Kidney.
 - 3.4.4. Structure and Functions of Skin
- 3.5 Reproductive System.

Unit-IV: Nervous and Humoral System

4.1 Nervous System

4.1.1. Structural Division- Central Nervous System and Peripheral Nervous System

4.1.2. Functional Division- Autonomic Nervous System and Sensory Motor Nervous System.

4.1.3. Brain and Spinal Cord- Structure and functions

4.2 Endocrine System- Names, Location and Functions of glands

4.3 Liver System- Structural division and functions of Liver

4.4 Sense organs, classification and functions.

Teaching Learning Strategies: The class will be taught by using lectures and demonstration, seminars, classroom discussion, videos, charts and presentations method.

Virtual instructional platforms such as **online lectures**, webcast etc. are to be used. Students can participate in coursework through instant messages, emails and video conferencing. Google class room, Cisco WebeX Meeting, OERS, Swayam Platform (www.swayam.gov.in), Swayam Prabha (www.swayamprabha.gov.in) (available on Doordarshan (free dish TV), E-Yantra (www.e-yantra.org), Virtual Labs (www.vlabs.co.in), FOSSEE (www.fossee.in), application of spoken tutorials (www.spoken-tutorial.org), National Digital Library (www.ndl.iitkgp.ac.in), electronic journals (www.ess.infibnet.ac.in) etc. are to be used. Courses may also integrate DVD videos as part of the training process. Students may examine current topics in the field through the use of e-textbooks and e-physical education journals. Students can complete some portion of the education at approved testing sites for the practical components wherever necessary.

Initiating Brain based learning- A stress free environment will be created where students will be reoriented in understanding of the brain as organ which could be developed through various mental exercises, like a muscle developed through weight training. Constant feedback regarding their performance will be given to initiate learning from mistakes. Creative thinking for new ideas and innovations will be encouraged / break in learning will be filled with recreational and constructive activities for boosting cognitive functions.

Activities: Lecture/ Project Work/ Seminars/ Term Papers/Assignments/ Presentations/ Study etc.

Assessment Rubric: Classroom Test, Project Work, Assignments, Presentations.

References:

1. Bourne, Geoffery H. (1973). The Structure and Function of Muscles: London: Academic Press.
2. Chaurasia B.D. (1979). Human Anatomy Regional and Applied. CBS Publisher and Distributors.
3. Gupta, A. P. (2010). Anatomy and physiology. Agra: Sumit Prakashan.
4. Gupta, M. and Gupta, M. C. (1980). Body and anatomical science. Delhi: Swaran Printing Press.
5. Guybon, Arthur C.(1976). Text book of Medical Physiology. (Philadelphia: W.B. Saunder Company.
6. Guyton, A.C. (1996). Textbook of Medical Physiology, 9th edition. Philadelphia: W.B.
7. James C. Clouch (1971). Fundamental Human Anatomy (Lea & Febiger, Philadelphia).
8. Lamb, G. S. (1982). Essentials of exercise physiology. Delhi: Surjeet Publication.
9. Mathew, D.K. and Fox E.L. (1976). Physiological Basis of Physical Education and Athletics (Philadelphia: W.B. Saunders Company.

10. Moorthy, A. M. (2014). Anatomy physiology and health education. Karaikudi: Madalayam.
11. Morehouse, L. E. & Miller, J. (1967). Physiology of exercise. St. Louis: The C.V. Mosby Co.
12. Morehouse, E. Miller, A.T. (1976). Physiology of Exercise. St. Louis: The C.V. Mosby Company, 7th Edition.
13. Pearce, E. C. (1962). Anatomy and physiology for nurses. London: Faber & Faber Ltd. Publications, Saunders Company.
14. Sharma, R. D. (1979). Health and physical education, Gupta Prakashan.
15. Singh, S. (1979). Anatomy of physiology and health education. Ropar: Jeet Publications.

BPES-FC103: Kinesiology and Biomechanics

100 Marks/ 4 Credits

Learning Outcomes

1. The student would be oriented with the skeletal structure of human body by identifying the origin and insertion of various muscles.
2. Orient the students in basic structure and functions the body.
3. Relate and interpret the role of various mechanical principles in human movement.

Course Contents

Unit-I: Introduction to Kinesiology and Sports Biomechanics

- 1.1 Meaning and Definition of Kinesiology and Sports Biomechanics
- 1.2 Importance of Kinesiology and Biomechanics in sports and physical activities
- 1.3 Origin and Insertion on bones and Action of major Muscles
- 1.4 Standard reference of body position
- 1.5 Anatomical reference Planes and Axes
- 1.6 Directional terms and body movements

Unit-II: Mechanical Concepts

- 2.1 Speed, Velocity and Acceleration
 - 2.1.1 Velocity as a Vector Quantity
 - 2.1.2 Determining the Direction of the Velocity Vector
 - 2.1.3 Calculating Average Speed, Average Velocity and average Acceleration
 - 2.1.4 Average Speed versus Instantaneous Speed
- 2.2 Distance, Displacement (Calculating average distance and displacement)
- 2.3 Fundamental concepts of following terms –
 - 2.3.1 Fluid resistance
 - 2.3.2 Buoyancy
- 2.4 Newton's Laws of Motion and their application to sports activities.

Unit-III: Kinetic and Kinematic Analysis of Human Motion

- 3.1 Fundamental concepts of human movement
- 3.2 Axes and Planes
 - 3.2.1. Centre of Gravity
 - 3.2.2. Equilibrium
 - 3.2.3. Line of Gravity
- 3.3 Basic Concept related to kinetics
 - 3.3.1 Inertia
 - 3.3.2 Mass
 - 3.3.3 Force

- 3.3.4 Centre of Gravity
- 3.3.5 Pressure
- 3.3.6 Density
- 3.3.7 Torque
- 3.3.8 Impulse
- 3.4 The Biomechanics of the Human Upper Extremity
- 3.5 The Biomechanics of the Human Lower Extremity

Unit-IV: Qualitative and Quantitative Analysis

- 4.1 Angular Kinematics of Human Movement.
- 4.2 Linear Kinetics of Human Movement
- 4.3 Motion and different types of motion.

Teaching Learning Strategies: The class will be taught by using lectures and demonstration, seminars, classroom discussion, videos, charts and presentations method.

Virtual instructional platforms such as **online lectures**, webcast etc. are to be used. Students can participate in coursework through instant messages, emails and video conferencing. Google class room, Cisco WebeX Meeting, OERS, Swayam Platform (www.swayam.gov.in), SwayamPrabha (www.swayamprabha.gov.in) (available on Doordarshan (free dish TV), E-Yantra (www.e-yantra.org), Virtual Labs (www.vlabs.co.in), FOSSEE (www.fossee.in), application of spoken tutorials (www.spoken-tutorial.org), National Digital Library (www.ndl.iitkgp.ac.in), electronic journals (www.ess.infn.net.ac.in) etc. are to be used. . Courses may also integrate DVD videos as part of the training process.

Initiating Brain based learning: A stress free environment will be created. Constant feedback regarding their performance will be given to initiate learning from mistakes. Creative thinking for new ideas and innovations will be encouraged. Break in learning will be filled with recreational and constructive activities for boosting cognitive functions.

Activities: Lecture/ Project Work/ Seminars/ Term Papers/Assignments/ Presentations/ Study etc.

Assessment Rubric: Classroom Test, Project Work, Assignments, Presentations.

References:

1. Anthony J. Blazevich (2017). Sports Biomechanics: The Basics: Optimising Human Performance: bloomsburry
2. By Peter M. (2013), Biomechanics of Sport and Exercise: Human Kinetics
3. Amrit Kumar, R, Moses. (1995). Introduction to Exercise Physiology. Madras: Poompugar Pathipagam.
4. BeotraAlka, (2000) Drug Education Handbook on Drug Abuse in Sports: Sports Authority of India Delhi.
5. Clarke, D.H. (1975). Exercise Physiology. New Jersey: Prentice Hall Inc., Englewood Cliffs.
6. David, L Costill. (2004). Physiology of Sports and Exercise. Human Kinetics.
7. Fox, E.L., and Mathews, D.K. (1981).The Physiological Basis of Physical Education and Athletics. Philadelphia: Sanders College Publishing.
8. Guyton, A.C. (1976). Textbook of Medical Physiology. Philadelphia: W.B. Sanders co.
9. Richard, W. Bowers.(1989). Sports Physiology. WMC: Brown Publishers.
10. Sandhya Tiwaji. (1999). Exercise Physiology.Sports Publishers.
11. Shaver, L. (1981).Essentials of Exercise Physiology. New Delhi: Subject Publications.
12. Vincent, T. Murche. (2007). Elementary Physiology. Hyderabad: Sports Publication.

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

GENERIC COURSE

BPES-GC104: English and Communication Skill

50 Marks/ 2 Credits

Learning Outcomes

1. The course will develop fundamental knowledge of English Language.
2. The literary texts shall enable students to inculcate creative & aesthetic sensitivity and critically comprehend, appreciate and analyze it.
3. The students will be familiarized with the basics of language and its structure.

Course Contents

Unit-I

Vocabulary -

Use of Dictionary, Use of Words: Diminutives, Homonyms & Homophones

Unit-II

Essentials of Grammar – I

1. Articles
2. Parts of Speech
3. Tenses

Unit-III

Essentials of Grammar – II

1. Sentence Structure
2. Subject -Verb agreement
3. Punctuation
4. Official Letter and Notice drafting

Unit-IV

Spoken English Communication, Short Stories:

1. Speech Drills
2. Pronunciation and Accent
3. Stress and Intonation
4. The Necklace, by Guy de Maupassant,
5. A Shadow, by R.K. Narayan,
6. The Luncheon, by Somerset Maugham

Teaching Learning Strategies: The class will be taught by using lectures and demonstration, seminars, classroom discussion, videos, charts and presentations method.

Virtual instructional platforms such as **online lectures**, webcast etc. are to be used. Students can participate in coursework through instant messages, emails and video conferencing. Google class room, Cisco WebeX Meeting, OERS, Swayam Platform (www.swayam.gov.in), Swayam Prabha (www.swayamprabha.gov.in) (available on Doordarshan (free dish TV), E-Yantra (www.e-yantra.org), Virtual Labs (www.vlabs.co.in), FOSSEE (www.fossee.in), application of spoken tutorials (www.spoken-tutorial.org), National Digital Library (www.ndl.iitkgp.ac.in), electronic

journals (www.ess.infibnet.ac.in) etc. are to be used. . Courses may also integrate DVD videos as part of the training process.

Initiating Brain based learning- A stress free environment will be created. Constant feedback regarding their performance will be given to initiate learning from mistakes. Creative thinking for new ideas and innovations will be encouraged / break in learning will be filled with recreational and constructive activities for boosting cognitive functions.

Activities: Lecture/ Project Work/ Seminars/ Term Papers/Assignments/ Presentations/ Study etc.

Assessment Rubric: Classroom Test, Project Work, Assignments, Presentations.

Text:

Ramon & Prakash, Business Communication, Oxford.
 Sydney Green Baum Oxford English Grammar, Oxford.
 Successful Communications, Malra Treece (Allyn and Bacon)
 Effective Technical Communication, M. Ashraf Rizvi.

References:

1. Guffey, Ellen Mary, Business Communication, Thomson (South Western)
2. Dale Carnegie: Quick and Easy way of Public Speaking.

Additional Reading: Newspapers, magazines, outbooks, Journals etc.

LABORATORY PRACTICAL

Learning Outcomes

1. Laboratory practical will give the knowledge and experience of activity or test to the students.
2. Laboratory practical will give better understanding of subject matters that leads toward the work orientation.

BPES-LP105: Anatomy and Physiology

25 Marks/ 1 Credit

1. Demonstration of different body organs with charts, models and pictures.
2. Explanation of muscles contractions- Dynamic and Static contractions.
3. Explanation of different body structure and functions with Audio-visual aids.

BPES-LP106: Kinesiology and Biomechanics

25 Marks/ 1 Credit

1. Demonstration of different joints movements.
2. Demonstration of Agonist and Antagonist movements.
3. Measurement of distance and displacement.
4. Location of Centre Gravity (CG) and Line of Gravity (LG).
5. Demonstration of Linear and Angular motion.

SPORTS/GAMES PRACTICAL

Learning Outcomes

1. Sports and Games practical will give the better physical fitness, skills and performance to the students.
2. Students can understand the rules and interpretation in officiating and coaching.
3. Students will be getting opportunities to participate competitions at different levels.

BPEd-SP107: Track & Field: Running Events**100 Marks/ 4 Credits**

1. Concept and foundation of Track & Field.
2. Marking of Track & Field.
3. Starting techniques: Standing start, Crouch start and its variations, Proper use of blocks.
4. Finishing Techniques: Run Through, Forward Lunging, Shoulder Shrug.
5. Different Events in Running category
6. Hurdles: Fundamental Skills- Starting, Clearance and Landing Techniques, Types of Hurdles
7. Relays: Fundamental Skills, Various patterns of Baton Exchange, Understanding of Relay Zones,
8. Track Marking for different running events
9. Interpretation of Rules and Officiating.

References:

1. Dybon, Geoffrey, G.H., The Mechanics of Athletics, London: University of London Press Ltd. 1962.
2. Doderty, J. Memmeth, Modern Track and Field, Englewood Cliffs: N.J. Prentice Hall, Inc.
3. Hooks, Gene. Application of Weight Training to Athletics, Englewood Cliffs: N.J. Prentice Hall, Inc. 1962.
4. Mohan, V.M. Athletics for Beginners, New Delhi: Metropolitan Books Ltd.
5. Robinson, Johnson James and Hircsni, Modern Techniques of Track and Field (London: Henry Kimpton Publishers) 1974.
6. Bosen, K.O., Track and Field Fundamental Technique (Patiala: N.I.S. Publication).

BPES-SP108: Major Ball Games- Basketball, Football, Handball & Volleyball (Any one to be opted for End Semester Exam).**100 Marks/ 4 Credits****Basketball:**

1. History and development of Basketball
2. Development of Court and Marking
3. Player stance and ball handling
4. Passing- Two Hand chest pass, Two hand Bounce Pass, One Hand Base ball pass, Side Arm Pass, Over Head pass, Hook Pass.
5. Receiving- Two Hand receiving, One hand receiving, Receiving in stationary position, Receiving while jumping, Receiving while running.
6. Dribbling- How to start dribble, How to drop dribble, High dribble, Low dribble, Reverse dribble, Rolling dribble.
7. Shooting- Layup shot and its variations, one hand set shot, One hand jump shot, Hook shot, Free throw.
8. Rebounding- Defensive rebound, Offensive rebound, Knock out, Rebound Organization.
9. Individual Defensive- Guarding the man with the ball and without the ball.
10. Pivoting.
11. Rules and their interpretations and duties of the officials.

References:

1. Moontasir, Abbas. Principles of Basketball Bombay Skanda Publication.
2. Clair and Norton, Kon, Men to Men Defence and Attack. New York, the Ronald Press Company.
3. Boe Clair and Norton, Kon, Zone Defense and Attack. New York, The Ronald Press Company.

4. Abrahm C.C. Basket-Ball for Men and Women. Madras Y.M.C.A. Publishing House.
5. Julian, Alvin F. Brerad and Butter Basketball. London Prentice Hall, Inc.,
6. Colberk A.L. Modern Basketball-A Fundamental Analysis of Skills and Tactics. London, Nicholas Kaya.
7. Srivatsan, S. Basketball, NIS, Publication, Patiala.

Football:

1. Origin, History and development of Football
2. Development of field and marking
3. Kicks- Inside kick, Instep kick, Outside instep kick, lofted kick
4. Receiving- receiving rolling the ball, receiving bouncing ball with sole, receiving aerial ball
5. Dribbling- With instep, inside and outer instep of the foot.
6. Heading- From standing, running and jumping.
7. Throw in
8. Feinting- With the lower limb and upper part of the body.
9. Tackling- Simple tackling, Slide tackling.
10. Goal Keeping- Collection of balls, Ball clearance kicking, throwing and deflecting.
11. Laws of the Game, interpretations and officiating.

References:

1. Larche, Harry E. Techniques of Football Coaching. London : A.S. Barners and Company.
2. Lonziak Conard, Understanding Soccer Tactics, London, Faber and Faber.
3. Saunders, Tom. Play Better Soccer in All Colour London : Colling Geaegow
4. Singh, Gian. Football Quiz. Delhi : Services Publishing House.
5. Batty Cris. Soccer Coaching the Modern Way. London : Faber and Faber.
6. Hedler and Stranghton Play Football With Pale. London, Toronto, Sydney.

Handball:

1. History and development of Handball
2. Development of court and marking
3. Running, Catching the ball with two hands, Catching at chest height, Catching the high ball and catching the low ball.
4. Passing and Throwing : One handed shoulder pass, two handed chest pass the long throw.
5. Dribbling (Running with the ball).
6. Shooting:
 - The standing throw shot.
 - The side throw shot.
 - The jump shot.
 - The reverse shot.
 - The fall shot
5. Goal Keeping- Basic stance, hand and feet movement.
6. Rules and their interpretations and duties of officials.

References:

1. Rowland B.J. Handball a Complete Guide. London : Faber and Faber Ltd. 24 Ronsel Square.
2. Mand, Charles L. Handball Fundamentals. Cinio, Charles E. Merrill Company, Columbus.
3. Philips B. E. Handball its Play and Management. New York : The Ronald Press Company.

4. Robarson, Richard and Olson Herbert Beginning Handball. Wadsworth Company, Inc. Belmont.

Volleyball:

1. History and development of Volleyball
2. Development of court and marking
3. Players Stance- Receiving the ball and passing to the team mates,
4. The Volley (Over head pass),
5. The Dig (Under hand pass).
6. Service- Under Arm Service, Side Arm Service, Tennis Service, Round Arm Service.
7. Rules and their interpretations and duties of officials.

References:

1. Dhnraj. V. Hubert. Volleyball for Men and Women Calcutta : Y.M.C.A. Publishing House.
2. Nicholls, Keith. Modern Volleyball for Teachers, Coach and Player. London : Lepus Book.
3. Siyamaker, Thomas and Brown, Virgine H. Power Volleyball London, Saunders Company.
4. Sotir, Nicolas, Winning Volleyball London, Stanley Paul,.
5. Sandefur Kandy, Volleyball California : Goodyear Publishing Company, Inc.
6. Anthony, Don. Succes in Volleyball. London : John Murrary Publishers Ltd. .
7. Leveag, Robert E. How to Improve your Volleyball Chicago : The Athletic Institute .
8. Soudhu, G.S. Volleyball, Basic & Advanced. The Sports. People, Chandigarh.

Sports simulation laboratory- Sports simulation laboratory is to be established to provide the students with a feasible environment where they will learn and practice sports skills using animated videos with continuous rectification of errors till exact simulation of skill is attained. Help may be taken from Youtube Streaming, Swayam Platform (www.swayam.gov.in), Swayam Prabha (www.swayamprabha.gov.in) (available on Doordarshan (free dish TV), E-Yantra (www.e-yantra.org)).

SEMESTER- II

FOUNDATIONAL/MAIN/CORE COURSE

BPES-FC201: Yoga Education

100 Marks/ 4 Credits

Learning Outcomes

1. The students will gain the fundamental knowledge of Yoga.
2. The study will give the importance of different scopes of yoga in life.
3. The theoretical and practical approaches will be learned.

Course Contents

Unit – I: Introduction

- 1.1 Meaning and Definition of Yoga
- 1.2 Aims and Objectives of Yoga
- 1.3 Yoga in Early Upanisads

- 1.4 The Yoga Sutra: General Consideration
- 1.5 Need and Importance of Yoga in Physical Education and Sports.

Unit - II: Foundation of Yoga

- 2.1 The Astanga Yoga: Yama, Niyama, Asana, Pranayama, Pratyahara, Dharana, Dhyana and Samadhi.
- 2.2 Yoga in the Bhagavadgita - Karma Yoga, Raja Yoga, Jnana Yoga and Bhakti Yoga.

Unit – III: Asanas

- 3.1 Effect of Asanas and Pranayama on various system of the body
- 3.2 Classification of asanas with special reference to physical education and sports
- 3.3 Influences of relaxtive, meditative posture on various system of the body
- 3.4 Types of Bandhas and mudras
- 3.5 Type of kriyas

Unit –IV: Education and Yoga

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

Teaching Learning Strategies: The class will be taught by using lectures and demonstration, seminars, classroom discussion, videos, charts and presentations method.

Virtual instructional platforms such as **online lectures**, webcast etc. are to be used. Students can participate in coursework through instant messages, emails and video conferencing. Google class room, Cisco WebeX Meeting, OERS, Swayam Platform (www.swayam.gov.in), SwayamPrabha (www.swayamprabha.gov.in) (available on Doordarshan(free dish TV), E-Yantra (www.e-yantra.org), Virtual Labs (www.vlabs.co.in), National Digital Library (www.ndl.iitkgp.ac.in), electronic journals (www.ess.infibnet.ac.in) etc. are to be used. . Courses may also integrate DVD videos as part of the learning process. Students may examine current topics in the field through the use of e- textbooks and e-journals. Students can complete some portion of the education at approved testing sites for the practical components wherever necessary.

Initiating Brain based learning- A stress free environment will be created. Constant feedback regarding their performance will be given to initiate learning from mistakes. Creative thinking for new ideas and innovations will be encouraged / break in learning will be filled with recreational and constructive activities for boosting cognitive functions.

Activities: Lecture/ Project Work/ Seminars/ Term Papers/Assignments/ Presentations/ Study etc.

Assessment Rubric: Classroom Test, Project Work, Assignments, Presentations.

References:

- 1 Brown, F. Y.(2000). How to use yoga. Delhi:Sports Publication.
- 2 Gharote, M. L. &Ganguly, H. (1988). Teaching methods for yogic practices. Lonawala: Kaixydahmoe.
- 3 Rajjan, S. M. (1985). Yoga strenthening of relaxation for sports man. New Delhi:Allied Publishers.
- 4 Shankar,G.(1998). Holistic approach of yoga. New Delhi:Aditya Publishers.
- 5 Shekar,K. C. (2003). Yoga for health. Delhi: Khel Sahitya Kendra.

BPES-FC202: Officiating and Coaching**100 Marks/ 4 Credits****Learning Outcomes**

1. The pass out students would be oriented with the fundamental knowledge of Officiating.
2. The pass out students would be able coaching philosophy.
3. Students would be able to organize the concerned sports event and officiate in it.
4. Students would be oriented in the art of coaching the sports team.
5. Students shall also be able to recognize the qualifications of coaches and officials.

Course Contents**Unit- I: Introduction of Officiating and Coaching**

- 1.1 Concept of officiating and coaching
- 1.2 Importance and principles of officiating
- 1.3 Relation of official and coach with management, players and spectators
- 1.4 Measures of improving the standards of officiating and coaching.

Unit- II: Coach as a Mentor

- 2.1 Duties of coach in general, pre, during and post game.
- 2.2 Philosophy of coaching
- 2.3 Responsibilities of a coach on and off the field
- 2.4 Psychology of competition and coaching.

Unit- III: Duties of Official

- 3.1 Duties of official in general, pre, during and post game.
- 3.2 Philosophy of officiating
- 3.3 Mechanics of officiating – position, singles and movement etc.
- 3.4 Ethics of officiating

Unit- IV: Qualities and Qualifications of Coach and Official

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

Teaching Learning Strategies: The class will be taught by using lectures and demonstration, seminars, classroom discussion, videos, charts and presentations method.

Virtual instructional platforms such as **online lectures**, webcast etc. are to be used. Students can participate in coursework through instant messages, emails and video conferencing. Google class room, Cisco WebeX Meeting, OERS, Swayam Platform (www.swayam.gov.in), Swayam Prabha (www.swayamprabha.gov.in) (available on Doordarshan (free dish TV), E-Yantra (www.e-yantra.org), Virtual Labs (www.vlabs.co.in), FOSSEE (www.fossee.in), National Digital Library (www.ndl.iitkgp.ac.in), electronic journals (www.ess.infibnet.ac.in) etc. are to be used. . Courses may also integrate DVD videos as part of the training process. Students may examine current topics in the field through the use of e- textbooks and e-physical education journals. Students can complete some portion of the education at approved testing sites for the practical components wherever necessary.

Initiating Brain based learning- A stress free environment will be created. Constant feedback regarding their performance will be given to initiate learning from mistakes. Creative thinking for new ideas and innovations will be encouraged / break in learning will be filled with recreational and constructive activities for boosting cognitive functions.

Activities: Lecture/ Project Work/ Seminars/ Term Papers/Assignments/ Presentations/ Study etc.

Assessment Rubric: Classroom Test, Project Work, Assignments, Presentations.

References:

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

BPES-FC203: Methods in Physical Education

100 Marks/ 4 Credits

Learning Outcomes

1. Students can understand different teaching methods in physical education.
2. Students will know the various teaching aids could be procured in physical education.
3. Students will understand the different teaching lesson plans in physical education.

Course Contents

Unit-I: Introduction

- 1.1 Meaning and Definitions of Teaching Methods in Physical Education
- 1.2 Scope of Teaching Methods in Physical Education
- 1.3 Importance of Teaching Methods in Physical Education
- 1.4 Factors influence the Teaching Methods in Physical Education.

Unit-II: Teaching Methods

- 2.1 Types- Lecture method, Command method, Demonstration method, Discussion method, Imitation method, Project method etc.
- 2.2 Teaching Procedure: Whole method, whole-part-whole method, part-whole method.
- 2.3 Presentation Technique, Personal preparation and Technical preparation.
- 2.4 Command- Meaning, Types and its uses in different situations.

Unit-III: Teaching Aids

- 3.1 Teaching Aids- Meaning, Importance and criteria for selecting teaching aids.
- 3.2 Teaching aids- Audio aids, Visual aids, Audio-visual aids, Verbal, Chalk board, Charts, Model, Slide projector, Motion picture etc.
- 3.3 Team Teaching- Meaning, Principles and advantage of team teaching.
- 3.4 Difference between Teaching Methods and Teaching Aid.

Unit-IV: Lesson Planning and Teaching Innovations

- 4.1 Lesson Planning- Meaning, Type and principles of lesson plan.
- 4.2 General and specific lesson plan.
- 4.3 Micro Teaching- Meaning, Types and steps of micro teaching.
- 4.4 Simulation Teaching- Meaning, Types and steps of simulation teaching.

Teaching Learning Strategies: The class will be taught by using lectures and demonstration, seminars, classroom discussion, videos, charts and presentations method.

Virtual instructional platforms such as **online lectures**, webcast etc. are to be used. Students can participate in coursework through instant messages, emails and video conferencing. Google class room, Cisco WebeX Meeting, OERS, Swayam Platform (www.swayam.gov.in), SwayamPrabha (www.swayamprabha.gov.in) (available on Doordarshan(free dish TV), E-Yantra (www.e-yantra.org), Virtual Labs (www.vlabs.co.in), FOSSEE (www.fossee.in), National Digital Library (www.ndl.iitkgp.ac.in), electronic journals (www.ess.infibnet.ac.in) etc. are to be used. . Courses may also integrate DVD videos as part of the training process. Students may examine current topics in the field through the use of e- textbooks and e-physical education journals. Students can complete some portion of the education at approved testing sites for the practical components wherever necessary.

Initiating Brain based learning- A stress free environment will be created. Constant feedback regarding their performance will be given to initiate learning from mistakes. Creative thinking for new ideas and innovations will be encouraged / break in learning will be filled with recreational and constructive activities for boosting cognitive functions.

Activities: Lecture/ Project Work/ Seminars/ Term Papers/Assignments/ Presentations/ Study etc.

Assessment Rubric: Classroom Test, Project Work, Assignments, Presentations.

References:

1. Bhardwaj, A. (2003). New media of educational planning. New Delhi: Sarup of Sons.
2. Bhatia,& Bhatia,(1959). The principles and methods of teaching. New Delhi: Doaba House.
3. Kochar, S.K. (1982). Methods and techniques of teaching.New Delhi: Sterling Publishers Pvt. Ltd.
4. Sampath, K.,Pannirselvam, A. & Santhanam, S. (1981). Introduction to educational technology. New Delhi: Sterling Publishers Pvt. Ltd.
5. Walia, J.S. (1999). Principles and methods of education. Jullandhar: Paul Publishers.

GENERIC COURSE

BPES-GC204: Environmental Science

50 Marks/ 2 Credits

Learning Outcomes

1. The course shall develop in student the scientific background needed to understand how the earth works and how we, as human beings, fit into that.
2. At the end of the course, it is expected that students will be able to identify and analyze environmental problems as well as the risks associated with these problems.

Course Contents

Unit-I: Multidisciplinary Nature of Environmental Studies

- 1.1 Introduction to environmental studies and importance

- 1.2 Need for public awareness
- 1.3 Sensitization and participation
- 1.4 Swatch Bharat Abhiyan.

Unit-II: Natural Resources

- 2.1 Concept of natural resources and their importance
- 2.2 Resources: Food resources, Land resources
- 2.3 Water resources, Forest resources, use and overuse
- 2.4 Minerals and Energy resources and importance

Unit-III: Ecosystems

- 3.1 Concept and types of ecosystem
- 3.2 Structure and function of an ecosystem
- 3.4 Producers, consumers and decomposers.
- 3.4 Energy flow in the ecosystem, Food chains, food webs and ecological pyramids.

Unit-IV: Biodiversity

- 4.1 Definition: genetic, species and ecosystem diversity
- 4.2 Bio-geographical classification
- 4.3 Value of biodiversity: consumptive use, productive use, social, ethical and aesthetic values.
- 4.4 Bio-diversity at global, national and local levels
- 4.5 Threats to biodiversity: habitat loss, poaching of wildlife, man wildlife conflicts.

Teaching Learning Strategies: The class will be taught by using lectures and demonstration, seminars, classroom discussion, videos, charts and presentations method.

Virtual instructional platforms such as **online lectures**, webcast etc. are to be used. Students can participate in coursework through instant messages, emails and video conferencing. Google class room, Cisco WebeX Meeting, OERS, Swayam Platform (www.swayam.gov.in), Swayam Prabha (www.swayamprabha.gov.in) (available on Doordarshan (free dish TV), E-Yantra (www.e-yantra.org), Virtual Labs (www.vlabs.co.in), FOSSEE (www.fossee.in), application of spoken tutorials (www.spoken-tutorial.org), National Digital Library (www.ndl.iitkgp.ac.in), electronic journals (www.ess.infibnet.ac.in) etc. are to be used. . Courses may also integrate DVD videos as part of the training process.

Initiating Brain based learning- A stress free environment will be created. Constant feedback regarding their performance will be given to initiate learning from mistakes. Creative thinking for new ideas and innovations will be encouraged. Break in learning will be filled with recreational and constructive activities for boosting cognitive functions.

Activities: Lecture/ Project Work/ Seminars/ Term Papers/Assignments/ Presentations/ Study etc.

Assessment Rubric: Classroom Test, Project Work, Assignments, Presentations.

References:

1. Khaushik & Khaushik. Fundamentals of Environmental Studies.
2. Somvanshi & Dhupper. Fundamentals of Environmental Studies.
3. Gauba & Bisht. Environmental Studies, Challenges & Solutions A quick Compendium.
4. Asthana & Asthana. A textbook of Environmental Studies.

LABORATORY PRACTICAL

Learning Outcomes

1. Laboratory practical will give the knowledge and experience of activity or test to the students.
2. Laboratory practical will give better understanding of subject matters that leads toward the work orientation.

BPES-LP205: Yogic Practices

25 Marks/ 1 Credit

1. Practices of Asanas
2. Practices of Pranayamas and Meditation

BPEd-LP206: Demonstration of Methods of Officiating and Teaching

25 Marks/ 1 Credit

1. Demonstration of officials' signals and interpretation of different games/sports.
2. Equipments of officials
3. Implementation technology for officiating
4. Various Teaching Aids used in classroom
5. Practice of Micro-teaching.

SPORTS/GAMES PRACTICAL

Learning Outcomes

1. Sports and Games practical will give the better physical fitness, skills and performance to the students.
2. Students can understand the rules and interpretation in officiating and coaching.
3. Students will be getting opportunities to participate competitions at different levels.

BPES-SP207: Track & Field: Jumping and Throwing Events

100 Marks/ 4 Credits

Jumping Events

1. Concept, development and classification of Jumping events.
2. Measurement and marking of events.
3. High Jump - Approach run, take off, clearance over the Bar and landing; Types- Scissor cut, Straddle roll/Western Roll, Fosbury Flop.
4. Long Jump - Approach run, take off, flight in the air and landing; Type- Hang Style, Hitch Kick/Cycling/Walking in the air.
5. Triple Jump - Approach run, hop-step, take off, flight in the air and landing.
6. Ground Marking / Sector Marking.
7. Rules and their interpretations and duties of officials.

Throwing events

1. Concept, development and classification of Throwing events.
2. Measurement and marking of events.
3. Javelin - Grip, Carry, Approach Run, Release and Reverse.
4. Shot put - Grip, Stance, Glide, Release and Reverse; Types- Orthodox, Peri O' Brien, Disco-put.
5. Discus throw - Grip, Stance, Release and Reverse; Types- Orthodox, Disco style.
6. Hammer throw - Grip, Turning, Release and Reverse.
7. Ground Marking / Sector Marking.

8. Rules and their interpretations and duties of officials.

Reference:

1. Dybon, Geoffrey, G.H., The Mechanics of Athletics, London: University of London Press Ltd. 1962.
2. Doderty, J. Memmeth, Modern Track and Field, Englewood Cliffs: N.J. Prentice Hall, Inc.
3. Hooks, Gene. Application of Weight Training to Athletics, Englewood Cliffs: N.J. Prentice Hall, Inc. 1962.
4. Mohan, V.M. Athletics for Beginners , New Delhi: Metropolitan Books Ltd.
5. Robinson, Johnson James and Hirschni, Modern Techniques of Track and Field (London: Henry Kimpton Publishers) 1974.
6. Bosen, K.O., Track and Field Fundamental Technique (Patiala: N.I.S. Publication).

BPES-SP208: Major Games- Hockey, Cricket, Softball & Kabaddi/Kho-Kho (Any one to be opted for End Semester Exam). 100 Marks/ 4 Credits

Hockey

1. Origin, history and development of Hockey
2. Field development and marking
3. Player stance & Grip
4. Rolling the ball
5. Dribbling
6. Push
7. Stopping
8. Hit
9. Flick
10. Scoop
11. Passing – Forward pass, square pass, triangular pass, diagonal pass, return pass,
12. Reverse hit
13. Dodging
14. Goal keeping – Hand defence, foot defence
15. Positional play in attack and defense.
16. Rules and their interpretations and duties of officials.
17. Ground Marking.

References:

1. Flint, Rachael, H. Women's Hockey London: Pelham Books Ltd.
2. Milford, D.S. Hockey Practice and Tactics London: Edward Arnold and Company.
3. Singh, Gian and Wallia Kuku Learn Hockey this way. New Delhi International Hockey Institutes.
4. Wein, Horts. The Science of Hockey. London: Pelham Books.
5. Ahmed Khan, Eraj. Hockey for Boys and Girls, Scientific Book Company, Patna.
6. Thani, Yograj. Hockey.
7. Durairaj, Techniques of Hockey.
8. Kapur, Rules of Hockey with Interpretation (Boys and Girls).

Cricket

1. Origin, history and development of Cricket
2. Field development and marking
3. Batting-Forward and backward defensive stroke
4. Bowling-Simple bowling techniques
5. Fielding-Defensive and offensive fielding

6. Catching-High catching and Slip catching
7. Stopping and throwing techniques
8. Wicket keeping techniques.
9. Rules and their interpretations and duties of officials.
10. Ground Marking.

References:

1. Micharda, Barry, Barry Richard Cricket. London Pelhon Books.
2. 2-Mankar, Vinno, How to play Cricket. Rupa and Company.
3. Greig, Tony, Greig on Cricket. Bombay, S. Publication.
4. John Snow, Cricket Fondon :William Dusmomby Publisher Ltd.
5. N.I.S. Cricket : Pub. Inc.
6. Goei G.R. Cricket Sports Officer, Stadium Sigm.
7. M.S. Mushtaq. How to Play Cricket. Vikas Publishing House, New Delhi.

Softball

1. History and development
2. Field development and marking
3. Catching: one handed, two handed, with feet grounded, in flight.
4. Throwing (different passes and their uses): one handed passes (shoulder, high shoulder, underarm, bounce, lob); two handed passes (push, overhead, bounce).
5. Footwork: landing on one foot; landing on two feet; pivot; running pass.
6. Techniques of getting free: dodge and sprint; sudden sprint; sprint and stop; sprinting with change of speed.
7. Defending: marking the player; marking the ball; blocking; inside the circle; outside the circle (that is, defending the circle edge against the pass in).
8. Intercepting: pass; shot.
9. The toss-up.
10. Role of individual players.
11. Ground marking.
12. Rules and their interpretations and duties of officials.

Kabaddi & Kho-Kho

Kabaddi

1. History and development of Kabaddi
2. Court development and marking
3. Skills in Raiding-Touching with hand, various kicks, crossing of baulk line, Crossing of Bonus line, luring the opponent to catch, Pursuing.
4. Skills of Holding the Raider-Variou formations, Catching from particular position, Different catches, Luring the raider to take particular position so as to facilitate catching, catching formations and techniques.
5. Additional skills in raiding-Bringing the antis in to particular position, Escaping from various holds, Techniques of escaping from chain formation, Combined formations in offence and defense.
6. Ground Marking, Rules and Officiating.

Kho-Kho

1. History and development of Kho-Kho
2. Court development and marking
3. General skills of the game-Running, chasing, Dodging, Faking etc.

4. Skills in chasing-Correct Kho, Moving on the lanes, Pursuing the runner, Tapping the inactive runner, Tapping the runner on heels, Tapping on the pole, Diving, Judgement in giving Kho, Rectification of Foul.
5. Skills in Running-Zig-zag running, Single and double chain, Ring play, Rolling in the sides, Dodging while facing and on the back, fakes on the pole, fake legs, body arm etc, Combination of different skills.
6. Ground Marking
7. Rules and their interpretations and duties of officials.

References:

1. Kho-Kho, The game of chase and Trill, Bombay Maharashtra Kho-Kho Association.
2. Yogesh Yadav. Kho-Kho, Maharashtra Kho-Kho Association, 1969.
3. Rao, C. V. Kabaddi, Patials, N.I.S. Publications.
4. Reddy, B. A. Scientific Kabaddi, Madrad ; Raman's Printing Press.

Sports simulation laboratory- Sports simulation laboratory is to be established to provide the students with a feasible environment where they will learn and practice sports skills using animated videos with continuous rectification of errors till exact simulation of skill is attained. Help may be taken from Youtube Streaming, Swayam Platform (www.swayam.gov.in), Swayam Prabha (www.swayamprabha.gov.in) (available on Doordarshan (free dish TV), E-Yantra (www.e-yantra.org)).

SEMESTER- III

FOUNDATIONAL/MAIN/CORE COURSE

BPES-FC301: Sports Psychology and Sociology

100 Marks/ 4 Credits

Learning Outcomes

1. The study would orient the student in basic concepts of psychology.
2. The student would be oriented in identifying factors determining one's overall personality.
3. He would understand various laws of learning and their relevance in teaching learning process.
4. The study would orient him in getting through with the psychology of sports person.

Course Contents

Unit-I: Introduction of Sports Psychology

- 1.1 Meaning and nature of Psychology and Sports Psychology.
- 1.2 Historical Evolution of Sports Psychology
- 1.3 Importance of Sports Psychology in Physical Education and Sports.
- 1.4 Psychological factors affecting sports performances.

Unit-II: Personality, Motivation and Learning

- 2.1 Meaning, definition and types of Personality
- 2.2 Dimensions of personality and development of personality in sports
- 2.3 Meaning, definition and types of motivation
- 2.4 Need, drive, motive, incentive and motivation in sports
- 2.5 Learning- types of learning, laws of learning, transfer of learning.

Unit-III: Introduction to Sports Sociology

- 3.1 Meaning and Nature of Sociology and Sports Sociology
- 3.2 Importance of Sports Sociology in Physical Education and sports
- 3.3 Socialization and value education through Physical Education and sports
- 3.4 Impact of society on sports development.

Unit-IV: Social Aspects and Physical Education.

- 4.1 Orthodoxy, customs, Tradition, culture and Physical Education.
- 4.2 Social group, Socialization through Physical Education and sports
- 4.3 Culture and sports, Social Stratification, gender differences
- 4.4 Influence of spectators in sports.

Teaching Learning Strategies: The class will be taught by using lectures and demonstration, seminars, classroom discussion, videos, charts and presentations method.

Virtual instructional platforms such as **online lectures**, webcast etc. are to be used. Students can participate in coursework through instant messages, emails and video conferencing. Google class room, Cisco WebeX Meeting, OERS, Swayam Platform (www.swayam.gov.in), Swayam Prabha (www.swayamprabha.gov.in) (available on Doordarshan (free dish TV), E-Yantra (www.e-yantra.org), Virtual Labs (www.vlabs.co.in), FOSSEE (www.fossee.in), application of spoken tutorials (www.spoken-tutorial.org), National Digital Library (www.ndl.iitkgp.ac.in), electronic

journals (www.ess.infibnet.ac.in) etc. are to be used. Courses may also integrate DVD videos as part of the training process.

Initiating Brain based learning- A stress free environment will be created. Constant feedback regarding their performance will be given to initiate learning from mistakes. Creative thinking for new ideas and innovations will be encouraged. Break in learning will be filled with recreational and constructive activities for boosting cognitive functions.

Activities: Lecture/ Project Work/ Seminars/ Term Papers/Assignments/ Presentations/ Study etc.

Assessment Rubric: Classroom Test, Project Work, Assignments, Presentations.

References:

1. Alison and Robinson. (2018), *Excelling in Sport Psychology: Planning, Preparing, and Executing Applied Work*, Sean Fitzpatrick.
2. Taylor, Jim, (2018), *Assessment in Applied Sport Psychology*, Human kinetics.
3. Coumbe-Lilley , (2018), *Complex Cases in Sport Psychology*, Routledge.
4. Ball, D. W. & Loy, J. W. (1975). *Sport and social order; Contribution to the sociology of sport*. London: Addison Wesley Publishing Co., Inc.
5. Kamlesh, M.L. (1998). *Psychology in physical education and sport*. New Delhi: Metropolitan Book Co.
6. Loy, J. W., Kenyon, G. S. & McPherson, B. D. (1978). *Sport and social system*. London: Addison Wesley Publishing Company Inc.
7. Loy, J. W., Kenyon, G. S. & McPherson, B. D. (1981). *Sports culture and society*. Philadelphia: Lea & Febiger.
8. Skinner, C. E., (1984.). *Education psychology*. New Delhi: Prentice Hall of India.

BPES-FC302: Sports Management

100 Marks/ 4 Credits

Learning Outcomes

1. The student would understand the concept and importance of management of Physical Education.
2. Student shall gain knowledge regarding management of Physical Education and Sports at different level.
3. Student will be able to organize various Physical Education and sports program.
4. Student would know about various schemes and policies of State & Central Government.
5. Student would know about planning of facility and financial management.
6. Understanding of the competencies and skill of sport manager.

Course Contents

Unit-I: The Management Process

- 1.1 Definition, Principles, Nature and Concept of Sports Management.
- 1.2 Progressive concept of Sports management.
- 1.3 The purpose and scope of Sports Management.
- 1.4 Essential skills of Sports Management.
- 1.5 Qualities and competencies required for the Sports Manager.
- 1.6 Event Management in physical education and sports.

Unit-II: Leadership in Sports Management Process

- 2.1 Meaning and Definition of leadership.
- 2.2 Leadership style and method.
- 2.3 Elements of leadership.
- 2.4 Forms of Leadership.
 - 2.4.1 Autocratic
 - 2.4.2 Laissez-faire
 - 2.4.3 Democratic
 - 2.4.4 Benevolent Dictator
- 2.5 Qualities of administrative leader.
- 2.6 Preparation of administrative leader.
- 2.7 Leadership and Organizational performance.

Unit-III: Planning and Management of sports at Institutional level

- 3.1 Sports Management in Schools, colleges and Universities.
- 3.2 Factors affecting planning
- 3.3 Planning a school or college sports programme.
- 3.4 Directing of school or college sports programme.
- 3.5 Controlling a school, college and university sports programme.
 - 3.5.1 Developing performance standard
 - 3.5.2 Establishing a reporting system
 - 3.5.3 Evaluation
 - 3.5.4 The reward/punishment system

Unit-IV: Financial Management in Sports

- 4.1 Financial management in Physical Education & sports in schools, Colleges and Universities.
- 4.2 Objectives and scope of financial planning.
- 4.3 Management of Infrastructure, finance and personal
- 4.4 Mechanics of purchase and audit.

Teaching Learning Strategies: The class will be taught by using lectures and demonstration, seminars, classroom discussion, videos, charts and presentations method.

Virtual instructional platforms such as **online lectures**, webcast etc. are to be used. Students can participate in coursework through instant messages, emails and video conferencing. Google class room, Cisco WebeX Meeting, OERS, Swayam Platform (www.swayam.gov.in), Swayam Prabha (www.swayamprabha.gov.in) (available on Doordarshan (free dish TV), E-Yantra (www.e-yantra.org), Virtual Labs (www.vlabs.co.in), FOSSEE (www.fossee.in), application of spoken tutorials (www.spoken-tutorial.org), National Digital Library (www.ndl.iitkgp.ac.in), electronic journals (www.ess.infibnet.ac.in) etc. are to be used. . Courses may also integrate DVD videos as part of the training process.

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Activities: Lecture/ Project Work/ Seminars/ Term Papers/Assignments/ Presentations/ Study etc.

Assessment Rubric: Classroom Test, Project Work, Assignments, Presentations.

References:

1. Bucher, C.A. (2002). Management of Physical Educational and Sports.(12th Ed.). USA: McGraw Hill Co.
2. Chakraborti, S. (2007). Sports Management. New Delhi: Friends Publication.
3. Frosdick, S., & Walley, L. (2003). Sports and Safety Management. USA: A division of Reed Education and Professional Publishing Ltd.
4. Govindrajulu, .N. (2005). Management of Physical Education and Sports Programme. New Delhi : Friends Publication.
5. Kamlesh, M. L. (2000). Management Concepts in Physical Education and Sports. New Delhi : B.V. Gupta Publication.
6. Mastoralaxis, L.P., & Barr, C.A. (1998). Principles and Practice of Sports Management. Maryland: Aspen Publication.
7. Roy, S. S. (2002). Sports Management. New Delhi: Friends publication.
8. Horine., Larry. (1985). Administration of Physical Education and Sports Programmes. New York: Saundress college publication.

BPES-FC303: Health Education

100 Marks/ 4 Credits

Learning Outcome:

1. The student will be able to identify and synthesize the factors that influence health
2. The student will be able to recognize the health related challenges in current time and able to apply the preventive measures.
3. The student will be able to identify the role of peers, community and media in health promotion and protection.
4. The student will be able to demonstrate the expertise in above stated domains in a school setup.
5. The student will be able to value the knowledge and skills required to preserve community health and well-being.

Course Contents

Unit-I: Health Education and Services

- 1.1 Concept, Dimensions, Spectrum and determinants of Health
- 1.2 Health Education and Principles of Health Education
- 1.3 Nature and Scope of Health Education in Physical Education
- 1.4 Health Services in India.

Unit-II: Global Health Issues

- 2.1 Communicable, Non-Communicable disease and their prevention
- 2.2 Malnutrition, Food Adulteration, Environmental Pollution and Sanitation, Population and their management.
- 2.3 Physical Activity and Nutrition, Overweight and Obesity, Mental Health
- 2.4 Prime causes of death: cardiovascular disease, chronic respiratory disease, Diabetes, Mental Disorders, Nutritional Deficiencies and their prevention through physical activity.

Unit-III: Health Education in Schools

- 3.1 Need and scope of health education in schools
- 3.2 Preventing alcohol, tobacco and other drugs abuses in schools
- 3.3 Personal Health and Wellness: Healthy eating, Mental and Emotional health, and Violence prevention.
- 3.4 Physical activity, Safety, First Aid and Emergency procedures.

Unit- IV: Health Supervision and Evaluation in Schools

- 4.1 Health Instruction and Health Supervision
- 4.2 Assessing personal and peers health risk taking
- 4.3 Analyzing the influence of family, peers, culture and media on health behavior
- 4.4 Consumer Health and Comprehensive Health Education.

Teaching Learning Strategies: The class will be taught by using lectures and demonstration, seminars, classroom discussion, videos, charts and presentations method.

Virtual instructional platforms such as **online lectures**, webcast etc. are to be used. Students can participate in coursework through instant messages, emails and video conferencing. Google class room, Cisco WebeX Meeting, OERS, Swayam Platform (www.swayam.gov.in), Swayam Prabha (www.swayamprabha.gov.in) (available on Doordarshan (free dish TV), E-Yantra (www.e-yantra.org), Virtual Labs (www.vlabs.co.in), FOSSEE (www.fossee.in), application of spoken tutorials (www.spoken-tutorial.org), National Digital Library (www.ndl.iitkgp.ac.in), electronic journals (www.ess.infibnet.ac.in) etc. are to be used. . Courses may also integrate DVD videos as part of the training process.

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Activities: Lecture/ Project Work/ Seminars/ Term Papers/Assignments/ Presentations/ Study etc.

Assessment Rubric: Classroom Test, Project Work, Assignments, Presentations.

References:

1. Agrawal, K.C. (2001). Environmental biology. Bikaner: Nidhi publishers Ltd.
2. Bensley, R. J. and Fisher, J. B (2009). Community Health Education Methods. Massachusetts: Jones and Bartlett Publishers.
3. Edward, J. T. (2006). Health and Disease, New Delhi: Sports Publication.
4. Anspaugh, D. J. and Ezell, G. (2003). Teaching today's Health. USA: Allyn & Bacon.
5. McKenzie, J. F. and Smeltzer, J. L (2001). Planning, Implementing, and Evaluating Health Promotion Programs: A Primer, USA: Allyn & Bacon.

GENERIC COURSE

BPES-GC304: Fundamentals of Computer Application

50 Marks/ 2 Credits

Learning Outcomes

1. The students can understand the basic computer application in the development of communication technology in physical education.
2. The students can explore and present their knowledge through ICT.

Course Contents

Unit-I: Introduction to Computer

- 1.1 Meaning, need and importance of information and communication technology (ICT).
- 1.2 Application of Computers in Physical Education
- 1.4 Components of computer, input and output device
- 1.5 Application of software used in Physical Education and sports.

Unit-II: MS Word

- 2.1 Introduction to MS Word
- 2.2 Creating, saving and opening a document
- 2.3 Formatting Editing features Drawing table ,
- 2.4 Page setup, paragraph alignment, spelling and grammar check printing option, inserting page number, graph, footnote and notes.

Unit-III: MS Excel

- 3.1 Introduction to MS Excel
- 3.2 Creating, saving and opening spreadsheet
- 3.3 Creating formulas
- 3.4 Format and editing features adjusting columns width and row height understanding charts.

Unit-IV: MS Power Point

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

References:

1. Irtegov, D. (2004). Operating system fundamentals. Firewall Media.
2. Marilyn, M. & Roberta, B.(n.d.).Computers in your future. 2nd edition, India: Prentice Hall.
3. Milke, M.(2007). Absolute beginner's guide to computer basics. Pearson Education Asia.
4. Sinha, P. K. & Sinha, P. (n.d.).Computer fundamentals. 4th edition, BPB Publication.

LABORATORY PRACTICAL

Learning Outcomes

1. Laboratory practical will give the knowledge and experience of activity or test to the students.
2. Laboratory practical will give better understanding of subject matters that leads toward the work orientation.

BPES-LP305: Computer Application

25 Marks/ 1 Credit

1. Components of Computer
2. Application of MS Word
3. Application of MS Excel
4. Application of MS Power Point
5. Application of software.

BPES-LP306: Health and Psychological Assessment **25 Marks/ 1 Credit**

1. Demonstration of safety, first aid and emergency procedures.
2. Description of nutritional components (macro and micro).
3. Description of motivational techniques.
4. Discussion of psychological factors that enhance the sports performance.

SPORTS/GAMES PRACTICAL**Learning Outcomes of Sports/Games Practical**

1. Sports and Games practical will give the better physical fitness, skills and performance to the students.
2. Students can understand the rules and interpretation in officiating and coaching.
3. Students will be getting opportunities to participate competitions at different levels.

BPES-SP307: Yoga **100 Marks/ 4 Credits**

1. Background and history of Yoga
2. Development of yoga sport
3. Surya Namaskara
4. Asanas
 - Sitting Position
 - Standing Position
 - Laying Prone Position
 - Laying Spine Position
5. Pranayamas
6. Corrective Asanas
7. Kriyas

References:

1. Kuvalayananda, Asanas, Popular Prakashan, Bombay.
2. Kuvalayananda, Pranayama, Popular Prakashan, Bombay.
3. Gibbs, Yoga for Children.
4. Yadav YP, Art of Yoga.
5. B.K. Iyenger, Yoga.
6. A.P. Super, Yoga.
7. Yogeshwar, Text Book of Yoga, Yoga Centre, Mylopore, Madras.
8. Kuvalayananda and Vinekar, S.L. Yogic Therapyj. Central Bureau of Health Services, Ministry of Health, New Delhi.

BPES-SP308: Racket Games- Badminton, Tennis, Table Tennis (Any one to be opted for End Semester Exam). **100 Marks/ 4 Credits****Badminton**

1. History and development of Badminton
2. Court development and marking
3. Racket parts, Racket grips, Shuttle Grips.
4. The basic stances.
5. The basic strokes-Serves, Forehand-overhead and underarm, Backhand-overhead and underarm

6. Drills and lead up games.
7. Types of games-Singles, doubles, including mixed doubles.
8. Court marking.
9. Rules and their interpretations and duties of officials.

References:

1. Doway, J.C. Better Badminton for All: Great Britain, Pelham Books Ltd.
2. Davic part, Better Badminton Learn in yourself Book. London : Orient Paper Books.
3. Brown E, Better Badminton London Faber & Faber.
4. Rogers, Wynn. Advanced Badminton. IWOOA, WMC, Brown Co. Publishers, DUBU.

Tennis

1. History and development of Tennis
2. Court development and marking
3. Grips- Eastern Forehand grip and Backhand grip, Western grip, Continental grip, Chopper grip.
4. Stance and Footwork.
5. Basic Ground strokes-Forehand drive, Backhand drive.
6. Basic service
7. Basic Volley
8. Over-head Volley
9. Chop
10. Tactics – Defensive, attacking in game.
11. Court marking.
12. Rules and their interpretations and duties of officials.

References:

1. Rick Chavez and Lois Smith N., Teaching Tennis, Surjeet Publication, New Delhi, 1996.
2. Simon Lee, How to Play Tennis, S.K. Sachdeva for Competition Review Pvt. Ltd. New Delhi, 1991.
3. Jim Brown, Tennis- Steps to Success, Human Kinetics, 2004.

Table Tennis

1. History and development of Table Tennis
2. Court development and marking
3. The Grip-The Tennis Grip, Pen Holder Grip.
4. Service-Forehand, Backhand, Side Spin, High Toss.
5. Strokes-Push, Chop, Drive, Half Volley, Smash, Drop-shot, Balloon, Flick Shit, Loop Drive.
6. Stance and Ready position and foot work.
7. Court marking.
8. Rules and their interpretations and duties of officials.

References:

1. Jain, Deepak, Teaching and Coaching -Table Tennis, Delhi : Khel Sahitaya Kendra, 2001.
2. Narang, P., Play & Learn Table Tennis, Khel Sahitaya Kendra, 2005.
3. Parker, D., Take Up Table Tennis, Springfield Books Ltd., 1989.
4. Simpson, Peter, Successful Table Tennis, London: Charles Letts, 1980.
5. Taylor, R., Sports Action-Table Tennis, London, 1989.
6. Thani, Lokesh, Skills and Tactics Table Tennis, Delhi: Sports, 1998.

Sports simulation laboratory- Sports simulation laboratory is to be established to provide the students with a feasible environment where they will learn and practice sports skills using animated videos with continuous rectification of errors till exact simulation of skill is attained. Help may be taken from Youtube Streaming, Swayam Platform (www.swayam.gov.in), Swayam Prabha (www.swayamprabha.gov.in) (available on Doordarshan (free dish TV), E-Yantra (www.e-yantra.org)).

SEMESTER- IV

FOUNDATIONAL/MAIN/CORE COURSE

BPES-FC401: Fitness and Conditioning

100 Marks/ 4 Credits

Learning Outcomes

1. Students will understand the basic concepts of fitness, conditioning and warming-up.
2. Students will enhance knowledge of fitness and conditioning training programs.
3. Students will gain more basic knowledge of warming-up exercises.
4. Students will understand and prepare weight management plans with proper diet.

Course Contents

Unit-I: Introduction to Fitness

- 1.1 Meaning and Definition of Fitness
- 1.2 Basic components of Fitness
- 1.3 Types of Fitness, maintenance of Fitness
- 1.4 Factors to consider for developing Fitness

Unit-II: Introduction to Conditioning

- 2.1 Meaning and Definition of Conditioning
- 2.2 Types of Conditioning
- 2.3 Importance of Conditioning in fitness development
- 2.4 Periodization of Conditioning.

Unit-III: Warming-up Exercises

- 3.1 Meaning and concept of warming-up
- 3.2 Types of warming-up
- 3.3 Importance of warming-up in sports conditioning training
- 3.4 General principles of warming-up exercise
- 3.5 Factors affecting warming-up exercise.

Unit-IV: Weight Management and Balance Diet

- 4.1 Concept of weight management and its importance
- 4.2 Factor affecting weight management
- 4.3 Determination of desirable body height and weight
- 4.4 Balance diet and its components
- 4.5 Role of diet in weight management

Teaching Learning Strategies: The class will be taught by using lectures and demonstration, seminars, classroom discussion, videos, charts and presentations method.

Virtual instructional platforms such as **online lectures**, webcast etc. are to be used. Students can participate in coursework through instant messages, emails and video conferencing. Google class room, Cisco WebeX Meeting, OERS, Swayam Platform (www.swayam.gov.in), Swayam Prabha (www.swayamprabha.gov.in) (available on Doordarshan (free dish TV), E-Yantra (www.e-yantra.org), Virtual Labs (www.vlabs.co.in), FOSSEE (www.fossee.in), application of spoken tutorials (www.spoken-tutorial.org), National Digital Library (www.ndl.iitkgp.ac.in), electronic journals (www.ess.infibnet.ac.in) etc. are to be used. . Courses may also integrate DVD videos as part of the training process.

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Activities: Lecture/ Project Work/ Seminars/ Term Papers/Assignments/ Presentations/ Self-Study etc.

Assessment Rubric: Classroom Test, Project Work, Assignments, Presentations.

References:

1. Bessesen, D. H. (2008). Update on Obesity. *J Clin Endocrinol Metab.* 93(6), 2027-2034.
2. Butryn, M.L., Phelan, S., & Hill, J. O. (2007). Consistent self-monitoring of weight: a key component of successful weight loss maintenance. *Obesity (Silver Spring)*. 15(12), 3091-3096.
3. Bates M. (2008). *Health Fitness Management (2nd Ed.)* USA: Human Kinetics.
4. Fink, H.H., Burgoon, L.A., & Mikesky, A.E. (2006). *Practical Applications in Sports Nutrition.* Canada : Jones and Bartlett Publishers.
5. Lancaster S. & Teodoroessu, R. (2008). *Athletic Fitness for Kids.* USA: Human Kinetics.
6. Michael J. Gibney (2002) – *Human Nutrition*, Atlantic publication, New Delhi.
7. Martin Estwood (2005) – *Principle of human nutrition*, Atlantic publication, New Delhi.
8. Sharma, P.D. (1998). *Officiating and Coaching.* AP Publishers, Jalandhar.
9. *Rules of Games and Sports.* YMCA Publishing House, Jai Singh Rad (1986), New Delhi.

BPES-FC402: Sports Pedagogy

100 Marks/ 4 Credits

Learning Outcomes

1. To understand the philosophy, nature and scope pedagogy in Physical Education.
2. To understand the goals of physical education and sports at different education levels.
3. To acquire the knowledge and skills of teaching and learning.
4. Implementation of teaching and learning knowledge and methods in physical education.

Course Contents

UNIT-I: Introduction to Physical Education

- 1.1 Philosophy of Physical Education
- 1.2 Meaning, nature and scope of Physical Education

- 1.3 Aims, objectives and goals of Physical Education
- 1.4 Importance of Physical education in primary and secondary levels.

UNIT-II: Introduction to Sports Pedagogy

- 2.1 Meaning and definition of Pedagogy and sports Pedagogy
- 2.2 Nature and Scope of Pedagogy in Physical Education and Sports
- 2.3 Importance of Pedagogy in physical education and sports
- 2.4 Objectives of teaching and learning in physical education.

UNIT-III: Physical Education Curriculum and Learning Resources

- 3.1 Components, parts and phases of Physical Education curriculum
- 3.2 Physical Education Curriculums of primary and secondary schools (NEP-2020)
- 3.3 Issues and challenges in designing curriculum of Physical education
- 3.4 Learning resources in Physical Education- print copies, text books, handbook, magazines, equipments and digital resources

UNIT-IV: Instruction and Theoretical Supports

- 4.1 Preparation to achieve the goals of physical education
- 4.2 Significance of teaching physical education
- 4.3 Values of teaching-learning and teaching strategies
- 4.4 Development of teaching methods and styles

Teaching Learning Strategies: The class will be taught by using lectures and demonstration, seminars, classroom discussion, videos, charts and presentations method.

Virtual instructional platforms such as **online lectures**, webcast etc. are to be used. Students can participate in coursework through instant messages, emails and video conferencing. Google class room, Cisco WebeX Meeting, OERS, Swayam Platform (www.swayam.gov.in), Swayam Prabha (www.swayamprabha.gov.in) (available on Doordarshan (free dish TV), E-Yantra (www.e-yantra.org), Virtual Labs (www.vlabs.co.in), FOSSEE (www.fossee.in), application of spoken tutorials (www.spoken-tutorial.org), National Digital Library (www.ndl.iitkgp.ac.in), electronic journals (www.ess.infn.net.ac.in) etc. are to be used. . Courses may also integrate DVD videos as part of the training process.

Initiating Brain based learning- A stress free environment will be created. Constant feedback regarding their performance will be given to initiate learning from mistakes. Creative thinking for new ideas and innovations will be encouraged. Break in learning will be filled with recreational and constructive activities for boosting cognitive functions.

Activities: Lecture/ Project Work/ Seminars/ Term Papers/Assignments/ Presentations/ Self-Study etc.

Assessment Rubric: Classroom Test, Project Work, Assignments, Presentations.

References:

1. Rvogn Inez and Bathauer Dianna (2013). Elementary Physical Education: Curriculum and Instruction. Jones & Bartlett Learning.
2. National Association of Sports and Physical Education (NASPE) (2004). Moving into the Future: National Standard for Physical Education (2nd Ed.). Reston, V.A.

3. Rink, J.E. (2010). Teaching Physical Education for Learning (6th Ed.). Boston: McGraw Hill.
4. Isobel Kleniman (2001). Complete Physical Educational Plan for Grade 7-12. Human Kinetics.
5. USDHHS (1999). Promoting Physical Activity- A Guide for Community Action. Human Kinetics.
6. Daryl Siedentop et al. (2004). Complete Guide to Sports Education. Human Kinetics.

BPES-FC403: Adapted Physical Education

100 Marks/ 4 Credits

Learning Outcomes

1. Students will develop concept and importance of adapted physical education.
2. Students will gain the knowledge of different disabilities and challenges.
3. Students will orient the various recreational activities for challenged people.
4. Students will understand the different planning for welfare of disabilities.

Course Contents

UNIT-I: Introduction to Adapted Physical Education

- 1.1 Meaning and Definition of Adapted Physical Education.
- 1.2 Aims and objectives of Adapted Physical Education.
- 1.3 Need and Importance of Adapted Physical Education.
- 1.4 Role of Physical Education in Adapted Physical Education.
- 1.5 Brief Historical Review of Adapted Physical Education.

UNIT-II: Classification of Disability

- 2.1 Physical Disabilities- causes and characteristics
- 2.2 Mental Retardation- causes and characteristics
- 2.3 Visual Impairment- causes and characteristic
- 2.4 Hearing Impairment- causes and characteristics
- 2.5 Speech Impairment- causes and characteristics

UNIT-III: Adapted Physical Education Programme

- 3.1 Guiding Principles for Adapted Physical Education Programme (AAHPER Principle)
- 3.2 Physical Education Programme for Disabled People
- 3.3 Programs to meet Individual needs
- 3.4 Selecting activities and instructional strategies

UNIT-IV: Co-Curricular Activities and Rehabilitation

- 4.1 Outdoor and Indoor Programme for Disables
- 4.2 Rhythmic and Dance Activities
- 4.3 Aquatic Activity Programme for Disables
- 4.5 Importance of Adapted Programme in Rehabilitation
- 4.6 Governmental Welfare programme.

Teaching Learning Strategies: The class will be taught by using lectures and demonstration, seminars, classroom discussion, videos, charts and presentations method.

Virtual instructional platforms such as **online lectures**, webcast etc. are to be used. Students can participate in coursework through instant messages, emails and video conferencing. Google class room, Cisco WebeX Meeting, OERS, Swayam Platform (www.swayam.gov.in), Swayam Prabha (www.swayamprabha.gov.in) (available on Doordarshan (free dish TV), E-Yantra (www.e-yantra.org), Virtual Labs (www.vlabs.co.in), FOSSEE (www.fossee.in), application of spoken tutorials (www.spoken-tutorial.org), National Digital Library (www.ndl.iitkgp.ac.in), electronic journals (www.ess.infibnet.ac.in) etc. are to be used. . Courses may also integrate DVD videos as part of the training process.

Initiating Brain based learning- A stress free environment will be created. Constant feedback regarding their performance will be given to initiate learning from mistakes. Creative thinking for new ideas and innovations will be encouraged. Break in learning will be filled with recreational and constructive activities for boosting cognitive functions.

Activities: Lecture/ Project Work/ Seminars/ Term Papers/Assignments/ Presentations/ Self-Study etc.

Assessment Rubric: Classroom Test, Project Work, Assignments, Presentations.

References:

1. Auxter, Byler, Howtting, “Adapted Physical Education and reactions” Morbey-St. Louis Mirrauri.
2. Arthur G. Miller & James, “Teaching Physical Activities to impaired youth” John Wilag & Sons Inc. Canada.
3. Ronald W. French, & Paul J., “Special Physical Education”, Charles E. Merrics Publishing Co. Edinburg , Ohio.
4. Arthur S. Daniels & Euilya , “Adapted Physical Education”, Harpet & Row Publisher- New York..
5. Anoop Jain, “Adapted Physical Education” Sports Publications, Ashok Vihar Delhi-52.
6. K. Park, “Preventive Social Medicine M/s Banaridas Bhanot Publishers Prem Nagar Jabalpur.

DISCIPLINE SPECIFIC ELECTIVE (ANYONE)

BPES-SE404: Sports Entrepreneurship

50 Marks/ 2 Credits

Learning Outcomes

1. To conceptualize the concept of Entrepreneurship, its type and traits.
2. To understand the prospect of potential business related to sports.
3. The knowledge would enable students to set up their own enterprise, catering to various demands of sports industry.

Course Contents

Unit-I: Introduction

- 1.1 Concept, Meaning and Definition of Entrepreneurship
- 1.2 Concept and characteristics Entrepreneurship
- 1.3 Need and Importance of entrepreneurship in sports
- 1.4 Understanding Sports Business industry.

Unit-II: Entrepreneurial Process

- 2.1 Understanding the entrepreneurial process
- 2.2 Types of Entrepreneurs
- 2.3 Risk and Rewards in entrepreneurship
- 2.4 Leading sports companies and media channels.
- 2.5 Sports entrepreneurship as a “Career Option.”

Unit-III: Business and Organization

- 3.1 Identifying the areas of business
- 3.2 Understanding financial aspects of the business
- 3.3 Government and private Organizations supporting entrepreneurships in India
- 3.4 Generating and arranging funds for the business.

Unit-IV Entrepreneurial Sports Sections

- 4.1 Entrepreneurship in the sports Goods and Equipment
- 4.2 Entrepreneurship in Sports wears
- 4.3 Entrepreneurship in Sports management and Event management
- 4.4 Entrepreneurship in Sports software, fitness and Nutrition
- 4.5 Sports start-up and funding for sports industry.

Teaching Learning Strategies: The class will be taught by using lectures and demonstration, seminars, classroom discussion, videos, charts and presentations method.

Virtual instructional platforms such as **online lectures**, webcast etc. are to be used. Students can participate in coursework through instant messages, emails and video conferencing. Google class room, Cisco WebeX Meeting, OERS, Swayam Platform (www.swayam.gov.in), Swayam Prabha (www.swayamprabha.gov.in) (available on Doordarshan (free dish TV), E-Yantra (www.e-yantra.org), Virtual Labs (www.vlabs.co.in), FOSSEE (www.fossee.in), application of spoken tutorials (www.spoken-tutorial.org), National Digital Library (www.ndl.iitkgp.ac.in), electronic journals (www.ess.infibnet.ac.in) etc. are to be used. . Courses may also integrate DVD videos as part of the training process.

Initiating Brain based learning- A stress free environment will be created. Constant feedback regarding their performance will be given to initiate learning from mistakes. Creative thinking for new ideas and innovations will be encouraged. Break in learning will be filled with recreational and constructive activities for boosting cognitive functions.

Activities: Lecture/ Project Work/ Seminars/ Term Papers/Assignments/ Presentations/ Self-Study etc.

Assessment Rubric: Classroom Test, Project Work, Assignments, Presentations.

References:

1. Peter Drucker. Innovation and Entrepreneurship.
2. Desai, V. Dynamics of Entrepreneurial Development and Management. Himalaya Publishing House.
3. Gupta, C.B. & Srinivasan, N.P. Entrepreneurial Development.
4. D.N. Mishra. Entrepreneur and Entrepreneur Development & Planning.
5. Arora Renu & Shood S.K. (2007). Entrepreneurship and Development. Kalyani, New Delhi.

BPES-SE405: Recreation and Adventure Sports

50 Marks/ 2 Credits

Learning Outcomes

1. Students will know the concepts and importance of Recreation and Adventure Sports.
2. Students will gain knowledge and experience to sustain the different activities of recreation and adventure sports in academic career.
3. Students will develop the leadership quality and career personality.

UNIT-I: Introduction to Recreation

- 1.1 Meaning and definitions of Recreation
- 1.2 Classification of Recreation
- 1.3 Scope of Recreation
- 1.4 Importance of Recreational activities.

UNIT-II: Introduction to Adventure Sports

- 3.1 Meaning and definition of Adventure Sports
- 3.2 Classification of Adventure Sports
- 3.3 Scope of Adventure Sports
- 3.4 Infrastructure, facilities and equipments
- 3.5 Importance of Adventure Sports in academics.

UNIT-III: Programme in Recreation and Adventure Sports

- 3.1 Indoor and outdoor activities
- 3.2 Cultural and literary activities, hobbies
- 3.3 Land based- Trekking, Hiking, Wall climbing, Rock climbing, Rope climbing, Mountaineering, etc.
- 3.4 Air based- Parasailing, Paragliding, hang gliding, parachuting, paragliding, skydiving etc.
- 3.5 Water based- Rafting, Kayaking, Canoeing, Boating, Sky diving, Water skiing, River crossing etc.

UNIT-IV: Camping and Leadership

- 4.1 Aim, objectives and importance of Camping
- 4.2 Organization and types of Camp
- 4.3 Selection and layout of camp site
- 4.4 Camping leadership.

Teaching Learning Strategies: The class will be taught by using lectures and demonstration, seminars, classroom discussion, videos, charts and presentations method.

Virtual instructional platforms such as **online lectures**, webcast etc. are to be used. Students can participate in coursework through instant messages, emails and video conferencing. Google class room, Cisco WebeX Meeting, OERS, Swayam Platform (www.swayam.gov.in), Swayam Prabha (www.swayamprabha.gov.in) (available on Doordarshan (free dish TV), E-Yantra (www.e-yantra.org), Virtual Labs (www.vlabs.co.in), FOSSEE (www.fossee.in), application of spoken tutorials (www.spoken-tutorial.org), National Digital Library (www.ndl.iitkgp.ac.in), electronic journals (www.ess.infibnet.ac.in) etc. are to be used. . Courses may also integrate DVD videos as part of the training process.

Initiating Brain based learning- A stress free environment will be created. Constant feedback regarding their performance will be given to initiate learning from mistakes. Creative thinking for new ideas and innovations will be encouraged. Break in learning will be filled with recreational and constructive activities for boosting cognitive functions.

Activities: Lecture/ Project Work/ Seminars/ Term Papers/Assignments/ Presentations/ Self-Study etc.

Assessment Rubric: Classroom Test, Project Work, Assignments, Presentations.

References:

1. Bright Charles K. and Herold C. Meyer. "Recreational test and readings". Eaglewood cliff, New Jersey Prentice Hall, Inc.
2. Ness wed, M.H. and New Meyer E.S. Leisure and Recreation, New York: Ronald Press.
3. Vannier Maryhalen, "Methods and Material in Recreation leadership: Philadelphia." W.B. Saunders company.
4. Planning Facilities for Health, Physical Education and Recreation, Chicago, the Athletic Institute.
5. Recreation areas: Their Design and equipments, New York : Ronal Press KRAN, R.G. Recreation and the schools: New York: Mac melon company.
6. Shivers J.S., "Principles and practices of Recreational services. London : Mac Melon Company.
7. Kilpatrick. All for Adventure. Irene/Hall, Susan (ILT).
8. King, Betty. Adventure.
9. Kalpana Swaminathan. Adventure Sports.

LABORATORY PRACTICAL

Learning Outcomes

1. Laboratory practical will give the knowledge and experience of activity or test to the students.
2. Laboratory practical will give better understanding of subject matters that leads toward the work orientation.

BPES-LP406: Fitness Training

25 Marks/ 1 Credit

1. **Warm-up-** Walking, jogging, running, stretching, jumping, twisting, breathing exercises, etc.
2. **Specific Training-** Circuit training, plyometric training, Fartlek training, Continuous training and selected weight training.

NB: Concerned teacher may introduce more exercises based on the target fitness.

BPES-LP407: Adventure Sports Activity

25 Marks/ 1 Credit

1. Trekking, Hiking, Wall climbing, Rock climbing, Rope climbing, Mountaineering, Parasailing, Paragliding, Hang gliding, Parachuting, Rafting, Kayaking, Canoeing, Boating, etc.

NB: Concerned teacher may introduce more exercises based on the target fitness.

SPORTS/GAMES PRACTICAL

Learning Outcomes

1. Sports and Games practical will give the better physical fitness, skills and performance to the students.
2. Students can understand the rules and interpretation in officiating and coaching.
3. Students will be getting opportunities to participate competitions at different levels.

BPES-SP408: Gymnastics

100 Marks/ 4 Credits

1. History and foundation of Gymnastics
2. Installation of equipments of different events
3. Floor Exercise (boys and girls)-
Forward Roll, Backward Roll, Sideward Roll, Cart Wheel, Handstand and forward roll, Backward roll to hand stand, Diving forward roll, Side split, Head stand, Different kinds of scale, Diving roll from beat board, Round off, Jumps-leap, scissors leap.
4. Balancing Beam (girls)-
Walking and running on the beam, Turning movement on the beam, Cat jump, Dancing steps and movements, Mount (1/4 turn to cross sitting), Dismount (jump from the end of the beam with legs straddle in the air), Straddle mount, Forward roll on the bench and beam.
5. Parallel Bar (boys)- Mount from one bar, Straddle walking on parallel bar, Single and double step walk, Perfect swing, Shoulder stand on one bar and roll forward, Roll side, Shoulder stand., Front on back vault to the side (dismount).
6. Vaulting Horse (boys and girls)- Approach run and jump from the board, Cat vault, Squat vault, Straddle vault, Side vault.
7. Rhythmic activities (girls)- Basic skills or five elements of three selected apparatus, Choreography with music, Basic turns, jumps, leap with music.

References:

1. Sturmt, Nik. Competitive Gymnastics, London: Stonlly Paul and Company Ltd. 1970.
2. De Carle, Tom. Hand Book of Progressive Gymnastics. Englewood Cliffs: N.J. Prentice Hall.
3. Lokon, Newton, C. and Willioughby, Rodert, J. Complete Book of Gymnastics. Englewood Cliffs, N.J. Prentice Hall.
4. Cochranu, Tunvi, S. International Gymnastics for Girls and Women. London: Addition Wolly Publishing Co.
5. Cartur, Exhestine R. Gymnastics for Girls and Women. N.J. Prentice Hall.
6. Federation Rules in Gymnastics.

BPES-SP409: Combative and Other Sports- Judo, Wrestling, Boxing, Weight Lifting (Any one to be opted for End Semester Exam). 100 Marks/ 4 Credits

Judo

1. History and development of Judo
2. Court management
3. Rej (salutation),
4. Ritsurei (salutation in standing position).
5. Zarai (salutation in the sitting position.
6. How to wear Judo Costume.
7. Kumi Kata (Methods of holding judo costume).
8. Shisei (Posture in Judo).
9. Kuzushi (Act of disturbing the opponent posture).
10. Tsukuri and kake (Preparatory action for attack,)
11. Ukemi (Break fall).
12. Urhiro Ukemi- (Rear break fall).
13. Yoko Ukemi (Side break fall).
14. Mae Ukemi (Front break fall).
15. Mae mawari Ukemi (Front rolling break fall).

16. Shin Tai (Advance or Retreat foot Movement).
17. Suri-ashi (Gliding foot).
18. Tsugi-ashi (Following foot steps).
19. Ayumi-ashi (Walking steps).
20. Tai Sabaki (Management of the body).
21. Nage-waze (Throwing Techniques).
22. Hiza Guruma (Knee wheel).
23. Sesaе Tsurikomi-ashi (Drawing ankle throw).
24. De-ashi hari (Advance foot sweep).
25. O Goshi (Major Loin).
26. Seoi. nage (Shoulder throw) – Ippon scionage and Morote Scionage.
27. Katama-waze (Grappling Techniques).
28. Kesa-gatame (Scaff hold).
29. Kata-gatma (Shoulder hold).
30. Kami-shiho gatama (Locking of upper four quarters).
31. Method of escaping from each hold.
32. Various falling exercises.
33. Rules and regulations.

References:

1. Feldenkrais M. Higher Judo: General Work, Fredrick Warne and Co., Ltd. London and New York.
2. Smith Robart W. Judo its Story and Practice Charles E. Tuttle Company of Rutlond, Vermoni Tokoyo and Japan.
3. Ewen Harry, Your Book of Judo. Faber and Faber Ltd. 3 Queen Square London W.C.I.
4. Herrison C, J. Judo on the Ground W. Foulsham Co. Ltd. 2-5 old Bond Street London, W.L.
5. Uyenishi S. K. Judo Text Booth of Su-Jutsu. Athletic Publications Ltd. Link House, Store Street, London W.C.I.

Wrestling

1. History and development of Wrestling
2. Court management
3. Learning and demonstrating fundamental skills involving drills and lead up games, if any, therein (Catch as can style).
4. Take downs: leg tackles, arm drag.
5. Counters for take downs : Cross face, whizzer series.
6. Escapes from under : Sitout-turn in triped.
7. Counters for escapes from under : Basic control, back drop, counters for stand up.
8. Pinning combination : Nelson series, (Half Nelson, Half Nelson and bar arm) leg lift series, leg cradle series, Reverse double bar arm, chicken wing and half nelson.
9. Escapes from pinning : Wing lock series, Double arm lock roll, bridge.
10. Standing Wrestling : Head under arm series whizzer series.
11. Rules and their interpretations and duties of officials.

References:

1. Dubey. C.H. A Wrestling Guide, 201 Rampura, Sauger (M.P.)
2. Collangner E. L. & Dex Perry Wrestling A.S. Barues & Co. New York.
3. U.S. Naval Institute, Wrestling, Arnapolis Manyala USA.

Boxing: Fundamental Skills

1. Player stance
2. Stance - Right hand stance, left hand stance.
3. Footwork – Attack, defense.
4. Punches – Jab, cross, hook, upper cut, combinations.
5. Defense slip – bob and weave, parry/block, cover up, clinch, counter attack
6. Tactics – Toe to toe, counter attack, fighting in close, feinting
7. Rules and their interpretations and duties of officials.

References:

1. Jacomb William J. (2018). *Boxing for Beginners*. Franklin Classics Trade Press.
2. Blower Gary (2020). *Boxing: Training, Skills and Techniques*. The Crowood Press Ltd.
3. Diaz Takanori. *Boxing for Beginners*. Create Space Independent Publishing Platform.
4. Jim Driscoll (2008). *The Text Book of Boxing: The Deluxe Edition*, Promethean Press, USA.

Weight Lifting

1. History and development of Weight Lifting
2. Area and platform management
3. Two arms curls
4. Front Press
5. Press behind the neck
6. Dead lift
7. Quarter Squat, Half squat and Full squat.
8. Rise on toes (Heel Raise).
9. Straight arm pull over.
10. Bent over, rowing.
11. Bench Press.
12. Leg Press
13. Wrist rolling.
14. 12 Pronation and supination.
15. 13 Trunk Twisting.
16. 14 Good morning exercise.
17. 15 Sit ups with weight.
18. 16 Alternate Press.
19. 17 Sport running with weight.
20. 18 Stepping on bench.
21. 19 Jack knife.
22. 20 Lateral rise.
23. 21 Iron shoe exercises.
24. Classification and competition types of Weight Lifting, Power Lifting and Best Physique.

References:

1. Katyal P.N. *Manual of Weight Lifting*. Ambala Cantt. Green Printin Press.
2. Krikley, George W. *Modern Weight Lifting Load* Faber Popular Books.
3. Murray, Jim and Karpovich Peter V. *Weight Training in Athletics*. Englewood Cliffs, N.J. Prentice Hall.
4. Kirkley, George and Geodhody John *The Manual of Weight Training*. London Stanley Paul and Company, 1971.

Sports simulation laboratory- Sports simulation laboratory is to be established to provide the students with a feasible environment where they will learn and practice sports skills using animated videos with continuous rectification of errors till exact simulation of skill is attained. Help may be taken from Youtube Streaming, Swayam Platform (www.swayam.gov.in), Swayam Prabha (www.swayamprabha.gov.in) (available on Doordarshan (free dish TV), E-Yantra (www.e-yantra.org)).

SEMESTER- V

FOUNDATIONAL/MAIN/CORE COURSE

BPES-FC501: Educational Technology

100 Marks/ 4 Credits

Learning Outcomes

1. To understand the concept of technology in education and its implication.
2. To understand the communication and communication skills.
3. To understand the teaching aids and its importance.
4. To understand the teaching techniques and innovative programs.

Course Contents

UNIT-I: Introduction to Educational Technology

- 1.1 Concept and Definition
- 1.2 Educative Process
- 1.3 The Teacher of Yesterday & Today
- 1.4 An outline of Teaching method used then and now
- 1.5 Use of sensory organ in the process of learning and remembering
- 1.6 Communication- types, cycle and classroom communication.

UNIT-II: Teaching Aids

- 2.1 Definition and importance of Teaching Aids
- 2.2 Criteria for selecting Teaching Aids
- 2.3 Teaching Methods and Teaching Aids
- 2.4 Broad classification of Teaching Aids
- 2.5 Advantage and suggestions for effective use of selected teaching Aids.

UNIT-III: New Teaching Techniques and Innovations

- 3.1 Art of questioning and Answering
- 3.2 Purpose of Questioning and classification of questions
- 3.3 Techniques of asking questions
- 3.4 Programmed Learning- concept, principles and preparation.
- 3.5 Team Teaching- meaning, principles and advantages
- 3.6 Teaching machines.

UNIT-IV: Micro Teaching and Simulation

- 4.1 Meaning and Features of Micro Teaching
- 4.2 Micro Teaching and Traditional Teaching
- 4.3 Principles of Micro Teaching
- 4.4 Micro Teaching Skills and limitations
- 4.5 Meaning and types of Simulation Teaching
- 4.6 Advantages and limitations of Simulation.

Teaching Learning Strategies: The class will be taught by using lectures and demonstration, seminars, classroom discussion, videos, charts and presentations method.

Virtual instructional platforms such as **online lectures**, webcast etc. are to be used. Students can participate in coursework through instant messages, emails and video conferencing. Google class room, Cisco WebeX Meeting, OERS, Swayam Platform (www.swayam.gov.in), Swayam Prabha (www.swayamprabha.gov.in) (available on Doordarshan (free dish TV), E-Yantra (www.e-yantra.org), Virtual Labs (www.vlabs.co.in), FOSSEE (www.fossee.in), application of spoken tutorials (www.spoken-tutorial.org), National Digital Library (www.ndl.iitkgp.ac.in), electronic journals (www.ess.infibnet.ac.in) etc. are to be used. . Courses may also integrate DVD videos as part of the training process.

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Activities: Lecture/ Project Work/ Seminars/ Term Papers/Assignments/ Presentations/ Self-Study etc.

Assessment Rubric: Classroom Test, Project Work, Assignments, Presentations.

References:

1. K. Sampath, A. Pannirselvam and S. Santhanam. Introduction to Educational Technology (New Delhi : Sterling Publishers Pvt. Ltd.) .
2. Bhatia and Bhatia. The Principles and Methods of Teaching (New Delhi :Doaba House) .
3. Walia, J.S. Principles and Methods of Education (Paul Publishers Jullandhar).
4. Kochar, S.K. Methods and Techniques of Teaching (New Delhi, Jullandhar, Sterling Publishers Pvt. Ltd.).

BPES-FC502: Basic Sports Medicine and Physiotherapy

100 Marks/ 4 Credits

Learning Outcomes

1. To know the concept and importance of Sports Medicine and Physiotherapy.
2. To know the various therapeutic treatment modalities.
3. To understand the Prevention, Treatment and Rehabilitation of Athletic Injuries.

Course Contents

Unit-I: Sports Medicine

- 1.1 Sports Medicine: Meaning, Definition, Aims, Objectives, Modern Concepts and Importance
- 1.2 Athletes Care and Rehabilitation: Contribution of Physical Education Teachers and Coaches
- 1.3 Need and Importance of the study of sports injuries in the field of Physical Education
- 1.4 Prevention of injuries in sports- Common sports injuries, Diagnosis.
- 1.5 First Aid Treatment- Laceration, Blisters, Contusion, Strain, Sprain, Fracture, Dislocation and Cramps.
- 1.6 Bandages – Types of Bandages – trapping and supports.

Unit-II: Physiotherapy

- 2.1 Definition, scope and importance of physiotherapy
- 2.2 Guiding principles of physiotherapy
- 2.3 Introduction and demonstration of treatments- Electrotherapy, Infrared rays, Ultraviolet rays, Short Wave Diathermy, Ultrasonic rays.

Unit-III: Hydrotherapy

- 3.1 Introduction and demonstration of treatments of Cryo-therapy, Thermo-therapy, Contrast-Bath, Whirlpool Bath, Steam Bath, Sauna Bath, Hot Water Fomentation.
- 3.2 Massage: Historical background of Massage
- 3.3 Classification of Massage Manipulation
- 3.4 Physiological Effect of Massage.

Unit-IV: Therapeutic Exercise

- 4.1 Definition, Scope and Principles of Therapeutic Exercise
- 4.2 Classification of therapeutic exercise
- 4.3 Effects and uses of Therapeutic exercise– Passive Movements (Relaxed, Forced and passive -stretching), Active Movements (concentric, eccentric and static)
- 4.4 Application of the therapeutic exercise: Free Mobility Exercise- Shoulder, Elbow, Wrist and Finger Joints exercises; Hips, Knee, ankle and Foot joints exercises; Trunk, Head and Neck exercises.

Teaching Learning Strategies: The class will be taught by using lectures and demonstration, seminars, classroom discussion, videos, charts and presentations method.

Virtual instructional platforms such as **online lectures**, webcast etc. are to be used. Students can participate in coursework through instant messages, emails and video conferencing. Google class room, Cisco WebeX Meeting, OERS, Swayam Platform (www.swayam.gov.in), SwayamPrabha (www.swayamprabha.gov.in) (available on Doordarshan (free dish TV), E-Yantra (www.e-yantra.org), Virtual Labs (www.vlabs.co.in), FOSSEE (www.fossee.in), application of spoken tutorials (www.spoken-tutorial.org), National Digital Library (www.ndl.iitkgp.ac.in), electronic journals (www.ess.infibnet.ac.in) etc. are to be used. . Courses may also integrate DVD videos as part of the training process.

Initiating Brain based learning- A stress free environment will be created. Constant feedback regarding their performance will be given to initiate learning from mistakes. Creative thinking for new ideas and innovations will be encouraged. Break in learning will be filled with recreational and constructive activities for boosting cognitive functions.

Activities: Lecture/ Project Work/ Seminars/ Term Papers/Assignments/Presentations/ Self-Study etc.

Assessment Rubric: Classroom Test, Project Work, Assignments, Presentations.

References:

1. Christine, M. D., (1999). *Physiology of sports and exercise*. USA: Human Kinetics.
2. Conley, M. (2000). *Bioenergetics of exercise training*. In T.R. Baechle, & R.W. Earle, (Eds.),
3. *Essentials of Strength Training and Conditioning* (pp. 73-90). Champaign, IL: Human Kinetics.
4. David, R. M. (2005). *Drugs in sports*, (4th Ed). Routledge Taylor and Francis Group.
5. 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.
6. Jeyaprakash, C. S., *Sports Medicine*, J.P. Brothers Pub., New Delhi, 2003.
7. Khanna, G.L., (1990). *Exercise physiology & sports medicine*. Delhi: Lucky Enterprises.
8. Mathew, D.K. & Fox, E.L, (1971). *Physiological basis of physical education and athletics*. Philadelphia: W.B. Saunders Co.
9. Pandey, P.K., (1987). *Outline of sports medicine*, New Delhi: J.P. Brothers Pub.
10. Williams, J. G. P. (1962). *Sports medicine*. London: Edward Arnold Ltd.

BPES-FC503: Traditional Sports of Manipur**100 Marks/ 4 Credits****Learning Outcomes**

1. Students will recognize the major disciplines of Traditional or Indigenous games and sports of Manipur.
2. Students will understand the values of Traditional or Indigenous games and sports of Manipur in the modern sports trends as well as in academic field.
3. Students will know the specific sports culture of Manipur.

Unit-1: Introduction

- 1.1 Concept, meaning and definition of Traditional exercise.
- 1.2 Concept, meaning and definition Traditional sports (Indigenous Sports).
- 1.3 Different Traditional Sports of Manipur.
- 1.4 Importance of traditional sports in Manipur.

Unit-II: History of Traditional Sports

- 3.1 Origin and historical development of Thang-Ta
- 3.2 Origin and historical development of Sagol Kangjei
- 3.3 Origin and historical development of Mukna
- 3.4 Origin and historical development of Kang.
- 3.5 Origin and historical development of Yubi Lakpi.

Unit-III: Establishment of Traditional Sports

- 3.1 Growth and development of Traditional Sports.
- 3.2 Establishment of Traditional Sports in modern trends of sports
- 3.3 Different organizations and associations of Traditional Sports
- 3.4 Different competitions levels of Traditional Sports.
- 3.5 Equipments of the Traditional Sports.

Unit-IV: Development of Techniques and Skills

- 4.1 **Different fundamental Skills of Thang-Ta:** Khutlon, Khongpham, Phidup, Shwor Kanglon (Ningsa Kanglon) and Tarol (Khousarol).

- 4.2 **Fundamental Skills of Sagol Kangjei:** Horse Riding- walk, trot, canter, gallop; Striking-offside hitting, nearside hitting, offside back hander, Nearside back hander, Hitting below the neck, Tapping.
- 4.3 **Fundamental Skills of Mukna:** Phirep (Position), Kishi painaba (Holding of waist belt), Ninggong Hunba (throw by hip), Kalap Kotpi (Leg lock from outside), Longkhrou (Leg lock), Chepching (Pull down by the side), Khongchep Haibi (Leg lock to the lower foot part of the opponent), Leng louba (controlling the shoulder of the opponent).
- 4.4 **Fundamental Skills of Kang:** Chekphei Kappa, Lamtha Kappa, Marak-Changba, Kang Hanba, Kang Handaba, Lanjang.

Teaching Learning Strategies: The class will be taught by using lectures and demonstration, seminars, classroom discussion, videos, charts and presentations method.

Virtual instructional platforms such as **online lectures**, webcast etc. are to be used. Students can participate in coursework through instant messages, emails and video conferencing. Google class room, Cisco WebeX Meeting, OERS, Swayam Platform (www.swayam.gov.in), Swayam Prabha (www.swayamprabha.gov.in) (available on Doordarshan (free dish TV), E-Yantra (www.e-yantra.org), Virtual Labs (www.vlabs.co.in), FOSSEE (www.fossee.in), application of spoken tutorials (www.spoken-tutorial.org), National Digital Library (www.ndl.iitkgp.ac.in), electronic journals (www.ess.infibnet.ac.in) etc. are to be used. . Courses may also integrate DVD videos as part of the training process.

Initiating Brain based learning- A stress free environment will be created. Constant feedback regarding their performance will be given to initiate learning from mistakes. Creative thinking for new ideas and innovations will be encouraged. Break in learning will be filled with recreational and constructive activities for boosting cognitive functions.

Activities: Lecture/ Project Work/ Seminars/ Term Papers/Assignments/Presentations/ Self-Study etc.

Assessment Rubric: Classroom Test, Project Work, Assignments, Presentations.

References:

1. International Polo Federation, Polo Rules.
2. Horse Riding Training Books.
3. Horse Riding and Polo training Books.
4. Original Style Polo Rules.
5. Y. Irabot Singh, Manipuri Games, 1987.
6. A. Raghmani Singh, Meitei Inatki Masanna.
7. Kang Federation of Manipur, Common Kanglon, All Manipur Kang Control Board, Imphal, 2002.
8. Kh. Tolhal Singh, Kang, All Manipur Kang control Board, Imphal, 1987.
9. Govt. of Manipur (YAS), Kang Federation gi Kanglon, 1996.
10. L. Kokngang, Thang- Ta, 2008.
11. R.K. Sanahal, Satjal, 1972.
12. L. Heramot, Sarei – Sara, Kanglei Inat Thang-Ta Sindam Sanglen.
13. L. Heramot, Mihat Mikan, Kanglei Inat Thang-Ta Sindam Sanglen.
14. Konjengbam Biren Singh, Meitei Huyen Lanlong, Manipur State Kala Academy, 1985.
15. Gurumayum Sana Sharma, Thengourourol (Sapha Lanpha), Dance Academy, 2008.
16. Festvel of Thang-Ta, Department of Art and Culture.

DISCIPLINE SPECIFIC ELECTIVE (ANYONE)

BPES-SE504: Movement Education

50 Marks/ 2 Credits

Learning outcomes

1. The students will be oriented in movement concept and themes.
2. The students will understand the fundamental movements and motor skill development.
3. The students will understand the importance of movement development in education.

Course Contents

Unit-I: Introduction

- 1.1 Meaning and concept of Movement education
- 1.2 History of Movement education
- 1.3 Traditional approach to Movement Education
- 1.4 Process of skill acquisition

Unit-II: Understanding Movements

- 2.1 Movement Fundamentals
- 2.2 Fundamental movements- Locomotor, Non-locomotor and Manipulative
- 2.3 General space and self space
- 2.4 Qualities of movement

Unit-III: Motor Skill Learning

- 3.1 Concept of motor skill
- 3.2 Level of motor skill learning
- 3.3 Exploration and discovery
- 3.4 Motor learning principles.

Unit-IV: Fundamentals of Skill

- 4.1 Fundamental Locomotion Skill themes
- 4.2 Fundamental Manipulative Skill Themes
- 4.3 Fundamental Stability Skill Themes
- 4.4 Movement Education Program for Nursery school level.

Teaching Learning Strategies: The class will be taught by using lectures and demonstration, seminars, classroom discussion, videos, charts and presentations method.

Virtual instructional platforms such as **online lectures**, webcast etc. are to be used. Students can participate in coursework through instant messages, emails and video conferencing. Google class room, Cisco WebeX Meeting, OERS, Swayam Platform (www.swayam.gov.in), SwayamPrabha (www.swayamprabha.gov.in) (available on Doordarshan(free dish TV), E-Yantra (www.e-yantra.org), Virtual Labs (www.vlabs.co.in), FOSSEE (www.fossee.in), application of spoken tutorials (www.spoken-tutorial.org), National Digital Library (www.ndl.iitkgp.ac.in), electronic journals (www.ess.infibnet.ac.in) etc. are to be used. . Courses may also integrate DVD videos as part of the training process.

Initiating Brain based learning- A stress free environment will be created. Constant feedback regarding their performance will be given to initiate learning from mistakes. Creative thinking for new ideas and innovations will be encouraged. Break in learning will be filled with recreational and constructive activities for boosting cognitive functions.

Activities: Lecture/ Project Work/ Seminars/ Term Papers/Assignments/Presentations/ Self-Study etc.

Assessment Rubric: Classroom Test, Project Work, Assignments, Presentations.

References:

1. Bucher, C.A. and Thaxton A. Nola. Physical Education for Children Movement Foundation and Experiences. McMillan Publishing Co. Inc. New York.
2. Cheffer John and Evaul Tom. Introduction to Physical Education Concept of Human Movement. Prentice Hall Inc. Philadelphia.
3. Gallahuc, L. David. Development of Movement Experience for Children. John Wiley and Sons, New York.
4. Gallahuc, L. David. Understanding Motor Development in Children. John Wiley and Sons, New York.
5. Wuest, D.A and Bucher, C.A. Foundation of Physical Education and Sports. McGraw Hill.
6. Thomas, r. Jerry, Lee M. Arnelia, Thomas T. Katherine. Physical Education for children- Concepts into practice. Human Kinetics Book, Champaign Illinois.

BPES-SE505: Sports Journalism

50 Marks/ 2 Credits

Learning Outcomes

1. The students will be oriented in basic art of mass communication and reporting of sports events through various mediums.
2. The students will acknowledge the importance of Journalism in sports.

Course Contents

Unit-I: Introduction

- 1.1 Meaning and Definition of Journalism
- 1.2 Ethics of Journalism
- 1.3 Sports Ethics and Sportsmanship
- 1.4 Reporting Sports Events
- 1.5 National and International Sports News Agencies.

Unit-II: Sports Bulletin

- 2.1 Concept of Sports Bulletin
- 2.2 Types of bulletin
- 2.3 Journalism and sports education
- 2.4 Structure of sports bulletin – Compiling a bulletin
- 2.5 General news reporting and sports reporting.

Unit-III: Mass Media

- 3.1 Mass Media in Journalism: Radio and T.V.
- 3.2 Commentary – Running commentary on the radio – Sports expert’s comments.
- 3.3 Role of Advertisement in Journalism.
- 3.4 Sports Photography
- 3.5 Editing and Publishing.

Unit-IV: Report Writing on Sports Organization

- 4.1 Brief review of Olympic Games, Asian Games, Common Wealth Games, World Cup, National Games and Indian Traditional Games.
- 4.2 Preparing report of an Annual Sports Meet for Publication in Newspaper.
- 4.3 Organization of Press Meet.
- 4.4 Practical assignments to observe the matches and prepare report and news of the same.
- 4.5 Visit to News Paper office and TV Centre to know various departments and their working.

Teaching Learning Strategies: The class will be taught by using lectures and demonstration, seminars, classroom discussion, videos, charts and presentations method.

Virtual instructional platforms such as **online lectures**, webcast etc. are to be used. Students can participate in coursework through instant messages, emails and video conferencing. Google class room, Cisco WebeX Meeting, OERS, Swayam Platform (www.swayam.gov.in), Swayam Prabha (www.swayamprabha.gov.in) (available on Doordarshan (free dish TV), E-Yantra (www.e-yantra.org), Virtual Labs (www.vlabs.co.in), FOSSEE (www.fossee.in), application of spoken tutorials (www.spoken-tutorial.org), National Digital Library (www.ndl.iitkgp.ac.in), electronic journals (www.ess.infibnet.ac.in) etc. are to be used. . Courses may also integrate DVD videos as part of the training process.

Initiating Brain based learning: A stress free environment will be created. Constant feedback regarding their performance will be given to initiate learning from mistakes. Creative thinking for new ideas and innovations will be encouraged. Break in learning will be filled with recreational and constructive activities for boosting cognitive functions.

Activities: Lecture/ Project Work/ Seminars/ Term Papers/Assignments/ Presentations/ Study etc.

Assessment Rubric: Classroom Test, Project Work, Assignments, Presentations.

References:

1. Ahiya B.N. (1988) Theory and Practice of Journalism: Set to Indian context Ed3. Delhi: Surjeet Publications.
2. Ahiya B.N. Chobra S.S.A. (1990) Concise Course in Reporting. New Delhi: Surjeet Publication.
3. Bhatt S.C. (1993) Broadcast Journalism Basic Principles. New Delhi. Haranand Publication.
4. Dhananjay Joshi (2010) Value Education in Global Perspective. New Delhi: Lotus Press.
5. Kannan K (2009) Soft Skills, Madurai: Madurai: Yadava College Publication.
6. MohitChakrabarti (2008): Value Education: Changing Perspective, New Delhi: KanishkaPublication.
7. Padmanabhan. A &Perumal A (2009), Science and Art of Living, Madurai: Pakavathi Publication.
8. Shiv Khera (2002), You Can Win, New Delhi: Macmillan India Limited.
9. Varma A.K. (1993) Journalism in India from Earliest Times to the Present Period. Sterling publication Pvt. Ltd.
10. Venkataiah. N (2009) Value Education,- New Delhi: APH Publishing Corporation. 43

LABORATORY PRACTICAL

Learning Outcomes

1. Laboratory practical will give the knowledge and experience of activity or test to the students.
2. Laboratory practical will give better understanding of subject matters that leads toward the work orientation.

BPES-LP506: Educational Teaching Aids

25 Marks/ 1 Credit

1. Traditional Teaching Aids- Chock Board, Charts, Models, Pictures, Graphs, etc.
2. Technological Teaching Aids- Slide Projector, Over Head Projector, Motion Picture
3. Audio Aids, Visual Aids, Audio-Visual Aids
4. Computer assisted aids.

BPES-LP507: Therapeutic Modalities and Massage

25 Marks/ 1 Credit

1. Treatments Modalities- Ultrasound, Tens, IST, Muscle stimulator, Contrast Bath, Steam Bath, Thermo Therapy, Hydro-collator, Infra Red, Wax-bath.
2. Different Massage Manipulations
3. Different types of Bandages.

SPORTS/GAMES PRACTICAL

Learning Outcomes

1. Sports and Games practical will give the better physical fitness, skills and performance to the students.
2. Students can understand the rules and interpretation in officiating and coaching.
3. Students will be getting opportunities to participate competitions at different levels.

BPES-SP508: Swimming

100 Marks/ 4 Credits

1. History and development of Swimming
2. Planning and measurement of swimming pool
3. Fundamental Skills Drills:
 - Entry into the pool
 - Developing water balance and confidence
 - Water fear removing drills
 - Floating-mushroom and Jelly-fish etc
 - Gliding-with and without kickboard
4. Teaching of competitive swimming strokes (minimum two strokes)- Body position, leg, kick, arm pull, breathing and co-ordination.
5. Starts and turns of the concerned strokes.
6. Water treading and simple jumping.
7. Learning of competition strokes – Freestyle, Breaststroke, Butterfly, Backstroke and Sidestroke.
8. Rules of competition and their interpretation.

References:

1. Helen, Elkington. Swimming- A handbook of Teacher. London: Cambridge University Press.
2. Counsilmen, James E. Science of Swimming. London: Pelham Books Ltd.
3. Torney, John A. Swimming. London: McGraw Hill Books Company Inc.

4. Spitz, Mark and Lemond, Alan. The Mark Spitz Complete Book of Swimming. London: Pelham Books Ltd.
5. Gallagher, Harry. Harry Gallagher on Swimming. London: Pelham Books Ltd.

**BPES-SP509: Traditional Sports of Manipur- Sagol Kangjei, Mukna, Kang and Thang-Ta
(Any one to be opted for End Semester Exam). 100 Marks/ 4 Credits**

1. SAGOL KANGJEI

- 1.1. Historical development of Polo
- 1.2. Development and marking of Polo ground
- 1.3. Horse Riding-
 - Walk
 - Trot
 - Canter
 - Gallop
- 1.4. Striking (Different Strokes)-
 - Offside hitting
 - Nearside hitting
 - Offside back hander
 - Nearside back hander
 - Hitting below the neck
 - Tapping (both offside and nearside)
- 1.2 Rules and interpretations.
- 1.3 Officials and their duties.
- 1.4 Players' Equipments and Dress.

2. MUKNA

- 2.1 History and development of Mukna
- 2.2 Playing area of Mukna
- 2.3 Phirep (Position)
- 2.4 Kishi painaba (Holding of waist-belt)
- 2.5 Ninggong Hunba (throw by hip)
- 2.6 Kalap Kotpi (Leg lock from outside)
- 2.7 Khudong Puba (Lifting the opponent to throw down)
- 2.8 Longkhrou (Leg lock)
- 2.9 Chepching (Pull down by the side)
- 2.10 Anikotpi (leg lock to the two legs of the opponents)
- 2.11 Khongchep Haibi (Leg lock to the lower foot part of the opponent)
- 2.12 Leng louba (controlling the shoulder of the opponent)
- 2.13 Rules and interpretations.
- 2.14 Officials and their duties.
- 2.15 Players' Equipments and Dress.

3. KANG

- 3.1. History and development of Kang
- 3.2. Surface types and Court measurement
- 3.3. Chekphei Kappa-
 - Oi (Left)
 - Mayai (Middle)
 - Yet (Right)

- 3.4. Lamtha Kappa-
 - Oi (Left)
 - Mayai (Middle)
 - Yet (Right)
- 3.5. Marak-Changba
 - Kang Hanba
 - Kang Handaba
- 3.6. Lanjang -
 - Lnnai
 - Apunba
- 3.7. Rules and interpretations.
- 3.8. Officials and their duties.
- 3.9. Players' Equipments and Dress.

4. THANG-TA

- 4.1 History and development of Thang-Ta
- 4.2 Classification of Thang-Ta
- 4.3 Khutlon -
 - Khujeng Leibi
 - Khujeng Hanbi
- 4.2 Khongpham – 2, 3, 4 and 5
- 4.3 Phidup
- 4.4 Shwor Kanglon (Ningsa Kanglon)
- 4.5 Tarol (Khousarol)
- 4.6 Rules of the Indigenous Games and their interpretations.
- 4.7 Officials and their duties.
- 4.8 Players' Equipments and Dress.

Sports simulation laboratory- Sports simulation laboratory is to be established to provide the students with a feasible environment where they will learn and practice sports skills using animated videos with continuous rectification of errors till exact simulation of skill is attained. Help may be taken from Youtube Streaming, Swayam Platform (www.swayam.gov.in), Swayam Prabha (www.swayamprabha.gov.in) (available on Doordarshan (free dish TV), E-Yantra (www.e-yantra.org)).

Reference:

1. International Polo Federation, Polo Rules.
2. Horse Riding Training Books.
3. Horse Riding and Polo training Books.
4. Original Style Polo Rules.
5. Y. Irabot Singh, Manipuri Games, 1987.
6. A. Raghmani Singh, Meitei Inatki Masanna.
7. Kang Federation of Manipur, Common Kanglon, All Manipur Kang Control Board, Imphal, 2002.
8. Kh. Tolhal Singh, Kang, All Manipur Kang control Board, Imphal, 1987.
9. Govt. of Manipur (YAS), Kang Federation gi Kanglon, 1996.
10. L. Kokngang, Thang- Ta, 2008.
11. R.K. Sanahal, Satjal, 1972.
12. L. Heramot, Sarei – Sara, Kanglei Inat Thang-Ta Sindam Sanglen.
13. L. Heramot, Mihat Mikan, Kanglei Inat Thang-Ta Sindam Sanglen.
14. Konjengbam Biren Singh, Meitei Huyen Lanlong, Manipur State Kala Academy, 1985.
15. Gurumayum Sana Sharma, Thengourourol (Sapha Lanpha), Dance Academy, 2008.

16. Festvel of Thang-Ta, Department of Art and Culture.

SEMESTER- VI

FOUNDATIONAL/MAIN/CORE COURSE

BPES-FC601: Basics of Sports Training

100 Marks/ 4 Credits

Learning Outcomes

1. The learners will be able to identify the fundamental concepts, theories and principles of human body training related to sports performance.
2. The learners will be able to demonstrate the skills to train different fitness components and related planning.
3. The learners will be able to understand the organization to achieve high performance in sports.

Course Contents

Unit-I: Introduction to Sports Training

- 1.1 Meaning and nature of Sports Training
- 1.2 Aim and Objective of Sports Training
- 1.3 Principles of Sports Training
- 1.4 Characteristics of Sports Training

Unit-II: Training Components

- 2.1 Strength: types, means and methods to develop strength
- 2.2 Speed: types, means and methods to develop speed
- 2.3 Endurance: types, means and methods to develop endurance
- 2.4 Flexibility: type, means and methods to develop flexibility
- 2.5 Coordinative abilities: types, means and methods to develop coordinative abilities.

Unit-III: Training Load

- 3.1 Principles of load and its components
- 3.2 Determination of Optimum load
- 3.3 Overload its causes and identification
- 3.4 Tackling Over Load.

Unit-IV: Training programming and planning

- 4.1 Periodization and types of Periodization.
- 4.2 Aim and Content of Periods– Preparatory, Competition, Transitional period.
- 4.3 Planning: Meaning and types.
- 4.4 Principles of Planning.

Teaching Learning Strategies: The class will be taught by using lectures and demonstration, seminars, classroom discussion, videos, charts and presentations method.

Virtual instructional platforms such as **online lectures**, webcast etc. are to be used. Students can participate in coursework through instant messages, emails and video conferencing. Google class room, Cisco WebeX Meeting, OERS, Swayam Platform (www.swayam.gov.in), Swayam Prabha (www.swayamprabha.gov.in) (available on Doordarshan (free dish TV), E-Yantra (www.e-yantra.org), Virtual Labs (www.vlabs.co.in), FOSSEE (www.fossee.in), application of spoken tutorials (www.spoken-tutorial.org), National Digital Library (www.ndl.iitkgp.ac.in), electronic journals (www.ess.infibnet.ac.in) etc. are to be used. . Courses may also integrate DVD videos as part of the training process.

Initiating Brain based learning- A stress free environment will be created. Constant feedback regarding their performance will be given to initiate learning from mistakes. Creative thinking for new ideas and innovations will be encouraged. Break in learning will be filled with recreational and constructive activities for boosting cognitive functions.

Activities: Lecture/ Project Work/ Seminars/ Term Papers/Assignments/ Presentations/ Study etc.

Assessment Rubric: Classroom Test, Project Work, Assignments, Presentations.

References:

1. Dick, W. F. (1980). Sports training principles. London: Lepus.
2. Harre, D. (1982). Principles of sports training. Berlin: Speculated.
3. Jensen, R. C.& Fisher, A.G. (1979). Scientific basis of athletic conditioning. Philadelphia: Lea and Fibiger, 2nd Edn.
4. Mathyew, L.P. (1981).Fundamental of sports training. Moscow: Progress Publishers.
5. Singh, H. (1984).Sports training, general theory and methods. Patiala: NSNIS.
6. Uppal, A.K., (1999).Science of Sports Training. New Delhi: Friends Publication.
7. Schlich Monfred (2003), Circuit Training for all sports, sports book publisher Toronto.
8. Dr. Sharad Chandra Mishra (2006), Sports Training, Sports Publication.

BPES-FC602: Sports Nutrition

100 Marks/ 4 Credits

Learning Outcomes

1. To understand the nutrition and sports nutrition.
2. To acknowledge the importance of different nutrients
3. To understand the exercise and weight management

Course Contents

Unit-I: Introduction to Sports Nutrition

- 1.1 Meaning and Definition of Nutrition and Sports Nutrition
- 1.2 Basic Nutrition guidelines
- 1.3 Role of nutrition in sports
- 1.4 Factor to consider for developing nutritional plan

Unit-II: Nutrients-Ingestion to energy metabolism

- 2.1 Macro and micro nutrients
- 2.2 Carbohydrates energy sources for exercise
- 2.3 Protein energy sources for exercise
- 2.4 Fat energy sources for exercise

Unit-III: Vitamins and minerals

- 3.1 Meaning and definition of vitamins and minerals
- 3.2 Types and functions of vitamins
- 3.3 Types and functions of minerals
- 3.4 Water, dehydration and importance of water for exercise.

Unit-IV: Weight Management and Nutrition

- 4.1 Meaning and concept of weight management
- 4.2 Exercise prescription and weight management
- 4.3 Concept of BMI (Body Mass Index), Obesity and its hazard
- 4.4 Daily caloric requirement and expenditure.

Teaching Learning Strategies: The class will be taught by using lectures and demonstration, seminars, classroom discussion, videos, charts and presentations method.

Virtual instructional platforms such as **online lectures**, webcast etc. are to be used. Students can participate in coursework through instant messages, emails and video conferencing. Google class room, Cisco WebeX Meeting, OERS, Swayam Platform (www.swayam.gov.in), Swayam Prabha (www.swayamprabha.gov.in) (available on Doordarshan (free dish TV), E-Yantra (www.e-yantra.org), Virtual Labs (www.vlabs.co.in), FOSSEE (www.fossee.in), application of spoken tutorials (www.spoken-tutorial.org), National Digital Library (www.ndl.iitkgp.ac.in), electronic journals (www.ess.infibnet.ac.in) etc. are to be used. . Courses may also integrate DVD videos as part of the training process.

Initiating Brain based learning- A stress free environment will be created. Constant feedback regarding their performance will be given to initiate learning from mistakes. Creative thinking for new ideas and innovations will be encouraged. Break in learning will be filled with recreational and constructive activities for boosting cognitive functions.

Activities: Lecture/ Project Work/ Seminars/ Term Papers/Assignments/ Presentations/ Study etc.

Assessment Rubric: Classroom Test, Project Work, Assignments, Presentations.

References:

1. Bessesen, D. H. (2008). Update on obesity. *J ClinEndocrinolMetab*.93(6), 2027-2034.
2. Butryn, M.L., Phelan, S., & Hill, J. O.(2007). Consistent self-monitoring of weight: a key component of successful weight loss maintenance. *Obesity*(Silver Spring). 15(12).
3. Chu, S.Y. & Kim, L. J. (2007). Maternal obesity and risk of stillbirth: a meta-analysis. *Am J Obstet Gynecol*, 197(3).
4. DeMaria, E. J. (2007). Bariatric surgery for morbid obesity. *N Engl J Med*,356(21). Dixon, J.B., O'Brien, P.E., Playfair, J. (n.d.). Adjustable gastric banding and conventional therapy for type 2 diabetes: a randomized controlled trial. *JAMA*. 299(3).
5. Bucher, Charles A. "Administration of Health and Physical Education Programme".
6. Moss and et. At. "Health Education" (National Education Association of U.T.A.)

SKILL BASED COURSE

BPES-SC603: Health and Fitness Club Management

100 Marks/ 4 Credits

Learning Outcomes

1. To understand the importance and establishment of health and fitness clubs in the society.
2. To aware the various fitness activities, principles, and prescription for health and fitness.
3. To earn the knowledge of gym and weight training plan.

Course Contents

Unit-I: Introduction

- 1.1 Definition, scope, principles of health and fitness
- 1.2 Definition, scope, principles of fitness club and gymnasium
- 1.3 Planning, establishment and management of fitness clubs
- 1.4 Awareness and influence of environment and locality toward the fitness clubs.

Unit-II: Fitness Club Activities

- 2.1 Aerobic activities- walking, jogging, running, dancing, swimming, water aerobics, aerobic, zumba, bicycling (stationary or on a path)
- 2.2 Strength exercise- free hand, lifting weights, resistance bands (long, wide rubber strips)
- 2.3 Flexibility exercises- Stretching, Yoga, Tai Chi, Pilates
- 2.4 Fitness Spa and Massage centres.

Unit-III: Principles of Exercise Program

- 3.1 Concept of free weight and machine exercise, sets and repetition
- 3.2 Designing different fitness training program
- 3.3 Exercise Heart rate Zones for various exercise volume and intensity
- 3.4 Safety techniques- spotting, proper body alignment, lifting techniques, spatial awareness and proper breathing techniques.

Unit-IV: Weight Training Plan

- 4.1 Concept and definition of weight training
- 4.2 Proper warm-up, cool down, and relaxation techniques
- 4.3 Basic resistance exercises- free hand exercise, free weight exercise, weight machines, isokinetic machines, medicine balls, fit balls
- 4.4 Advanced techniques and principles of weight training
- 4.5 Nutritional supplements of weight training.

Teaching Learning Strategies: The class will be taught by using lectures and demonstration, seminars, classroom discussion, videos, charts and presentations method.

Virtual instructional platforms such as **online lectures**, webcast etc. are to be used. Students can participate in coursework through instant messages, emails and video conferencing. Google class room, Cisco WebeX Meeting, OERS, Swayam Platform (www.swayam.gov.in), Swayam Prabha (www.swayamprabha.gov.in) (available on Doordarshan (free dish TV), E-Yantra (www.e-yantra.org), Virtual Labs (www.vlabs.co.in), FOSSEE (www.fossee.in), application of spoken tutorials (www.spoken-tutorial.org), National Digital Library (www.ndl.iitkgp.ac.in), electronic journals (www.ess.infibnet.ac.in) etc. are to be used. . Courses may also integrate DVD videos as part of the training process.

Initiating Brain based learning- A stress free environment will be created. Constant feedback regarding their performance will be given to initiate learning from mistakes. Creative thinking for new ideas and innovations will be encouraged. Break in learning will be filled with recreational and constructive activities for boosting cognitive functions.

Activities: Lecture/ Project Work/ Seminars/ Term Papers/Assignments/ Presentations/ Study etc.

Assessment Rubric: Classroom Test, Project Work, Assignments, Presentations.

References:

1. Bates M. (2008). Health Fitness Management (2nd Ed.) USA: Human Kinetics.
2. Giam, C.K & The, K.C. (1994). Sport medicine exercise and fitness. Singapore: P.G. Medical Book.
3. Mcglynn, G., (1993). Dynamics of fitness. Madison: W.C.B Brown.
4. Sharkey, B. J.(1990). Physiology of fitness. Human Kinetics Book.
5. Cart, E. Klafs & Daniel, D. Arnheim (1999) Modern Principles of Athletic Training St. Louis C. V. Mosphe Company.
6. Fink, H.H., Burgoon,L.A., & Mikesky, A.E. (2006). Practical Applications in Sports Nutrition. Canada : Jones and Bartlett Publishers.

DISCIPLINE SPECIFIC ELECTIVE (ANYONE)

BPES-SE604: Organization and Administration of Sports Events 50 Marks/ 2 Credits

Learning Outcomes

1. To know the concept of organization and administrative functions in sports.
2. To know the rules to be followed for budgeting, fund utilization and maintenance.
3. To know the facilities and time table management for physical education program.
4. To experience the competition organization and draw of competition fixture.

Course Contents

Unit-I: Organization and administration

- 1.1 Meaning and importance of Organization and Administration in physical education
- 1.2 Qualification and Responsibilities of Physical Education teacher and pupil leader
- 1.3 Planning and their basic principles,
- 1.4 Program planning: Meaning, Importance, Principles of program planning in physical education.

Unit-II: Office Management, Record, Register & Budget

- 2.1 Meaning, definition, functions and kinds of office management
- 2.2 Staffing, directing, communicating, co-ordination, controlling and evaluation
- 2.3 Maintenance of records, registers, attendance register, stock register, cash register, physical efficiency record, medical examination record.
- 2.4 Budget, importance of budget preparation, income sources.

Unit-III: Facilities and Time-Table Management

- 3.1 Facilities and equipment management- indoor and out door
- 3.2 Care of school building, gymnasium, swimming pool, play fields, play grounds
- 3.3 Equipment- need, importance, purchase, care and maintenance
- 3.4 Time Table Management: meaning, need, importance and factor affecting time table.

Unit-IV: Competition Organization

- 4.1 Importance of Tournament

- 4.2 Types of Tournament- Knock-out Tournaments, League or Round Robin Tournaments, Combination Tournament and Challenge Tournament.
- 4.3 Organization structure of Sports Meet
- 4.4 Intramurals & Extramural Tournament planning.

Teaching Learning Strategies: The class will be taught by using lectures and demonstration, seminars, classroom discussion, videos, charts and presentations method.

Virtual instructional platforms such as **online lectures**, webcast etc. are to be used. Students can participate in coursework through instant messages, emails and video conferencing. Google class room, Cisco WebeX Meeting, OERS, Swayam Platform (www.swayam.gov.in), Swayam Prabha (www.swayamprabha.gov.in) (available on Doordarshan (free dish TV), E-Yantra (www.e-yantra.org), Virtual Labs (www.vlabs.co.in), FOSSEE (www.fossee.in), application of spoken tutorials (www.spoken-tutorial.org), National Digital Library (www.ndl.iitkgp.ac.in), electronic journals (www.ess.infn.net) etc. are to be used. . Courses may also integrate DVD videos as part of the training process.

Initiating Brain based learning- A stress free environment will be created. Constant feedback regarding their performance will be given to initiate learning from mistakes. Creative thinking for new ideas and innovations will be encouraged. Break in learning will be filled with recreational and constructive activities for boosting cognitive functions.

Activities: Lecture/ Project Work/ Seminars/ Term Papers/Assignments/ Presentations/ Study etc.

Assessment Rubric: Classroom Test, Project Work, Assignments, Presentations.

References:

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. (1983). Administration of Physical Education and Athletic programme. St. Lolis: The C.V. Hosby Co.
3. Kozman, H.C. Cassidy, R. & Jackson, C. (1960). Methods in Physical Education. London: W.B. Saunders Co.
4. Pandey, L.K. (1977). Methods in Physical Education. Delhi: Metropolitan Book Depo.
5. Sharma, V.M. & Tiwari, R.H.: (1979). Teaching Methods in Physical Education. Amaravati: Shakti Publication.
6. Thomas, J. P. (1967). Organization & administration of Physical Education. Madras: Gyanodayal Press.
7. Tirunaryanan, C. & Hariharan, S. (1969). Methods in Physical Education. Karaikudi: South India Press.
8. Voltmer, E. F. & Esslinger, A. A. (1979). The organization and administration of Physical Education. New York: Prentice Hall Inc.

BPES-SE605: Sports Talent Identification

50 Marks/ 2 Credits

Learning Outcomes

1. The student would be oriented with the inherited signs and symptoms that make one adept for excellence in a particular sports.

2. The student would be able to quantify those signs and symptoms through specific tools and techniques and thus guide the individual to that sports activity for which his/her physique is best suited.

Course Contents

Unit-I: Introduction of Talent Identification in Sports

- 1.1 Need and Importance of talent identification
- 1.2 Principles of talent identification
- 1.3 Types of sports talent, scope of talent identification
- 1.4 Role of Physical Education teachers and coaches in talent identification.

Unit-II: Understanding Human Body

- 2.1 Genetics and Environment and their role in sports performance
- 2.2 Body types and their relation to sports
- 2.3 Basic Anthropometry
- 2.4 Anthropometric assessment and data recording

Unit-III: Fitness Tests

- 3.1 AAPHER youth fitness test
- 3.2 JCR test
- 3.3 Cooper's 12 minutes run/walk test
- 3.4 Harvard Step test

Unit-IV: Test for Talent Identification

- 4.1 Skill test for ball games
- 4.2 Skill test for racket games
- 4.3 Skill test for athletic abilities
- 4.4 Psychological test related to sports abilities.

Teaching Learning Strategies: The class will be taught by using lectures and demonstration, seminars, classroom discussion, videos, charts and presentations method.

Virtual instructional platforms such as **online lectures**, webcast etc. are to be used. Students can participate in coursework through instant messages, emails and video conferencing. Google class room, Cisco WebeX Meeting, OERS, Swayam Platform (www.swayam.gov.in), Swayam Prabha (www.swayamprabha.gov.in) (available on Doordarshan (free dish TV), E-Yantra (www.e-yantra.org), Virtual Labs (www.vlabs.co.in), FOSSEE (www.fossee.in), application of spoken tutorials (www.spoken-tutorial.org), National Digital Library (www.ndl.iitkgp.ac.in), electronic journals (www.ess.infibnet.ac.in) etc. are to be used. . Courses may also integrate DVD videos as part of the training process.

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Activities: Lecture/ Project Work/ Seminars/ Term Papers/Assignments/ Presentations/ Study etc.

Assessment Rubric: Classroom Test, Project Work, Assignments, Presentations.

References:

1. Russell K. Athletic talent: from detection to perfection. *Sci Period Res Technol Sport* 1989; 9 (1): 1–6 Google Scholar
2. Williams AM, Reilly T. Talent identification and development in soccer. *J Sport Sci* 2000; 18 (9): 657–67
3. Bartmus U, Neumann E, de Marées H. The talent problem in sports. *Int J Sports Med* 1987; 8 (6): 415–6
4. Barron, H.M. & Mchee, R. (1997). *A Practical approach to measurement in physical education*. Philadelphia: Lea and Febiger.
5. Kansal, D.K. (1996). *Test and measurement in sports and physical education*. New Delhi: D.V.S. Publications

LABORATORY PRACTICAL

Learning Outcomes

1. Laboratory practical will give the knowledge and experience of activity or test to the students.
2. Laboratory practical will give better understanding of subject matters that leads toward the work orientation.

BPES-LP606: Testing of Various Fitness Parameters 25 Marks/ 1 Credit

1. Leg and back strength test, handgrip strength test by using the Dynamometer.
2. JCR Test
3. Harvard Step test
4. Muscular Endurance tests- pull-up, bent knee sit-up, push-up, plank

BPES-LP607: Gym Exercise Modalities 25 Marks/ 1 Credit

1. **Free Movement Workout-** Walking, jogging, running, stretching, jumping, twisting, breathing exercises, etc.
2. **Gym Exercise Workout-** Barbell Bench press, Barbell Back Squat, Pull-Ups, Lying Hamstring DB Curls, Standing Overhead Press, Face-pulls, Front and back press, Leg raise, Leg press, Bent knee sit-up, Butter Fly, Triceps extension, Pull over, Arm curl, Rope climbing, Shoulder dip, Reverse dip, Deadlift, Vertical Push-up, Leg push, Hanging Abdominal curl, Medicine ball exercises.

NB: Concerned teacher may introduce more exercises based on the target fitness.

TEACHING/LEARNING PRACTICE

Learning Outcomes

1. Students will gain experience of teaching as student teacher and develop the teaching-learning quality.
2. Students will develop the teaching qualities of both theory and practical.
3. Students can understand different teaching methods and use of different teaching aids.
4. Students can improve the planning of teaching and coaching lessons.

BPES-TP608: General Lesson Plan and Teaching Practice- Classroom and Outdoor Activities. 100 Marks/ 4 Credits

1. Ten (10) teaching practice lessons for internal out of which five (5) lessons in class-room situation and 5 lessons for out-door activities within the premises of the institution on the students of the course.

2. One (1) final lesson for external must be practiced on the students of the course.

**BPES-TP609: Specific Coaching Lesson Plan and Teaching Practice- Major Games/
Sports in the Course. 100 Marks/2 Credits**

1. **MAJOR SPORTS: Track and Field, Gymnastics and Swimming (Anyone).**
Five (5) Practice Coaching lesson for internal and one (1) final coaching lesson for external on the students practicing as a sport specialization of any discipline mentioned above.
2. **MAJOR GAMES: Cricket, Football, Hockey, Judo, Softball, Volleyball, Handball, Basketball, Badminton, Kabaddi, Kho-Kho, Table Tennis, Tennis, Weight Lifting, Boxing, Wrestling (Anyone).**
Five (5) Practice Coaching lessons for internal and one (1) final Coaching lesson for external on the students practicing as a game specialization of any discipline mentioned above.

Sports simulation laboratory- Sports simulation laboratory is to be established to provide the students with a feasible environment where they will learn and practice sports skills using animated videos with continuous rectification of errors till exact simulation of skill is attained. Help may be taken from Youtube Streaming, Swayam Platform (www.swayam.gov.in), Swayam Prabha (www.swayamprabha.gov.in) (available on Doordarshan (free dish TV), E-Yantra (www.e-yantra.org)).

SEMESTER- VII

FOUNDATIONAL/MAIN/CORE COURSE

BPES-FC701: Research Methodology

100 Marks/ 4 Credits

Learning Outcomes

1. Students able to understand the fundamentals of research methodology.
2. Students can understand the different areas and scopes of research in physical education and sports.
3. Students will understand the concept of research methodology.
4. Students will understand the development of research design, sampling and data collection.
5. Students will understand the research report writing (thesis/dissertation).

Course Contents

Unit-I: Introduction to Research Methodology

- 1.1 Meaning, definition and objectives of Research
- 1.2 Types of Research
- 1.3 Research methods and methodology
- 1.4 Need and importance of Research in Physical Education and Sports
- 1.5 Scope of Research in Physical Education & Sports.

Unit-II: Research Problem and Design

- 2.1 Research problem and selection
- 2.2 Necessity of defining Research problem
- 2.3 Meaning and needs of Research design
- 2.4 Different Research designs
- 2.5 Variables and types of variables

UNIT-III: Sample and Data Collection

- 3.1 Meaning and definitions of population and sample
- 3.2 Types of Sampling designs and classification of sampling methods
- 3.3 Data and types of data
- 3.4 Types of data collection in research
- 3.5 Hypothesis and Types of Hypothesis
- 3.6 Sources of research literature.

UNIT-IV: Research Proposal and Report

- 1.2 Defining the Research Proposal and Research Report
- 1.3 Format of Research Proposal and Research Report
- 1.4 Mechanics of writing Research Report, Footnote, Endnote, Reference and Bibliography.
- 1.5 Problems encountered by researchers.

Teaching Learning Strategies: The class will be taught by using lectures and demonstration, seminars, classroom discussion, videos, charts and presentations method.

Virtual instructional platforms such as **online lectures**, webcast etc. are to be used. Students can participate in coursework through instant messages, emails and video conferencing. Google class room, Cisco WebeX Meeting, OERS, Swayam Platform (www.swayam.gov.in), Swayam Prabha (www.swayamprabha.gov.in) (available on Doordarshan (free dish TV), E-Yantra (www.e-yantra.org), Virtual Labs (www.vlabs.co.in), FOSSEE (www.fossee.in), application of spoken tutorials (www.spoken-tutorial.org), National Digital Library (www.ndl.iitkgp.ac.in), electronic journals (www.ess.infn.net.ac.in) etc. are to be used. . Courses may also integrate DVD videos as part of the training process.

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Activities: Lecture/ Project Work/ Seminars/ Term Papers/Assignments/ Presentations/ Study etc.

Assessment Rubric: Classroom Test, Project Work, Assignments, Presentations.

References:

1. Best J. W (1971) Research in Education, New Jersey; Prentice Hall, Inc.
2. Clarke David. H & Clarke H, Harrison (1984) Research processes in Physical Education, New Jersey; Prentice Hall Inc.
3. Craig Williams and Chris Wragg (2006) Data Analysis and Research for Sport and Exercise Science, London; Routledge Press.
4. Jerry R Thomas & Jack K Nelson (2000) Research Methods in Physical Activities; Illinois; Human Kinetics.

5. Kamlesh, M. L. (1999) Reserach Methodology in Physical Education and Sports, New Delhi.
6. Moses, A. K. (1995) Thesis Writing Format, Chennai; Poompugar Pathippagam.
7. Rothstain, A (1985) Research Design and Statistics for Physical Education, Englewood Cliffs: Prentice Hall, Inc.
8. Subramanian, R, Thirumalai Kumar S & Arumugam C (2010) Research Methods in Health, Physical Education and Sports, New Delhi; Friends Publication.
9. Moorthy A. M. Research Processes in Physical Education (2010); Friend Publication, New Delhi.

BPES-FC702: Sports Statistics

100 Marks/ 4 Credits

Learning Outcomes

1. Students will know the fundamentals of statistics in Physical Education and Sports.
2. Students will understand the importance of various statistical techniques.
3. Students will understand the importance of statistics in research areas.

Course Contents

Unit-I: Basics of Statistics

- 1.1 Meaning and definition of Statistics.
- 1.2 Nature and characteristics of statistics.
- 1.3 Types of statistics
- 1.4 Graphical Presentation- Histogram, Frequency Polygon, Frequency Curve Cumulative Frequency Polygon, Ogive, Pie Diagram.
- 1.5 Needs and importance of statistics in Physical Education and Sports.

Unit-II: Frequency Distribution

- 2.1 Meaning of variable and kinds of variables
- 2.2 Meaning and definition of frequency distribution
- 2.3 Preparation of frequency distribution table- Ungrouped data and Group data
- 2.4 Features of frequency distribution- Skewness and Kurtosis
- 2.5 Uses of frequency distribution table.

Unit-III: Measure of Central Tendency

- 3.1 Concepts of Measures of Central Tendency
- 3.2 Measures of Central tendency- Mean, Median and Mode
- 3.3 Importance, Advantages, Disadvantages of Mean, Median and Mode
- 3.4 Computation of Mean, Median and Mode from Group and Ungrouped data

Unit-IV: Measure of Variability

- 4.1 Concepts of Measures of Variability
- 4.2 Measures of Variability- Range, Mean Deviation, Quartile Deviation and Standard Deviation.
- 4.3 Importance, Advantages, Disadvantages of Range, Mean Deviation, Quartile Deviation and Standard Deviation.
- 4.4 Computation of Range, Mean Deviation, Quartile Deviation and Standard Deviation.

Teaching Learning Strategies: The class will be taught by using lectures and demonstration, seminars, classroom discussion, videos, charts and presentations method.

Virtual instructional platforms such as **online lectures**, webcast etc. are to be used. Students can participate in coursework through instant messages, emails and video conferencing. Google class room, Cisco WebeX Meeting, OERS, Swayam Platform (www.swayam.gov.in), Swayam Prabha (www.swayamprabha.gov.in) (available on Doordarshan (free dish TV), E-Yantra (www.e-yantra.org), Virtual Labs (www.vlabs.co.in), FOSSEE (www.fossee.in), application of spoken tutorials (www.spoken-tutorial.org), National Digital Library (www.ndl.iitkgp.ac.in), electronic journals (www.ess.infibnet.ac.in) etc. are to be used. . Courses may also integrate DVD videos as part of the training process.

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Activities: Lecture/ Project Work/ Seminars/ Term Papers/Assignments/ Presentations/ Study etc.

Assessment Rubric: Classroom Test, Project Work, Assignments, Presentations.

References:

1. Best J. W (1971) Research in Education, New Jersey; Prentice Hall, Inc
2. Clark D.H. (1999). Research Problem in Physical Education 2nd edition, Eaglewood Cliffs, Prentice Hall, Inc.
3. Jerry R Thomas & Jack K Nelson (2000). Research Methods in Physical Activities; Illonosis; Human Kinetics;
4. Kamlesh, M. L. (1999) Reserach Methodology in Physical Education and Sports, New Delhi
5. Rothstain A (1985). Research Design and Statistics for Physical Education, Englewood Cliffs: Prentice Hall, Inc
6. Sivaramakrishnan. S. (2006). Statistics for Physical Education, Delhi; Friends Publication
7. Thirumalaisamy (1998). Statistics in Physical Education, Karaikudi, Senthilkumar Publications.

SKILL BASED COURSE

BPES-FC703: Measurement and Evaluation

100 Marks/ 4 Credits

Learning Outcomes

1. The students will be able to recognize and relate the concept of test, measurement and evaluation in the context of Physical Education.
2. The students will be able to construct and conduct the physical fitness and sports skill test.
3. The students will be able to implement the criteria of test selection.
4. This syllabus would orient the students in the art of applications of test, measurement and evaluation in physical and sports activities with simultaneous development of practical competency in conducting physical fitness and sports skill tests.

Course Contents

Unit-I: Introduction to Test & Measurement & Evaluation

- 1.1 Meaning of Test, Measurement & Evaluation in Physical Education.

- 1.2 Importance of Test, Measurement & Evaluation in Physical Education.
- 1.3 Criteria of selecting an appropriate test.
- 1.4 Type and classification of test

Unit-II: Construction and Administration of Test

- 2.1 Administration of testing programme.
- 2.2 Construction of Physical Fitness / Efficiency Test
- 2.3 General types of sports skill test items
- 2.4 Construction of sports skill test

Unit-III: Physical Fitness Tests

- 3.1 Youth Physical Fitness Test.
- 3.2 Tuttle Pulse Ratio Test
- 3.3 Newton Motor Ability Test
- 3.4 Phillips JCR Test

Unit-IV: Sports Skill Tests

- 4.1 Lockhart and McPherson Badminton test
- 4.2 Johnson Basketball skills test
- 4.3 McDonald Soccer skills test
- 4.4 S.A.I Field Hockey test
- 4.5 Brady's Volleyball skills test.

Teaching Learning Strategies: The class will be taught by using lectures and demonstration, seminars, classroom discussion, videos, charts and presentations method.

Virtual instructional platforms such as **online lectures**, webcast etc. are to be used. Students can participate in coursework through instant messages, emails and video conferencing. Google class room, Cisco WebeX Meeting, OERS, Swayam Platform (www.swayam.gov.in), Swayam Prabha (www.swayamprabha.gov.in) (available on Doordarshan (free dish TV), E-Yantra (www.e-yantra.org), Virtual Labs (www.vlabs.co.in), FOSSEE (www.fossee.in), application of spoken tutorials (www.spoken-tutorial.org), National Digital Library (www.ndl.iitkgp.ac.in), electronic journals (www.ess.infibnet.ac.in) etc. are to be used. . Courses may also integrate DVD videos as part of the training process.

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Activities: Lecture/ Project Work/ Seminars/ Term Papers/Assignments/ Presentations/ Study etc.

Assessment Rubric: Classroom Test, Project Work, Assignments, Presentations.

References:

1. Bangsbo, J. (1994). *Fitness training in football: A scientific approach*. Bagsvaerd, Denmark:Ho+Storm.
2. Barron, H. M., &Mcchee, R. (1997). *A practical approach to measurement in physical education*.Philadelphia: Lea and Febiger.
3. Barron, H.M. &Mcchee, R. (1997). *A Practical approach to measurement in physical education*.Philadelphia: Lea and Febiger.

4. Kansal, D.K. (1996). *Test and measurement in sports and physical education*. New Delhi:D.V.S. Publications.

CHOICE BASED CREDIT SYSTEM (CBCS) COURSE

BPES-CB704: Contemporary Issues in Physical Education and Sports

100 Marks/ 4 Credits

Unit-I: Concept of Physical Education and Fitness

- 1.1 Definition, Aims and Objectives of Physical Education, Fitness and Wellness
- 1.2 Importance and Scope of fitness and wellness
- 1.3 Modern concept of Physical fitness and Wellness
- 1.4 Physical Education and its Relevance in Inter Disciplinary Context.
- 1.5 Misconception, age group, gender inequality, cultural diversity, access to facilities.

Unit-II: Fitness, Wellness and Lifestyle

- 2.1 Fitness – Types of Fitness and Components of Fitness
- 2.2 Understanding of Wellness
- 2.3 Modern Lifestyle and Hypo kinetic Diseases – Prevention and Management
- 2.4 Physical Activity and Health Benefits

Unit-III: Principles of Exercise Program

- 3.1 Means of Fitness development – aerobic and anaerobic exercises
- 3.2 Exercises and Heart rate Zones for various aerobic exercise intensities
- 3.3 Concept of free weight Vs Machine, Sets and Repetition etc.
- 3.4 Concept of designing different fitness training program for different age group.

Unit-IV: Safety and Injury Management

- 4.1 Health and Safety in Daily Life
- 4.2 First Aid and Emergency Care
- 4.3 Common Injuries and their Management
- 4.4 Modern Life Style and Hypo-kinetic Disease –Prevention and Management

Teaching Learning Strategies: The class will be taught by using lectures and demonstration, seminars, classroom discussion, videos, charts and presentations method.

Virtual instructional platforms such as **online lectures**, webcast etc. are to be used. Students can participate in coursework through instant messages, emails and video conferencing. Google class room, Cisco WebeX Meeting, OERS, Swayam Platform (www.swayam.gov.in), Swayam Prabha (www.swayamprabha.gov.in) (available on Doordarshan (free dish TV), E-Yantra (www.e-yantra.org), Virtual Labs (www.vlabs.co.in), FOSSEE (www.fossee.in), application of spoken tutorials (www.spoken-tutorial.org), National Digital Library (www.ndl.iitkgp.ac.in), electronic journals (www.ess.infibnet.ac.in) etc. are to be used. . Courses may also integrate DVD videos as part of the training process.

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Activities: Lecture/ Project Work/ Seminars/ Term Papers/Assignments/ Presentations/ Study etc.

Assessment Rubric: Classroom Test, Project Work, Assignments, Presentations.

References:

1. Difiore, J.(1998). *Complete guide to postnatal fitness*. London: A & C Black.
2. Giam, C.K & The, K.C. (1994). *Sport medicine exercise and fitness*. Singapore: P.G. Medical Book.
3. Mcglynn, G., (1993). *Dynamics of fitness*. Madison: W.C.B Brown.
4. Sharkey, B. J.(1990). *Physiology of fitness*, Human Kinetics Book.

SPORT/GAME SPECIALIZATION PRACTICAL

BPES-SS705: Anyone of major games/sports learned in the course to be opted by the students. **100 Marks/ 4 Credits**

Teaching-learning areas for Internal and External Evaluation.

1. Origin and history of the game/sport.
2. Mechanics of Field/Court development and marking.
3. Fundamental and advance techniques/skills.
4. Warming-up and cooling down.
5. Training for performance improvement
6. Evaluation of performance.
7. Selection of players and team preparation.
8. Officiating and coaching
9. Mechanics of officiating
10. Prevention of injuries.
11. Organization of competitions- state, national and international.
12. Preparation of practical file (to be presented in the end semester examination).

PERSONALITY/ABILITY ENHANCEMENT

BPES-PE705: Six weeks Internship in different adopted schools for teaching physical education and sports, and enhancement of students' personality. An original progress report in the form of teaching lesson plan duly assessed by the Head of the school must be submitted. At least 20 lessons must be completed. **100 Marks/ 4 Credits**

BPES- PE707: Field Work/Study Tour (Compulsory): A well-prepared original reports should be submitted and a viva-voce will be conducted on the report to assess the completion of field work/study tour. **Completed/Passed**

SEMESTER- VIII

SPECIALIZATION CORE COURSE (Any Two)

BPES-CC801: Methods of Sports Training

100 Marks/ 4 Credits

Learning Outcomes

1. The student would be empowered with the applicable knowledge of physiology in physical activity and sports.
2. The learner would be able to incorporate this knowledge in the training and coaching programme for the betterment of his trainee's performance.

Unit-I: Training Concepts and Fundamentals

- 1.1 Concept of Sports Training, Importance, Aim and objectives of sports training
- 1.2 Principles of sports Training
- 1.3 Training Load, Adaptation and Recovery
- 1.4 Factors of load, Relationship between volume and intensity
- 1.5 Overload, Causes and symptoms of overload, tackling of over load.

Unit-II: Training Methods

- 2.1 Concept of Training Means and Methods
- 2.2 Classification of training methods
- 2.3 Interval training method, Repetition training method, Continuous training method, Circuit training method, Fartlek training method, Resistance training method, Plyometric method.
- 2.4 Application of training methods.

Unit –III: Motor Abilities and Development

- 3.1 Types of strength, factors affecting strength performance, development
- 3.2 Types of endurance, factors affecting the endurance, forms of endurance methods to develop endurance.
- 3.3 Forms of speed, factors determining speed, load parameters to develop speed, methods to develop speed abilities
- 3.4 Types of flexibility, factors affecting flexibility, methods used to develop flexibility.
- 3.5 Classification of coordinative abilities, methods used to develop coordinative abilities.

Unit –IV: Technical and Tactical Preparation

- 4.1 Definition and meaning of technique, skill and style
- 4.2 Methods of technique training, causes of technical fault and their correction
- 4.3 Definition and meaning of tactics, aim of tactics, principles of tactical preparation.
- 4.4 Periodization planning and competition frequency.

Teaching Learning Strategies: The class will be taught by using lectures and demonstration, seminars, classroom discussion, videos, charts and presentations method.

Virtual instructional platforms such as **online lectures**, webcast etc. are to be used. Students can participate in coursework through instant messages, emails and video conferencing. Google class room, Cisco WebeX Meeting, OERS, Swayam Platform (www.swayam.gov.in), Swayam Prabha (www.swayamprabha.gov.in) (available on Doordarshan (free dish TV), E-Yantra (www.e-yantra.org), Virtual Labs (www.vlabs.co.in), FOSSEE (www.fossee.in), application of spoken tutorials (www.spoken-tutorial.org), National Digital Library (www.ndl.iitkgp.ac.in), electronic

journals (www.ess.infibnet.ac.in) etc. are to be used. . Courses may also integrate DVD videos as part of the training process.

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Activities: Lecture/ Project Work/ Seminars/ Term Papers/Assignments/ Presentations/ Study etc.

Assessment Rubric: Classroom Test, Project Work, Assignments, Presentations.

References:

1. American College of Sports Medicine, “Guidelines for Exercises Testing and Prescription” 4th ed. (McGraw Hill) 2005.
2. Annette, Lang. Morning Strength Workouts. Human Kinetics, Champaign, Ilc, USA, 2007.
3. Baechle, T. R. & Earle, R. W., Essentials of strength training and conditioning, US; Human Kinetics, 2000.
4. Craig A. Wrisberg. Sports Skill Instruction for Coaches. Human Kinetics, Champaign, Ilc, USA, 2007.
5. David N. Camaione “Fitness Management”: (Wels Brown & Benlr Mark), 1993.
6. David, Sandler., Sports Power. Human Kinetics, Champaign, Ilc., USA. 2005.
7. Dick, F.W., Sport training Principles, London, A and C Black, 1999.
8. Don, Frnak, Edward J., “Fitness Leaders Handbook”. (Human Kinetics) Howley 1995.
9. Hardayal Singh, Science of Sports Training, ND: D.A.V. Pub, 1993.
10. Herre, D., Principles of Sports Training, London : Grafion Book, 1982.
11. Jenson, C.R. Fisher, A.G. Scientific Basic of Athletic Conditioning, Lea and Febiger, Philadephia, 1992.
12. John Whitmore, “Coaching for Performance, 1994.
13. Knopf, K., Total Sports Conditioning for Athletes 50 + Ul yssesl Press, 2008
14. Lee, E.brown & Vance A.Ferrigna., Training for speed, Agility and Quickness, Human Kinetics, Champaign,Ilc.,USA, 2005
15. Matveyew, L.P., Fundamentals of Sports Training (Translation from Russian) Mir. Publisers, Moscow, 1991.
16. Newton, H., Explosive lifting for sports, US; Human Kinetics, 2006.
17. Philipp. A Joan and Wilkerson. Jerry D. (Joan A. Philipp & Jerry D. Wilkerson.

BPES-CC802: Exercise Physiology

100 Marks/ 4 Credits

Learning Outcomes

1. Student would be empowered with the applicable knowledge of physiology in physical activity and sports.
2. Students will understand the energy metabolism and exercise responses.
3. Students would be able to incorporate this knowledge in the training and coaching programme for the betterment of his trainee’s performance.

Unit-I: Introduction to Exercise and Sports Physiology

- 1.1. Meaning, Definition of Exercise Physiology and Sports Physiology

- 1.2. Importance of exercise physiology in Physical Education and Sports
- 1.3. Differences between Exercise Physiology and Sports Physiology
- 1.4. Foundational areas of exercise physiology
- 1.5. Scopes of exercise physiology.

Unit-II: Skeletal Muscles and Exercise Responses

- 2.5 Gross Structure of skeletal muscles
- 2.6 Properties of skeletal muscles
- 2.7 Contractile process of skeletal muscles and Sliding Filament Theory
- 2.8 Types of muscle fibre
- 2.9 Acute and chronic changes of muscular system by exercise.

Unit-III: Metabolism and Energy for Exercise

- 3.1 Metabolism, Energy and basic sources of energy metabolism
- 3.2 Basic energy system of muscular work- ATP-PC, Glycolytic and Oxydative system
- 3.3 Carbohydrate, fat and protein metabolism for muscular activity
- 3.4 Energy metabolism for aerobic and anaerobic activities
- 3.5 Basal Metabolic Rate (BMR).

Unit-IV: Cardiac and Respiratory System

- 4.1 Structural properties of cardiac and Cardiovascular system
- 4.2 Cardiac cycle, cardiac output, stroke volume, heart rate, cardiac hypertrophy
- 4.3 Structural properties of lungs and respiratory system
- 4.4 Respiratory Muscles, minute ventilation, ventilation at rest and exercise, diffusion of gases, exchange of gases in the lungs and exchange of gases in the tissues
- 4.5 Anaerobic threshold, oxygen dept, lungs volumes and capacities
- 4.6 Effect of exercises on cardiac and lungs functions.

Teaching Learning Strategies: The class will be taught by using lectures and demonstration, seminars, classroom discussion, videos, charts and presentations method.

Virtual instructional platforms such as **online lectures**, webcast etc. are to be used. Students can participate in coursework through instant messages, emails and video conferencing. Google class room, Cisco WebeX Meeting, OERS, Swayam Platform (www.swayam.gov.in), Swayam Prabha (www.swayamprabha.gov.in) (available on Doordarshan (free dish TV), E-Yantra (www.e-yantra.org), Virtual Labs (www.vlabs.co.in), FOSSEE (www.fossee.in), application of spoken tutorials (www.spoken-tutorial.org), National Digital Library (www.ndl.iitkgp.ac.in), electronic journals (www.ess.infn.net) etc. are to be used. . Courses may also integrate DVD videos as part of the training process.

Initiating Brain based learning- A stress free environment will be created. Constant feedback regarding their performance will be given to initiate learning from mistakes. Creative thinking for new ideas and innovations will be encouraged. Break in learning will be filled with recreational and constructive activities for boosting cognitive functions.

Activities: Lecture/ Project Work/ Seminars/ Term Papers/Assignments/ Presentations/ Study etc.

Assessment Rubric: Classroom Test, Project Work, Assignments, Presentations.

References:

1. Amrit Kumar, R, Moses. (1995). Introduction to Exercise Physiology. Madras: Poompugar Pathipagam.

2. Beotra Alka, (2000) Drug Education Handbook on Drug Abuse in Sports: Sports Authority of India Delhi.
3. Clarke, D.H. (1975). Exercise Physiology. New Jersey: Prentice Hall Inc., Englewood Cliffs.
4. David, L Costill. (2004). Physiology of Sports and Exercise. Human Kinetics. Fox, E.L., and Mathews, D.K. (1981). The Physiological Basis of Physical Education and Athletics. Philadelphia: Sanders College Publishing.
5. Guyton, A.C. (1976). Textbook of Medical Physiology. Philadelphia: W.B. Sanders Co.
6. Richard, W. Bowers. (1989). Sports Physiology. WMC: Brown Publishers.
7. Sandhya Tiwaji. (1999). Exercise Physiology. Sports Publishers.
8. Shaver, L. (1981). Essentials of Exercise Physiology. New Delhi: Subject Publications.
9. Vincent, T. Murche. (2007). Elementary Physiology. Hyderabad: Sports Publication.
10. William, D. Mc Aradle. (1996). Exercise Physiology, Energy, Nutrition and Human Performance. Philadelphia: Lippincott Williams and Wilkins Company.

BPES-CC803: Sports Psychology

100 Marks/ 4 Credits

Learning Outcomes

1. Students will understand the psychological application in the sports.
2. Students will understand the importance of growth, development and maturity attainment.
3. Students will understand the quality heredity and environment in sports development.

Unit-I: Introduction to Sports Psychology

- 1.1 Meaning and definition of Sports Psychology and Exercise Psychology
- 1.2 Aims and objectives of Sports Psychology
- 1.3 Uses and scope of Sports Psychology
- 1.4 Relationship between Sports Psychology and Psychology
- 1.5 Needs Psychology in Sports education.

Unit-II: Growth, Development and Exercise

- 2.1 Meaning and definition of growth and development
- 2.2 Principles of growth and development
- 2.3 Differences between growth and development
- 2.4 Stages of growth and development
- 2.5 Characteristics of various stages of development
- 2.6 Effect of exercises on the growth and development.

Unit-III: Heredity, Environment and Sports Development

- 3.1 Meaning and definition of heredity and environment
- 3.2 Laws of heredity
- 3.3 Heredity as determinant of sports personality
- 3.4 Influence of environmental factors on sports development
- 3.5 Intellectual, mental growth and development
- 3.6 Individual differences, types and causes of individual differences.

Unit-IV: Applied Psychology in Sports

- 4.1 Motivation and learning
- 4.2 Motives and motivation cycle
- 4.3 Methods of learning, various factors affecting learning
- 4.4 Emotion and effect of emotion in sports

4.5 Attention and Interest- types of attention and importance of attention in sports, characteristics of interest in sports.

4.6 Intelligent and Intelligent Quotient (IQ) in sports.

Teaching Learning Strategies: The class will be taught by using lectures and demonstration, seminars, classroom discussion, videos, charts and presentations method.

Virtual instructional platforms such as **online lectures**, webcast etc. are to be used. Students can participate in coursework through instant messages, emails and video conferencing. Google class room, Cisco WebeX Meeting, OERS, Swayam Platform (www.swayam.gov.in), SwayamPrabha (www.swayamprabha.gov.in) (available on Doordarshan(free dish TV), E-Yantra (www.e-yantra.org), Virtual Labs (www.vlabs.co.in), FOSSEE (www.fossee.in), application of spoken tutorials (www.spoken-tutorial.org), National Digital Library (www.ndl.iitkgp.ac.in), electronic journals (www.ess.infibnet.ac.in) etc. are to be used. . Courses may also integrate DVD videos as part of the training process.

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Activities: Lecture/ Project Work/ Seminars/ Term Papers/Assignments/ Presentations/ Study etc.

Assessment Rubric: Classroom Test, Project Work, Assignments, Presentations.

References:

1. Alison and Robinson. (2018), Excelling in Sport Psychology: Planning, Preparing, and Executing Applied Work, Sean Fitzpatrick.
2. Taylor, Jim, (2018), Assessment in Applied Sport Psychology, Human kinetics.
3. Coumbe-Lilley , (2018), Complex Cases in Sport Psychology, Routledge.
4. Kamlesh, M.L. (1998). Psychology in physical education and sport. New Delhi: Metropolitan Book Co.
5. Skinner, C. E., (1984.). Education Psychology. New Delhi: Prentice Hall of India.
6. Verma, K.K. (1994). Sports Psychology for Physical Education. Tandon Pub. Ludhiana.
7. Mangal, S.K. (2000). Psychological Foundation of Education. Parkash Brothers, Ludhiana.
8. Gangopadhyay, S.R. (2002). Sports Psychology. College Book Depot, Gwalior.

BPES-CC804: Sports Biomechanics

100 Marks/ 4 Credits

Learning Outcomes

1. The student would be oriented with the knowledge of basic mechanics and biomechanics.
2. Students will understand the application of motions and forces in sports.
3. Students will understand the application of linear and angular kinematics in sports.
4. Students will understand the application of linear and angular kinetics in sports.
5. Students will understand the analyses of fundamental skills of body movement.

Unit-I: Introduction of Biomechanics

1.1 Mechanics and branches of Mechanics

1.2 Meaning and definition of Biomechanics and Sports Biomechanics

- 1.3 Historical development of Biomechanics
- 1.4 Importance of Biomechanics in exercise and sports performance
- 1.5 Concept of Movement analysis
- 1.6 Various directional joint movements in body planes and axes.

Unit-II: Motion and Force

- 2.1 Meaning and definition of Motion
- 2.2 Causes of motion, relative motion, factors changing the motion
- 2.3 Kinds of motions- Linear motion, Angular motion and General motion
- 2.4 Newton's Laws of Motion and its application
- 2.5 Nature of Force, classification of force, components of force, magnitude, point of application and direction of force.
- 2.6 Gravity, Centripetal and Centrifugal force.

Unit-III: Linear and Angular Kinematics

- 3.1 Linear Kinematics: Distance and Displacement, Speed and Velocity, Acceleration, Uniform Acceleration and Retardation, Vectors and Scalars.
- 3.2 Angular Kinematics: Angular Distance and Displacement, Angular Speed and Velocity, Units in Angular Kinematics and Angular Acceleration.
- 3.3 Meaning of Projectile, components of projectile motion, angle of projection, trajectory
- 3.4 Factors influencing the projectile trajectory.

Unit-IV: Linear and Angular Kinetics

- 4.1 Linear Kinetics: Inertia, Mass, Force, Momentum, Friction, Pressure, Impact and Elasticity, Work, Power and Energy.
- 4.2 Angular Kinetics: Angular Inertia, Angular Momentum
- 4.3 Stability and Equilibrium, classification of equilibrium, factors effecting stability.
- 4.4 Lever and types of lever, application of leverage function to body movement.
- 4.5 Mechanical Analysis of Motor Skills: Walking , Running, Jumping, Throwing.

Teaching Learning Strategies: The class will be taught by using lectures and demonstration, seminars, classroom discussion, videos, charts and presentations method.

Virtual instructional platforms such as **online lectures**, webcast etc. are to be used. Students can participate in coursework through instant messages, emails and video conferencing. Google class room, Cisco WebeX Meeting, OERS, Swayam Platform (www.swayam.gov.in), SwayamPrabha (www.swayamprabha.gov.in) (available on Doordarshan(free dish TV), E-Yantra (www.e-yantra.org), Virtual Labs (www.vlabs.co.in), FOSSEE (www.fossee.in), application of spoken tutorials (www.spoken-tutorial.org), National Digital Library (www.ndl.iitkgp.ac.in), electronic journals (www.ess.infibnet.ac.in) etc. are to be used. . Courses may also integrate DVD videos as part of the training process.

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Activities: Lecture/ Project Work/ Seminars/ Term Papers/Assignments/ Presentations/ Study etc.

Assessment Rubric: Classroom Test, Project Work, Assignments, Presentations.

References:

1. Gowitzke, B.A. and Milner, M. Scientific Bases of Human Movement. (3rd. Ed.) Baltimore: Williams and Wilkins, (1988).
2. Grimshaw, Paul., Lees, Adrian., Flower, Neil & Burden, Adrian. Sports and Exercise Biomechanics. Taylor & Francis.
3. Groves, R and Camaine, D. Concepts in Kinesiology. (2nd. Ed.). Philadelphia: Saunders College Publishing, (1983).
4. Hall, S.J., Basic Biomechanics, London, Mosby, 1991.
5. Hay, J. The biomechanics of sport techniques. (2nd. Ed.). Englewood Cliffs: Prentice-Hall, (1978).
6. Hay, J. & Reid, J. The Anatomical and Mechanical Bases of Human Motion. Englewood Cliffs: Prentice-Hall, (1982).
7. Luttegens, Kathryn., Deutsch, Helga., Hamilton, Nancy. Kinesiology-Scientific Basis of Human Motion. 8th Ed, Brown & Bench mark.
8. Nordin, M. & Frankel, V. Basic Biomechanics of the Musculoskeletal System, Philadelphia: Lea & Febiger, (1990).
9. Northrip, J., Logan, G. & McKinney, W. Analysis of Sport Motion. (3rd. Ed). Dubuque: William C. Brown, (1983).
10. Rasch, P. Kinesiology and Applied Anatomy. Philadelphia: Lea & Febiger, (1989).
11. Thompson, C. Manual of Structural Kinesiology. (10th Ed.). St. Louis: Times Mirror/ Mosby College Publishing, (1985).

SKILL BASED COURSE

BPES-SC805: Sports Engineering and Technology

100 Marks/ 4 Credits

Learning outcomes

1. Students will acknowledge the concept of sports engineering and technological supports.
2. Students will understand the importance of engineering in the field of sports and performance.
3. Students will understand the infrastructure and facilities development in sports.

Unit-I: Introduction to Sports Engineering and Technology

- 1.1 Meaning of sports engineering and sports technology
- 1.2 Human motion detection and recording
- 1.3 Human performance, assessment, equipment and facility designing
- 1.4 Sports related instrumentation and measurement.

Unit-II: Sports Dynamics and Mechanics of Movement

- 2.1 Introduction to dynamics and sports dynamics
- 2.2 Kinematics to particles- rectilinear and curvilinear motion, coordinate system
- 2.3 Kinetics of particles- Newton's laws of Motion, Work, Energy, Impulse and momentum
- 2.4 Concept of internal and external force, axial force, shear force, bending movement, torsion
- 2.5 Energy- kinetic and potential energy
- 2.6 Mechanics of movements- walking, running, throwing, jumping, lifting, pulling, pushing.

Unit- III: Building and Maintenance

- 3.1 Sports Infrastructure- Gymnasium, Pavilion, Swimming Pool, Indoor Stadium, Outdoor Stadium, Play Park, Academic Block, Administrative Block, Research Block, Laboratory, Library, Sports Hostels.

- 3.2 Requirements: Air ventilation, Day light, Lighting arrangement, Galleries, Store rooms, Office, Toilet Blocks (Male/Female), Drinking Water, Sewage and Waste Water disposal system, Changing Rooms (Male/Female), Sound System (echo-free).
- 3.3 Internal arrangement according to need and nature of activity to be performed, Corridors and Gates for free movement of people, Parking system, Emergency provisions of lighting, fire and exits, Eco-friendly outer surrounding.
- 3.4 Maintenance staff, financial consideration.

Unit- IV: Building Process and Maintenance Policy

- 6.1 Building Process- Design phase (including brief documentation), construction phase functional (occupational) life, Re-evaluation, refurbish, demolish.
- 6.2 Maintenance Policy- preventive maintenance, corrective maintenance, record and register for maintenance.
- 6.3 Facility life cycle costing- Basics of theoretical analysis of cost, total life cost concepts, maintenance costs, energy cost, capital cost and taxation.

Teaching Learning Strategies: The class will be taught by using lectures and demonstration, seminars, classroom discussion, videos, charts and presentations method.

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Activities: Lecture/ Project Work/ Seminars/ Term Papers/Assignments/ Presentations/ Study etc.

Assessment Rubric: Classroom Test, Project Work, Assignments, Presentations.

References:

1. Franz K. F. et. al., Editor, Routledge Handbook of Sports Technology and Engineering (Routledge, 2013).
2. Steve Hake, Editor, The Engineering of Sport (CRC Press, 1996).
3. Franz K. F. et. al., Editor The Impact of Technology on Sports II (CRC Press, 2007).
4. Helge N., Sports Aerodynamics (Springer Science & Business Media, 2009).
5. Youlin Hong, Editor Routledge Handbook of Ergonomics in Sport and Exercise (Routledge, 2013).
6. Jenkins M., Editor Materials in Sports Equipment, Volume I (Elsevier, 2003).
7. Colin White, Projectile Dynamics in Sport: Principles and Applications.
8. Eric C. et al., Editor Sports Facility Operations Management (Routledge, 2010).

BPES-CB806: Curriculum Design**100 Marks/ 4 Credits****UNIT-I: Curriculum and Curriculum Design**

- 3.5 Meaning, definition and importance of curriculum and curriculum design
- 3.6 Role of teacher in curriculum development
- 3.7 Factors affecting curriculum - Social factors - Personnel qualifications – Climatic consideration - Equipment and facilities -Time suitability of hours.
- 3.8 National and Professional policies, Research finding support.

UNIT-III: Concepts and Curriculum Planning

- 2.1 Old and new concepts of curriculum
- 2.2 Basic principles of curriculum construction.
- 2.3 Important issues of curriculum design.
- 2.4 Needs of curriculum for the students, state and national level policies.

UNIT-II: Guidelines for Curriculum Construction

- 2.1 Focalization
- 2.2 Socialization
- 2.3 Individualization
- 2.4 Sequence and operation
- 2.5 Steps in curriculum construction.

UNIT-IV: Under-graduate Curriculum Preparation of Professional Preparation

- 4.1 Areas of Health education, Physical education and Recreation.
- 4.2 Curriculum design- Experience of Education, Field and Laboratory.
- 4.3 Teaching practice.
- 4.4 Professional Competencies to be developed- facilities and special resources for library, laboratory and other facilities.

Reference:

1. Barrow, H. M. (1983). *Man and movement: principles of physical education*. Philadelphia: Lea and Febiger.
4. Bucher, C. A. (1986). *Foundation of physical education*: St. Louis: The C. V. Mosby & Company.
5. Cassidy, R. (1986). *Curriculum development in physical education*. New York: Harper & Company.
6. Cowell, C.C. & Hazelton, H.W. (1965). *Curriculum designs in physical education*. Englewood Cliffs: N.J. prentice Hall Inc.
7. Larson, L.A. (n.d.). *Curriculum foundation in physical education*. Englewood Cliffs: N.J. Prentice Hall Inc.
8. Underwood, G. L. (1983). *The physical education curriculum in secondary school: planning and implementation*. England: Taylor and Francis Ltd.
9. Willgoose, C.E. (1979). *Curriculum in physical education*. 3rd Ed. Englewood Cliffs.: N.J. Prentice Hall, Inc.

SPECIALIZATION LABORATORY PRACTICAL

(Any two- Corresponding to Specialization Core course)

BPES-LP807: Methods of Sports Training**50 Marks/ 2 Credits**

1. Designing of Training Methods- Interval training, Repetition training, Continuous training, Circuit training, Fartlek training, Resistance training, Plyometric training.
2. Diagnosis of symptoms of overload training.
3. Assessment of Strength and Power abilities.
4. Assessment of Muscular Endurance abilities.
5. Assessment of Speed abilities.
6. Assessment of Flexibility .
7. Assessment of Reaction Time.

BPES-LP808: Exercise Physiology

50 Marks/ 2 Credits

1. Calculation of Basal Metabolic Rate (BMR).
2. Calculation of Body Mass Index (BMI).
3. Measurement of heart rate during – rest and exercise.
4. Measurement of vital capacity.
5. Measurement of respiratory rate during- rest and exercise.
6. Measurement of Blood Pressure.
7. Measurement of Oxygen level.
8. Estimation of Haemoglobin.

BPES-LP809: Sports Psychology

50 Marks/ 2 Credits

1. Guidelines for a diary to be prepared by sport psychologist for athletes.
2. Measurement of Intelligent Quotient (IQ)- Mental Age and chronological Age.
3. Raymond. B. Cattell's Personality Factors investigation.
4. Assessment of Sports Achievement Motivation.
5. Assessment of Emotional Intelligence- Multifactor Emotional Intelligence Scale (MEIS).
6. Assessment of Concentration.
7. Evaluation of Anxiety.
8. Measurement of Aggression.

BPES-LP810: Sports Biomechanics

50 Marks/ 2 Credits

1. Anthropometrical measurement of body.
2. Demonstration of Body Planes and Axes
3. Assessment of Speed and Velocity.
4. Location of Centre of Gravity and Line of Gravity of body.
5. Demonstration of Principle of Action and Reaction.
6. Demonstration of Projectile and Trajectory.
7. Biomechanical analysis of movement technique- walking, running, jumping, throwing.
8. Use of Different type of direct measurement techniques in basic human movement (Goniometry)
9. Use of computer assisted movement analysis (Videography).

RESEARCH PROJECT

BPES-RP811: Research Based Project Work on Specialization Core Course under a supervisor/guide concerned. **100 Marks/ 4 Credits**

**SCHEME OF EXAMINATION
BACHELOR OF PHYSICAL EDUCATION AND SPORTS (BPES)
(FOUR YEAR DEGREE COURSE)**

SEMESTER-I

FOUNDATIONAL/MAIN/CORE COURSE

Course Code	Title of Course	Internal Mark	Pass Mark	External Mark	Pass Mark	Total	Agg. Pass Mark	Credits
BPES-FC101	History and Foundation of Physical Education	30	12	70	28	100	40	4
BPES-FC102	Human Anatomy and Physiology	30	12	70	28	100	40	4
BPES-FC103	Kinesiology and Biomechanics	30	12	70	28	100	40	4
Total		90	36	210	84	300	120	12

GENERIC COURSE

Course Code	Title of Course	Internal Mark	Pass Mark	External Mark	Pass Mark	Total	Agg. Pass Mark	Credits
BPES-GC104	English and Communication Skill	20	8	30	12	50	20	2
Total		20	8	30	12	50	20	2

LABORATORY PRACTICAL

Course Code	Title of Course	Internal Mark	External Mark	Total	Agg. Pass Mark	Credits
BPES-LP105	Anatomy and Physiology	10	15	25	10	1
BPES-LP106	Kinesiology and Biomechanics	10	15	25	10	1
Total		20	30	50	20	2

SPORTS/GAMES PRACTICAL

Course Code	Title of Course	Internal Mark	Pass Mark	External Mark	Pass Mark	Total	Agg. Pass Mark	Credits
BPES-SP107	Track & Field: Running Events	50	20	50	20	100	40	4
BPES-SP108	Major Ball Games- Basketball, Football, Handball & Volleyball (Any one to be offered)	50	20	50	20	100	40	4
Total		100	40	100	40	200	80	8

**Total Marks = 600
Total Credits = 24**

SEMESTER-II

FOUNDATIONAL/MAIN/CORE COURSE

Course Code	Title of Course	Internal Mark	Pass Mark	External Mark	Pass Mark	Total	Agg. Pass Mark	Credits
BPES-FC201	Yoga Education	30	12	70	28	100	40	4
BPES-FC202	Officiating and Coaching	30	12	70	28	100	40	4
BPES-FC203	Methods in Physical Education	30	12	70	28	100	40	4
Total		90	36	210	84	300	120	12

GENERIC COURSE

Course Code	Title of Course	Internal Mark	Pass Mark	External Mark	Pass Mark	Total	Agg. Pass Mark	Credits
BPES-GC204	Environmental Science	20	8	30	12	50	20	2
Total		20	8	30	12	50	20	2

LABORATORY PRACTICAL

Course Code	Title of Course	Internal Mark	External Mark	Total	Agg. Pass Mark	Credits
BPES-LP205	Yogic Practices	10	15	25	10	1
BPES-LP206	Demonstration of Methods of Officiating and Teaching	10	15	25	10	1
Total		20	30	50	20	2

SPORTS/GAMES PRACTICAL

Course Code	Title of Course	Internal Mark	Pass Mark	External Mark	Pass Mark	Total	Agg. Pass Mark	Credits
BPES-SP207	Track & Field: Jumping and Throwing Events	50	20	50	20	100	40	4
BPES-SP208	Major Games- Hockey, Cricket, Softball & Kabaddi/Kho-Kho (Any one to be offered)	50	20	50	20	100	40	4
Total		100	40	100	40	200	80	8

Total Marks = 600
Total Credits = 24

SEMESTER- III**FOUNDATIONAL/MAIN/CORE COURSE**

Course Code	Title of Course	Internal Mark	Pass Mark	External Mark	Pass Mark	Total	Agg. Pass Mark	Credits
BPES-FC301	Sports Psychology and Sociology	30	12	70	28	100	40	4
BPES-FC302	Sports Management	30	12	70	28	100	40	4
BPES-FC303	Health Education	30	12	70	28	100	40	4
Total		90	36	210	84	300	120	12

GENERIC COURSE

Course Code	Title of Course	Internal Mark	Pass Mark	External Mark	Pass Mark	Total	Agg. Pass Mark	Credits
BPES-GC304	Fundamentals of Computer Application	20	8	30	12	50	20	2
Total		20	8	30	12	50	20	2

LABORATORY PRACTICAL

Course Code	Title of Course	Internal Mark	External Mark	Total	Agg. Pass Mark	Credits
BPES-LP305	Computer Application	10	15	25	10	1
BPES-LP306	Health and Psychological Assessment	10	15	25	10	1
Total		20	30	50	20	2

SPORTS/GAMES PRACTICAL

Course Code	Title of Course	Internal Mark	Pass Mark	External Mark	Pass Mark	Total	Agg. Pass Mark	Credits
BPES-SP307	Yoga	50	20	50	20	100	40	4
BPES-SP308	Racket Games- Badminton, Tennis, Table Tennis (Any one to be offered)	50	20	50	20	100	40	4
Total		100	40	100	40	200	80	8

Total Marks = 600
Total Credits = 24

SEMESTER-IV**FOUNDATIONAL/MAIN/CORE COURSE**

Course Code	Title of Course	Internal Mark	Pass Mark	External Mark	Pass Mark	Total	Agg. Pass Mark	Credits
BPES-FC401	Fitness and Conditioning	30	12	70	28	100	40	4
BPES-FC402	Sports Pedagogy	30	12	70	28	100	40	4
BPES-FC403	Adapted Physical Education	30	12	70	28	100	40	4
Total		90	36	210	84	300	120	12

DISCIPLINE SPECIFIC ELECTIVE (ANYONE)

Course Code	Title of Course	Internal Mark	Pass Mark	External Mark	Pass Mark	Total	Agg. Pass Mark	Credits
BPES-SE404	Sports Entrepreneurship	20	8	30	12	50	20	2
BPES-SE405	Recreation and Adventure Sports							
Total		20	8	30	12	50	20	2

LABORATORY PRACTICAL

Course Code	Title of Course	Internal Mark	External Mark	Total	Agg. Pass Mark	Credits
BPES-LP406	Fitness Training	10	15	25	10	1
BPES-LP407	Adventure Sports Activity	10	15	25	10	1
Total		20	30	50	20	2

SPORTS/GAMES PRACTICAL

Course Code	Title of Course	Internal Mark	Pass Mark	External Mark	Pass Mark	Total	Agg. Pass Mark	Credits
BPES-SP408	Gymnastics	50	20	50	20	100	40	4
BPES-SP409	Combative and Other Sports- Judo, Wrestling, Boxing, Weight Lifting (Any one to be opted)	50	20	50	20	100	40	4
Total		100	40	100	40	200	80	8

Total Marks = 600
Total Credits = 24

SEMESTER-V

FOUNDATIONAL/MAIN/CORE COURSE

Course Code	Title of Course	Internal Mark	Pass Mark	External Mark	Pass Mark	Total	Agg. Pass Mark	Credits
BPES-FC501	Educational Technology	30	12	70	28	100	40	4
BPES-FC502	Basic Sports Medicine and Physiotherapy	30	12	70	28	100	40	4
BPES-FC503	Traditional Sports of Manipur	30	12	70	28	100	40	4
Total		90	36	210	84	300	120	12

DISCIPLINE SPECIFIC ELECTIVE (ANYONE)

Course Code	Title of Course	Internal Mark	Pass Mark	External Mark	Pass Mark	Total	Agg. Pass Mark	Credits
BPES-SE504	Movement Education	20	8	30	12	50	20	2
BPES-SE505	Sports Journalism							
Total		20	8	30	12	50	20	2

LABORATORY PRACTICAL

Course Code	Title of Course	Internal Mark	External Mark	Total	Agg. Pass Mark	Credits
BPES-LP506	Educational Teaching Aids	10	15	25	10	1
BPES-LP507	Therapeutic Modalities and Massage	10	15	25	10	1
Total		20	30	50	20	2

SPORTS/GAMES PRACTICAL

Course Code	Title of Course	Internal Mark	Pass Mark	External Mark	Pass Mark	Total	Agg. Pass Mark	Credits
BPES-SP508	Swimming	50	20	50	20	100	40	4

BPES-SP509	Traditional Sports of Manipur-Sagol Kangjei, Mukna, Kang and Thang-Ta (Any one to be opted)	50	20	50	20	100	40	4
Total		100	40	100	40	200	80	8

Total Marks = 600

Total Credits = 24

SEMESTER-VI

FOUNDATIONAL/MAIN/CORE COURSE

Course Code	Title of Course	Internal Mark	Pass Mark	External Mark	Pass Mark	Total	Agg. Pass Mark	Credits
BPES-FC601	Basics of Sports Training	30	12	70	28	100	40	4
BPES-FC602	Sports Nutrition	30	12	70	28	100	40	4
Total		60	24	140	56	200	80	8

SKILL BASED COURSE

Course Code	Title of Course	Internal Mark	Pass Mark	External Mark	Pass Mark	Total	Agg. Pass Mark	Credits
BPES-SC603	Health and Fitness Club Management	30	12	70	28	100	40	4
Total		30	12	70	28	100	40	4

DISCIPLINE SPECIFIC ELECTIVE (ANYONE)

Course Code	Title of Course	Internal Mark	Pass Mark	External Mark	Pass Mark	Total	Agg. Pass Mark	Credits
BPES-SE604	Organization and Administration of Sports Events	20	8	30	12	50	20	2
BPES-SE605	Sports Talent Identification							
Total		20	8	30	12	50	20	2

LABORATORY PRACTICAL

Course Code	Title of Course	Internal Mark	External Mark	Total	Agg. Pass Mark	Credits
BPES-LP606	Testing of Various Fitness Parameters	10	15	25	10	1
BPES-LP607	Gym Exercise Modalities	10	15	25	10	1
Total		20	30	50	20	2

TEACHING/LEARNING PRACTICE

Course Code	Title of Course	Internal Mark	Pass Mark	External Mark	Pass Mark	Total	Agg. Pass Mark	Credits
BPES-TP608	General Lesson Plan and Teaching Practice- Classroom and Outdoor Activities.	50	20	50	20	100	40	4
BPES-TP609	Specific Coaching Lesson Plan and Teaching Practice- Major Sports/Games in the Course.							

	1. Sports: Track and Field, Gymnastics and Swimming (Anyone).	25	10	25	10	50	20	2
	2. Games: Cricket, Football, Hockey, Judo, Softball, Volleyball, Handball, Basketball, Badminton, Kabaddi, Kho-Kho, Table Tennis, Tennis, Weight Lifting, Boxing, Wrestling (Anyone).	25	10	25	10	50	20	2
Total		100	40	100	40	200	80	8

Total Marks = 600/Total Credits = 24

SEMESTER-VII

FOUNDATIONAL/MAIN/CORE COURSE

Course Code	Title of Course	Internal Mark	Pass Mark	External Mark	Pass Mark	Total	Agg. Pass Mark	Credits
BPES-FC701	Research Methodology	30	12	70	28	100	40	4
BPES-FC702	Sports Statistics	30	12	70	28	100	40	4
Total		60	24	140	56	200	80	8

SKILL BASED COURSE

Course Code	Title of Course	Internal Mark	Pass Mark	External Mark	Pass Mark	Total	Agg. Pass Mark	Credits
BPES-SC703	Measurement and Evaluation	30	12	70	28	100	40	4
Total		30	12	70	28	100	40	4

CHOICE BASED CREDIT SYSTEM (CBCS) COURSE

Course Code	Title of Course	Internal Mark	Pass Mark	External Mark	Pass Mark	Total	Agg. Pass Mark	Credits
BPES-CB704	Contemporary Issues in Physical Education and Sports	30	12	70	28	100	40	4
Total		30	12	70	28	100	40	4

SPORT/GAME SPECIALIZATION PRACTICAL

Course Code	Title of Course	Internal Mark	Pass Mark	External Mark	Pass Mark	Total	Agg. Pass Mark	Credits
BPES-SS705	Major games/sports approved by AIU/IOA. Anyone from the following disciplines: (xii) Badminton (xiii) Basketball (xiv) Cricket (xv) Football (xvi) Handball (xvii) Hockey (xviii) Judo (xix) Kabaddi (xx) Kho-kho (xxi) Table Tennis (xxii) Tennis	50	20	50	20	100	40	4

	(xii) Thang -Ta (xiii) Track and Field (xiv) Volleyball (xv)Yoga							
Total		50	20	50	20	100	40	4

PERSONALITY/ABILITY ENHANCEMENT

Course Code	Title of Course	Internal Mark	Pass Mark	External Mark	Pass Mark	Total	Agg. Pass Mark	Credits
BPES-PE706	Six weeks Internship in different adopted schools for teaching physical education and sports, and enhancement of students' personality. An original progress report in the form of teaching lesson plan duly assessed by the Head of the school must be submitted. At least 20 lessons must be completed.	50	20	50	20	100	40	4
BPES-PE707	Field Work/Study Tour (Compulsory): A well-prepared original reports should be submitted and a viva-voce will be conducted on the report to assess the completion.	Completed		Completed		Passed		4
Total		50	20	50	20	100	40	8

Total Marks = 600
Total Credits = 24

SEMESTER-VIII**SPECIALIZATION CORE COURSE (Any Two)**

Course Code	Title of Course	Internal Mark	Pass Mark	External Mark	Pass Mark	Total	Agg. Pass Mark	Credits
BPES-CC801	Methods of Sports Training	30	12	70	28	100	40	4
BPES-CC802	Exercise Physiology	30	12	70	28	100	40	4
BPES-CC803	Sports Psychology	30	12	70	28	100	40	4
BPES-CC804	Sports Biomechanics	30	12	70	28	100	40	4
Total (Any two)		60	24	140	56	200	80	8

SKILL BASED COURSE

Course Code	Title of Course	Internal Mark	Pass Mark	External Mark	Pass Mark	Total	Agg. Pass Mark	Credits
BPES-SC805	Sports Engineering and Technology	30	12	70	28	100	40	4
Total		30	12	70	28	100	40	4

CHOICE BASED CREDIT SYSTEM (CBCS) COURSE

Course Code	Title of Course	Internal Mark	Pass Mark	External Mark	Pass Mark	Total	Agg. Pass Mark	Credits
BPES-CB806	Curriculum Design	30	12	70	28	100	40	4
Total		30	12	70	28	100	40	4

**SPECIALIZATION LABORATORY PRACTICAL
(Any two corresponding to Specialization Core course)**

Course Code	Title of Course	Internal Mark	External Mark	Total	Agg. Pass Mark	Credits
BPES-LP807	Methods of Sports Training	25	25	50	20	2
BPES-LP808	Exercise Physiology	25	25	50	20	2
BPES-LP809	Sports Psychology	25	25	50	20	2
BPES-LP810	Sports Biomechanics	25	25	50	20	2
Total (Any two)		50	50	100	40	4

RESEARCH PROJECT

Course Code	Title of Course	Internal Mark	Pass Mark	External Mark	Pass Mark	Total	Agg. Pass Mark	Credits
BPES-RP811	Research Based Project Work on Specialized Core Course	50	20	50	20	100	40	4
Total		50	20	50	20	100	40	4

Total Marks = 600
Total Credits = 24

Semester wise course distribution per credit for Theory, Practical, Teaching Practice, Specialization and Research Project.

Semester	Foundational/ Main/Core Course	Generic Course	Skill Based Course	Discipline Specific Elective	Lab. Practical	Sports/Games Practical	Teaching/Learning And Sports/ Games Practical	Personality/Ability Enhancement	Sports/Games Specialization	Specialization Laboratory Practical	Research Project Work	CBCS	Total Marks
I	3 (100x3=300/12)	1 (50/2)			2 (50/2)	2 (100x2=200/8)							600/24
II	3 (100x3=300/12)	1 (50/2)			2 (50/2)	2 (100x2=200/8)							600/24
III	3 (100x3=300/12)	1 (50/2)			2 (50/2)	2 (100x2=200/8)							600/24
IV	3 (100x3=300/12)			1 (50/2)	2 (50/2)	2 (100x2=200/8)							600/24
V	3 (100x3=300/12)			1 (50/2)	2 (50/2)	2 (100x2=200/8)							600/24
VI	2 (100x2=200/8)		1 (100/4)	1 (50/2)	2 (50/2)		2 (100x2=200/8)						600/24
VII	2 (100x2=200/8)		1 (100/4)					2 (100+Passed/8)	1 (100/4)			1 (100/4)	600/24
VIII	2 (100x2=200/8)		1 (100/4)							1 (100/4)	1 (100/4)	1 (100/4)	600/24
Tally	21 2100/84	3 150/6	3 300/12	3 150/6	12 300/12	10 1000/40	2 200/8	2 100+Passed/8	1 100/4	1 100/4	1 100/4	2 200/8	4800/192

