

INDEX
SEMESTER-I & II

Bachelors of Science in
Physical Education, Health Education and Sports (Hons.)

Sl.No.	Content	Page No.
1	SEMESTER-I	
	Discipline Specific Core	3-48
	Common Pool of GE	94-103
2	SEMESTER-II	
	Discipline Specific Core	49-93
	Common Pool of GE	104-113



DEPARTMENT OF PHYSICAL EDUCATION & SPORTS SCIENCES
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Annexure-I

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UGCF: Bachelors of Science in Physical Education, Health
Education and Sports (Hons.) (2022-23)

DETAILS OF COURSE OF UNDERGRADUATE B. SC. (PE, HE, & S) PROGRAMME

SEMESTER -I BSc-PE-DSC-1(4): HISTORY AND FOUNDATIONS OF PHYSICAL EDUCATION

Credit = 4 (4 THz)
= 60 hours Lecture

Max. Marks=100

Learning Objective: To provide the knowledge and applications of historical development of physical education and sports as well as to familiarize the learners with the philosophical, biological, psychological and sociological foundations of physical education with application point of view.

Learning Outcome:

1. The learner will acquire the knowledge of history & foundations of Physical Education and understand the purpose & development of physical education & sports. The learner can compare/ correlate the same with present context in practice.
2. The learner will develop the understanding and knowledge regarding meaning, definitions, scope, importance of physical education in society, Aim and Objectives of Physical Education and their relation with education. The learner can compare/ correlate the same with present context in practice.
3. The learner will learn Biological, Psychological and Sociological Foundation of Physical Education. The learner will learn to assess the body types by Heath & Carter method. The Learners will develop the understanding and knowledge of meaning & concepts of movement, qualities of the movements, fundamentals movements, Need and importance of movement in educational programs, Concept and role of wellness movement. The learner can compare/ correlate the same with present context in practice.
4. The learner will gain knowledge of the Modern and Ancient Historical development of Olympic movement and Olympic Games. The learner will learn to prepare reports e.g. on NCTE approved institutions for D.P.Ed, B.P.Ed & M.P.Ed course of study. The learner will take best advantage of the above for best professional development and outcome.
5. The learner will gain knowledge of Professional preparation in Physical education-YMCA, LNIPE, IGIPSS, SAI, NSNIS, Programme – NSO, NCC, NSS and Sports Career Avenues, National Sports awards and Honors such learning will give stronger professional base and practices.
6. The learners will be able to conceptualize different concepts related to physical education and sports so that they can learn, correlate, compare and apply the same.
7. The learners will develop the factual knowledge of the various terminologies and information so that they can correlate, compare and apply the same.
8. The learners will be able to comprehend the subject matter as well as enable the learners to correlate, compare and apply different concepts and components of the historical perspectives and recent developments in the field of physical education and sports.
9. The learners will be able to understand as well as the learners can compare, correlate the past and present of the multi-disciplinary foundations of physical education and sports for best applications.

THEORY SYLLABUS

UNIT-I

10 Lectures

- (i) Meaning, Definitions, Scope, importance of physical education in society.
- (ii) Aim and Objectives of Physical Education and their relation with education.

UNIT-II

15 lectures

- (i) Foundations of Physical, Education:-
 - (a) Biological foundation – Introduction, Growth and Development and Body types.
 - (b) Psychological Foundation – Introduction, Learning process and theories.
 - (c) Sociological Foundation – Introduction, Socialization process.

UNIT-III

15 lectures

- (i) Meaning & concepts of movement, qualities of the movements, fundamentals movements, Need and importance of movement in educational programs
- (ii) Concept and role of wellness movement.

UNIT-IV

20 lectures

- (i) Modern and Ancient Historical perspectives of Physical Education: Greece, Rome and India.
- (ii) Olympic movement and Olympic Games (Ancient and Modern)
- (iii) Professional preparation in Physical education-YMCA, LNIPE, IGIPSS, SAI, NSNIS, Programme – NSO, NCC, NSS.
- (iv) Sports Career Avenues, National Sports awards and Honors.

Suggested Readings:

1. Gupta, Rakesh (2013), Health and Physical Education, Pinnacle India Education Publisher, New Delhi.
2. Kamlesh ML (2013). Physical Education and Exercise Sciences: An Objective Approach. Friends Publication. Delhi.
3. Lumpkin, A. (2007). Introduction to Physical Education, Excises Science and Sports Studies, McGraw Hill. New York, USA.
4. Uppal AK & Gautam GP (2008). Health and Physical Education. Friends Publication. New Delhi.
5. Vanaik A. & Tyagi, Sarita (2018). Encyclopedia of Olympic Movement, Friends Publication. New Delhi
6. Vanaik A. (2005) Sharirik Shiksha ke Maulik Adhar, Friends Publication. New Delhi
7. Wuest DA and Bucher CA (2003). Foundations of Physical Education Exercise Science and Sports. McGraw Hill Companies, Inc., New York, USA
8. Zeigler EF (2007). History and Status of Physical Education and Educational Sports. Sports Education. New Delhi.

Facilitation the achievement of Course Learning Outcomes

Month wise Progression	Course Learning Outcomes	Teaching and learning Activity	Assessment Tasks
First Month – UNIT-I	The Students will develop the understanding and knowledge regarding meaning, definitions, scope, importance of physical education in society, Aim and Objectives of Physical Education and their relation with education.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Second Month- UNIT-II	The student will learn Biological, Psychological and Sociological Foundation of Physical Education. The student will learn to assess the body types by Heath & Carter method. The Students will develop the understanding and knowledge of meaning & concepts of movement, qualities of the movements, fundamentals movements, Need and importance of movement in educational programs, Concept and role of wellness movement.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Third Month- UNIT-III	The Students will gain knowledge of the Modern and Ancient Historical development of Olympic movement and Olympic Games. The Student will learn to prepare reports e.g. on NCTE approved institutions for D.P. Ed, B.P. Ed & M.P. Ed course of study.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Fourth Month- UNIT-IV	The Students will gain knowledge of Professional preparation in Physical education- YMCA, LNIPE, IGIPESS, SAI, NSNIS, Programme – NSO, NCC, NSS and Sports Career Avenues, National Sports awards and Honors.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar

SEMESTER -I
BSc-PE-DSC– 2(4): ANATOMY AND PHYSIOLOGY

Max. Marks=100

Credit = 4 (3 THz + 1 P)
45hrs. theory + 30 hrs. Practical

Learning Objective: To provide learners with the basic knowledge and practices of anatomical structures & functions of human body.

Learning Outcomes:

1. The learner will acquire the basic knowledge of the anatomy of the human body. They will develop understanding about the functions of each system and organs of the body. Such core knowledge and skill will help to create a strong foundation to engage human subject of all ages, sex, ability in different games/ sports/ fitness programs.
2. The learner will develop the understanding and knowledge of Definition of anatomy & physiology, Cell-microscopic structure & functions of its organelle, Tissue-classification & functions, Organs, Systems of the body, Bone classification and structure, joints-classification, Structure of synovial joints, Movements at various joints. The learner will also learn to count the pulse rate. The learner will be able to compare (individual differences), correlate (different systems/ games for physical education) to analyze performance.
3. The learners will develop the understanding and knowledge of Muscular System -Classification, Structure, functions & properties of Skeletal Muscle, Smooth Muscle & Cardiac Muscle. Types of muscular contractions, Name of various muscles acting on various joints, Cardio-vascular system Structure of heart, Cardiac cycle, Blood pressure, Cardiac output, composition& function of blood, Athlete's heart, Respiratory system-structure and function, second wind, oxygen debt, Digestive system-structure & function, balanced diet, metabolism & maintenance of body temperature. The learner will be able to learn the measurement of blood pressure and study of various bones of human body. The learner will also learn to count the pulse rate. The learner will be able to compare (individual differences), correlate (different systems/ games for physical education) to analyze performance.
4. The learners will gain knowledge of the Nervous system-structure of brain, spinal cord, Autonomic nervous system, reflex action, Endocrine system- role of various endocrine glands, Structure & function of human eye & ear. The learner will be able to explain different body system with the help of models and various movements of the joints. The learner will also learn to count the pulse rate. The learner will be able to compare (individual differences), correlate (different systems/ games for physical education) to analyze performance.
5. The learners will gain knowledge of excretory system-structure & function, including structure & function of skin, Reproductive system- structure & function of male & female Reproductive system. The learner will learn the various movements of the joints. The learner will also learn to count the pulse rate. The learner will be able to compare (individual differences), correlate (different systems/ games for physical education) to analyze performance.
6. The learner will acquire practical skills (in laboratory and field setup) in regard to counting of pulse rate, measurement of blood pressure, study of various bones of human body, study of different body systems with the help of models, study of various movements of the joints. The learner will be able to compare, correlate and analyze the above learnings in real life situation.

THEORY SYLLABUS

Unit-I

(10 hrs. lecture)

- Definition of Anatomy & Physiology, Cell-microscopic structure & functions of its organelle.
- Tissue-classification & functions.
- Organs, systems of the body, Bone- classification and structure, joints-classification, Structure of synovial joints. Movements at various joints.

Unit-II

(15 hrs. lecture)

- Muscular System -Classification, Structure, functions & properties of Skeletal Muscle, Smooth Muscle & Cardiac Muscle.
- Types of muscular contractions, Name of various muscles acting on various joints.
- Cardio-vascular system Structure of heart, cardiac cycle, blood pressure, cardiac output, composition&function of blood, Athlete's heart.

• Unit-III

(10 hrs. lecture)

- Respiratory system-structure and function, second wind, oxygen debt.
- Digestive system-structure & function, balanced diet, metabolism & maintenance of body temperature.

Unit-IV

(10 hrs. lecture)

- Nervous system-structure of brain, spinal cord, Autonomic nervous system, reflex action.
- Endocrine system- role of various endocrine glands, Structure& function of human eye & ear.
- Excretory system-structure & function, including structure & function of skin.
- Reproductive system- structure & function of male & female Reproductive system.

Practicals:-

(30 hrs.)

1. Counting of pulse rate
2. Measurement of blood pressure
3. Study of various bones of human body
4. Study of different body system with the help of models
5. Study of various movements of the joints.

Suggested Readings:

1. Jain AK (2002). Anatomy & Physiology for Nurses.Arya Publishers, Delhi.
2. Moried EN (2007). Essential of Human Anatomy & Physiology.Ed. 8th Dorling Kindersley, India.
3. Prives M and Others (2004). Human Anatomy Vol.I & II Paragon, Delhi.
4. Seeley & Others (2008). Anatomy & Physiology. McGraw Hill, Boston.
5. Tortora (2003). Principles of Anatomy & Physiology, New York: John Willy & Sons,
6. William CS (2000). Essentials of Human Anatomy & Physiology, Benjamin
7. Wilson and Waugh (1996). Anatomy & Physiology in Health & Illness. Churchill Livingstone

Facilitation the achievement of Course Learning Outcomes

Month wise Progression	Course Learning Outcomes	Teaching and learning Activity	Assessment Tasks
First Month- UNIT-I	The Students will develop the understanding and knowledge of Definition of anatomy & physiology, Cell-microscopic structure & functions of its organelle, Tissue-classification & functions, Organs, Systems of the body, Bone classification and structure, joints-classification, Structure of synovial joints. Movements at various joints. The Student will learn counting of pulse rate	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Second Month – UNIT-II	The Students will develop the understanding and knowledge of Muscular System - Classification, Structure, functions & properties of Skeletal Muscle, Smooth Muscle & Cardiac Muscle. Types of muscular contractions, Name of various muscles acting on various joints, Cardio-vascular system Structure of heart, Cardiac cycle, Blood pressure, Cardiac output, composition & function of blood, Athlete's heart, Respiratory system-structure and function, second wind, oxygen debt, Digestive system-structure & function, balanced diet, metabolism & maintenance of body temperature. The Student will be able to learn the measurement of blood pressure and study of various bones of human body.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Third Month- UNIT-III	The Students will gain knowledge of the Nervous system-structure of brain, spinal cord, Autonomic nervous system, reflex action, Endocrine system- role of various endocrine glands, Structure & function of human eye & ear. The Student will be able to explain different body system with the help of models and various movements of the joints.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Fourth Month- UNIT-IV	The Students will gain knowledge of excretory system-structure & function, including structure & function of skin, Reproductive system- structure & function of male & female Reproductive system The student will learn the various movements of the joints.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar

Semester I

BSc-PE-DSC-3(4): Optional Game 1 (Choose any one from the list)

BSc-PE-DSC-3(4)-101: ATHLETICS

Credit = 4 (2 THz + 2 P)

=30 hrs.Theory + 60 hrs. Practicals

Max. Marks=100

Learning Objective: - The learner will acquire knowledge, understanding and practices with applications and skills in athletics including performance (psychomotor).

Learning Outcome:-

1. The learner will attain knowledge, understanding, ability to interpret and analyzing proficiency in athletics.
2. The learner will be able to gain knowledge with respect to historical development, organizational structure and playfield technology of athletics. They will be able to perform the marking/ drawing/ material organizing for athletics.
3. The learner will be able to understand, analyze and interpret the rules of game/sport (athletics) as well as game of knowledge in the areas of scientific basis of warming up, cooling down and technical aspects of coaching i.e., methods of coaching and their uses for psychomotor development.
4. The learner will be able to learn and acquire various skills of game/sports (athletics) as psychomotor development/ applications, gain knowledge and practice about different tests of fitness and skill evaluation, application as well as the evaluation and analysis (psychomotor) of player's performance. The technical practice/training of sprint races, middle and long distance races, hurdles races, jumping event- long jump, throwing events- shot put, hammer throw for best performance creation.
5. The learner will learn about various fitness components and its forms including methods of measurements. Further, the learner will be able to practice and improve performance (psychomotor) on the basis of knowledge, application and skill gained in understanding various fitness components. Track marking and marking of different arenas for selected events of athletics.

THEORY SYLLABUS

Unit-I

(07 lectures)

- Historical Development and Modern Trends (National and International Level)
- Organisational Structure (State, National and International Level)
- Playfield Technology – Marking and Construction of the playfields.

Unit-II

(07 lectures)

- Rules and their interpretation of the sport.
- Warming up and psychological basis of Warming up.
- Cooling down and its effect.
- Techniques of Coaching – Pep talk, Pre, during and Post match competition Coaching.

Unit-III

(08 lectures)

- Basic skills and techniques of the Sports/Game- – sprint races, middle and long distance races, hurdles races, jumping event- long jump, throwing events- shot put, hammer throw.
- Motor Fitness Components Testing
- Skill/Technique Evaluation
- Evaluation of Player's Performance.

Unit-IV

(08 lectures)

- Introduction to Physical and Motor Fitness components related to sport: Strength, Speed, Endurance, Coordinative Abilities and Flexibility.
- Track marking and marking of different arenas for selected events in unit-III.

1. Learning and demonstrating various skills/techniques of sports- sprint races, middle and long distance races, hurdles races, jumping event- long jump, throwing events- shot put.
2. Learning to demonstrate various tests to evaluate motor components as listed in unit IV above.
3. Track marking and marking of different arenas for selected events in unit-III.

Suggested Readings:

1. Chauhan VS (1999). Khel Jagat Mein Athletics. A.P. Pub, Jalandhar.
2. Bompa O. Tudor and Halff G. Gregory. (2009) "Periodization Theory and Methodology of Training" Human kinetics. NY.
3. Evans DA (1984). Teaching Athletics. Hodder, London.
4. Fox EL (1998). Physiological Basis of Physical Education and Athletics Brown Pub.
5. Gothi E (2004). Teaching & Coaching Athletics. Sport Pub., New Delhi.
6. Gupta R. (2004). Layout & Marking of Track & Field. Friends Publications. India. New Delhi.
7. Handbook-Rules and Regulation. International Athletic Federation (2010).
8. Herb Amato, DA ATC et al (2002). Practical Exam Preparation Guide of Clinical Skills of Athletic Training. Slack Incorporated. 1st ed., USA.
9. Kumar, Pardeep. (2008). Historical Development of Track & Field. Friends Publication. New Delhi
10. Maughan, R. and Gluson, M. (2004). The Biomechanical Basics of Athletic Performance. Oxford University Press, U.K.
11. Prentice, W. and Arnheim, D. (2005). Arnheim's Principles of Athletic Training 12th Ed. McGraw Hill. in place of Knight (1988).
12. Renwick GR (2001). Play Better Athletics. Sports Pub, Delhi.
13. Singh, Hardayal. (1919). Science of Sports Training. DVS Publication, N. Delhi.
14. Vanaik A. (2017). Officiating and Coaching, Friends Publication. New Delhi.

Facilitation the achievement of Course Learning Outcomes

Month wise Progression	Course Learning Outcomes	Teaching and learning Activity	Assessment Tasks
First Month- UNIT-I	A student will be able to gain knowledge with respect to Historical Development, Organisational Structure and Playfield Technology of a sport/game.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Second Month – UNIT-II	A student will be able to understand and interpret the rules of game as well as game knowledge in the areas of psychological basis of Warming up and technical aspects of coaching.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Third Month- UNIT-III	A student will be able to learn and acquire various skills of sports, gain knowledge about different tests of fitness and skill evaluation as well as the evaluation of player's performance. The technical practice of sprint races, middle and long distance races, hurdles races, jumping event- long jump, throwing events- shot put, hammer throw.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Fourth Month- UNIT-IV	A student will be learning about various fitness components and its forms. Further, the student will be able to practice and improve performance on the basis of knowledge gained in understanding various fitness components. Track marking and marking of different arenas for selected events in unit-III.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar

Semester I
BSc-PE-DSC-3 (4)-102: BADMINTON

Credit = 4 (2 THz + 2 P)
30 hrs Theory + 60 hrs Practical

Max. Marks=100

Learning Objective: - The learner will acquire knowledge, understanding and practices with applications and skills in badminton including performance (psychomotor).

Learning Outcome:-

1. The learner will attain knowledge, understanding, ability to interpret and analyzing proficiency in badminton.
2. The learner will be able to gain knowledge with respect to historical development, organizational structure and playfield technology of badminton. They will be able to perform the marking/ drawing/ material organizing for badminton.
3. The learner will be able to understand, analyze and interpret the rules of game/sport (badminton) as well as game of knowledge in the areas of scientific basis of warming up, cooling down and technical aspects of coaching i.e., methods of coaching and their uses for psychomotor development.
4. The learner will be able to learn and acquire various skills of game/sports (badminton) as psychomotor development/ applications, gain knowledge and practice about different tests of fitness and skill evaluation, application as well as the evaluation and analysis (psychomotor) of player's performance.
5. The learner will learn about various fitness components and its forms including methods of measurements. Further, the learner will be able to practice and improve performance (psychomotor) on the basis of knowledge, application and skill gained in understanding various fitness components. Court marking and marking of different arenas for selected events of badminton.

THEORY SYLLABUS

Unit-I	(07 hrs. lectures)
<ul style="list-style-type: none">• Historical Development and Modern Trends (National and International Level)• Organisational Structure (State, National and International Level)• Playfield Technology – Marking and Construction of the playfields.	
Unit-II	(07 hrs. lectures)
<ul style="list-style-type: none">• Rules and their interpretation.• Warming up and physiological basis of Warming up and its effect on performance.• Cooling down and its effect.• Techniques of Coaching – Pep talk, Pre, during and Post match coaching.	
Unit-III	(08 hrs. lectures)
<ul style="list-style-type: none">• Basic skills and techniques of the Sports/Game.• Skill/Technique Evaluation• Evaluation of Player's Performance.	
Unit-IV	(08 hrs. lectures)
<ul style="list-style-type: none">• Introduction to Physical and Motor Fitness components: Strength, Speed, Endurance, Coordinative Abilities and Flexibility.• Motor Fitness Components Testing of above components.	

Practical -**(60 hrs.)**

1. Learning and demonstrating various skills/techniques of sports.
2. Learning to demonstrate various tests to evaluate motor components as listed in unit IV above.

Suggested Readings:

1. Bloss, M.V. et al (2000). Badminton. McGraw Hill, USA.
2. Bompa O Tudor and Halff G. Gregory. (2009) "Periodization Theory and Methodology of Training" Human kinetics. NY.
3. Brahms Bernd-Voler. (2010). Badminton Handbook. Mayer & Mayer Sports: UK. Unit-II, III & IV-p-9-14.
4. Daris Pal. (1988). Badminton-The complete practical guide. Dairs & Charles Inc.: USA. Unit-II p-1-28 III- p-29-88, 109-152 & IV-p-97-108
5. Downey J (1990). How to Coach Badminton. Collins Pub. London.
6. Golds, M. (2002). Badminton: Skills of the Game. Growood Press, USA.
7. Grice, T. (2007). Badminton: Steps to Success. 2nd Ed. Human Kinetics, USA.
8. Gupta R. Kumar P. and Tyagi S. (2008). Textbook on Teaching Skill and Prowess (Part-I & II). Friends Publication. New Delhi.
9. Hoeger, W.W. Kand & Hoeger, S.A. (1997). Principles and Labs for physical fitness. (2nd Ed.). Morton Publishing Company. USA. Unit- II- p-127, 178-187, Unit- p-10-194.
10. Singh, Hardayal. (1991). Science of Sport Training. D.V.S Pub. Delhi.
11. Singh, MK. (2007). Comprehensive Badminton. Friends Pub. New Delhi.
12. Vanaik A. (2005). Playfield Manual, Friends Publication. New Delhi.
13. Vanaik A. (2017). Officiating and Coaching, Friends Publication. New Delhi.

Facilitation the achievement of Course Learning Outcomes

Month wise Progression	Course Learning Outcomes	Teaching and learning Activity	Assessment Tasks
First Month-UNIT-I	A student will be able to gain knowledge with respect to Historical Development, Organisational Structure and Playfield Technology of a sport/game.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Second Month – UNIT-II	A student will be able to understand and interpret the rules of game as well as game knowledge in the areas of physiological basis of Warming up and technical aspects of coaching.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Third Month-UNIT-III	A student will be able to learn and acquire various skills of sports/game, gain knowledge about different techniques evaluation as well as the evaluation of player's performance.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Fourth Month-UNIT-IV	A student will be learning about various fitness components and its forms. Further, the student will be able to practice and improve performance on the basis of knowledge gained in understanding various fitness components and it's testing.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar

Semester I
BSc-PE-DSC-3 (4)-103: BASKETBALL

Credit = 4 (2 THz + 2 P)

Max. Marks=100

30 hrs. Theory + 60 hrs. Practical

Learning Objective: - The learner will acquire knowledge, understanding and practices with applications and skills in basketball including performance (psychomotor).

Learning Outcome:-

1. The learner will attain knowledge, understanding, ability to interpret and analyzing proficiency in basketball.
2. The learner will be able to gain knowledge with respect to historical development, organizational structure and playfield technology of basketball. They will be able to perform the marking/ drawing/ material organizing for basketball.
3. The learner will be able to understand, analyze and interpret the rules of game/sport (basketball) as well as game of knowledge in the areas of scientific basis of warming up, cooling down and technical aspects of coaching i.e., methods of coaching and their uses for psychomotor development.
4. The learner will be able to learn and acquire various skills of game/sports (basketball) as psychomotor development/ applications, gain knowledge and practice about different tests of fitness and skill evaluation, application as well as the evaluation and analysis (psychomotor) of player's performance.
5. The learner will learn about various fitness components and its forms including methods of measurements. Further, the learner will be able to practice and improve performance (psychomotor) on the basis of knowledge, application and skill gained in understanding various fitness components. Court marking and marking of different arenas for selected events of basketball.

THEORY SYLLABUS

Unit-I

(07 hrs. lectures)

- Historical Development and Modern Trends (National and International Level)
- Organisational Structure (State, National and International Level)
- Playfield Technology – Marking and Construction of the playfields.

Unit-II

(07 hrs. lectures)

- Rules and their interpretation.
- Warming up and physiological basis of Warming up and its effect on performance.
- Cooling down and its effect.
- Techniques of Coaching – Pep talk, Pre, during and Post match coaching.

Unit-III

(08 hrs. lectures)

- Basic skills and techniques of the Sports/Game.
- Skill/Technique Evaluation
- Evaluation of Player's Performance.

Unit-IV

(08 hrs. lectures)

- Introduction to Physical and Motor Fitness components: Strength, Speed, Endurance, Coordinative Abilities and Flexibility.
- Motor Fitness Components Testing of above components.

Practical -**(60 hrs.)**

1. Learning and demonstrating various skills/techniques of sports.
2. Learning to demonstrate various tests to evaluate motor components as listed in unit IV above.

Suggested Readings:

1. Bompa O. Tudor and Halff G. Gregory. (2009) "Periodization Theory and Methodology of Training" Human kinetics. NY.
2. Drewett, J. (2007). How to Improve at Basketball. Crabtree Publishing Co., USA.
3. Goldstein, S. (1998). Basketball Fundamentals. 2nd Ed. Golden Aura Publishing, USA.
4. Jain Naveen (2003). Play and Learn Basket Ball. Khel Sahitya Kendra. New Delhi.
5. Nat BB (1997). Conditioning Coaches Association. NBA Power Conditioning. Human Kinetics.
6. Sharma OP (2003). Basket Ball Skills and Rules. Khel Sahitya Kendra, Delhi.
7. Singh, Hardayal. (1919). Science of Sports Training. DVS Publication, N. Delhi.
8. Wilmore & Costill (2004). Physiology of Sports & Exercise. Human Kinetics, US.

Facilitation the achievement of Course Learning Outcomes

Month wise Progression	Course Learning Outcomes	Teaching and learning Activity	Assessment Tasks
First Month UNIT-I	A student will be able to gain knowledge with respect to Historical Development, Organisational Structure and Playfield Technology of a sport/game.	<ul style="list-style-type: none">• Lecture Methods• Demonstration Methods• Assessment Methods	<ul style="list-style-type: none">• Evaluation of Presentation• Evaluation of Assignment

		<ul style="list-style-type: none"> • Presentation 	<ul style="list-style-type: none"> • MCQ • Class-test / viva/ seminar
Second Month – UNIT-II	A student will be able to understand and interpret the rules of game as well as game knowledge in the areas of physiological basis of Warming up and technical aspects of coaching.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Third Month UNIT-III	A student will be able to learn and acquire various skills of sports/game, gain knowledge about different techniques evaluation as well as the evaluation of player's performance.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Fourth Month UNIT-IV	A student will be learning about various fitness components and its forms. Further, the student will be able to practice and improve performance on the basis of knowledge gained in understanding various fitness components and its testing.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar

Semester I
BSc-PE-DSC-3 (4)-104: CRICKET

Credit = 4 (2 THz + 2 P)

Max. Marks=100

30 hrs. Theory + 60 hrs. Practical

Learning Objective: - The learner will acquire knowledge, understanding and practices with applications and skills in cricket including performance (psychomotor).

Learning Outcome:-

1. The learner will attain knowledge, understanding, ability to interpret and analyzing proficiency in cricket.
2. The learner will be able to gain knowledge with respect to historical development, organizational structure and playfield technology of cricket. They will be able to perform the marking/ drawing/ material organizing for cricket.
3. The learner will be able to understand, analyze and interpret the rules of game/sport (cricket) as well as game of knowledge in the areas of scientific basis of warming up, cooling down and technical aspects of coaching i.e., methods of coaching and their uses for psychomotor development.
4. The learner will be able to learn and acquire various skills of game/sports (cricket) as psychomotor development/ applications, gain knowledge and practice about different tests of fitness and skill evaluation, application as well as the evaluation and analysis (psychomotor) of player's performance.
5. The learner will learn about various fitness components and its forms including methods of measurements. Further, the learner will be able to practice and improve performance (psychomotor) on the basis of knowledge, application and skill gained in understanding various fitness components. Track/field marking and marking of different arenas for selected events of cricket.

THEORY SYLLABUS

Unit-I	(7 hrs. Lecture)
<ul style="list-style-type: none">• Historical Development and Modern Trends (National and International Level)• Organisational Structure (State, National and International Level)• Playfield Technology – Marking and Construction of the playfields.	
Unit-II	(7 hrs. Lecture)
<ul style="list-style-type: none">• Rules and their interpretation.• Warming up and physiological basis of Warming up and it's effect on performance.• Cooling down and its effect.• Techniques of Coaching – Pep talk, Pre, during and Post match coaching.	
Unit-III	(8 hrs. Lecture)
<ul style="list-style-type: none">• Basic skills and techniques of the Sports/Game.• Skill/Technique Evaluation• Evaluation of Player's Performance.	
Unit-IV	(8 hrs. Lecture)
<ul style="list-style-type: none">• Introduction to Physical and Motor Fitness components: Strength, Speed, Endurance, Coordinative Abilities and Flexibility.• Motor Fitness Components Testing of above components.	

Practical -

(60 hrs.)

Learning and demonstrating various skills/techniques of sports.

Learning to demonstrate various tests to evaluate motor components as listed in unit IV above.

SUGGESTED READINGS

1. Amarnath M. (1996). Learn to Play Good Cricket. UBS Publishers. New Delhi.
2. Bompa O. Tudor and Halff G. Gregory. (2009) "Periodization Theory and Methodology of Training" Human kinetics. NY.
3. Boycott, G. (2010). Play Cricket the Right Way. Great Northern Books Limited, U.K.
4. Cricket (2008). Sports Skills: Cricket Fielding (Know the Game). A & C Black Publishers.
5. Gupta, K. (2006). How to Play Cricket. Goodwill Publishing House, New Delhi.
6. Hobbs, J. (2008). The Game of Cricket As it should be played. Jepson Press, USA.
7. Jain R. (2003). Fielding Drills in Cricket. Khel Sahitya Kendra. New Delhi.
8. Rachna (2002). Coaching Successfully: Cricket. Khel Sahitya Kendra. New Delhi.
9. Singh, Hardayal. (1919). Science of Sports Training. DVS Publication, N. Delhi.
10. Sharma P. (2003). Cricket. Shyam Parkashan. Jaipur.
11. Vanaik A. (2017). Officiating and Coaching, Friends Publication. New Delhi

Facilitation the achievement of Course Learning Outcomes

Month wise Progression	Course Learning Outcomes	Teaching and learning Activity	Assessment Tasks
First Month- UNIT-I	A student will be able to gain knowledge with respect to Historical Development, Organisational Structure and Playfield Technology of a sport/game.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment

		<ul style="list-style-type: none"> • Presentation 	<ul style="list-style-type: none"> • MCQ • Class-test / viva/ seminar
Second Month – UNIT-II	A student will be able to understand and interpret the rules of game as well as game knowledge in the areas of physiological basis of Warming up and technical aspects of coaching.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Third Month- UNIT-III	A student will be able to learn and acquire various skills of sports/game, gain knowledge about different techniques evaluation as well as the evaluation of player's performance.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Fourth Month- UNIT-IV	A student will be learning about various fitness components and its forms. Further, the student will be able to practice and improve performance on the basis of knowledge gained in understanding various fitness components and it's testing.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar

Semester I
BSc-PE-DSC-3 (4)-105: FOOTBALL

Credit = 4 (2 THz + 2 P)

Max. Marks=100

30 hrs. Theory + 60 hrs. Practical

Learning Objective: - The learner will acquire knowledge, understanding and practices with applications and skills in football including performance (psychomotor).

Learning Outcome:-

1. The learner will attain knowledge, understanding, ability to interpret and analyzing proficiency in football.
2. The learner will be able to gain knowledge with respect to historical development, organizational structure and playfield technology of football. They will be able to perform the marking/ drawing/ material organizing for football.
3. The learner will be able to understand, analyze and interpret the rules of game/sport (football) as well as game of knowledge in the areas of scientific basis of warming up, cooling down and technical aspects of coaching i.e., methods of coaching and their uses for psychomotor development.
4. The learner will be able to learn and acquire various skills of game/sports (football) as psychomotor development/ applications, gain knowledge and practice about different tests of fitness and skill evaluation, application as well as the evaluation and analysis (psychomotor) of player's performance.
5. The learner will learn about various fitness components and its forms including methods of measurements. Further, the learner will be able to practice and improve performance (psychomotor) on the basis of knowledge, application and skill gained in understanding various fitness components. Field marking and marking of different arenas for selected events of football.

THEORY SYLLABUS

Unit-I	(07 hrs. lectures)
<ul style="list-style-type: none">• Historical Development and Modern Trends (National and International Level)• Organisational Structure (State, National and International Level)• Playfield Technology – Marking and Construction of the playfields.	
Unit-II	(07 hrs. lectures)
<ul style="list-style-type: none">• Rules and their interpretation.• Warming up and physiological basis of Warming up and its effect on performance.• Cooling down and its effect.• Techniques of Coaching – Pep talk, Pre, during and Post match coaching.	
Unit-III	(08 hrs. lectures)
<ul style="list-style-type: none">• Basic skills and techniques of the Sports/Game.• Skill/Technique Evaluation• Evaluation of Player's Performance.	
Unit-IV	(08 hrs. lectures)
<ul style="list-style-type: none">• Introduction to Physical and Motor Fitness components: Strength, Speed, Endurance, Coordinative Abilities and Flexibility.• Motor Fitness Components Testing of above components.	

Practical –**(60 hrs.)**

Learning and demonstrating various skills/techniques of sports.

Learning to demonstrate various tests to evaluate motor components as listed in unit IV above.

SUGGESTED READINGS

1. American Football Coaches Association (2002). The Football Coaching Bible. 1st Ed., Human Kinetics, USA.
2. Bompa O. Tudor and Halff G. Gregory. (2009) “Periodization Theory and Methodology of Training” Human kinetics. NY.
3. Carling, C., Williams, M. and Reilling, T. (2006). Handbook of Soccer Match Analysis: A Systematic Approach to Improving Performance. Routledge Publishers, USA.
4. Long, H. and Czarnecki, J. (2007). Football for Dummies. For Dummies Publisher, USA.
5. N Kumar (2003). Play and Learn Football. K.S.K. New Delhi.
6. Reilly, T. (2006). The Science Training Soccer: A Scientific Approach to Developing Strength, Speed and Endurance. Routledge Publisher, USA.
7. Reilly, T. and J.C.D. Arau (2008). Science and Football V: The Proceedings of the 5th World Congress on Sports Science and Football, Volume 5.
8. Singh, Hardayal. (1919). Science of Sports Training. DVS Publication, N. Delhi.
9. Sharma OP (2001). Teaching and Coaching –Football. Khel S.K. Delhi.
10. Vanaik A. (2017). Officiating and Coaching, Friends Publication. New Delhi

Facilitation the achievement of Course Learning Outcomes

Month wise Progression	Course Learning Outcomes	Teaching and learning Activity	Assessment Tasks
First Month-UNIT-I	A student will be able to gain knowledge with respect to Historical Development, Organisational Structure and Playfield Technology of a sport/game.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Second Month – UNIT-II	A student will be able to understand and interpret the rules of game as well as game knowledge in the areas of physiological basis of Warming up and technical aspects of coaching.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Third Month-UNIT-III	A student will be able to learn and acquire various skills of sports/game, gain knowledge about different techniques evaluation as well as the evaluation of player's performance.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Fourth Month-UNIT-IV	A student will be learning about various fitness components and its forms. Further, the student will be able to practice and improve performance on the basis of knowledge gained in understanding various fitness components and it's testing.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar

Semester I
BSc-PE-DSC-3 (4)-106: GYMNASTICS

Credit = 4 (2 THz + 2 P)

Max. Marks=100

30 hrs. Theory + 60 hrs. Practical

Learning Objective: - The learner will acquire knowledge, understanding and practices with applications and skills in gymnastics including performance (psychomotor).

Learning Outcome:-

1. The learner will attain knowledge, understanding, ability to interpret and analyzing proficiency in gymnastics.
2. The learner will be able to gain knowledge with respect to historical development, organizational structure and playfield technology of gymnastics. They will be able to perform the marking/ drawing/ material organizing for gymnastics.
3. The learner will be able to understand, analyze and interpret the rules of game/sport (gymnastics) as well as game of knowledge in the areas of scientific basis of warming up, cooling down and technical aspects of coaching i.e., methods of coaching and their uses for psychomotor development.
4. The learner will be able to learn and acquire various skills of game/sports (gymnastics) as psychomotor development/ applications, gain knowledge and practice about different tests of fitness and skill evaluation, application as well as the evaluation and analysis (psychomotor) of player's performance.
5. The learner will learn about various fitness components and its forms including methods of measurements. Further, the learner will be able to practice and improve performance (psychomotor) on the basis of knowledge, application and skill gained in understanding various fitness components. Track/field/hall marking and marking of different arenas for selected events of gymnastics.

THEORY SYLLABUS

	Unit-I lectures)	(07 hrs.
	<ul style="list-style-type: none">• Historical Development and Modern Trends (National and International Level)• Organisational Structure (State, National and International Level)• Playfield Technology – Marking and Construction of the playfields.	
Unit-II	<ul style="list-style-type: none">• Rules and their interpretation of the sport.• Warming up and psychological basis of Warming up.• Cooling down and its effect.• Techniques of Coaching – Pep talk, Pre, during and Post match coaching.	(07 hrs. lectures)
Unit-III	<ul style="list-style-type: none">• Basic skills and techniques of the Artistic Gymnastics, trampoline, parko and rhythmic.• Motor Fitness Components Testing• Skill/Technique Evaluation• Evaluation of Player's Performance.	(08 hrs. lectures)
Unit-IV	<ul style="list-style-type: none">• Introduction to Physical and Motor Fitness components related to sport: Strength, Speed, Endurance, Coordinative Abilities and Flexibility.	(08 hrs. lectures)

Practical -**(60 Hrs)**

- Learning and demonstrating various skills/techniques of Artistic Gymnastics, trampoline, parko and rhythmic.
- Learning to demonstrate various tests to evaluate motor components as listed in unit IV above.

SUGGESTED READINGS

1. Bompa O. Tudor and Halff G. Gregory. (2009) "Periodization Theory and Methodology of Training" Human kinetics. NY.
2. Brown (2009). How to Improve at Gymnastics. Crabtree Publishing Co., USA.
3. Chakraborty S and Sharma L (1995). Fundamental of Gymnastics. D.V.S. Pub. New Delhi.
4. Chakraborty S (1995). Fundamental of Gymnastics. DVS Pub. New Delhi.
5. Chakraborty S (1998). Women's Gymnastics. Friends Pub.Delhi.
6. Code of Points Trampoline Gymnastics (2005). Federation Int. DE Gymnastics
7. Federation International Gymnastics (2006). Federation Int. DE Gymnastics
8. Harvey FJ (1998). Physical Exercises & Gymnastics. Khel Sahitya. New Delhi.
9. Jain R (2005). Play and Learn Gymnastics. Khel SahitayaKendra
10. Mitchell, D., Davis, B. and Lopez, R. (2002). Teaching Fundamental Gymnastics Skills. Human Kinetics, USA.
11. Price, R.G. (2006). The Ultimate Guide to Weight Training for Gymnastics. 2ndEd. Sportsworkout.com.
12. Schlegel, E. and Dunn, CR. (2001). The Gymnastics Book: The Young Performer's Guide to Gymnastics. Firefly Books, USA.
13. Smither Graham (1980). Behing the Science of Gymnastics. London.
14. Singh, Hardayal. (1919). Science of Sports Training. DVS Publication, N. Delhi.
15. Stickland, L.R. (2008). Gender Gymnastics. Trans Pacific Press, Japan.
16. Vanaik A. (2017). Officiating and Coaching, Friends Publication. New Delhi

Facilitation the achievement of Course Learning Outcomes

Month wise Progression	Course Learning Outcomes	Teaching and learning Activity	Assessment Tasks
First Month-UNIT-I	A student will be able to gain knowledge with respect to Historical Development, Organizational Structure and Playfield Technology of a sport/game.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Second Month – UNIT-II	A student will be able to understand and interpret the rules of game as well as game knowledge in the areas of physiological basis of Warming up and technical aspects of coaching.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Third Month-UNIT-III	A student will be able to learn and acquire various skills of sports, gain knowledge about different tests of fitness and skill evaluation as well as the evaluation of player's performance.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Fourth Month-UNIT-IV	A student will be learning about various fitness components and its forms. Further, the student will be able to practice and improve performance on the basis of knowledge gained in understanding various fitness components.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar

Semester I
BSc-PE-DSC-3 (4)-107: HANDBALL

Credit = 4 (2 THz + 2 P)

Max. Marks=100

30 hrs. Theory + 60 hrs.
Practical

Learning Objective: - The learner will acquire knowledge, understanding and practices with applications and skills in handball including performance (psychomotor).

Learning Outcome:-

1. The learner will attain knowledge, understanding, ability to interpret and analyzing proficiency in handball.
2. The learner will be able to gain knowledge with respect to historical development, organizational structure and playfield technology of handball. They will be able to perform the marking/ drawing/ material organizing for handball.
3. The learner will be able to understand, analyze and interpret the rules of game/sport (handball) as well as game of knowledge in the areas of scientific basis of warming up, cooling down and technical aspects of coaching i.e., methods of coaching and their uses for psychomotor development.
4. The learner will be able to learn and acquire various skills of game/sports (handball) as psychomotor development/ applications, gain knowledge and practice about different tests of fitness and skill evaluation, application as well as the evaluation and analysis (psychomotor) of player's performance.
5. The learner will learn about various fitness components and its forms including methods of measurements. Further, the learner will be able to practice and improve performance (psychomotor) on the basis of knowledge, application and skill gained in understanding various fitness components. Track/field marking and marking of different arenas for selected events of handball.

THEORY SYLLABUS

	Unit-I	(07 hrs. lectures)
	<ul style="list-style-type: none">• Historical Development and Modern Trends (National and International Level)• Organisational Structure (State, National and International Level)• Playfield Technology – Marking and Construction of the playfields.	
Unit-II	<ul style="list-style-type: none">• Rules and their interpretation.• Warming up and physiological basis of Warming up and its effect on performance.• Cooling down and its effect.• Techniques of Coaching – Pep talk, Pre, during and Post match coaching.	(07 hrs. lectures)
Unit-III	<ul style="list-style-type: none">• Basic skills and techniques of the Sports/Game.• Skill/Technique Evaluation• Evaluation of Player's Performance.	(08 hrs. lectures)
Unit-IV	<ul style="list-style-type: none">• Introduction to Physical and Motor Fitness components: Strength, Speed, Endurance, Coordinative Abilities and Flexibility.• Motor Fitness Components Testing of above components.	(08 hrs. lectures)

Practical -**(60 hrs.)**

Learning and demonstrating various skills/techniques of sports.

Learning to demonstrate various tests to evaluate motor components as listed in unit IV above.

SUGGESTED READINGS

1. Bompa O. Tudor and Halff G. Gregory. (2009) "Periodization Theory and Methodology of Training" Human kinetics. NY.
2. Jain D (2003). Play & Learn Handball. Khel Sahitya Kendra. New Delhi.
3. Kleinman, I. (2009). Complete Physical Education Plans. 2nd Ed. Human Kinetics, USA.
4. Page, J. (2000). Ball Games. Lerner Sports Publisher, USA.
5. Phillips, B.E. (2009). Fundamental Handball. Kessinger Publishers, USA.
6. Schmottlach N Mcmanama J (1997). Physical Education Handbook. 9th Edition. Allyn & Bacon.London.
7. Schmottlach, N. and McManama (2005). Physical Education Activity Handbook. Benjamin Cummings, USA.
8. Singh, Hardayal. (1919). Science of Sports Training. DVS Publication, N. Delhi.
9. Surhone, L.M. et al (2010). Team Handball. Betascript Publishing,USA
10. Vanaik A. (2005). Playfield Manual, Friends Publication. New Delhi
11. Vanaik A. (2017). Officiating and Coaching, Friends Publication. New Delhi

Facilitation the achievement of Course Learning Outcomes

Month wise Progression	Course Learning Outcomes	Teaching and learning Activity	Assessment Tasks
First Month-UNIT-I	A student will be able to gain knowledge with respect to Historical Development, Organisational Structure and Playfield Technology of a sport/game.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Second Month – UNIT-II	A student will be able to understand and interpret the rules of game as well as game knowledge in the areas of physiological basis of Warming up and technical aspects of coaching.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Third Month-UNIT-III	A student will be able to learn and acquire various skills of sports/game, gain knowledge about different techniques evaluation as well as the evaluation of player's performance.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Fourth Month-UNIT-IV	A student will be learning about various fitness components and its forms. Further, the student will be able to practice and improve performance on the basis of knowledge gained in understanding various fitness components and its testing.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar

Semester I
BSc-PE-DSC-3 (4)-108: HOCKEY

Credit = 4 (2 THz + 2 P)

Max. Marks=100

30 hrs. Theory + 60 hrs.

Practical

Learning Objective: - The learner will acquire knowledge, understanding and practices with applications and skills in hockey including performance (psychomotor).

Learning Outcome:-

1. The learner will attain knowledge, understanding, ability to interpret and analyzing proficiency in hockey.
2. The learner will be able to gain knowledge with respect to historical development, organizational structure and playfield technology of hockey. They will be able to perform the marking/ drawing/ material organizing for hockey.
3. The learner will be able to understand, analyze and interpret the rules of game/sport (hockey) as well as game of knowledge in the areas of scientific basis of warming up, cooling down and technical aspects of coaching i.e., methods of coaching and their uses for psychomotor development.
4. The learner will be able to learn and acquire various skills of game/sports (hockey) as psychomotor development/ applications, gain knowledge and practice about different tests of fitness and skill evaluation, application as well as the evaluation and analysis (psychomotor) of player's performance.
5. The learner will learn about various fitness components and its forms including methods of measurements. Further, the learner will be able to practice and improve performance (psychomotor) on the basis of knowledge, application and skill gained in understanding various fitness components. Field marking and marking of different arenas for selected events of hockey.

THEORY SYLLABUS

Unit-I

(07 hrs. lectures)

- Historical Development and Modern Trends (National and International Level)
- Organisational Structure (State, National and International Level)
- Playfield Technology – Marking and Construction of the playfields.

Unit-II

(07 hrs. lectures)

- Rules and their interpretation.
- Warming up and physiological basis of Warming up and its effect on performance.
- Cooling down and its effect.
- Techniques of Coaching – Pep talk, Pre, during and Post match coaching.

Unit-III

(08 hrs. lectures)

- Basic skills and techniques of the Sports/Game.
- Skill/Technique Evaluation
- Evaluation of Player's Performance.

Unit-IV

(08 hrs. lectures)

- Introduction to Physical and Motor Fitness components: Strength, Speed, Endurance, Coordinative Abilities and Flexibility.
- Motor Fitness Components Testing of above components.

Practical -**(60 hrs.)**

Learning and demonstrating various skills/techniques of sports.

Learning to demonstrate various tests to evaluate motor components as listed in unit IV above.

SUGGESTED READINGS

1. Bompa O. Tudor and Halff G. Gregory. (2009) "Periodization Theory and Methodology of Training" Human kinetics. NY.
2. International Hockey Federation, Rules of the Game of Hockey with Guidance for Players and Umpires. International Hockey Federation.
3. Jain D (2003). Hockey Skills & Rules. khel Sahitya Kendra . New Delhi.
4. Narang P (2003). Play & Learn Hockey. Khel Sahitya Kendra. New Delhi.
5. Pecknold, R. and Foeste, A. (2009). Hockey : Essential Skills. McGraw Hills,USA.
6. Rossiter, S. (2003). Hockey the NHL Way : Goaltending Illustrated Edition. Sterling Publishers,USA.
7. Singh, Hardayal. (1919). Science of Sports Training. DVS Publication, N. Delhi.
8. Walter, R. and Johnson, M. (2009). Hockey Plays and Strategies. Human Kinetics,USA.
9. Weekes, D. (2003). The Biggest Book of Hockey Trivia. Greystone Books,USA.
10. Wukovits, J.F. (2000). History of Hockey 1st Ed. Lucent Books,USA.
11. Vanaik A. (2005). Playfield Manual, Friends Publication. New Delhi
12. Vanaik A. (2017). Officiating and Coaching, Friends Publication. New Delhi

Facilitation the achievement of Course Learning Outcomes

Month wise Progression	Course Learning Outcomes	Teaching and learning Activity	Assessment Tasks
First Month-UNIT-I	A student will be able to gain knowledge with respect to Historical Development, Organisational Structure and Playfield Technology of a sport/game.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Second Month – UNIT-II	A student will be able to understand and interpret the rules of game as well as game knowledge in the areas of physiological basis of Warming up and technical aspects of coaching.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Third Month-UNIT-III	A student will be able to learn and acquire various skills of sports/game, gain knowledge about different techniques evaluation as well as the evaluation of player's performance.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Fourth Month-UNIT-IV	A student will be learning about various fitness components and its forms. Further, the student will be able to practice and improve performance on the basis of knowledge gained in understanding various fitness components and its testing.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar

Semester I
BSc-PE-DSC-3(4)-109: JUDO

Credit = 4 (2 THz + 2 P)

Max. Marks=100

30 hrs. Theory + 60 hrs. Practical

Learning Objective: - The learner will acquire knowledge, understanding and practices with applications and skills in judo including performance (psychomotor).

Learning Outcome:-

1. The learner will attain knowledge, understanding, ability to interpret and analyzing proficiency in judo.
2. The learner will be able to gain knowledge with respect to historical development, organizational structure and playfield technology of judo. They will be able to perform the marking/ drawing/ material organizing for judo.
3. The learner will be able to understand, analyze and interpret the rules of game/sport (judo) as well as game of knowledge in the areas of scientific basis of warming up, cooling down and technical aspects of coaching i.e., methods of coaching and their uses for psychomotor development.
4. The learner will be able to learn and acquire various skills of game/sports (judo) as psychomotor development/ applications, gain knowledge and practice about different tests of fitness and skill evaluation, application as well as the evaluation and analysis (psychomotor) of player's performance.
5. The learner will learn about various fitness components and its forms including methods of measurements. Further, the learner will be able to practice and improve performance (psychomotor) on the basis of knowledge, application and skill gained in understanding various fitness components. Mat marking and marking of different arenas for selected events of judo.

THEORY SYLLABUS

Unit-I	(07 hrs lectures)
<ul style="list-style-type: none">• Historical Development and Modern Trends (National and International Level)• Organisational Structure (State, National and International Level)• Playfield Technology – Marking and Construction of the playfields.	
Unit-II	(07 hrs lectures)
<ul style="list-style-type: none">• Rules and their interpretation.• Warming up and physiological basis of Warming up and it's effect on performance.• Cooling down and its effect.• Techniques of Coaching – Pep talk, Pre, During and Post match Coaching.	
Unit-III	(08 hrs lectures)
<ul style="list-style-type: none">• Basic skills and techniques of the Sports/Game.• Skill/Technique Evaluation• Evaluation of Player's Performance.	
Unit-IV	(08 hrs lectures)
<ul style="list-style-type: none">• Introduction to Physical and Motor Fitness components: Strength, Speed, Endurance, Coordinative Abilities and Flexibility.• Motor Fitness Components Testing of above components.	

Practical -**(60 hrs.)**

1. Learning and demonstrating various skills/techniques of sports.
2. Learning to demonstrate various tests to evaluate motor components as listed in unit IV above.

SUGGESTED READINGS

1. Bompa O. Tudor and Halff G. Gregory. (2009) "Periodization Theory and Methodology of Training" Human kinetics. NY.
2. Diago, T. (2005). Kodokan Judo Throwing Techniques. Kodansha International Publishers, Japan.
3. Harrison EJ (2002). Coaching Successfully Judo. Sports. Delhi.
4. Jain D (2003). Play and Learn Judo. Khel Sahitaya Kendra. New Delhi.
5. Law, M. (2009). Falling Hard : A Journey into the World of Judo. Trumpeter Publisher, Japan.
6. Putin, V., Shestakov, V. and Levitsky, A. (2004). Judo : History, Theory and Practice. Blue Snake Books, Moscow.
7. Singh, Hardayal. (1919). Science of Sports Training. DVS Publication, N. Delhi.
8. Takahashi, M. (2005). Mastering Judo. Human Kinetics, USA.

Facilitation the achievement of Course Learning Outcomes

Month wise Progression	Course Learning Outcomes	Teaching and learning Activity	Assessment Tasks
First Month-UNIT-I	A student will be able to gain knowledge with respect to Historical Development, Organisational Structure and Playfield Technology of a sport/game.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Second Month-UNIT-II	A student will be able to understand and interpret the rules of game as well as game knowledge in the areas of physiological basis of Warming up and technical aspects of coaching.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Third Month-UNIT-III	A student will be able to learn and acquire various skills of sports/game, gain knowledge about different techniques evaluation as well as the evaluation of player's performance.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Fourth Month-UNIT-IV	A student will be learning about various fitness components and its forms. Further, the student will be able to practice and improve performance on the basis of knowledge gained in understanding various fitness components and it's testing.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar

Semester I
BSc-PE-DSC-3 (4)-110: KABADDI

Credit = 4 (2 THz + 2 P)

Max. Marks=100

30 hrs. Theory + 60 hrs.
Practical

Learning Objective: - The learner will acquire knowledge, understanding and practices with applications and skills in kabaddi including performance (psychomotor).

Learning Outcome:-

1. The learner will attain knowledge, understanding, ability to interpret and analyzing proficiency in kabaddi.
2. The learner will be able to gain knowledge with respect to historical development, organizational structure and playfield technology of kabaddi. They will be able to perform the marking/ drawing/ material organizing for kabaddi.
3. The learner will be able to understand, analyze and interpret the rules of game/sport (kabaddi) as well as game of knowledge in the areas of scientific basis of warming up, cooling down and technical aspects of coaching i.e., methods of coaching and their uses for psychomotor development.
4. The learner will be able to learn and acquire various skills of game/sports (kabaddi) as psychomotor development/ applications, gain knowledge and practice about different tests of fitness and skill evaluation, application as well as the evaluation and analysis (psychomotor) of player's performance.
5. The learner will learn about various fitness components and its forms including methods of measurements. Further, the learner will be able to practice and improve performance (psychomotor) on the basis of knowledge, application and skill gained in understanding various fitness components. Court/field/track marking and marking of different arenas for selected events of kabaddi.

THEORY SYLLABUS

	Unit-I	(07 hrs. lectures)
	<ul style="list-style-type: none">• Historical Development and Modern Trends (National and International Level)• Organisational Structure (State, National and International Level)• Playfield Technology – Marking and Construction of the playfields.	
Unit-II	<ul style="list-style-type: none">• Rules and their interpretation.• Warming up and physiological basis of Warming up and it's effect on performance.• Cooling down and its effect.• Techniques of Coaching – Pep talk, Pre, During and Post match Coaching.	(08 hrs. lectures)
Unit-III	<ul style="list-style-type: none">• Basic skills and techniques of the Sports/Game.• Skill/Technique Evaluation• Evaluation of Player's Performance.	(07 hrs. lectures)
Unit-IV	<ul style="list-style-type: none">• Introduction to Physical and Motor Fitness components: Strength, Speed, Endurance, Coordinative Abilities and Flexibility.• Motor Fitness Components Testing of above components.	(08 hrs. lectures)

Practical -**(60 hrs.)**

Learning and demonstrating various skills/techniques of sports.

Learning to demonstrate various tests to evaluate motor components as listed in unit IV above.

SUGGESTED READINGS

1. Bompa O. Tudor and Halff G. Gregory. (2009) "Periodization Theory and Methodology of Training" Human kinetics. NY.
2. Kumar, Dharmander. (2018). Kabaddi and It's Playing Techniques. Writers Choice, New Delhi.
3. Mishra , S.C. (2007). Teach Yourself Kabaddi. Sports Publications, New Delhi.
4. Rao CV (1983). Kabaddi. Native Indian Sports. NSNIS. Patiala Publisher
5. Rao EP (1994). Modern Coaching in Kabaddi.D.V.S.Pub
6. Singh, Hardayal. (1919). Science of Sports Training. DVS Publication, N. Delhi.
7. Syal, M. (2004). Kabaddi Teaching. Prerna Parkashan, New Delhi.
8. Vanaik A. (2017). Officiating and Coaching, Friends Publication. New Delhi.

Facilitation the achievement of Course Learning Outcomes

Month wise Progression	Course Learning Outcomes	Teaching and learning Activity	Assessment Tasks
First Month-UNIT-I	A student will be able to gain knowledge with respect to Historical Development, Organisational Structure and Playfield Technology of a sport/game.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Second Month – UNIT-II	A student will be able to understand and interpret the rules of game as well as game knowledge in the areas of physiological basis of Warming up and technical aspects of coaching.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Third Month-UNIT-III	A student will be able to learn and acquire various skills of sports/game, gain knowledge about different techniques evaluation as well as the evaluation of player's performance.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Fourth Month-UNIT-IV	A student will be learning about various fitness components and its forms. Further, the student will be able to practice and improve performance on the basis of knowledge gained in understanding various fitness components and it's testing.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar

Semester I
BSc-PE-DSC-3 (4)-111: KHO-KHO

Credit = 4 (2 THz + 2 P)

Max. Marks=100

30 hrs. Theory + 60 hrs. Practical

Learning Objective: - The learner will acquire knowledge, understanding and practices with applications and skills in kho-kho including performance (psychomotor).

Learning Outcome:-

1. The learner will attain knowledge, understanding, ability to interpret and analyzing proficiency in kho-kho.
2. The learner will be able to gain knowledge with respect to historical development, organizational structure and playfield technology of kho-kho. They will be able to perform the marking/ drawing/ material organizing for kho-kho.
3. The learner will be able to understand, analyze and interpret the rules of game/sport (kho-kho) as well as game of knowledge in the areas of scientific basis of warming up, cooling down and technical aspects of coaching i.e., methods of coaching and their uses for psychomotor development.
4. The learner will be able to learn and acquire various skills of game/sports (kho-kho) as psychomotor development/ applications, gain knowledge and practice about different tests of fitness and skill evaluation, application as well as the evaluation and analysis (psychomotor) of player's performance.
5. The learner will learn about various fitness components and its forms including methods of measurements. Further, the learner will be able to practice and improve performance (psychomotor) on the basis of knowledge, application and skill gained in understanding various fitness components. Court/field/track marking and marking of different arenas for selected events of kho-kho.

THEORY SYLLABUS

	Unit-I	(07 hrs. lectures)
	<ul style="list-style-type: none">• Historical Development and Modern Trends (National and International Level)• Organisational Structure (State, National and International Level)• Playfield Technology – Marking and Construction of the playfields.	
Unit-II	<ul style="list-style-type: none">• Rules and their interpretation.• Warming up and physiological basis of Warming up and its effect on performance.• Cooling down and its effect.• Techniques of Coaching – Pep talk, Pre, During and Post match Coaching.	(07 hrs. lectures)
Unit-III	<ul style="list-style-type: none">• Basic skills and techniques of the Sports/Game.• Skill/Technique Evaluation• Evaluation of Player's Performance.	(08 hrs. lectures)
Unit-IV	<ul style="list-style-type: none">• Introduction to Physical and Motor Fitness components: Strength, Speed, Endurance, Coordinative Abilities and Flexibility.• Motor Fitness Components Testing of above components.	(08 hrs. lectures)

Practical -**(60 hrs.)**

Learning and demonstrating various skills/techniques of sports.

Learning to demonstrate various tests to evaluate motor components as listed in unit IV above.

SUGGESTED READINGS

1. Bompa O. Tudor and Halff G. Gregory. (2009) "Periodization Theory and Methodology of Training" Human kinetics. NY.
2. Chakrabarty G (2002). Kho - Kho Aveloken. Khel Sahitya Kendra.Delhi.
3. Panday L (1982). Kho - Kho Sarvaswa. Metropolitan. New Delhi
4. Singh, Hardayal. (1919). Science of Sports Training. DVS Publication, N. Delhi.
5. Vanaik A. (2005). Playfield Manual, Friends Publication. New Delhi
6. Vanaik A. (2017). Officiating and Coaching, Friends Publication. New Delhi

Facilitation the achievement of Course Learning Outcomes

Month wise Progression	Course Learning Outcomes	Teaching and learning Activity	Assessment Tasks
First Month-UNIT-I	A student will be able to gain knowledge with respect to Historical Development, Organisational Structure and Playfield Technology of a sport/game.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Second Month – UNIT-II	A student will be able to understand and interpret the rules of game as well as game knowledge in the areas of physiological basis of Warming up and technical aspects of coaching.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Third Month-UNIT-III	A student will be able to learn and acquire various skills of sports/game, gain knowledge about different techniques evaluation as well as the evaluation of player's performance.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Fourth Month-UNIT-IV	A student will be learning about various fitness components and its forms. Further, the student will be able to practice and improve performance on the basis of knowledge gained in understanding various fitness components and it's testing.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar

Semester I
BSc-PE-DSC-3 (4)-112: VOLLEYBALL

Credit = 4 (2 THz + 2 P)

Max. Marks=100

30 Hrs Theory+60 Hrs practical

Learning Objective: - The learner will acquire knowledge, understanding and practices with applications and skills in volleyball including performance (psychomotor).

Learning Outcome:-

1. The learner will attain knowledge, understanding, ability to interpret and analyzing proficiency in volleyball.
2. The learner will be able to gain knowledge with respect to historical development, organizational structure and playfield technology of volleyball. They will be able to perform the marking/ drawing/ material organizing for volleyball.
3. The learner will be able to understand, analyze and interpret the rules of game/sport (volleyball) as well as game of knowledge in the areas of scientific basis of warming up, cooling down and technical aspects of coaching i.e., methods of coaching and their uses for psychomotor development.
4. The learner will be able to learn and acquire various skills of game/sports (volleyball) as psychomotor development/ applications, gain knowledge and practice about different tests of fitness and skill evaluation, application as well as the evaluation and analysis (psychomotor) of player's performance.
5. The learner will learn about various fitness components and its forms including methods of measurements. Further, the learner will be able to practice and improve performance (psychomotor) on the basis of knowledge, application and skill gained in understanding various fitness components. Court/field/track marking and marking of different arenas for selected events of volleyball.

THEORY SYLLABUS

Unit-I

(07 hrs lectures)

- Historical Development and Modern Trends (National and International Level)
- Organisational Structure (State, National and International Level)
- Playfield Technology – Marking and Construction of the playfields.

Unit-II

- Rules and their interpretation.
- Warming up and physiological basis of Warming up and its effect on performance.
- Cooling down and its effect.
- Techniques of Coaching – Pep talk, Pre, During and Post match Coaching.

(07 hrs lectures)

Unit-III

- Basic skills and techniques of the Sports/Game.
- Skill/Technique Evaluation
- Evaluation of Player's Performance.

(08 hrs lectures)

Unit-IV

- Introduction to Physical and Motor Fitness components: Strength, Speed, Endurance, Coordinative Abilities and Flexibility.
- Motor Fitness Components Testing of above components.

(08 hrs lectures)

Practical -**(60 hrs.)**

Learning and demonstrating various skills/techniques of sports.

Learning to demonstrate various tests to evaluate motor components as listed in unit IV above.

SUGGESTED READINGS

1. American Volleyball Coaches Association (2005). Volleyball : Skills & Drills. Human Kinetics,USA.
2. Bompa O. Tudor and Halff G. Gregory. (2009) "Periodization Theory and Methodology of Training" Human kinetics. NY.
3. FIVB (1996). Backcourt Spiking in Modern Volley Ball. FIVB.Chennai.
4. Kenny, B. and Gregory, C. (2006). Volleyball : Steps to Success. Human Kinetics,USA.
5. Saggar SK (1994). Cosco Skills Statics - Volley Ball. Sport Publication. Delhi.
6. Scates AE (1993). Winning Volley Ball. WC Brown.USA.
7. Scates, A. and Linn, M. (2002). Complete Conditioning for Volleyball. Human Kinetics,USA.
8. Shondell, D. and Reynaud, C. (2002). The Volleyball Coaching Bible. Human Kinetics,USA.
9. Singh, Hardayal. (1919). Science of Sports Training. DVS Publication, N. Delhi.
10. The National Alliance for Youth Sports (2009). Coaching Volleyball. For Dummies Publishers,USA.
11. Volleyball, USA (2009). Volleyball : Systems and Strategies. Human Kinetics,USA.
12. Vanaik A. (2017). Officiating and Coaching, Friends Publication. New Delhi

Facilitation the achievement of Course Learning Outcomes

Month wise Progression	Course Learning Outcomes	Teaching and learning Activity	Assessment Tasks
First Month-UNIT-I	A student will be able to gain knowledge with respect to Historical Development, Organisational Structure and Playfield Technology of a sport/game.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Second Month-UNIT-II	A student will be able to understand and interpret the rules of game as well as game knowledge in the areas of physiological basis of Warming up and technical aspects of coaching.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Third Month-UNIT-III	A student will be able to learn and acquire various skills of sports/game, gain knowledge about different techniques evaluation as well as the evaluation of player's performance.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Fourth Month-UNIT-IV	A student will be learning about various fitness components and its forms. Further, the student will be able to practice and improve performance on the basis of knowledge gained in understanding various fitness components and it's testing.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar

Semester I
BSc-PE-DSC-3 (4)-113: YOGA

Credit = 4 (2 THz + 2 P)

Max. Marks=100

30 hrs. Theory + 60 hrs. Practical

Learning Objective: - The learner will acquire knowledge, understanding and practices with applications and skills in yoga including performance (psychomotor).

Learning Outcome:-

1. The learner will attain knowledge, understanding, ability to interpret and analyzing proficiency in yoga.
2. The learner will be able to gain knowledge with respect to historical development, organizational structure and playfield technology of yoga. They will be able to perform the marking/ drawing/ material organizing for yoga.
3. The learner will be able to understand, analyze and interpret the rules of game/sport (yoga) as well as game of knowledge in the areas of scientific basis of warming up, cooling down and technical aspects of coaching i.e., methods of coaching and their uses for psychomotor development.
4. The learner will be able to learn and acquire various skills of game/sports (yoga) as psychomotor development/ applications, gain knowledge and practice about different tests of fitness and skill evaluation, application as well as the evaluation and analysis (psychomotor) of player's performance.
5. The learner will learn about various fitness components and its forms including methods of measurements. Further, the learner will be able to practice and improve performance (psychomotor) on the basis of knowledge, application and skill gained in understanding various fitness components.

THEORY SYLLABUS

UNIT-I

(07 hrs lectures)

- Origin of yoga, definition and scope of yoga, limitations and misconceptions of Yoga
- Importance of yoga in physical education and other fields
- Yoga asana competition at:- State, National, International, SGFI, AIU etc.

UNIT-II

(07 hrs lectures)

- Philosophical aspects of yoga-Pre-Vedic, Vedic period; Buddhism, Upanishad period, Jainism & tantra
- Qualifications, qualities and responsibilities of a coach,
- Duties/responsibilities of technical official, Scoring system and judgment criteria,

- Protocols for referees, judges and officials.

UNIT-III

(08 hrs lectures)

- Meaning, techniques, precautions & effects of the following:-
- Asanas : padmasana, vajrasana, sidhasana, paschimottanasa, halasana, sarvangasana, shalabhasana, ardh-matsyendrasana, bhujangasana, tadasana, vrikshasana, matsyasana, gomukhasana, ushtrasana, shavasana, makarasana, vrishchikasana, dhanurasana, purna matsyendrasana, chakrasana, ek pad sikandasana, bakasana, mayurasana, shirshasana
- Pranayama : anulom-vilom, bhastrika, suryabhedhen pranayama, sheetali, sheetkari, bhramari, ujjayi
- Shatkarma : neti, dhauti, nauli, basti, kunjla, kapal bhati, shankh prakshalana
- Bandhas : jalandhar, uddiyana, mool bandha

UNIT-IV

(08 hrs lectures)

- Disease wise treatment through yoga therapy- Asthma, high & low B.P, diabetes, obesity, heart disease, insomnia, arthritis, backache & female disease
- Diet & Nutrition, components of nutrition, water, natural diet, balanced diet, fasting-its benefits, types & preparation, importance of vegetarianism in yogic diet.

PRACTICALS

(60 hrs.)

1. Prayer
2. Asanas, pranayama, shatkarma, bandha (as mentioned in theory)
3. Yoga-nidra/relaxation techniques
4. Visit to yoga centers/institutes

SUGGESTED READINGS

1. Anand Omprakash (2001). Yog Dawra Kaya Kalp, Kanpur. Sewasth Sahitya Perkashan
2. Iyengar, B.K.S. (1995). Light on Yoga : The Bible of Modern Yoga. Schocken Publishers, USA.
3. Kaminoff, L. et al (2007). Yoga Anatomy. Human Kinetics, USA.
4. Kirk, M. (2005). The Hatha Yoga Illustrated. Human Kinetics, USA.
5. Sharma JP and Ganesh S(2007). Yog Kala Ek Prichya. Friends Publication. New Delhi
6. Sharma J. P. (2007). Manav jeevan evam yoga. Friends Publication. New Delhi.
7. Sharma Jai Prakash And Sehgal Madhu(2006). Yog-Shiksha. Friends Publication. Delhi.
8. Sharma Jai Prakash and Rathore Bhupender Singh (2007). Yoga Ke Tatva. Friends Publication. Delhi
9. Mukerji, A.P. (2010). The Doctorine and Practice of Yoga. General Books, LLC, New Delhi.
10. Norton, W.W. (2010). Yoga for Osteoporosis : The Complete Guide. W.W. Norton & Company, USA.
11. Sarin N (2003). Yoga Dawara Rogoon Ka Upchhar. Khel Sahitya Kendra
12. Sri Swami Rama, (2001). Breathing. Rishikesh Sadhana Mandir Trust.
13. Swami Ram (2000). Yoga & Married Life. Rishikesh Sadhana Mandir Trust
14. Swami Swatma Ram: Patanjali Yoga Sutra
15. Swami Veda Bharti (2000). Yoga Polity. Economy and Family. Rishikesh Sadhana Mandir Trust
16. Text Book Hath Yoga Pradipika
17. Text Book Patanjali Yoga Sutra

Facilitation the achievement of Course Learning Outcomes

Month Wise Progression	Course Learning Outcomes	Teaching and learning Activity	Assessment Tasks
First Month-UNIT-I	<p>The Students will develop the understanding and knowledge of Origin of yoga, definition and scope of yoga, limitations and misconceptions, importance of yoga in physical education and other fields, Yoga asana completion at:- State, National, International, SGFI, AIU etc. Philosophical aspects of Yog. Pre-Vedic, Vedic period; Buddhism, Upanishad period, Jainism & tantra, qualifications, qualities and responsibilities of a coach, Duties/responsibilities of technical official, Scoring system and judgment criteria, Protocols for referees, judges and officials.</p> <p>The student will learn about the prayer.</p>	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Second Month-UNIT-II	<p>The Students will develop the understanding and knowledge of Meaning, techniques, precautions & effects of the following:-</p> <p>Asanas : padmasana, vajrasana, sidhasana, paschimottanasa, halasana, sarvangasana, shalabhasana, ardh-matsyendrasana, bhujangasana, tadasana, vrikshasana, matsyasana, gomukhasana, ushtrasana, shavasana, makarasana, vrishchikasana, dhanurasana, purna matsyendrasana, chakrasana, ek pad sikandasana, bakasana, mayurasana, shirshasana</p> <p>Pranayama : anulom-vilom, bhastrika, suryabhedhen pranayama, sheetali, sheetkari, bhramari, ujjayi</p> <p>Shatkarma : neti, dhauti, nauli, basti, kunjla, kapal bhati, shankh prakshalana</p> <p>Bandhas : jalandhar, uddyana, mool</p>	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar

	bandha. The student will be able to perform learn Asanas, pranayama, shatkarma, bandha.		
Third Month-UNIT-III	The Students will gain knowledge of Disease wise treatment through yoga therapy- Asthma, high & low B.P, diabetes, obesity, heart disease, insomania, arthritis, backache & female disease. The student will learn Yoga-nidra/relaxation techniques.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Fourth Month-UNIT-IV	The Students will gain knowledge of Diet & constitution, components of nutrition, water, natural diet, balanced diet, fasting-its benefits, types & preparation. Importance of vegetarianism in yogic diet. The student will Visit yoga centers /institutes.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar

Semester II

BSc-PE-DSC-4(4): HEALTH EDUCATION

Credit = 4 (4THz)

Max. Marks=100

60 hrs. Theory

Learning Objective: - The learner will acquire knowledge and understanding with applications and skills (field and laboratory) in health education in real life situation.

Learning Outcome:-

1. The learner will attain knowledge, understanding, ability of interpreting the concepts and practices in health education.
2. The learner will be able to adopt knowledge and practices to lead a healthy life and promote and maintain healthy practices and assist the practices of preventive medicine. Such core knowledge and skill will help to create a strong foundation to engage human subject of all ages, sex, and ability.
3. The learner will develop the understanding and knowledge of factors affecting health and importance of health for individual, family, community and nation. The learner will also learn about concept and components of wellness, Health Education and its meaning, scope, aims and objectives, principles and methods and media used. The learner will gain knowledge of meaning and importance of different types of Hygiene. The learner will learn the Prescription of diet and determination of calorie value of foods. The learner will be able to describe, correlate, compare and analyze the concepts for best practices.
4. The learner will learn the basic concepts of Foods and Nutrition, Misconceptions about food, essential body nutrients- functions, food sources, balanced diet and diet prescription. The learner will acquire the knowledge of Communicable and Non- communicable diseases, distinction between them, mode of spread and prevention of communicable diseases and Cause, Mode of spread and prevention of some specific diseases - diarrhea, typhoid, malaria, STD Respiratory disease. The learner will also be acquainted with meaning, causes and prevention of Non-communicable diseases - diabetes, CVD, cancers, renal diseases and respiratory diseases. The learner will be able to demonstrate CPR. The learner will be able to describe, correlate, compare and analyze the concepts for best practices. The learner will be able to prepare (design) diet chart/ program.
5. The learner will gain knowledge of the Contemporary health problems of college youth; Alcohol, drugs, tobacco (chewing, sniffing, and smoking) and their harmful effects substance abuse management. The learner will also learn Population education, importance of small family, methods of controlling conception, signs and symptoms of pregnancy, home and hospital delivery, care of the infant, importance of breast feeding, immunization, oral rehydration therapy. The learner will be able to define first aid, DRABCH of first aid, CPR and will learn first aid for hemorrhage, fractures, sprain and strain (PRICER), Drowning snake bite, poisoning, heat stroke and heat exhaustion. The learner will gain knowledge about international health agencies- WHO, UNICEF, Red Cross- their constitution and role in promoting health, School Health Service, Components Of school health. The learner will learn the Immunization schedule. The learner will be able to describe, correlate, compare and analyze the concepts for best practices. The learner can work better way, give assistance for care, rehabilitation, health and prevention.
6. The learner will gain knowledge of the Rehabilitation (definition, physical and mental rehabilitation) and Rehabilitation Modalities (cold, heat, water, radiation, Hydrotherapy, cryo therapy, thermotherapy – superficial heat – I R Lamp, Wax bath, deep heat- short wave diathermy, microwave diathermy, u/s therapy, inferential therapy, TENS, nerve muscle stimulator). The learner will learn about the Rehabilitation Modalities. The learner will be able to describe, correlate, compare and analyze the concepts for best practices. The learner can work better way, give assistance for care, rehabilitation, health and prevention.

THEORY SYLLABUS

Unit-I

(15 hrs lectures)

Health-meaning, dimensions of health and their interrelationships, importance of health for individual, family, community and nation; factors influencing health, spectrum of health,

Concept and components of wellness.

Health Education- meaning, scope, aims and objectives, principles, methods and media used in health education. Hygiene- personal hygiene, food hygiene, environmental hygiene-meaning, need and importance; associated practices related to maintenance and promotion of health

Unit-II

(15 hrs lectures)

Meaning of Nutrition, Function and sources of essential body nutrients, balanced diet

Communicable and Non-communicable diseases-Distinction between communicable and non-communicable diseases. Communicable diseases-Definition, mode of spread and prevention,

Non-communicable diseases-- Meaning, causes and prevention

Unit-III

(15 hrs lectures)

Contemporary health problems of college youth- Substance abuse management , Alcohol, drugs, tobacco (chewing, sniffing, smoking)- their harmful effects

Population education- importance of small family, methods of controlling conception, home and hospital delivery, care of the infant, importance of breast feeding, immunization, oral rehydration therapy

Unit-IV

(15 hrs lectures)

Definition of first aid, DRABCH of first aid, CPR, first aid for, hemorrhage, fractures, sprain and strain (PRICE), Drowning, snake bite, poisoning, heat stroke and heat exhaustion.

International health agencies- WHO, UNICEF, Red Cross- their constitution and role in promoting health. Rehabilitation – Definition- physical and mental rehabilitation. Modalities of Physical Rehabilitation

SUGGESTED READINGS

1. Anspaugh DJ, Ezell G and Goodman KN (2006). Teaching Today's Health. Mosby Publishers. Chicago. USA.
2. Balayan D (2007). Swasthya Shiksha Evam Prathmik Chikitsa. Khel Sahitya. Delhi.
3. Chopra D and D Simon (2001). Grow Younger, Live Longer: 10 Steps to Reverse Aging. Three Rivers Press. New York. USA.
4. Dewan AP (1996). School Health Manual. Nature Cure and Yoga Health Centre. New Delhi.
5. Dixit Suresh (2006). Swasthya Shiksha. Sports Publication. Delhi.
6. Donatelle RJ (2005). Health the Basics. Sixth Edition. Oregon State University.
7. Floyd PA, SE Mimms and C Yeilding (2003). Personal Health: Perspectives and Lifestyles. Thomson Wadsworth. Belmont. California. USA.
8. Hales D (2005). An Invitation to Health. Thomson-Wadsworth, Belmont. California. USA.
9. Park K (2007). Park's Text Book of Preventive & Social Medicine. Banarsi Das Bhanot & Company. Delhi.
10. Snehlata (2006). Shareer, Vigyan Evam Swasthya Raksha. Discovery Pub. House s. New Delhi.
11. Uppal AK & Gautam GP (2008). Health & Physical Education. Friends Publication. New Delhi.

Facilitation the achievement of Course Learning Outcomes

Month Wise Progression	Course Learning Outcomes	Teaching and learning Activity	Assessment Tasks
First Month-UNIT-I	The Students will develop the understanding and knowledge of factors affecting health and importance of health for individual, family, community and nation. The students will also learn about concept and components of wellness, Health Education and its meaning, scope, aims and objectives, principles and methods and media used. The student will gain knowledge of meaning and importance of different types of Hygiene. The Student will learn the Prescription of diet and determination of calorie value of foods.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Second Month-UNIT-II	The Students will learn the basic concepts of Foods and Nutrition, Misconceptions about food, essential body nutrients- functions, food sources, balanced diet and diet prescription. The student will get the knowledge of Communicable and Non-communicable diseases, distinction between them, mode of spread and prevention of communicable diseases and Cause, Mode of spread and prevention of some specific diseases - diarrhea diseases, typhoid, malaria, STD Respiratory disease. The student will also be acquainted with meaning, causes and prevention of Non-communicable diseases - diabetes, CVD, cancers, renal diseases and respiratory diseases. The Student will be able to demonstrate CPR.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Third Month-UNIT-III	The Students will gain knowledge of the Contemporary health problems of college youth; Alcohol, drugs, tobacco (chewing, sniffing, and smoking) and their harmful effects substance abuse management. The students will also learn Population education, importance of small family, methods of controlling conception, signs and symptoms of pregnancy, home and hospital delivery, care of the infant, importance of breast feeding, immunization, oral rehydration therapy. The student will be able to define first aid,	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar

	<p>DRABCH of first aid, CPR and will learn first aid for hemorrhage, fractures, sprain and strain (PRICER), Drowning snake bite, poisoning, heat stroke and heat exhaustion. The student will gain knowledge about international health agencies- WHO, UNICEF, Red Cross- their constitution and role in promoting health, School Health Service, Components Of school health. The Student will learn the Immunization schedule</p>		
<p>Fourth Month- UNIT-IV</p>	<p>The Students will gain knowledge of the Rehabilitation (definition, physical and mental rehabilitation) and Rehabilitation Modalities (cold, heat, water, radiation, Hydrotherapy, cryo therapy, thermotherapy – superficial heat – I R Lamp, Wax bath, deep heat- short wave diathermy, microwave diathermy, u/s therapy, inferential therapy, TENS, nerve muscle stimulator).</p> <p>The Student will learn about the Rehabilitation Modalities</p>	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar

Semester-II
BSc-PE-DSC-5(4): EXERCISE PHYSIOLOGY

Credit = 4 (2 THz + 2 P)

Max. Marks=100

30 hrs. Theory + 60 hrs. Practical

Learning Objective: - The learner will acquire knowledge and understanding with applications and skills (field and laboratory) in exercise physiology.

Learning Outcome:-

1. The learner will attain knowledge, understanding, ability of interpreting the concepts and practices in exercise physiology.
2. The learner will learn the changes/adaptations in body systems in response to Exercise & training. Such core knowledge and skill will help to create a strong foundation to engage human subject of all ages, sex for exercise, fitness, sports performance. The learner will be able to correlate, compare and analyze the cause (exercise) and effect (physiological changes) for best practices.
3. The learner will be able to understand the concept of Exercise Physiology and its Significance in the field of Physical Education & Sports, Acute Physiological Response, and Chronic Physiological Adaptation. The learner will understand the Nature of Skeletal Muscles: Gross & Microscopic Structure of Skeletal Muscle, Sliding Filament Theory, Muscle fiber types, Acute Response & Chronic Adaptation and the muscular system. The learner will be well acquainted with the practical aspect of assessing Resting Heart Rate and Blood Pressure of the subject and will learn to administer the Harvard Step test. The learner will be able to correlate, compare and analyze the cause (exercise) and effect (physiological changes) for best practices in regard to above.
4. The learner will develop the understanding and knowledge and practices of Bio-energetics : Aerobic & Anaerobic Systems & Energy Production, Fat and Protein Metabolism, Basal Metabolic Rate, Hormonal Regulation in Exercise & Training: The Endocrine Glands and their hormones, Acute Response and Chronic Adaptation. The learner will be able to measure vital capacity using Spirometer and assess the Body Mass Index of the subjects. The learner will be able to correlate, compare and analyze the cause (exercise) and effect (physiological changes) for best practices in regard to above.
5. The learner will gain knowledge of Cardiovascular Function during Exercise and Training: Structure & Function of the Heart, Acute response and Chronic Adaptation, Respiratory Function During Exercise and Training : Respiratory Parameters, Second Wind, Acute Response and Chronic Adaptation. The learner will be able to correlate, compare and analyze the cause (exercise) and effect (physiological changes) for best practices in regard to above.
6. The learner will understand the fundamentals of Body Composition, Obesity and its causes, Weight Management, Various methods of Assessing Body Composition, BMI, and WHR. The learner will be able to assess BMR and will revise all the Practicals. The learner will be able to correlate, compare and analyze the cause (exercise) and effect (physiological changes) for best practices in regard to above for fitness management, obesity management, healthy lifestyle and good health.
7. The learner will acquire practical skills (in laboratory and field setup) in regard to assessment of Resting Heart Rate, assessment of Blood Pressure, administering the Harvard Step test, to measure vital capacity using Spirometer, to assess the Body Mass Index of the subjects, to assess the Waist Hip Ratio of the subjects, methods of assessing Body Composition, assessment of BMR of the subjects. The learner will be able to compare, correlate and analyze the above learnings in real life situation.

THEORY SYLLABUS

UNIT 1: Fundamentals and Neuromuscular Function

(07 hrs. lectures)

The Focus of Exercise Physiology: Definition, Concept & it Significance in the field of Physical Education& Sports, Acute Physiological Response, Chronic Physiological Adaptation. The Nature Of Skeletal Muscles: Gross & Microscopic Structure of Skeletal Muscle,, Sliding FilamentTheory , Muscle fiber types, Acute Response & Chronic Adaptation and the muscular

system .

UNIT 2: Energy & Hormonal Regulation

(07 hrs. lectures)

Bio-energetics: Aerobic & Anaerobic Systems & Energy Production, Fat and Protein Metabolism, Basal Metabolic Rate.

Hormonal Regulation in Exercise & Training: The Endocrine Glands and their hormones, Acute Response and Chronic Adaptation.

UNIT 3: Cardiorespiratory System and Training Adaptation

(08 hrs. lectures)

Cardiovascular Function during Exercise and Training: Structure & Function of the Heart, Cardiovascular Response to Exercise and Chronic Adaptation.

Respiratory Function during Exercise and Training: Respiratory Parameters, Second Wind, Acute Response and Chronic Adaptation.

UNIT 4: Body Composition

(08 hrs. lectures)

Understanding Body Composition, Obesity and its causes.

Weight Management, Various methods of Assessing Body Composition, BMI, and WHR.

Practical

(60 hrs.)

1. Assessment of Resting Heart Rate
2. Assessment of Blood Pressure
3. Administering the Harvard Step test
4. To measure vital capacity using Spirometer
5. To assess the Body Mass Index of the subjects
6. To assess the Waist Hip Ratio of the subjects
7. Methods of assessing Body Composition
8. Assessment of BMR of the subjects

Suggested Readings:

1. Camaione, David N. (1993). Fitness Management. WCB Brown & Benchmark.
2. Jakson, Allen W and James R. Morrow (1999) Physical Activity for Health & fitness. Human Kinetics Publication.
3. Katch F.L and McArdle W.D (2010) Nutrition, Weight Control and Exercise .Philadelphia, Lea &Febiger.
4. Tiwari, Sandhya, (1999).Exercise Physiology. Sports Publications, New Delhi.
5. Wilmore Jack. H and David L. Costill (1994).Physiology of Sport and Exercise .Human Kinetics.
6. G.Gregory Half. (2012). Laboratory Manual for Exercise Physiology. USA. Human Kinetics,
7. W.Larry Kenney, Jack H. Wilmore, David L.Costil.(2015). Physiology of Sports and Exercise,Second Edition. USA.Human Kinetics.
8. Christophe. Hausswirth, Inigo Mujika. (2013). Recovery for Performance in Sports, USA,Human Kinetics.
9. Inigo Mujika.(2009). Tapering and Peaking For Optimal Performance. USA. Human Kinetics
10. Per-Olf .Astrand, Kaare.Rodahl. (2003). Text Book of Work Physiology: Physiological Bases ofExercise. Fourth Edition.USA.Human Kinetics.
11. Jonathan K.Ehrman, Dennis Kerrigan, et.al. (2017). Advance Exercise Physiology: Essential Concepts and Applications.USA. Human Kinetics.

Facilitation the achievement of Course Learning Outcomes

Month Wise Progression	Course Learning Outcomes	Teaching and learning Activity	Assessment Tasks
First Month-UNIT-I	The Students will be able to understand the concept of Exercise Physiology and its Significance in the field of Physical Education & Sports, Acute Physiological Response, and Chronic Physiological Adaptation. The student will understand the Nature Of Skeletal Muscles: Gross & Microscopic Structure of Skeletal Muscle, Sliding Filament Theory, Muscle fiber types, Acute Response & Chronic Adaptation and the muscular system. The Student will acquaint with the practical aspect of assessing Resting Heart Rate and Blood Pressure of the subject and will learn to administer the Harvard Step test.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Second Month-UNIT-II	The Students will develop the knowledge of Bio-energetics : Aerobic & Anaerobic Systems & Energy Production, Fat and Protein Metabolism, Basal Metabolic Rate, Hormonal Regulation in Exercise & Training: The Endocrine Glands and their hormones, Acute Response and Chronic	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ Seminar
	Adaptation. The Student will be able to measure vital capacity using Spirometer and assess the Body Mass Index of the subjects.		
Third Month-UNIT-III	The Students will gain knowledge of Cardiovascular Function during Exercise and Training: Structure & Function of the Heart, Respiratory Function During Exercise and Training : Respiratory Parameters, Second Wind, Acute Response and Chronic Adaptation. The Student will learn to assess the Waist Hip Ratio of a given subject and the methods of assessing Body Composition.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/seminar
Fourth Month-UNIT-IV	The Students will understand the fundamentals of Body Composition, Obesity and its causes, Weight Management, Various methods of Assessing Body Composition, BMI, and WHR. The Student will be able to assess BMR and will revise all the Practicals.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/seminar

Semester II

BSc-PE-DSC-6(4): Optional Game 2 (Choose any one from the list other than chosen before)

BSc-PE-DSC-6(4)-101: ATHLETICS

Max. Marks= 100

Credit = 4 (2 THz + 2 P)
30 hrs. Theory + 60 hrs. Practical

Learning Objective: - The learner will acquire knowledge, understanding and practices with applications and skills in athletics including performance (psychomotor).

Learning Outcome:-

1. The learner will attain knowledge, understanding, ability to interpret and analyzing proficiency in athletics.
2. The learner will be able to gain knowledge with respect to historical development, organizational structure and playfield technology of athletics. They will be able to perform the marking/ drawing/ material organizing for athletics.
3. The learner will be able to understand, analyze and interpret the rules of game/sport (athletics) as well as game of knowledge in the areas of scientific basis of warming up, cooling down and technical aspects of coaching i.e., methods of coaching and their uses for psychomotor development.
4. The learner will be able to learn and acquire various skills of game/sports (athletics) as psychomotor development/ applications, gain knowledge and practice about different tests of fitness and skill evaluation, application as well as the evaluation and analysis (psychomotor) of player's performance. The technical practice/training of sprint races, middle and long distance races, hurdles races, jumping event- long jump, throwing events- shot put, hammer throw for best performance creation.
5. The learner will learn about various fitness components and its forms including methods of measurements. Further, the learner will be able to practice and improve performance (psychomotor) on the basis of knowledge, application and skill gained in understanding various fitness components. Track marking and marking of different arenas for selected events of athletics.

THEORY SYLLABUS

Unit-I

(08 hrs lectures)

- Historical Development and Modern Trends (National and International Level)
- Organisational Structure (State, National and International Level)
- Playfield Technology – Marking and Construction of the playfields.

Unit-II

(08 hrs lectures)

- Rules and their interpretation of the sport.
- Warming up and psychological basis of Warming up.
- Cooling down and its effect.
- Techniques of Coaching – Pep talk, Pre, during and Post match competition Coaching.

Unit-III

(07 hrs lectures)

- Basic skills and techniques of the Sports/Game- – sprint races, middle and long distance races, hurdles races, jumping event- long jump, throwing events- shot put, hammer throw.
- Motor Fitness Components Testing
- Skill/Technique Evaluation
- Evaluation of Player's Performance.

Unit-IV

(07 hrs lectures)

- Introduction to Physical and Motor Fitness components related to sport: Strength, Speed, Endurance, Coordinative Abilities and Flexibility.
- Track marking and marking of different arenas for selected events in unit-III.

Practical -**(60 hrs.)**

1. Learning and demonstrating various skills/techniques of sports- sprint races, middle and long distance races, hurdles races, jumping event- long jump, throwing events- shot put.
2. Learning to demonstrate various tests to evaluate motor components as listed in unit IV above.
3. Track marking and marking of different arenas for selected events in unit-III.

Suggested Readings:

1. Chauhan VS (1999). Khel Jagat Mein Athletics. A.P. Pub, Jalandhar.
2. Bompa O. Tudor and Halff G. Gregory. (2009) "Periodization Theory and Methodology of Training" Human kinetics. NY.
3. Evans DA (1984). Teaching Athletics. Hodder, London.
4. Fox EL (1998). Physiological Basis of Physical Education and Athletics Brown Pub.
5. Gothi E (2004). Teaching & Coaching Athletics. Sport Pub., New Delhi.
6. Gupta R. (2004). Layout & Marking of Track & Field. Friends Publications. India. New Delhi.
7. Handbook-Rules and Regulation. International Athletic Federation (2010).
8. Herb Amato, DA ATC et al (2002). Practical Exam Preparation Guide of Clinical Skills of Athletic Training. Slack Incorporated. 1st ed., USA.
9. Kumar, Pardeep. (2008). Historical Development of Track & Field. Friends Publication. New Delhi
10. Maughan, R. and Gluson, M. (2004). The Biomechanical Basics of Athletic Performance. Oxford University Press, U.K.
11. Prentice, W. and Arnheim, D. (2005). Arnheim's Principles of Athletic Training 12th Ed. McGraw Hill. in place of Knight (1988).
12. Renwick GR (2001). Play Better Athletics. Sports Pub, Delhi.
13. Singh, Hardayal. (1919). Science of Sports Training. DVS Publication, N. Delhi.
14. Vanaik A. (2017). Officiating and Coaching, Friends Publication. New Delhi.

Facilitation the achievement of Course Learning Outcomes

Month wise Progression	Course Learning Outcomes	Teaching and learning Activity	Assessment Tasks
First Month-UNIT-I	A student will be able to gain knowledge with respect to Historical Development, Organisational Structure and Playfield Technology of a sport/game.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Second Month – UNIT-II	A student will be able to understand and interpret the rules of game as well as game knowledge in the areas of psychological basis of Warming up and technical aspects of coaching.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Third Month-UNIT-III	A student will be able to learn and acquire various skills of sports, gain knowledge about different tests of fitness and skill evaluation as well as the evaluation of player's performance. The technical practice of sprint races, middle and long distance races, hurdles races, jumping event- long jump, throwing events- shot put, hammer throw.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Fourth Month-UNIT-IV	A student will be learning about various fitness components and its forms. Further, the student will be able to practice and improve performance on the basis of knowledge gained in understanding various fitness components. Track marking and marking of different arenas for selected events in unit-III.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar

Semester II
BSc-PE-DSC-6 (4)-102: BADMINTON

Credit = 4 (2 THz + 2 P)

30 hrs Theory + 60 hrs Practical

Max. Marks=100

Learning Objective: - The learner will acquire knowledge, understanding and practices with applications and skills in badminton including performance (psychomotor).

Learning Outcome:-

1. The learner will attain knowledge, understanding, ability to interpret and analyzing proficiency in badminton.
2. The learner will be able to gain knowledge with respect to historical development, organizational structure and playfield technology of badminton. They will be able to perform the marking/ drawing/ material organizing for badminton.
3. The learner will be able to understand, analyze and interpret the rules of game/sport (badminton) as well as game of knowledge in the areas of scientific basis of warming up, cooling down and technical aspects of coaching i.e., methods of coaching and their uses for psychomotor development.
4. The learner will be able to learn and acquire various skills of game/sports (badminton) as psychomotor development/ applications, gain knowledge and practice about different tests of fitness and skill evaluation, application as well as the evaluation and analysis (psychomotor) of player's performance.
5. The learner will learn about various fitness components and its forms including methods of measurements. Further, the learner will be able to practice and improve performance (psychomotor) on the basis of knowledge, application and skill gained in understanding various fitness components. Court marking and marking of different arenas for selected events of badminton.

THEORY SYLLABUS

Unit-I

(08 hrs lectures)

- Historical Development and Modern Trends (National and International Level)
- Organisational Structure (State, National and International Level)
- Playfield Technology – Marking and Construction of the playfields.

Unit-II

(08 hrs lectures)

- Rules and their interpretation.
- Warming up and physiological basis of Warming up and its effect on performance.
- Cooling down and its effect.
- Techniques of Coaching – Pep talk, Pre, during and Post match coaching.

Unit-III

(07 hrs lectures)

- Basic skills and techniques of the Sports/Game.
- Skill/Technique Evaluation
- Evaluation of Player's Performance.

Unit-IV

(07 hrs lectures)

- Introduction to Physical and Motor Fitness components: Strength, Speed, Endurance, Coordinative Abilities and Flexibility.
- Motor Fitness Components Testing of above components.

Practical -**(60 hrs.)**

Learning and demonstrating various skills/techniques of sports.

Learning to demonstrate various tests to evaluate motor components as listed in unit IV above.

Suggested Readings:

1. Bloss, M.V. et al (2000). Badminton. McGraw Hill, USA.
2. Bompa O Tudor and Halff G. Gregory. (2009) "Periodization Theory and Methodology of Training" Human kinetics. NY.
3. Brahms Bernd-Voler. (2010). Badminton Handbook. Mayer & Mayer Sports: UK. Unit-II, III & IV-p-9-14.
4. Daris Pal. (1988). Badminton-The complete practical guide. Dairs & Charles Inc.: USA. Unit-II p-1-28 III- p-29-88, 109-152 & IV-p-97-108
5. Downey J (1990). How to Coach Badminton. Collins Pub.London.
6. Golds, M. (2002). Badminton: Skills of the Game. Growood Press, USA.
7. Grice, T. (2007). Badminton: Steps to Success. 2nd Ed. Human Kinetics, USA.
8. Gupta R. Kumar P. and Tyagi S. (2008). Textbook on Teaching Skill and Prowess (Part-I&II). Friends Publication. New Delhi.
9. Hoeger, W.W. Kand & Hoeger, S.A. (1997). Principles and Labs for physical fitness. (2nd Ed.). Morton Publishing Company. USA. Unit- II- p-127, 178-187, Unit- p-10-194.
10. Singh, Hardayal. (1991). Science of Sport Training. D.V.S Pub. Delhi.
11. Singh, MK. (2007). Comprehensive Badminton. Friends Pub. New Delhi.
12. Vanaik A. (2005). Playfield Manual, Friends Publication. New Delhi.
13. Vanaik A. (2017). Officiating and Coaching, Friends Publication. New Delhi.

Facilitation the achievement of Course Learning Outcomes

Month wise Progression	Course Learning Outcomes	Teaching and learning Activity	Assessment Tasks
First Month-UNIT-I	A student will be able to gain knowledge with respect to Historical Development, Organisational Structure and Playfield Technology of a sport/game.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Second Month – UNIT-II	A student will be able to understand and interpret the rules of game as well as game knowledge in the areas of physiological basis of Warming up and technical aspects of coaching.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Third Month-UNIT-III	A student will be able to learn and acquire various skills of sports/game, gain knowledge about different techniques evaluation as well as the evaluation of player's performance.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Fourth Month-UNIT-IV	A student will be learning about various fitness components and its forms. Further, the student will be able to practice and improve performance on the basis of knowledge gained in understanding various fitness components and it's testing.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar

Semester II
BSc-PE-DSC-6 (4)-103: BASKETBALL

Max. Marks=100

Credit = 4 (2 THz + 2 P)
30 hrs Theory + 60 hrs Practical

Learning Objective: - The learner will acquire knowledge, understanding and practices with applications and skills in basketball including performance (psychomotor).

Learning Outcome:-

1. The learner will attain knowledge, understanding, ability to interpret and analyzing proficiency in basketball.
2. The learner will be able to gain knowledge with respect to historical development, organizational structure and playfield technology of basketball. They will be able to perform the marking/ drawing/ material organizing for basketball.
3. The learner will be able to understand, analyze and interpret the rules of game/sport (basketball) as well as game of knowledge in the areas of scientific basis of warming up, cooling down and technical aspects of coaching i.e., methods of coaching and their uses for psychomotor development.
4. The learner will be able to learn and acquire various skills of game/sports (basketball) as psychomotor development/ applications, gain knowledge and practice about different tests of fitness and skill evaluation, application as well as the evaluation and analysis (psychomotor) of player's performance.
5. The learner will learn about various fitness components and its forms including methods of measurements. Further, the learner will be able to practice and improve performance (psychomotor) on the basis of knowledge, application and skill gained in understanding various fitness components. Court marking and marking of different arenas for selected events of basketball.

THEORY SYLLABUS

	Unit-I	(07 hrs lectures)
	<ul style="list-style-type: none">• Historical Development and Modern Trends (National and International Level)• Organisational Structure (State, National and International Level)• Playfield Technology – Marking and Construction of the playfields.	
Unit-II	<ul style="list-style-type: none">• Rules and their interpretation.• Warming up and physiological basis of Warming up and its effect on performance.• Cooling down and its effect.• Techniques of Coaching – Pep talk, Pre, during and Post match coaching.	(08 hrs lectures)
Unit-III	<ul style="list-style-type: none">• Basic skills and techniques of the Sports/Game.• Skill/Technique Evaluation• Evaluation of Player's Performance.	(07 hrs lectures)
Unit-IV	<ul style="list-style-type: none">• Introduction to Physical and Motor Fitness components: Strength, Speed, Endurance, Coordinative Abilities and Flexibility.• Motor Fitness Components Testing of above components.	(08 hrs lectures)

Practical -**(60 hrs.)**

Learning and demonstrating various skills/techniques of sports.

Learning to demonstrate various tests to evaluate motor components as listed in unit IV above.

SUGGESTED READINGS

- Bompa O. Tudor and Halff G. Gregory. (2009) “Periodization Theory and Methodology of Training” Human kinetics. NY.
- Drewett, J. (2007). How to Improve at Basketball. Crabtree Publishing Co., USA.
- Goldstein, S. (1998). Basketball Fundamentals. 2nd Ed. Golden Aura Publishing, USA.
- Jain Naveen (2003). Play and Learn Basket Ball. Khel Sahitya Kendra. New Delhi.
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- Sharma OP (2003). Basket Ball Skills and Rules. Khel Sahitya Kendra, Delhi.
- Singh, Hardayal. (1919). Science of Sports Training. DVS Publication, N. Delhi.
- Wilmore & Costill (2004). Physiology of Sports & Exercise. Human Kinetics, US

Facilitation the achievement of Course Learning Outcomes

Month wise Progression	Course Learning Outcomes	Teaching and learning Activity	Assessment Tasks
First Month UNIT-I	A student will be able to gain knowledge with respect to Historical Development, Organisational Structure and Playfield Technology of a sport/game.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment
		<ul style="list-style-type: none"> • Presentation 	<ul style="list-style-type: none"> • MCQ • Class-test / viva/ seminar
Second Month – UNIT-II	A student will be able to understand and interpret the rules of game as well as game knowledge in the areas of physiological basis of Warming up and technical aspects of coaching.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Third Month UNIT-III	A student will be able to learn and acquire various skills of sports/game, gain knowledge about different techniques evaluation as well as the evaluation of player's performance.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Fourth Month UNIT-IV	A student will be learning about various fitness components and its forms. Further, the student will be able to practice and improve performance on the basis of knowledge gained in understanding various fitness components and its testing.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar

Semester II
BSc-PE-DSC-6 (4)-104: CRICKET

Max. Marks=100

Credit = 4 (2 THz + 2 P)
30 hrs Theory + 60 hrs Practical

Learning Objective: - The learner will acquire knowledge, understanding and practices with applications and skills in cricket including performance (psychomotor).

Learning Outcome:-

1. The learner will attain knowledge, understanding, ability to interpret and analyzing proficiency in cricket.
2. The learner will be able to gain knowledge with respect to historical development, organizational structure and playfield technology of cricket. They will be able to perform the marking/ drawing/ material organizing for cricket.
3. The learner will be able to understand, analyze and interpret the rules of game/sport (cricket) as well as game of knowledge in the areas of scientific basis of warming up, cooling down and technical aspects of coaching i.e., methods of coaching and their uses for psychomotor development.
4. The learner will be able to learn and acquire various skills of game/sports (cricket) as psychomotor development/ applications, gain knowledge and practice about different tests of fitness and skill evaluation, application as well as the evaluation and analysis (psychomotor) of player's performance.
5. The learner will learn about various fitness components and its forms including methods of measurements. Further, the learner will be able to practice and improve performance (psychomotor) on the basis of knowledge, application and skill gained in understanding various fitness components. Track/field marking and marking of different arenas for selected events of cricket.

THEORY SYLLABUS

	Unit-I	(07 hrs lectures)
	<ul style="list-style-type: none">• Historical Development and Modern Trends (National and International Level)• Organisational Structure (State, National and International Level)• Playfield Technology – Marking and Construction of the playfields.	
Unit-II	<ul style="list-style-type: none">• Rules and their interpretation.• Warming up and physiological basis of Warming up and it's effect on performance.• Cooling down and its effect.• Techniques of Coaching – Pep talk, Pre, during and Post match coaching.	(08 hrs lectures)
Unit-III	<ul style="list-style-type: none">• Basic skills and techniques of the Sports/Game.• Skill/Technique Evaluation• Evaluation of Player's Performance.	(07 hrs lectures)
Unit-IV	<ul style="list-style-type: none">• Introduction to Physical and Motor Fitness components: Strength, Speed, Endurance, Coordinative Abilities and Flexibility.• Motor Fitness Components Testing of above components.	(08 hrs lectures)

Practical -**(60 hrs.)**

Learning and demonstrating various skills/techniques of sports.

Learning to demonstrate various tests to evaluate motor components as listed in unit IV above.

SUGGESTED READINGS

1. Amarnath M. (1996). Learn to Play Good Cricket. UBS Publishers. New Delhi.
2. Bompa O. Tudor and Halff G. Gregory. (2009) "Periodization Theory and Methodology of Training" Human kinetics. NY.
3. Boycott, G. (2010). Play Cricket the Right Way. Great Northern Books Limited, U.K.
4. Cricket (2008). Sports Skills: Cricket Fielding (Know the Game). A & C Black Publishers.
5. Gupta, K. (2006). How to Play Cricket. Goodwill Publishing House, New Delhi.
6. Hobbs, J. (2008). The Game of Cricket As it should be played. Jepson Press, USA.
7. Jain R. (2003). Fielding Drills in Cricket. Khel Sahitya Kendra. New Delhi.
8. Rachna (2002). Coaching Successfully: Cricket. Khel Sahitya Kendra. New Delhi.
9. Singh, Hardayal. (1919). Science of Sports Training. DVS Publication, N. Delhi.
10. Sharma P. (2003). Cricket. Shyam Parkashan. Jaipur.
11. Vanaik A. (2017). Officiating and Coaching, Friends Publication. New Delhi

Facilitation the achievement of Course Learning Outcomes

Month wise Progression	Course Learning Outcomes	Teaching and learning Activity	Assessment Tasks
First Month- UNIT-I	A student will be able to gain knowledge with respect to Historical Development, Organisational Structure and Playfield Technology of a sport/game.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment
		<ul style="list-style-type: none"> • Presentation 	<ul style="list-style-type: none"> • MCQ • Class-test / viva/ seminar
Second Month – UNIT-II	A student will be able to understand and interpret the rules of game as well as game knowledge in the areas of physiological basis of Warming up and technical aspects of coaching.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Third Month- UNIT-III	A student will be able to learn and acquire various skills of sports/game, gain knowledge about different techniques evaluation as well as the evaluation of player's performance.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar

Fourth Month- UNIT-IV	<p>A student will be learning about various fitness components and its forms. Further, the student will be able to practice and improve performance on the basis of knowledge gained in understanding various fitness components and it's testing.</p>	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
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Semester II
BSc-PE-DSC-6(4)-105: FOOTBALL

Max. Marks=100

Credit = 4 (2 THz + 2 P)
30 hrs Theory + 60 hrs Practical

Learning Objective: - The learner will acquire knowledge, understanding and practices with applications and skills in football including performance (psychomotor).

Learning Outcome:-

1. The learner will attain knowledge, understanding, ability to interpret and analyzing proficiency in football.
2. The learner will be able to gain knowledge with respect to historical development, organizational structure and playfield technology of football. They will be able to perform the marking/ drawing/ material organizing for football.
3. The learner will be able to understand, analyze and interpret the rules of game/sport (football) as well as game of knowledge in the areas of scientific basis of warming up, cooling down and technical aspects of coaching i.e., methods of coaching and their uses for psychomotor development.
4. The learner will be able to learn and acquire various skills of game/sports (football) as psychomotor development/ applications, gain knowledge and practice about different tests of fitness and skill evaluation, application as well as the evaluation and analysis (psychomotor) of player's performance.
5. The learner will learn about various fitness components and its forms including methods of measurements. Further, the learner will be able to practice and improve performance (psychomotor) on the basis of knowledge, application and skill gained in understanding various fitness components. Field marking and marking of different arenas for selected events of football.

THEORY SYLLABUS

Unit-I	(08 hrs lectures)
Unit-II	(08 hrs lectures)
Unit-III	(07 hrs lectures)
Unit-IV	(07 hrs lectures)

	<ul style="list-style-type: none">• Historical Development and Modern Trends (National and International Level)• Organisational Structure (State, National and International Level)• Playfield Technology – Marking and Construction of the playfields.
	<ul style="list-style-type: none">• Rules and their interpretation.• Warming up and physiological basis of Warming up and its effect on performance.• Cooling down and its effect.• Techniques of Coaching – Pep talk, Pre, during and Post match coaching.
	<ul style="list-style-type: none">• Basic skills and techniques of the Sports/Game.• Skill/Technique Evaluation• Evaluation of Player's Performance.
	<ul style="list-style-type: none">• Introduction to Physical and Motor Fitness components: Strength, Speed, Endurance, Coordinative Abilities and Flexibility.• Motor Fitness Components Testing of above components.

Practical –**(60 hrs.)**

Learning and demonstrating various skills/techniques of sports.

Learning to demonstrate various tests to evaluate motor components as listed in unit IV above.

SUGGESTED READINGS

1. American Football Coaches Association (2002). The Football Coaching Bible. 1st Ed., Human Kinetics, USA.
2. Bompa O. Tudor and Halff G. Gregory. (2009) “Periodization Theory and Methodology of Training” Human kinetics. NY.
3. Carling, C., Williams, M. and Reilling, T. (2006). Handbook of Soccer Match Analysis: A Systematic Approach to Improving Performance. Routledge Publishers, USA.
4. Long, H. and Czarnecki, J. (2007). Football for Dummies. For Dummies Publisher, USA.
5. N Kumar (2003). Play and Learn Football. K.S.K. New Delhi.
6. Reilly, T. (2006). The Science Training Soccer: A Scientific Approach to Developing Strength, Speed and Endurance. Routledge Publisher, USA.
7. Reilly, T. and J.C.D. Arau (2008). Science and Football V: The Proceedings of the 5th World Congress on Sports Science and Football, Volume5.
8. Singh, Hardayal. (1919). Science of Sports Training. DVS Publication, N. Delhi.
9. Sharma OP (2001). Teaching and Coaching –Football. Khel S.K.Delhi.
10. Vanaik A. (2017). Officiating and Coaching, Friends Publication. New Delhi

Facilitation the achievement of Course Learning Outcomes

Month wise Progression	Course Learning Outcomes	Teaching and learning Activity	Assessment Tasks
First Month-UNIT-I	A student will be able to gain knowledge with respect to Historical Development, Organisational Structure and Playfield Technology of a sport/game.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Second Month – UNIT-II	A student will be able to understand and interpret the rules of game as well as game knowledge in the areas of physiological basis of Warming up and technical aspects of coaching.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Third Month-UNIT-III	A student will be able to learn and acquire various skills of sports/game, gain knowledge about different techniques evaluation as well as the evaluation of player's performance.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Fourth Month-UNIT-IV	A student will be learning about various fitness components and its forms. Further, the student will be able to practice and improve performance on the basis of knowledge gained in understanding various fitness components and it's testing.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar

Semester II
BSc-PE-DSC-6 (4)-106: GYMNASTICS

Max. Marks=100

Credit = 4 (2 THz + 2 P)
30 hrs Theory + 60 hrs Practical

Learning Objective: - The learner will acquire knowledge, understanding and practices with applications and skills in gymnastics including performance (psychomotor).

Learning Outcome:-

1. The learner will attain knowledge, understanding, ability to interpret and analyzing proficiency in gymnastics.
2. The learner will be able to gain knowledge with respect to historical development, organizational structure and playfield technology of gymnastics. They will be able to perform the marking/ drawing/ material organizing for gymnastics.
3. The learner will be able to understand, analyze and interpret the rules of game/sport (gymnastics) as well as game of knowledge in the areas of scientific basis of warming up, cooling down and technical aspects of coaching i.e., methods of coaching and their uses for psychomotor development.
4. The learner will be able to learn and acquire various skills of game/sports (gymnastics) as psychomotor development/ applications, gain knowledge and practice about different tests of fitness and skill evaluation, application as well as the evaluation and analysis (psychomotor) of player's performance.
5. The learner will learn about various fitness components and its forms including methods of measurements. Further, the learner will be able to practice and improve performance (psychomotor) on the basis of knowledge, application and skill gained in understanding various fitness components. Track/field/hall marking and marking of different arenas for selected events of gymnastics.

THEORY SYLLABUS

Unit-I

(07 hrs lectures)

- Historical Development and Modern Trends (National and International Level)
- Organisational Structure (State, National and International Level)
- Playfield Technology – Marking and Construction of the playfields.

Unit-II

(08 hrs lectures)

- Rules and their interpretation of the sport.
- Warming up and psychological basis of Warming up.
- Cooling down and its effect.
- Techniques of Coaching – Pep talk, Pre, during and Post match coaching.

Unit-III

(08 hrs lectures)

- Basic skills and techniques of the Artistic Gymnastics, trampoline, parko and rhythmic
- Motor Fitness Components Testing
- Skill/Technique Evaluation
- Evaluation of Player's Performance.

Unit-IV

(07 hrs lectures)

- Introduction to Physical and Motor Fitness components related to sport: Strength, Speed, Endurance, Coordinative Abilities and Flexibility.

Practical -**(60 hrs.)**

- Learning and demonstrating various skills/techniques of Artistic Gymnastics, trampoline, parko and rhythmic.
- Learning to demonstrate various tests to evaluate motor components as listed in unit IV above.

SUGGESTED READINGS

1. Bompa O. Tudor and Halff G. Gregory. (2009) "Periodization Theory and Methodology of Training" Human kinetics. NY.
2. Brown (2009). How to Improve at Gymnastics. Crabtree Publishing Co., USA.
3. Chakraborty S and Sharma L (1995). Fundamental of Gymnastics. D.V.S. Pub. New Delhi.
4. Chakraborty S (1995). Fundamental of Gymnastics. DVS Pub. New Delhi.
5. Chakraborty S (1998). Women's Gymnastics. Friends Pub.Delhi.
6. Code of Points Trampoline Gymnastics (2005). Federation Int. DE Gymnastics
7. Federation International Gymnastics (2006). Federation Int. DE Gymnastics
8. Harvey FJ (1998). Physical Exercises & Gymnastics. Khel Sahitya. New Delhi.
9. Jain R (2005). Play and Learn Gymnastics. Khel SahitayaKendra
10. Mitchell, D., Davis, B. and Lopez, R. (2002). Teaching Fundamental Gymnastics Skills. Human Kinetics, USA.
11. Price, R.G. (2006). The Ultimate Guide to Weight Training for Gymnastics. 2ndEd. Sportsworkout.com.
12. Schlegel, E. and Dunn, CR. (2001). The Gymnastics Book: The Young Performer's Guide to Gymnastics. Firefly Books, USA.
13. Smither Graham (1980). Behing the Science of Gymnastics. London.
14. Singh, Hardayal. (1919). Science of Sports Training. DVS Publication, N. Delhi.
15. Stickland, L.R. (2008). Gender Gymnastics. Trans Pacific Press, Japan.
16. Vanaik A. (2017). Officiating and Coaching, Friends Publication. New Delhi

Facilitation the achievement of Course Learning Outcomes

Month wise Progression	Course Learning Outcomes	Teaching and learning Activity	Assessment Tasks
First Month-UNIT-I	A student will be able to gain knowledge with respect to Historical Development, Organisational Structure and Playfield Technology of a sport/game.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Second Month – UNIT-II	A student will be able to understand and interpret the rules of game as well as game knowledge in the areas of physiological basis of Warming up and technical aspects of coaching.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Third Month-UNIT-III	A student will be able to learn and acquire various skills of sports, gain knowledge about different tests of fitness and skill evaluation as well as the evaluation of player's performance.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Fourth Month-UNIT-IV	A student will be learning about various fitness components and its forms. Further, the student will be able to practice and improve performance on the basis of knowledge gained in understanding various fitness components.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar

Semester II
BSc-PE-DSC-6 (4)-107: HANDBALL

Max. Marks=100

Credit = 4 (2 THz + 2 P)
30 hrs Theory + 60 hrs Practical

Learning Objective: - The learner will acquire knowledge, understanding and practices with applications and skills in handball including performance (psychomotor).

Learning Outcome:-

1. The learner will attain knowledge, understanding, ability to interpret and analyzing proficiency in handball.
2. The learner will be able to gain knowledge with respect to historical development, organizational structure and playfield technology of handball. They will be able to perform the marking/ drawing/ material organizing for handball.
3. The learner will be able to understand, analyze and interpret the rules of game/sport (handball) as well as game of knowledge in the areas of scientific basis of warming up, cooling down and technical aspects of coaching i.e., methods of coaching and their uses for psychomotor development.
4. The learner will be able to learn and acquire various skills of game/sports (handball) as psychomotor development/ applications, gain knowledge and practice about different tests of fitness and skill evaluation, application as well as the evaluation and analysis (psychomotor) of player's performance.
5. The learner will learn about various fitness components and its forms including methods of measurements. Further, the learner will be able to practice and improve performance (psychomotor) on the basis of knowledge, application and skill gained in understanding various fitness components. Track/field marking and marking of different arenas for selected events of handball.

THEORY SYLLABUS

	Unit-I	(08 hrs lectures)
	<ul style="list-style-type: none">• Historical Development and Modern Trends (National and International Level)• Organisational Structure (State, National and International Level)• Playfield Technology – Marking and Construction of the playfields.	
Unit-II	<ul style="list-style-type: none">• Rules and their interpretation.• Warming up and physiological basis of Warming up and its effect on performance.• Cooling down and its effect.• Techniques of Coaching – Pep talk, Pre, during and Post match coaching.	(08 hrs lectures)
Unit-III	<ul style="list-style-type: none">• Basic skills and techniques of the Sports/Game.• Skill/Technique Evaluation• Evaluation of Player's Performance.	(07 hrs lectures)
Unit-IV	<ul style="list-style-type: none">• Introduction to Physical and Motor Fitness components: Strength, Speed, Endurance, Coordinative Abilities and Flexibility.• Motor Fitness Components Testing of above components.	(07 hrs lectures)

Learning and demonstrating various skills/techniques of sports.

Learning to demonstrate various tests to evaluate motor components as listed in unit IV above.

SUGGESTED READINGS

1. Bompa O. Tudor and Halff G. Gregory. (2009) "Periodization Theory and Methodology of Training" Human kinetics. NY.
2. Jain D (2003). Play & Learn Handball. Khel Sahitya Kendra. New Delhi.
3. Kleinman, I. (2009). Complete Physical Education Plans. 2nd Ed. Human Kinetics, USA.
4. Page, J. (2000). Ball Games. Lerner Sports Publisher, USA.
5. Phillips, B.E. (2009). Fundamental Handball. Kessinger Publishers, USA.
6. Schmottlach N Mcmanama J (1997). Physical Education Handbook. 9th Edition. Allyn & Bacon.London.
7. Schmottlach, N. and McManama (2005). Physical Education Activity Handbook. Benjamin Cummings, USA.
8. Singh, Hardayal. (1919). Science of Sports Training. DVS Publication, N. Delhi.
9. Surhone, L.M. et al (2010). Team Handball. Betascript Publishing, USA
10. Vanaik A. (2005). Playfield Manual, Friends Publication. New Delhi
11. Vanaik A. (2017). Officiating and Coaching, Friends Publication. New Delhi

Facilitation the achievement of Course Learning Outcomes

Month wise Progression	Course Learning Outcomes	Teaching and learning Activity	Assessment Tasks
First Month-UNIT-I	A student will be able to gain knowledge with respect to Historical Development, Organisational Structure and Playfield Technology of a sport/game.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Second Month – UNIT-II	A student will be able to understand and interpret the rules of game as well as game knowledge in the areas of physiological basis of Warming up and technical aspects of coaching.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Third Month-UNIT-III	A student will be able to learn and acquire various skills of sports/game, gain knowledge about different techniques evaluation as well as the evaluation of player's performance.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Fourth Month-UNIT-IV	A student will be learning about various fitness components and its forms. Further, the student will be able to practice and improve performance on the basis of knowledge gained in understanding various fitness components and it's testing.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar

Semester II
BSc-PE-DSC-6 (4)-108: HOCKEY

Max. Marks=100

Credit = 4 (2 THz + 2 P)
30 hrs Theory + 60 hrs Practical

Learning Objective: - The learner will acquire knowledge, understanding and practices with applications and skills in hockey including performance (psychomotor).

Learning Outcome:-

1. The learner will attain knowledge, understanding, ability to interpret and analyzing proficiency in hockey.
2. The learner will be able to gain knowledge with respect to historical development, organizational structure and playfield technology of hockey. They will be able to perform the marking/ drawing/ material organizing for hockey.
3. The learner will be able to understand, analyze and interpret the rules of game/sport (hockey) as well as game of knowledge in the areas of scientific basis of warming up, cooling down and technical aspects of coaching i.e., methods of coaching and their uses for psychomotor development.
4. The learner will be able to learn and acquire various skills of game/sports (hockey) as psychomotor development/ applications, gain knowledge and practice about different tests of fitness and skill evaluation, application as well as the evaluation and analysis (psychomotor) of player's performance.
5. The learner will learn about various fitness components and its forms including methods of measurements. Further, the learner will be able to practice and improve performance (psychomotor) on the basis of knowledge, application and skill gained in understanding various fitness components. Field marking and marking of different arenas for selected events of hockey.

THEORY SYLLABUS

Unit-I

(08 hrs lectures)

- Historical Development and Modern Trends (National and International Level)
- Organisational Structure (State, National and International Level)
- Playfield Technology – Marking and Construction of the playfields.

Unit-II

(08 hrs lectures)

- Rules and their interpretation.
- Warming up and physiological basis of Warming up and its effect on performance.
- Cooling down and its effect.
- Techniques of Coaching – Pep talk, Pre, during and Post match coaching.

Unit-III

(07 hrs lectures)

- Basic skills and techniques of the Sports/Game.
- Skill/Technique Evaluation
- Evaluation of Player's Performance.

Unit-IV

(07 hrs lectures)

- Introduction to Physical and Motor Fitness components: Strength, Speed, Endurance, Coordinative Abilities and Flexibility.
- Motor Fitness Components Testing of above components.

Practical -**(60 hrs)**

Learning and demonstrating various skills/techniques of sports.

Learning to demonstrate various tests to evaluate motor components as listed in unit IV above.

SUGGESTED READINGS

1. Bompa O. Tudor and Halff G. Gregory. (2009) "Periodization Theory and Methodology of Training" Human kinetics. NY.
2. International Hockey Federation, Rules of the Game of Hockey with Guidance for Players and Umpires. International Hockey Federation.
3. Jain D (2003). Hockey Skills & Rules. khel Sahitya Kendra . New Delhi.
4. Narang P (2003). Play & Learn Hockey. Khel Sahitya Kendra. New Delhi.
5. Pecknold, R. and Foeste, A. (2009). Hockey : Essential Skills. McGraw Hills,USA.
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9. Weekes, D. (2003). The Biggest Book of Hockey Trivia. Greystone Books,USA.
10. Wukovits, J.F. (2000). History of Hockey 1st Ed. Lucent Books,USA.
11. Vanaik A. (2005). Playfield Manual, Friends Publication. New Delhi
12. Vanaik A. (2017). Officiating and Coaching, Friends Publication. New Delhi

Facilitation the achievement of Course Learning Outcomes

Month wise Progression	Course Learning Outcomes	Teaching and learning Activity	Assessment Tasks
First Month-UNIT-I	A student will be able to gain knowledge with respect to Historical Development, Organisational Structure and Playfield Technology of a sport/game.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Second Month – UNIT-II	A student will be able to understand and interpret the rules of game as well as game knowledge in the areas of physiological basis of Warming up and technical aspects of coaching.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Third Month-UNIT-III	A student will be able to learn and acquire various skills of sports/game, gain knowledge about different techniques evaluation as well as the evaluation of player's performance.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Fourth Month-UNIT-IV	A student will be learning about various fitness components and its forms. Further, the student will be able to practice and improve performance on the basis of knowledge gained in understanding various fitness components and it's testing.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar

Semester II
BSc-PE-DSC-6(4)-109: JUDO

Max. Marks=100

Credit = 4 (2 THz + 2 P)
30 hrs Theory + 60 hrs Practical

Learning Objective: - The learner will acquire knowledge, understanding and practices with applications and skills in judo including performance (psychomotor).

Learning Outcome:-

1. The learner will attain knowledge, understanding, ability to interpret and analyzing proficiency in judo.
2. The learner will be able to gain knowledge with respect to historical development, organizational structure and playfield technology of judo. They will be able to perform the marking/ drawing/ material organizing for judo.
3. The learner will be able to understand, analyze and interpret the rules of game/sport (judo) as well as game of knowledge in the areas of scientific basis of warming up, cooling down and technical aspects of coaching i.e., methods of coaching and their uses for psychomotor development.
4. The learner will be able to learn and acquire various skills of game/sports (judo) as psychomotor development/ applications, gain knowledge and practice about different tests of fitness and skill evaluation, application as well as the evaluation and analysis (psychomotor) of player's performance.
5. The learner will learn about various fitness components and its forms including methods of measurements. Further, the learner will be able to practice and improve performance (psychomotor) on the basis of knowledge, application and skill gained in understanding various fitness components. Mat marking and marking of different arenas for selected events of judo.

THEORY SYLLABUS

Unit-I	<ul style="list-style-type: none">• Historical Development and Modern Trends (National and International Level)• Organisational Structure (State, National and International Level)• Playfield Technology – Marking and Construction of the playfields.	(08 hrs lectures)
Unit-II	<ul style="list-style-type: none">• Rules and their interpretation.• Warming up and physiological basis of Warming up and its effect on performance.• Cooling down and its effect.• Techniques of Coaching – Pep talk, Pre, During and Post match Coaching.	(08 hrs lectures)
Unit-III	<ul style="list-style-type: none">• Basic skills and techniques of the Sports/Game.• Skill/Technique Evaluation• Evaluation of Player's Performance.	(07 hrs lectures)
Unit-IV	<ul style="list-style-type: none">• Introduction to Physical and Motor Fitness components: Strength, Speed, Endurance, Coordinative Abilities and Flexibility.• Motor Fitness Components Testing of above components.	(07 hrs lectures)

Practical -**(60 hrs.)**

Learning and demonstrating various skills/techniques of sports.

Learning to demonstrate various tests to evaluate motor components as listed in unit IV above.

SUGGESTED READINGS

1. Bompa O. Tudor and Halff G. Gregory. (2009) "Periodization Theory and Methodology of Training" Human kinetics. NY.
2. Diago, T. (2005). Kodokan Judo Throwing Techniques. Kodansha International Publishers, Japan.
3. Harrison EJ (2002). Coaching Successfully Judo. Sports. Delhi.
4. Jain D (2003). Play and Learn Judo. Khel Sahitaya Kendra. New Delhi.
5. Law, M. (2009). Falling Hard : A Journey into the World of Judo. Trumpeter Publisher, Japan.
6. Putin, V., Shestakov, V. and Levitsky, A. (2004). Judo : History, Theory and Practice. Blue Snake Books, Moscow.
7. Singh, Hardayal. (1919). Science of Sports Training. DVS Publication, N. Delhi.
8. Takahashi, M. (2005). Mastering Judo. Human Kinetics, USA.

Facilitation the achievement of Course Learning Outcomes

Month wise Progression	Course Learning Outcomes	Teaching and learning Activity	Assessment Tasks
First Month-UNIT-I	A student will be able to gain knowledge with respect to Historical Development, Organisational Structure and Playfield Technology of a sport/game.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Second Month-UNIT-II	A student will be able to understand and interpret the rules of game as well as game knowledge in the areas of physiological basis of Warming up and technical aspects of coaching.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Third Month-UNIT-III	A student will be able to learn and acquire various skills of sports/game, gain knowledge about different techniques evaluation as well as the evaluation of player's performance.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Fourth Month-UNIT-IV	A student will be learning about various fitness components and its forms. Further, the student will be able to practice and improve performance on the basis of knowledge gained in understanding various fitness components and it's testing.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar

Semester II
BSc-PE-DSC-6 (4)-110: KABADDI

Max. Marks=100

Credit = 4(2 THz + 2 P)
30 hrs Theory + 60 hrs Practical

Learning Objective: - The learner will acquire knowledge, understanding and practices with applications and skills in kabaddi including performance (psychomotor).

Learning Outcome:-

1. The learner will attain knowledge, understanding, ability to interpret and analyzing proficiency in kabaddi.
2. The learner will be able to gain knowledge with respect to historical development, organizational structure and playfield technology of kabaddi. They will be able to perform the marking/ drawing/ material organizing for kabaddi.
3. The learner will be able to understand, analyze and interpret the rules of game/sport (kabaddi) as well as game of knowledge in the areas of scientific basis of warming up, cooling down and technical aspects of coaching i.e., methods of coaching and their uses for psychomotor development.
4. The learner will be able to learn and acquire various skills of game/sports (kabaddi) as psychomotor development/ applications, gain knowledge and practice about different tests of fitness and skill evaluation, application as well as the evaluation and analysis (psychomotor) of player's performance.
5. The learner will learn about various fitness components and its forms including methods of measurements. Further, the learner will be able to practice and improve performance (psychomotor) on the basis of knowledge, application and skill gained in understanding various fitness components. Court/field/track marking and marking of different arenas for selected events of kabaddi.

THEORY SYLLABUS

Unit-I

- Historical Development and Modern Trends (National and International Level) **(08 hrs lectures)**
- Organisational Structure (State, National and International Level)
- Playfield Technology – Marking and Construction of the playfields.

Unit-II

- Rules and their interpretation. **(08 hrs lectures)**
- Warming up and physiological basis of Warming up and its effect on performance.
- Cooling down and its effect.
- Techniques of Coaching – Pep talk, Pre, During and Post match Coaching.

Unit-III

- Basic skills and techniques of the Sports/Game. **(07 hrs lectures)**
- Skill/Technique Evaluation
- Evaluation of Player's Performance.

Unit-IV

- Introduction to Physical and Motor Fitness components: Strength, Speed, Endurance, Coordinative Abilities and Flexibility. **(07 hrs lectures)**
- Motor Fitness Components Testing of above components.

Practical -**(60 hrs.)**

Learning and demonstrating various skills/techniques of sports.

Learning to demonstrate various tests to evaluate motor components as listed in unit IV above.

SUGGESTED READINGS

- Bompa O. Tudor and Halff G. Gregory. (2009) “Periodization Theory and Methodology of Training” Human kinetics. NY.
- Kumar, Dharmander. (2018). Kabaddi and It’s Playing Techniques. Writers Choice, New Delhi.
- Mishra , S.C. (2007). Teach Yourself Kabaddi. Sports Publications, New Delhi.
- Rao CV (1983). Kabaddi. Native Indian Sports. NSNIS. Patiala Publisher
- Rao EP (1994). Modern Coaching in Kabaddi.D.V.S.Pub
- Singh, Hardayal. (1919). Science of Sports Training. DVS Publication, N. Delhi.
- Syal, M. (2004). Kabaddi Teaching. Prerna Parkashan, New Delhi.
- Vanaik A. (2017). Officiating and Coaching, Friends Publication. New Delhi.

Facilitation the achievement of Course Learning Outcomes

Month wise Progression	Course Learning Outcomes	Teaching and learning Activity	Assessment Tasks
First Month-UNIT-I	A student will be able to gain knowledge with respect to Historical Development, Organisational Structure and Playfield Technology of a sport/game.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Second Month – UNIT-II	A student will be able to understand and interpret the rules of game as well as game knowledge in the areas of physiological basis of Warming up and technical aspects of coaching.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Third Month-UNIT-III	A student will be able to learn and acquire various skills of sports/game, gain knowledge about different techniques evaluation as well as the evaluation of player's performance.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Fourth Month-UNIT-IV	A student will be learning about various fitness components and its forms. Further, the student will be able to practice and improve performance on the basis of knowledge gained in understanding various fitness components and it's testing.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar

Semester II
BSc-PE-DSC-6(4)-111: KHO-KHO

Max. Marks=100

Credit = 4(2 THz + 2 P)
30 hrs Theory + 60 hrs Practical

Learning Objective: - The learner will acquire knowledge, understanding and practices with applications and skills in kho-kho including performance (psychomotor).

Learning Outcome:-

1. The learner will attain knowledge, understanding, ability to interpret and analyzing proficiency in kho-kho.
2. The learner will be able to gain knowledge with respect to historical development, organizational structure and playfield technology of kho-kho. They will be able to perform the marking/ drawing/ material organizing for kho-kho.
3. The learner will be able to understand, analyze and interpret the rules of game/sport (kho-kho) as well as game of knowledge in the areas of scientific basis of warming up, cooling down and technical aspects of coaching i.e., methods of coaching and their uses for psychomotor development.
4. The learner will be able to learn and acquire various skills of game/sports (kho-kho) as psychomotor development/ applications, gain knowledge and practice about different tests of fitness and skill evaluation, application as well as the evaluation and analysis (psychomotor) of player's performance.
5. The learner will learn about various fitness components and its forms including methods of measurements. Further, the learner will be able to practice and improve performance (psychomotor) on the basis of knowledge, application and skill gained in understanding various fitness components. Court/field/track marking and marking of different arenas for selected events of kho-kho.

THEORY SYLLABUS

Unit-I

- Historical Development and Modern Trends (National and International Level) **(08 hrs lectures)**
- Organisational Structure (State, National and International Level)
- Playfield Technology – Marking and Construction of the playfields.

Unit-II

- Rules and their interpretation. **(08 hrs lectures)**
- Warming up and physiological basis of Warming up and its effect on performance.
- Cooling down and its effect.
- Techniques of Coaching – Pep talk, Pre, During and Post match Coaching.

Unit-III

- Basic skills and techniques of the Sports/Game. **(07 hrs lectures)**
- Skill/Technique Evaluation
- Evaluation of Player's Performance.

Unit-IV

- (07 hrs lectures)**
- Introduction to Physical and Motor Fitness components: Strength, Speed, Endurance, Coordinative Abilities and Flexibility.
- Motor Fitness Components Testing of above components.

Practical -**(60 hrs.)**

Learning and demonstrating various skills/techniques of sports.

Learning to demonstrate various tests to evaluate motor components as listed in unit IV above.

SUGGESTED READINGS

1. Bompa O. Tudor and Halff G. Gregory. (2009) "Periodization Theory and Methodology of Training" Human kinetics. NY.
2. Chakrabarty G (2002). Kho - Kho Aveloken. Khel Sahitya Kendra.Delhi.
3. Panday L (1982). Kho - Kho Sarvaswa. Metropolitan. New Delhi
4. Singh, Hardayal. (1919). Science of Sports Training. DVS Publication, N. Delhi.
5. Vanaik A. (2005). Playfield Manual, Friends Publication. New Delhi
6. Vanaik A. (2017). Officiating and Coaching, Friends Publication. New Delhi

Facilitation the achievement of Course Learning Outcomes

Month wise Progression	Course Learning Outcomes	Teaching and learning Activity	Assessment Tasks
First Month-UNIT-I	A student will be able to gain knowledge with respect to Historical Development, Organisational Structure and Playfield Technology of a sport/game.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Second Month – UNIT-II	A student will be able to understand and interpret the rules of game as well as game knowledge in the areas of physiological basis of Warming up and technical aspects of coaching.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Third Month-UNIT-III	A student will be able to learn and acquire various skills of sports/game, gain knowledge about different techniques evaluation as well as the evaluation of player's performance.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Fourth Month-UNIT-IV	A student will be learning about various fitness components and its forms. Further, the student will be able to practice and improve performance on the basis of knowledge gained in understanding various fitness components and it's testing.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar

Semester II
BSc-PE-DSC-6 (4)-112: VOLLEYBALL

Credit = 4(2 THz + 2 P)

Max. Marks=100

30 hrs Theory + 60 hrs Practical

Learning Objective: - The learner will acquire knowledge, understanding and practices with applications and skills in volleyball including performance (psychomotor).

Learning Outcome:-

1. The learner will attain knowledge, understanding, ability to interpret and analyzing proficiency in volleyball.
2. The learner will be able to gain knowledge with respect to historical development, organizational structure and playfield technology of volleyball. They will be able to perform the marking/ drawing/ material organizing for volleyball.
3. The learner will be able to understand, analyze and interpret the rules of game/sport (volleyball) as well as game of knowledge in the areas of scientific basis of warming up, cooling down and technical aspects of coaching i.e., methods of coaching and their uses for psychomotor development.
4. The learner will be able to learn and acquire various skills of game/sports (volleyball) as psychomotor development/ applications, gain knowledge and practice about different tests of fitness and skill evaluation, application as well as the evaluation and analysis (psychomotor) of player's performance.
5. The learner will learn about various fitness components and its forms including methods of measurements. Further, the learner will be able to practice and improve performance (psychomotor) on the basis of knowledge, application and skill gained in understanding various fitness components. Court/field/track marking and marking of different arenas for selected events of volleyball.

THEORY SYLLABUS

Unit-I

- Historical Development and Modern Trends (National and International Level) (08 hrs lectures)
- Organisational Structure (State, National and International Level)
- Playfield Technology – Marking and Construction of the playfields.

Unit-II

- Rules and their interpretation. (08 hrs lectures)
- Warming up and physiological basis of Warming up and its effect on performance.
- Cooling down and its effect.
- Techniques of Coaching – Pep talk, Pre, During and Post match Coaching.

Unit-III

- Basic skills and techniques of the Sports/Game. (07 hrs lectures)
- Skill/Technique Evaluation
- Evaluation of Player's Performance.

Unit-IV

- Introduction to Physical and Motor Fitness components: Strength, Speed, Endurance, Coordinative Abilities and Flexibility. (07 hrs lectures)
- Motor Fitness Components Testing of above components.

Practical -**(60 hrs.)**

Learning and demonstrating various skills/techniques of sports.

Learning to demonstrate various tests to evaluate motor components as listed in unit IV above.

SUGGESTED READINGS

1. American Volleyball Coaches Association (2005). Volleyball : Skills & Drills. Human Kinetics,USA.
2. Bompa O. Tudor and Half G. Gregory. (2009) "Periodization Theory and Methodology of Training" Human kinetics. NY.
3. FIVB (1996). Backcourt Spiking in Modern Volley Ball. FIVB.Chennai.
4. Kenny, B. and Gregory, C. (2006). Volleyball : Steps to Success. Human Kinetics,USA.
5. Sagar SK (1994). Cosco Skills Statics - Volley Ball. Sport Publication. Delhi.
6. Scates AE (1993). Winning Volley Ball. WC Brown.USA.
7. Scates, A. and Linn, M. (2002). Complete Conditioning for Volleyball. Human Kinetics,USA.
8. Shondell, D. and Reynaud, C. (2002). The Volleyball Coaching Bible. Human Kinetics,USA.
9. Singh, Hardayal. (1919). Science of Sports Training. DVS Publication, N. Delhi.
10. The National Alliance for Youth Sports (2009). Coaching Volleyball. For Dummies Publishers,USA.
11. Volleyball, USA (2009). Volleyball : Systems and Strategies. Human Kinetics,USA.
12. Vanaik A. (2017). Officiating and Coaching, Friends Publication. New Delhi

Facilitation the achievement of Course Learning Outcomes

Month wise Progression	Course Learning Outcomes	Teaching and learning Activity	Assessment Tasks
First Month-UNIT-I	A student will be able to gain knowledge with respect to Historical Development, Organisational Structure and Playfield Technology of a sport/game.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Second Month-UNIT-II	A student will be able to understand and interpret the rules of game as well as game knowledge in the areas of physiological basis of Warming up and technical aspects of coaching.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Third Month-UNIT-III	A student will be able to learn and acquire various skills of sports/game, gain knowledge about different techniques evaluation as well as the evaluation of player's performance.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Fourth Month-UNIT-IV	A student will be learning about various fitness components and its forms. Further, the student will be able to practice and improve performance on the basis of knowledge gained in understanding various fitness components and it's testing.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar

Semester II
BSc-PE-DSC-6 (4)-113: YOGA

Max. Marks=100

Credit = 4 (2 THz + 2 P)
30 hrs Theory + 60 hrs Practical

Learning Objective: - The learner will acquire knowledge, understanding and practices with applications and skills in yoga including performance (psychomotor).

Learning Outcome:-

1. The learner will attain knowledge, understanding, ability to interpret and analyzing proficiency in yoga.
2. The learner will be able to gain knowledge with respect to historical development, organizational structure and playfield technology of yoga. They will be able to perform the marking/ drawing/ material organizing for yoga.
3. The learner will be able to understand, analyze and interpret the rules of game/sport (yoga) as well as game of knowledge in the areas of scientific basis of warming up, cooling down and technical aspects of coaching i.e., methods of coaching and their uses for psychomotor development.
4. The learner will be able to learn and acquire various skills of game/sports (yoga) as psychomotor development/ applications, gain knowledge and practice about different tests of fitness and skill evaluation, application as well as the evaluation and analysis (psychomotor) of player's performance.
5. The learner will learn about various fitness components and its forms including methods of measurements. Further, the learner will be able to practice and improve performance (psychomotor) on the basis of knowledge, application and skill gained in understanding various fitness components.

THEORY SYLLABUS

UNIT-I

(07 hrs lectures)

- Origin of yoga, definition and scope of yoga, limitations and misconceptions of Yoga
- Importance of yoga in physical education and other fields
- Yoga asana competition at:- State, National, International, SGFI, AIU etc.

UNIT-II

(07 hrs lectures)

- Philosophical aspects of yoga-Pre-Vedic, Vedic period; Buddhism, Upanishad period, Jainism & tantra
- Qualifications, qualities and responsibilities of a coach,
- Duties/responsibilities of technical official, Scoring system and judgment criteria,

- Protocols for referees, judges and officials.

UNIT-III

(09 hrs lectures)

- Meaning, techniques, precautions & effects of the following:-
- Asanas : padmasana, vajrasana, sidhasana, paschimottanasa, halasana, sarvangasana, shalabhasana, ardh-matsyendrasana, bhujangasana, tadasana, vrikshasana, matsyasana, gomukhasana, ushtrasana, shavasana, makarasana, vrishchikasana, dhanurasana, purna matsyendrasana, chakrasana, ek pad sikandasana, bakasana, mayurasana, shirshasana
- Pranayama : anulom-vilom, bhastrika, suryabhedhen pranayama, sheetali, sheetkari, bhramari, ujjayi
- Shatkarma : neti, dhauti, nauli, basti, kunjla, kapal bhati, shankh prakshalana
- Bandhas : jalandhar, uddyana, mool bandha

UNIT-IV

(07 hrs lectures)

- Disease wise treatment through yoga therapy- Asthma, high & low B.P, diabetes, obesity, heart disease, insomnia, arthritis, backache & female disease
- Diet & Nutrition, components of nutrition, water, natural diet, balanced diet, fasting-its benefits, types & preparation, importance of vegetarianism in yogic diet.

PRACTICALS

(60 hrs.)

1. Prayer
2. Asanas, pranayama, shatkarma, bandha (as mentioned in theory)
3. Yoga-nidra/relaxation techniques
4. Visit to yoga centers/institutes

SUGGESTED READINGS

- Anand Omprakash (2001). Yog Dawra Kaya Kalp, Kanpur. Sewasth Sahitya Perkashan
- Iyengar, B.K.S. (1995). Light on Yoga : The Bible of Modern Yoga. Schocken Publishers, USA.
- Kaminoff, L. et al (2007). Yoga Anatomy. Human Kinetics, USA.
- Kirk, M. (2005). The Hatha Yoga Illustrated. Human Kinetics, USA.
- Sharma JP and Ganesh S(2007). Yog Kala Ek Prichya. Friends Publication. New Delhi
- Sharma J. P. (2007). Manav jeevan evam yoga. Friends Publication. New Delhi.
- Sharma Jai Prakash And Sehgal Madhu(2006). Yog-Shiksha. Friends Publication. Delhi.
- Sharma Jai Prakash and Rathore Bhupender Singh (2007). Yoga Ke Tatva. Friends Publication. Delhi
- Mukerji, A.P. (2010). The Doctorine and Practice of Yoga. General Books, LLC, New Delhi.
- Norton, W.W. (2010). Yoga for Osteoporosis : The Complete Guide. W.W. Norton & Company, USA.
- Sarin N (2003). Yoga Dawara Rogoon Ka Upchhar. Khel Sahitya Kendra
- Sri Swami Rama, (2001). Breathing. Rishikesh Sadhana Mandir Trust.
- Swami Ram (2000). Yoga & Married Life. Rishikesh Sadhana Mandir Trust
- Swami Swatma Ram: Patanjali Yoga Sutra
- Swami Veda Bharti (2000). Yoga Polity. Economy and Family. Rishikesh Sadhana Mandir Trust
- Text Book Hath Yoga Pradipika
- Text Book Patanjali Yoga Sutra

Facilitation the achievement of Course Learning Outcomes

Month Wise Progression	Course Learning Outcomes	Teaching and learning Activity	Assessment Tasks
First Month-UNIT-I	<p>The Students will develop the understanding and knowledge of Origin of yoga, definition and scope of yoga, limitations and misconceptions, importance of yoga in physical education and other fields, Yoga asana completion at:- State, National, International, SGFI, AIU etc. Philosophical aspects of Yog. Pre-Vedic, Vedic period; Buddhism, Upanishad period, Jainism & tantra, qualifications, qualities and responsibilities of a coach, Duties/responsibilities of technical official, Scoring system and judgment criteria, Protocols for referees, judges and officials.</p> <p>The student will learn about the prayer.</p>	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Second Month-UNIT-II	<p>The Students will develop the understanding and knowledge of Meaning, techniques, precautions & effects of the following:-</p> <p>Asanas : padmasana, vajrasana, sidhasana, paschimottanasa, halasana, sarvangasana, shalabhasana, ardh-matsyendrasana, bhujangasana, tadasana, vrikshasana, matsyasana, gomukhasana, ushtrasana, shavasana, makarasana, vrishchikasana, dhanurasana, purna matsyendrasana, chakrasana, ek pad sikandasana, bakasana, mayurasana, shirshasana</p> <p>Pranayama : anulom-vilom, bhastrika, suryabhedhen pranayama, sheetali, sheetkari, bhramari, ujjayi</p> <p>Shatkarma : neti, dhauti, nauli, basti, kunjil, kapal bhati, shankh prakshalana</p> <p>Bandhas : jalandhar, uddyana, mool</p>	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
	<p>bandha.</p> <p>The student will be able to perform learn Asanas, pranayama, shatkarma, bandha.</p>		
Third Month-UNIT-III	<p>The Students will gain knowledge of Disease wise treatment through yoga therapy- Asthma, high & low B.P, diabetes, obesity, heart disease, insomania, arthritis, backache & female disease.</p> <p>The student will learn Yoga-nidra/relaxation techniques.</p>	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Fourth Month-UNIT-IV	<p>The Students will gain knowledge of Diet & constitution, components of nutrition, water, natural diet, balanced diet, fasting-its benefits, types & preparation. Importance of vegetarianism in yogic diet.</p> <p>The student will Visit yoga centers /institutes.</p>	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar

SEMESTER-I
BSc-PE-GE-1 (4)-101: FITNESS & WELLNESS

Max. Marks:100

Credit=4(3Thz+1P)

45 Hrs Theory+30 Hrs Practical

Learning Objectives: To impart the knowledge and practices about the sports, play, recreation, games and motivational factors towards sports, their fitness components and health.

Learning Outcomes:

1. The learner will learn and practice about the sports and recreation, and their health benefits for normal and challenged population.
2. The learner will be able to analyze, correlate and evaluate in regard to fitness profile, development and maintenance of the player including types of motor components, principles of physical fitness, benefits of fitness program, causes and prevention of obesity and weight management.
3. The learner will be able to identify, apply and correlate different aspects of wellness including identifying dimensions of wellness, achieving and maintenance of wellness, identifying stressors and managing stress, relationship of wellness towards positive lifestyle and benefits of wellness.
4. The learner will be able to describe, apply, correlate and measure different aspects of behavior modification in regard to barriers to change, six stages of SMART, technique of change & smart goal setting with healthy lifestyle approach adaptation.
5. The learner will be able to describe, apply, correlate and measure different aspects of daily schedule of achieving quality of life and wellness in regard to daily schedule (based upon one's attitude, gender, age & occupation), basic module (time split for rest, sleep, diet, activity & recreation), principles to achieve quality of life including positive attitude, daily regular exercise, control over food habits & healthy hygienic practices.
6. The learner will have practical knowledge, with applications and analysis of various laboratory testing, physiological testing, stress management, survey project for fitness and wellness of the local community and nutritional diet analysis.

- UNIT – I INTRODUCTION (8 hrs lectures)**
- 1.1 Concept and meaning of fitness and wellness
 - 1.2 Components of fitness and their description
 - 1.3 Components of wellness and their description
 - 1.4 Significance of fitness and wellness in present scenario.
 - 1.5 Fitness and wellness for life
- UNIT – II FITNESS PROFILE, DEVELOPMENT AND MAINTAINENCE OF FOLLOWING (10 hrs lecture)**
- 2.1 Types :- physical (cardio respiratory, strength, speed agility, flexibility, power, muscular endurance) health related (cardio-respiratory, flexibility, body composition, muscular strength and endurance) motor skill related (speed, power, agility, coordination, endurance, balance)
 - 2.2 Principals of physical fitness
 - 2.3 Benefits of fitness programme
 - 2.4 Obesity (causes and prevention)
 - 2.5 Weight management (role of diet & exercise in maintenance of ideal weight)
- UNIT – III WELLNESS (12 hrs lectures)**
- 3.1 Identifying dimensions of wellness, achieving and maintenance of wellness
 - Adopting healthy & positive lifestyle.
 - Identifying stressors and managing stress
 - Staying safe & preventing injuries
 - Knowledge of Nutrition & its implication on healthy lifestyle
 - Factors leading to eating disorders
 - Hazards of substance abuse (smoking, alcohol & tobacco)
 - Adoption of spirituality principals & their remedial measures
 - Yogic practices for achieving health and fitness
 - Worthwhile use of leisure time.
 - Sexuality – preventive measures for sexual transmitted diseases.
 - Emphasis on proper rest & sleep.
 - Prevention of cancer, cardio-vascular disorders & other diseases.
 - 3.2 Relationship of wellness towards positive lifestyle
 - 3.3 Benefits of wellness
- UNIT – IV BEHAVIOR MODIFICATION (7 hrs lectures)**
- 4.1 Barriers to change
 - 4.2 Process of change (6 stages) SMART
 - 4.3 Technique of change & smart goal setting.
 - 4.4 Healthy lifestyle approach. (Introduction, prevention, and treatment of inactivity diseases)
- UNIT – V DAILY SCHEDULE OF ACHIEVING QUALITY OF LIFE & WELLNESS (8 hrs lecture)**
- 5.1 Daily schedule based upon one's attitude, gender, age & occupation.
 - 5.2 Basic – module: - Time split for rest, sleep, diet, activity & recreation.
 - 5.3 Principles to achieve quality of life:- positive attitude, daily regular exercise, control over food habits & healthy hygienic practices.

PRACTICAL

30 hrs

1. **FITNESS LABS:** Various labs testing related to cardio-vascular endurance, flexibility, muscular strength and body composition.
2. **PHYSIOLOGICAL TESTING:** - Blood pressure, VO2 max, vital capacity, pulse rate.
3. **STRESS MANAGEMENT :-** Yogic practices (asanas, pranayam and meditation)
4. **SURVEY PROJECT:** - Fitness & wellness assessment of local community.
5. **NUTRITIONAL DIET ANALYSIS :-** Given diet

Suggested Readings:

1. Anderson, B., Stretch Yourself for Health & Fitness, Delhi : UBSPD, 2002.
2. Austin and Noble, Swimming For Fitness, Madras: All India Pub., 1997.
3. Bean, Anita, Food For Fitness, London : A & C Black, 1999.
4. Callno Flood, D.K., Practical Math For Health Fitness, New Delhi, 1996.
5. Cox, Corbin, C.B & Indsey, R., Concepts of Physical Fitness, WC Brown, 1994.
6. Difiore, Judy, Complete Guide to Postnatal Fitness, London : A & C Black, 1998.
7. Giam, C.K & The, K.C., Sport Medicine Exercise and Fitness, Singapore : P.G. Medical Book, 1994.
8. Gosselior, C., The Ultimate Guide to Fitness, London: Vermilion, 1995.
9. Harrison, J.C., Hooked on Fitness, NY: Parker Pub. Com., 1993.
10. Hoeger, W.K. and S.A., Principles and Labs for Physical Fitness, Englewood Morton, 1999.
11. Kirtani, Reema, Physical Fitness, Delhi : Khel Sahitya, 1998.
12. Maud, J.R. and Foster, C., Physiology Assessment of Human Fitness, New Delhi, 1995.
13. McGlynn, G., Dynamics of Fitness, Madison : W.C.B Brown, 1993.
14. Muller, J. P., Health, Exercise and Fitness Delhi : Sports, 2000.
15. Muller, J.P., Health Exercise and Fitness, Delhi: Sports, 2003.
16. Saggar, S.K., Physical Fitness, New Delhi : Rupa Co., 1994.
17. Sharkey, B.J., Physiology of Fitness, Human Kinetics Book, 1990.
18. Thani, Lokesh, Rules of Games and Games and Fitness, Delhi: Sports, 2003.

SEMESTER-I
BSc-PE-GE-1 (4)-102: GYM MANAGEMENT

Max. Marks:100

Credit=4(3Thz+1P)
45 Hrs Theory+30 Hrs Practical

Learning Objective: - The learner will acquire knowledge, understanding and practices with applications and skills required for gym management.

Learning Outcome:-

1. The learner will develop understanding of the gym essentials including publicity, policy, registration, location and establishment of gym, procurement, placement & maintenance of gym equipment. Learner will be able to apply the understanding of the same for marketing, clientage, enrolments, record keeping, social activities, and public relations.
2. The learner will be able to acquire skills and competencies required for becoming a gym instructor as well as the learner will be able to apply safety procedures to be followed in the gym.
3. The learner will develop the skills required for handling different gym equipment as well as management and utilization of the same.
4. The learner will be able to test, take measurements, analyze and interpret different components with the help of different equipment and tests (flexibility, strength, cardiovascular endurance).
5. The learner will be equipped with personal health and well-being for self-evaluation and of others.
6. The learner will be skilled to handle gym management economics (costing, balance sheet, promotional plans).
7. The learner will acquire practical skills (in laboratory and field setup) in regard to calculating BMI, flexibility test (Sit and reach test, hip bend and toe touch), strength test (Bend knee sit ups, leg raise for minimal strength), cardiovascular endurance test (Harvard step test, cooper 12/9 min. run), self-evaluation (personal health and well-being), asana, aerobic schedule, weight management of the subjects. The learner will be able to compare, correlate and analyze the above learnings in real life situation.

UNIT-I

GYM ESSENTIALS

(09 hrs lecture)

- Location and Establishment of gym (Publicity, policy, reception, information, Registration, offer of programmes), Procurement, placement & maintenance of gym Equipments
- Marketing, clientage, Enrolments, record keeping, social activities, Public Relations,
- Individualized/group grooming programme, basic concepts of financial management

UNIT-II

GYM INSTRUCTOR

(09 hrs lecture)

- Gym-instructor – qualification, qualities, pay-roll, Performance – evaluation, grooming and presentation
- Safety procedures to be followed in the gym.

UNIT-III

GYM-EQUIPMENTS

(09 hrs lecture)

- Introduction to different exercise equipment
 - Floorings and equipments required for aerobic- Understanding of various forms of aerobics- floor aerobics, step – aerobics, weight
 - Aerobics and aqua aerobics

UNIT-IV

EQUIPMENTS FOR FITNESS EVALUATION AND ASSESSMENTS

(09 hrs lecture)

- Measurement of Weight and Height, Calculating BMI (Body Mass Index)
- Measurement of Fitness Components –
 - Flexibility (Sit and Reach Test, Hip Bend and Toe Touch)
 - Strength (Sit-Ups, Leg-Raise for

- Minimal Strength)
- Cardiovascular Endurance (One-mile run, Physical Efficiency test, Harvard step test)

- Self-evaluation –Personal Health and Well-being

UNIT-V

GYM MANAGEMENT ECONOMICS

(09 hrs lecture)

Costing, Balance sheet, Promotional plans

PRACTICALS

30 hrs

1. Calculating BMI
2. Flexibility Test (Sit and reach test, hip bend and toe touch)
3. Strength Test (Bend knee sit ups, leg raise for minimal strength)
4. Cardiovascular endurance test (Harvard step test, cooper 12/9 min. run)
5. Self evaluation- (Personal health and well being)
6. Any five asanas
7. Aerobic schedule
8. Weight management

Suggested Readings:

1. Alexandria, Virginia, "The Gym Workout" Published by Time Life Books.
2. Ann Goodsell "Your Personal Trainer, 1994.
3. Carol Kennedy Armbruster. Mary M. Yoke "Methods of Group Exercise Instruction", 2009.
4. Philip Mazzurco "Exerstyle", 1985.
5. Refus, Inc, "The Body in Motion" Published by Time Life Books.
6. Sheela Kumari, Fitness, Aerobics & Gym Operations, New Delhi, Khel Sahitya Kendra, 2009.
7. Sunil Bharihoke, The Gym", 2002.
8. Time life books, Gym workout, London times life books, 2004
9. Time life books, staying flexible, London, time life books, 2005
10. Time life books, super firm tough workouts, London times life books, 2005
11. Wayne L. Westcott, Thomas R. Bachle, "Strength Training", 2007.

SEMESTER-I

BSc-PE-GE-1 (4)-103: PROFESSIONAL PREPARATION AND CAREER AVENUES IN PHYSICAL EDUCATION AND SPORTS

Max. Marks:100

Credit=4(3Thz+1P)
45 Hrs Theory+30 Hrs Practical

Learning Objectives:

1. To develop and understanding of professional preparation in physical education.
2. To develop skills to meet professional requirements.
3. To understand the need for professional development.
4. To acquire skill and competencies for professional development.
5. To gain knowledge of curriculum development.
6. To acquire skill to analyze, develop and evaluate curriculum

Learning Outcomes:

1. The learner will be able to develop an understanding of professional preparation in physical education and compare the same with other countries for exploring best possibilities.
2. The learner will develop skills to meet professional requirements for best applications and analysis.
3. The learner will understand the need for professional development to do comparative analysis of professional preparation program in U.S., Europe and China as well as to compare the same with India.
4. The learner will acquire skill and competencies for professional development to relate courses available in physical education and sports and role of physical education teacher and institutes in professional preparation programmes.
5. The learner will gain knowledge of curriculum development to correlate career avenues after under graduation and post-graduation and research degrees, planning for a career: self-assessment, motivational dynamics, decision making, counseling and guidance, challenges and opportunities in physical education.
6. The learner will acquire skills to analyze, develop and evaluate curriculum to correlate career avenues after under graduation and post-graduation and research degrees, planning for a career: self-assessment, motivational dynamics, decision making, counseling and guidance, challenges and opportunities in physical education.

FUNDAMENTALS OF PROFESSIONAL PREPARATION

UNIT-I	HISTORICAL PERSPECTIVE	(09 hrs lecture)
	<ul style="list-style-type: none">• Professional Preparation in India<ul style="list-style-type: none">• Pre Independence perspective• Post Independence perspective• Comparative analysis of professional preparation program in U.S., Europe and China	
UNIT-II	PROFESSIONAL PREPARATION PROGRAMMES	(09 hrs lecture)
	<ul style="list-style-type: none">• Foundation: need, objectives and characteristic of professional preparation programmes• Courses available in physical education and sports.• Role of physical education teacher and institutes in professional preparation programmes	
UNIT-III	PHYSICAL EDUCATION AND PROFESSIONALISM	(09 hrs lecture)
	<ul style="list-style-type: none">• Concept and meaning of Profession, Professional and Professionalism.• Physical education as a profession.	
UNIT-IV	CAREER AVENUES & JOB OPPORTUNITIES IN PHYSICAL EDUCATION & SPORTS	(09 hrs lecture)
	<ul style="list-style-type: none">• Career avenues after under graduation and post graduation and research degrees.• Planning for a career : self-assessment, motivational dynamics, decision making, counseling and guidance	
UNIT-V	EXPLORING AND VENTURING INTO NEW AVENUES	(09 hrs lecture)
	<ul style="list-style-type: none">• Challenges and opportunities in physical education• Inter-relationship among various careers in physical education and sports	

1. Case study on national sports policy/national education policy

Suggested Readings:

1. Adams William C. Foundation of Physical Education Exercise and Sports Sciences, Philadelphia, 1991
2. Gupta Rakesh, Sharma Akhilesh, and Sharma Santosh, Professional Preparation and Curriculum Design in Physical Education & sports Sciences, New Delhi, Friends Publications, 2004
3. Hoover. Kenneth H., The Professional Teacher's Handbook, Boston, Allyn and Bacon, 1972
4. Krik David, Physical Education and Curriculum Study, Kent, Croom Helm, 1988
5. Sandhu Kiran, Professional Preparation and Career Development in Physical Education, New Delhi, Friends Publications, 2004
6. Sandhu Kiran, Trends and Development in Professional Preparation in Physical Education, New Delhi, Friends Publication, 2006
7. Wessel Janet A, and Kelly Luke, Achievement-Based Curriculum Development in Physical Education, Philadelphia, Lea and Febiger, 1986
8. Zeigler E.F, Professional and Scholarly Foundation of Physical Education and Kinesiology, Sports Educational Technologies, 2007

Semester I
BSc-PE-GE-1 (4)-104: STRESS MANAGEMENT

Credit=4(4THr)
60 Hrs Teaching Theory

Max. Marks:100

Learning Objective: - To acquaint the learner with the knowledge, practices and understanding of anger, stress and its management and other related aspects important to sports persons.

Learning Outcome: -

1. The learner would be able to apply the knowledge, learning and understanding to the concept of anger, stress and how to manage it.
2. The learners will be introduced with the basic concepts of stress and anger, causes and effects of stress and anger, main emotions of stress-fear and anger, daily life stressors, process of stress, anger and psycho physiology of stress. The learner will be able to correlate the concepts and practices of the above.
3. The learner will develop the understanding and knowledge of adaptation to stress- reframing of habitual stress resistance, types of stress, personal and social stress, occupational stress, peer stress / learners stress, family stress, stress & elderly and Stress & drug abuse. It helps to know about the stress related diseases- sleep disorder, eating disorder, sexual and emotional disorder, other stress related diseases, stress & spirituality. The learner will be able to correlate the concepts and practices of the above.
4. The learner will gain knowledge and concept of self-awareness and stress management, muscular tension reduction, emotional tension reduction, stress free living, stress free examination, stress management through physical activity and stress management through recreation activities. The learner will be able to correlate the concepts and practices of the above for best management of stress.
5. The learner will gain knowledge of anger management- Redford William's 12 steps of anger management, stress management- behavior modification, time management, coping strategy & intervention skills. It also helps to learn relaxation technique- diaphragmatic breathing, meditation, progressive muscle relaxation, Yoga, mental imagery, music therapy, and massage therapy. The learner will be able to correlate the concepts and practices of the above for best management of stress.

THEORY SYLLABUS:

Unit-I

(15 hrs Lectures)

Definition of stress and anger, Causes and effects of stress and anger, two main emotions of stress-fear and anger, Daily life stressors, Process of stress and anger- Psycho Physiology of stress.

Unit-II

(15 hrs Lectures)

Adaptation to stress-Reframing of habitual stress resistance, types of stress-personal and social stressOccupational stress, Peer stress / Students stress, Family stress, Stress & elderly and Stress & drug abuse.
Stress related diseases- i) Sleep disorder, ii) Eating disorder, iii) Sexual and emotional disorder, iv) Other stressrelated diseases, v) Stress & Spirituality.

Unit-III

(15 hrs Lectures)

Self-awareness and stress management, Muscular tension reduction, Emotional tension reduction, Stress free living, Stress free examination, Stress management through physical activity, Stress management through recreation.

Unit-IV

(15 hrs Lectures)

Anger management- Redford William's 12 steps of anger management

Stress management- behavior modification, time management, coping strategy & intervention skills.

Relaxation technique- i) Diaphragmatic breathing, ii) Meditation, iii) Progressive muscle relaxation, iv) Yoga, v) Mental imagery, vi) Music therapy, vii) Massage therapy

SUGGESTED READINGS

1. Adrain F & Herrick E. and Sharp P (1998). Anger Management. Routledge Publishing. Florence. Kentucky. U.S.A.
2. Allen E (2008). Stress Management for Dummies. For Dummies Publishers. U.S.A.
3. Davis M. et al (2008). The Relaxation and Stress Reduction workbook. Harbinger Publications, USA.
4. Greenberg J.S. (2008). Comprehensive stress management. McGraw Hill, USA
5. Hipp E. (2008). Fighting Invisible Tigers: Stress Management for Teens. Free Spirit Publishing, USA.
6. Mac W. (2007). Anger and Stress Management. God's Way. Calvary Press, USA.
7. Petee F (2006). Anger Management. Pentagon. Press. New York. U.S.A.
8. Swate Y B (2009). Anger Management. Sage Publication. New Delhi.
9. NCERT & CBSE publication and reading for stress management.

Facilitation the achievement of Course Learning Outcomes

Month wise Progression	Course Learning Outcomes	Teaching and learning Activity	Assessment Tasks
First Month- Unit I	The students will be introduced with the basic concepts of stress and anger, causes and effects of stress and anger, main emotions of stress-fear and anger, daily life stressors, process of stress, anger and psycho physiology of stress.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Second Month – UNIT-II	The students will develop the understanding and knowledge of adaptation to stress-reframing of habitual stress resistance, types of stress, personal and social stress, occupational stress, peer stress / students stress, family stress, stress & elderly and Stress & drug abuse. It helps to know about the stress related diseases- sleep disorder, eating disorder, sexual and emotional disorder, other stress related diseases, stress & spirituality.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Third Month- UNIT-III	The students will gain knowledge and concept of self-awareness and stress management, muscular tension reduction, emotional tension reduction, stress free living, stress free examination, stress management through physical activity and stress management through recreation activities.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Fourth Month- UNIT-IV	The Students will gain knowledge of anger management- Redford William's 12 steps of anger management, stress management-behavior modification, time management, coping strategy& intervention skills. It also helps to learn relaxation technique-diaphragmatic breathing, meditation, progressive muscle relaxation, Yoga, mental imagery, music therapy, and massage therapy.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar

SEMESTER-II
BSc-PE-GE-2 (4)-101: FITNESS & WELLNESS

Credit=4(3Thz+1P)
45 Hrs Theory+30 Hrs Practical

Max. Marks:100

Learning Objectives: To impart the knowledge and practices about the sports, play, recreation, games and motivational factors towards sports, their fitness components and health.

Learning Outcomes:

1. The learner will learn and practice about the sports and recreation, and their health benefits for normal and challenged population.
2. The learner will be able to analyze, correlate and evaluate in regard to fitness profile, development and maintenance of the player including types of motor components, principles of physical fitness, benefits of fitness program, causes and prevention of obesity and weight management.
3. The learner will be able to identify, apply and correlate different aspects of wellness including identifying dimensions of wellness, achieving and maintenance of wellness, identifying stressors and managing stress, relationship of wellness towards positive lifestyle and benefits of wellness.
4. The learner will be able to describe, apply, correlate and measure different aspects of behavior modification in regard to barriers to change, six stages of SMART, technique of change & smart goal setting with healthy lifestyle approach adaptation.
5. The learner will be able to describe, apply, correlate and measure different aspects of daily schedule of achieving quality of life and wellness in regard to daily schedule (based upon one's attitude, gender, age & occupation), basic module (time split for rest, sleep, diet, activity & recreation), principles to achieve quality of life including positive attitude, daily regular exercise, control over food habits & healthy hygienic practices.
6. The learner will have practical knowledge with applications and analysis of various laboratory testing, physiological testing, stress management, survey project for fitness and wellness of the local community and nutritional diet analysis.

UNIT – I	INTRODUCTION	(09 hrs Lectures)
	<ul style="list-style-type: none">• Concept and meaning of fitness and wellness• Components of fitness and their description• Components of wellness and their description• Significance of fitness and wellness in present scenario.• Fitness and wellness for life	
UNIT – II	FITNESS PROFILE, DEVELOPMENT AND MAINTAINENCE OF FOLLOWING	(09 hrs Lectures)
	<ul style="list-style-type: none">• Types :- physical (cardio respiratory, strength, speed agility, flexibility, power, muscular endurance) health related (cardio-respiratory, flexibility, body composition, muscular strength and endurance) motor skill related (speed, power, agility, coordination, endurance, balance)• Principals of physical fitness• Benefits of fitness programme• Obesity (causes and prevention)• Weight management (role of diet & exercise in maintenance of ideal weight)	
UNIT – III	WELLNESS	(09 hrs Lectures)
	<ul style="list-style-type: none">• Identifying dimensions of wellness, achieving and maintenance of wellness<ul style="list-style-type: none">• Adopting healthy & positive lifestyle.• Identifying stressors and managing stress• Staying safe & preventing injuries• Knowledge of Nutrition & its implication on healthy lifestyle• Factors leading to eating disorders• Hazards of substance abuse (smoking, alcohol & tobacco)• Adoption of spirituality principals & their remedial measures	

- Yogic practices for achieving health and fitness
- Worthwhile use of leisure time.
- Sexuality – preventive measures for sexual transmitted diseases.
- Emphasis on proper rest & sleep.
- Prevention of cancer, cardio-vascular disorders & other diseases.

- Relationship of wellness towards positive lifestyle
- Benefits of wellness

UNIT – IV BEHAVIOR MODIFICATION (09 hrs Lectures)

- Barriers to change
- Process of change (6 stages) SMART
- Technique of change & smart goal setting.
- Healthy lifestyle approach. (Introduction, prevention, and treatment of inactivity diseases)

UNIT – V DAILY SCHEDULE OF ACHIEVING QUALITY OF LIFE & WELLNESS (09 hrs Lectures)

- Daily schedule based upon one's attitude, gender, age & occupation.
- Basic – module: - Time split for rest, sleep, diet, activity & recreation.
- Principles to achieve quality of life:- positive attitude, daily regular exercise, control over food habits & healthy hygienic practices.

PRACTICAL (30 Hrs.)

1. **FITNESS LABS:** Various labs testing related to cardio-vascular endurance, flexibility, muscular strength and body composition.
2. **PHYSIOLOGICAL TESTING:** - Blood pressure, VO2 max, vital capacity, pulse rate.
3. **STRESS MANAGEMENT :-** Yogic practices (asanas, pranayam and meditation)
4. **SURVEY PROJECT:** - Fitness & wellness assessment of local community.
5. **NUTRITIONAL DIET ANALYSIS :-** Given diet

Suggested Readings:

1. Anderson, B., Stretch Yourself for Health & Fitness, Delhi : UBSPD, 2002.
2. Austin and Noble, Swimming For Fitness, Madras: All India Pub., 1997.
3. Bean, Anita, Food For Fitness, London : A & C Black, 1999.
4. Callno Flood, D.K., Practical Math For Health Fitness, New Delhi, 1996.
5. Cox, Corbin, C.B & Indsey, R., Concepts of Physical Fitness, WC Brown, 1994.
6. Difiore, Judy, Complete Guide to Postnatal Fitness, London : A & C Black, 1998.
7. Giam, C.K & The, K.C., Sport Medicine Exercise and Fitness, Singapore : P.G. Medical Book, 1994.
8. Gosselior, C., The Ultimate Guide to Fitness, London: Vermilion, 1995.
9. Harrison, J.C., Hooked on Fitness, NY: Parker Pub. Com., 1993.
10. Hoeger, W.K. and S.A., Principles and Labs for Physical Fitness, Englewood Morton, 1999.
11. Kirtani, Reema, Physical Fitness, Delhi : Khel Sahitya, 1998.
12. Maud, J.R. and Foster, C., Physiology Assessment of Human Fitness, New Delhi, 1995.
13. McGlynn, G., Dynamics of Fitness, Madison : W.C.B Brown, 1993.
14. Muller, J. P., Health, Exercise and Fitness Delhi : Sports, 2000.
15. Muller, J.P., Health Exercise and Fitness, Delhi: Sports, 2003.
16. Saggar, S.K., Physical Fitness, New Delhi : Rupa Co., 1994.
17. Sharkey, B.J., Physiology of Fitness, Human Kinetics Book, 1990.
18. Thani, Lokesh, Rules of Games and Games and Fitness, Delhi: Sports, 2003.

SEMESTER-II
BSc-PE-GE-2 (4)-102: GYM MANAGEMENT

Max. Marks:100

Credit=4(3Thz+1P)
45 Hrs Theory+30 Hrs Practical

Learning Objective: - The learner will acquire knowledge, understanding and practices with applications and skills required for gym management.

Learning Outcome:-

1. The learner will develop understanding of the gym essentials including publicity, policy, registration, location and establishment of gym, procurement, placement & maintenance of gym equipment. Learner will be able to apply the understanding of the same for marketing, clientage, enrolments, record keeping, social activities, and public relations.
2. The learner will be able to acquire skills and competencies required for becoming a gym instructor as well as the learner will be able to apply safety procedures to be followed in the gym.
3. The learner will develop the skills required for handling different gym equipment as well as management and utilization of the same.
4. The learner will be able to test, take measurements, analyze and interpret different components with the help of different equipment and tests (flexibility, strength, cardiovascular endurance).
5. The learner will be equipped with personal health and well-being for self-evaluation and of others.
6. The learner will be skilled to handle gym management economics (costing, balance sheet, promotional plans).
7. The learner will acquire practical skills (in laboratory and field setup) in regard to calculating BMI, flexibility test (Sit and reach test, hip bend and toe touch), strength test (Bend knee sit ups, leg raise for minimal strength), cardiovascular endurance test (Harvard step test, cooper 12/9 min. run), self-evaluation (personal health and well-being), asana, aerobic schedule, weight management of the subjects. The learner will be able to compare, correlate and analyze the above learnings in real life situation.

UNIT-I GYM ESSENTIALS

(09 hrs Lectures)

- Location and Establishment of gym (Publicity, policy, reception, information, Registration, offer of programmes), Procurement, placement & maintenance of gym Equipments
- Marketing, clientage, Enrolments, record keeping, social activities, Public Relations,
- Individualized/group grooming programme, basic concepts of financial management

UNIT-II GYM INSTRUCTOR

(09 hrs Lectures)

- Gym-instructor – qualification, qualities, pay-roll, Performance – evaluation, grooming and presentation
- Safety procedures to be followed in the gym.

UNIT-III GYM-EQUIPMENTS

(09 hrs Lectures)

- Introduction to different exercise equipment
 - Floorings and equipments required for aerobic- Understanding of various forms of aerobics- floor aerobics, step – aerobics, weight
 - Aerobics and aqua aerobics

UNIT-IV EQUIPMENTS FOR FITNESS EVALUATION AND ASSESSMENTS

(09 hrs Lectures)

- Measurement of Weight and Height, Calculating BMI (Body Mass Index)

- Measurement of Fitness Components –
 - Flexibility (Sit and Reach Test, Hip Bend and Toe Touch) Strength (Sit-Ups, Leg-Raise for Minimal Strength)
 - Cardiovascular Endurance (One-mile run, Physical Efficiency test, Harvard step test)
- Self- evaluation –Personal Health and Well-being

UNIT-V GYM MANAGEMENT ECONOMICS (09 hrs Lectures)

Costing, Balance sheet, Promotional plans

PRACTICALS

30 hrs.

1. Calculating BMI
2. Flexibility Test (Sit and reach test, hip bend and toe touch)
3. Strength Test (Bend knee sit ups, leg raise for minimal strength)
4. Cardiovascular endurance test (Harvard step test, cooper 12/9 min. run)
5. Self evaluation- (Personal health and well being)
6. Any five asanas
7. Aerobic schedule
8. Weight management

Suggested Readings:

- Alexandria, Virginia, “The Gym Workout” Published by Time Life Books.
- Ann Goodsell “Your Personal Trainer, 1994.
- Carol Kennedy Armbruster. Mary M. Yoke “ Methods of Group Exercise Instruction”, 2009.
- Philip Mazzurco “Exerstyle”, 1985.
- Refus, Inc, “The Body in Motion” Published by Time Life Books.
- Sheela Kumari , Fitness, Aerobics & Gym Operations, New Delhi, Khel Sahitya Kendra, 2009.
- Sunil Bharihoke, The Gym” , 2002.
- Time life books, Gym workout, London times life books, 2004
- Time life books, staying flexible, London, time life books, 2005
- Time life books, super firm tough workouts, London times life books, 2005
- Wayne L. Westcott, Thomas R. Bachle, “ Strength Training”, 2007.

SEMESTER-II

BSc-PE-GE-2 (4)-103: PROFESSIONAL PREPARATION AND CAREER AVENUES IN PHYSICAL EDUCATION AND SPORTS

Max. Marks:100

Credit=4(3Thz+1P)
45 Hrs Theory+30 Hrs Practical

Learning Objectives:

1. To develop an understanding of professional preparation in physical education.
2. To develop skills to meet professional requirements.
3. To understand the need for professional development.
4. To acquire skill and competencies for professional development.
5. To gain knowledge of curriculum development.
6. To acquire skill to analyze, develop and evaluate curriculum

Learning Outcomes:

1. The learner will be able to develop an understanding of professional preparation in physical education and compare the same with other countries for exploring best possibilities.
2. The learner will develop skills to meet professional requirements for best applications and analysis.
3. The learner will understand the need for professional development to do comparative analysis of professional preparation program in U.S., Europe and China.
4. The learner will acquire skill and competencies for professional development to relate courses available in physical education and sports and role of physical education teacher and institutes in professional preparation programmes.
5. The learner will gain knowledge of curriculum development to correlate career avenues after under graduation and post-graduation and research degrees, planning for a career: self-assessment, motivational dynamics, decision making, counseling and guidance, challenges and opportunities in physical education.
6. The learner will acquire skills to analyze, develop and evaluate curriculum to correlate career avenues after under graduation and post-graduation and research degrees, planning for a career: self-assessment, motivational dynamics, decision making, counseling and guidance, challenges and opportunities in physical education.

FUNDAMENTALS OF PROFESSIONAL PREPARATION

UNIT-I	HISTORICAL PERSPECTIVE	(09 hrs Lectures)
	<ul style="list-style-type: none">• Professional Preparation in India<ul style="list-style-type: none">• Pre Independence perspective• Post-Independence perspective• Comparative analysis of professional preparation program in U.S., Europe and China	
UNIT-II	PROFESSIONAL PREPARATION PROGRAMMES	(09 hrs Lectures)
	<ul style="list-style-type: none">• Foundation: need, objectives and characteristic of professional preparation programmes• Courses available in physical education and sports.• Role of physical education teacher and institutes in professional preparation programmes	
UNIT-III	PHYSICAL EDUCATION AND PROFESSIONALISM	(09 hrs Lectures)
	<ul style="list-style-type: none">• Concept and meaning of Profession, Professional and Professionalism.• Physical education as a profession.	
UNIT-IV	CAREER AVENUES & JOB OPPORTUNITIES IN PHYSICAL EDUCATION & SPORTS	(09 hrs Lectures)
	<ul style="list-style-type: none">• Career avenues after under graduation and post-graduation and research degrees.• Planning for a career : self-assessment, motivational dynamics, decision making, counseling and guidance	
UNIT-V	EXPLORING AND VENTURING INTO NEW AVENUES	(09 hrs Lectures)
	<ul style="list-style-type: none">• Challenges and opportunities in physical education• Inter-relationship among various careers in physical education and sports	

PRACTICALS :**30 hrs**

1. Case study on national sports policy/national education policy

Suggested Readings:

1. Adams William C. Foundation of Physical Education Exercise and Sports Sciences, Philadelphia, 1991
2. Gupta Rakesh, Sharma Akhilesh, and Sharma Santosh, Professional Preparation and Curriculum Design in Physical Education & sports Sciences, New Delhi, Friends Publications, 2004
3. Hoover. Kenneth H., The Professional Teacher's Handbook, Boston, Allyn and Bacon, 1972
4. Krik David, Physical Education and Curriculum Study, Kent, Croom Helm, 1988
5. Sandhu Kiran, Professional Preparation and Career Development in Physical Education, New Delhi, Friends Publications, 2004
6. Sandhu Kiran, Trends and Development in Professional Preparation in Physical Education, New Delhi, Friends Publication, 2006
7. Wessel Janet A, and Kelly Luke, Achievement-Based Curriculum Development in Physical Education, Philadelphia, Lea and Febiger, 1986
8. Zeigler E.F, Professional and Scholarly Foundation of Physical Education and Kinesiology, Sports Educational Technologies, 2007

Semester II
BSc-PE-GE-2 (4)-104: STRESS MANAGEMENT

Max. Marks:100

4 Credits of theory
60 Hrs Teaching Theory

Learning Objective: - To acquaint the learner with the knowledge, practices and understanding of anger, stress and its management and other related aspects important to sports persons.

Learning Outcome: -

1. The learner would be able to apply the knowledge, learning and understanding to the concept of anger, stress and how to manage it.
2. The learners will be introduced with the basic concepts of stress and anger, causes and effects of stress and anger, main emotions of stress-fear and anger, daily life stressors, process of stress, anger and psycho physiology of stress. The learner will be able to correlate the concepts and practices of the above.
3. The learner will develop the understanding and knowledge of adaptation to stress- reframing of habitual stress resistance, types of stress, personal and social stress, occupational stress, peer stress / learners stress, family stress, stress & elderly and Stress & drug abuse. It helps to know about the stress related diseases- sleep disorder, eating disorder, sexual and emotional disorder, other stress related diseases, stress & spirituality. The learner will be able to correlate the concepts and practices of the above.
4. The learner will gain knowledge and concept of self-awareness and stress management, muscular tension reduction, emotional tension reduction, stress free living, stress free examination, stress management through physical activity and stress management through recreation activities. The learner will be able to correlate the concepts and practices of the above for best management of stress.
5. The learner will gain knowledge of anger management- Redford William's 12 steps of anger management, stress management- behavior modification, time management, coping strategy & intervention skills. It also helps to learn relaxation technique- diaphragmatic breathing, meditation, progressive muscle relaxation, Yoga, mental imagery, music therapy, and massage therapy. The learner will be able to correlate the concepts and practices of the above for best management of stress.

THEORY SYLLABUS:

Unit-I

15 hrs. Lectures

Definition of stress and anger, Causes and effects of stress and anger, two main emotions of stress-fear and anger, Daily life stressors, Process of stress and anger- Psycho Physiology of stress.

Unit-II

15 hrs. Lectures

Adaptation to stress-Reframing of habitual stress resistance, types of stress-personal and social stressOccupational stress, Peer stress / Students stress, Family stress, Stress & elderly and Stress & drug abuse.
Stress related diseases- i) Sleep disorder, ii) Eating disorder, iii) Sexual and emotional disorder, iv) Other stressrelated diseases, v) Stress & Spirituality.

Unit-III **15 hrs. Lectures**
Self-awareness and stress management, Muscular tension reduction, Emotional tension reduction, Stress free living, Stress free examination, Stress management through physical activity, Stress management through recreation.

Unit-IV **15 hrs. Lectures**
Anger management- Redford William's 12 steps of anger management
Stress management- behavior modification, time management, coping strategy & intervention skills.
Relaxation technique- i) Diaphragmatic breathing, ii) Meditation, iii) Progressive muscle relaxation, iv) Yoga, v) Mental imagery, vi) Music therapy, vii) Massage therapy

SUGGESTED READINGS

- Adrain F & Herrick E. and Sharp P (1998). Anger Management. Routledge Publishing. Florence. Kentucky. U.S.A.
- Allen E (2008). Stress Management for Dummies. For Dummies Publishers. U.S.A.
- Davis M. et al (2008). The Relaxation and Stress Reduction workbook. Harbinger Publications, USA.
- Greenberg J.S. (2008). Comprehensive stress management. McGraw Hill, USA
- Hipp E. (2008). Fighting Invisible Tigers: Stress Management for Teens. Free Spirit Publishing, USA.
- Mac W. (2007). Anger and Stress Management. God's Way. Calvary Press, USA.
- Petee F (2006). Anger Management. Pentagon. Press. New York. U.S.A.
- Swate Y B (2009). Anger Management. Sage Publication. New Delhi.
- NCERT & CBSE publication and reading for stress management.

Facilitation the achievement of Course Learning Outcomes

Month wise Progression	Course Learning Outcomes	Teaching and learning Activity	Assessment Tasks
First Month- Unit I	The students will be introduced with the basic concepts of stress and anger, causes and effects of stress and anger, main emotions of stress-fear and anger, daily life stressors, process of stress, anger and psycho physiology of stress.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Second Month – UNIT-II	The students will develop the understanding and knowledge of adaptation to stress-reframing of habitual stress resistance, types of stress, personal and social stress, occupational stress, peer stress / students stress, family stress, stress & elderly and Stress & drug abuse. It helps to know about the stress related diseases- sleep disorder, eating disorder, sexual and emotional disorder, other stress related diseases, stress & spirituality.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Third Month- UNIT-III	The students will gain knowledge and concept of self-awareness and stress management, muscular tension reduction, emotional tension reduction, stress free living, stress free examination, stress management through physical activity and stress management through recreation activities.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar
Fourth Month- UNIT-IV	The Students will gain knowledge of anger management- Redford William's 12 steps of anger management, stress management-behavior modification, time management, coping strategy& intervention skills. It also helps to learn relaxation technique-diaphragmatic breathing, meditation, progressive muscle relaxation, Yoga, mental imagery, music therapy, and massage therapy.	<ul style="list-style-type: none"> • Lecture Methods • Demonstration Methods • Assessment Methods • Presentation 	<ul style="list-style-type: none"> • Evaluation of Presentation • Evaluation of Assignment • MCQ • Class-test / viva/ seminar

