

DEPARTMENT OF PHYSICAL EDUCATION AND SPORTS SCIENCES
UNIVERSITY OF DELHI

B.Sc. (Hons.) (Physical Education, Health Education and Sports)

SEMESTER- III

B.Sc.-PE-DSC-7(4) Kinesiology

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
Kinesiology	4	3	0	1	Class XII pass	Nil

Learning Objective: To impart the knowledge, practices, Applications and analyses related to Kinesiology.

Learning Outcome: Students will learn the science of movement for better sports performance and the basic knowledge practices, Applications and skills of Kinesiology will help to create a strong foundation for Physical Education and Sports to engage human subjects of all ages, sex, and ability.

1. The student will learn the concepts and applications meaning, aim & objectives, importance of kinesiology for physical education and sports, Fundamental concepts and Applications Centre of gravity, line of gravity, axis and planes of motion, fundamental starting positions, terminology of fundamental movements, and classification of muscles.
2. The student will develop the understanding skill and practices about Location & Action of Muscles at Various Joints:- a) Upper extremity – shoulder girdle, shoulder joints, elbow joint, b) Neck, trunk (Lumbar and thoracic region) and c) Lower extremity – Hip joint, knee joint, ankle joint and

Muscular analysis of fundamental movements:-Walking,running,jumping,throwing,catching,pulling,pushing,striking,hanging.

3. The student will gain knowledge and Application of Structure of Motor Actions:- Structure of cyclic and acyclic motor action and movement combination, functional relationship of different phases of motor action.
4. The student will gain knowledge and application of Qualities & Physiological Principles of Movements such as movement rhythm, movement coupling movement flow, movement precision and movement amplitude.
5. The Student will be able to analyze (Muscular) the Fundamental, Sports Skills, as their innovative applications.

THEORY SYLLABUS (45 HOURS)

UNIT-I (11 HOURS)

1. Meaning, aim & objectives, importance of kinesiology for physical education and sports
2. Fundamental concepts: Centre of gravity, line of gravity, axis and planes of motion, fundamental starting positions, terminology of fundamental movements and classification of muscles

UNIT-II (11 HOURS)

1. Location & Action of Muscles at Various Joints:-
 - a) Upper extremity- shoulder girdle, shoulder joints, elbow joint
 - b) Neck, trunk (Lumbo-thoracic region)
 - c) Lower extremity- Hip joint, knee joint, ankle joint
2. Muscular analysis of fundamental movements:-Walking, running, jumping, throwing, catching, pulling, pushing, striking, hanging

UNIT-III (12 HOURS)

1. Structure of Motor Actions: - Structure of cyclic and acyclic motor action and movement combination,

2. Functional relationship of different phases of motor action.

UNIT-IV (11 HOURS)

Qualities & Physiological Principles Of Movements:-Movement rhythm, movement coupling movement flow, movement precision and movement amplitude.

Practical (30 HOURS)

1. Demonstration of planes & axes of a given movement.
2. Determination of the location of muscles at various joints:
 - i. Shoulder girdle
 - ii. Shoulder joints
 - iii. Elbow joint
 - iv. Hip joint
 - v. Knee joint
 - vi. Ankle joint
3. Muscular analysis of the techniques of game of your specialization
4. Measurement Demonstration of qualities of movement.

SUGGESTED READINGS

1. Bartlett,R.(2007).IntroductiontoSportsBiomechanics.RoutledgePublishers,USA.
2. Blazevich,A.(2007).SportsBiomechanics.A&CBlackPublishers,USA.
3. Breer&Zarnicks(1979).Efficiencyofhumanmovement.WIBSoundersCo.USA.
4. Hamill,J.andKnutzen,K.M.(2003).BiomechanicalBasisofHumanMovement.LippincottWilliamsandWilkins,USA.
5. Hay(1993).Thebiomechanicsofsportstechniques.PrenticeHallInc.NewJersey.
6. McGinnis,P.(2004).BiomechanicsofSports&Exercise.HumanKinetics,USA.
7. Oatis,C.A.(2008).Kinesiology.2ndEd.Lippincott,Williams&Wilkins,USA.
- 8 Lakshmi, V. (2005), Biomechanics of Body Movement in Sports. KhelSahityaKendra:NewDelhi
9. Shaw,D.(2014).MechanicalBasisofBiomechanics.SportsPublication:NewDelhi
10. Margaria,R.(1979).BiomechanicsandEnergeticsofMuscularExercise.UniversityPress,Oxford:GreatBritain
11. Rai,R.(2003).BiomechanicsMechanicsAspectsofHumanMotion.AgrimPublication:

Mohali

12. Uppal, A.K., Kumar, V.L.G. & Panda, M.M. (2004). Biomechanics in Physical Education and Exercise Science. Friends Publication: New Delhi
13. Shaw, D (2018). Pedagogic Kinesiology. Sports Publication: Delhi
14. Wells, K.F. & Luttgens, K. (1976). Kinesiology: Scientific Basis of Human Motion (6th Ed.) Saunders College Publishing. Philadelphia
15. Robertson, D.G. E. Caldwell, G.E., Hamil, J. Kamen G., & Whittlesey, S.N. (2014). Research Methods in Biomechanics. (2nd ed.) Edwards Brothers Malloy: USA
16. Shaw, D (2003). Sports Biomechanics. Khel Sahitya Kendra: New Delhi.
17. Shaw, D (1998). Biomechanics and Kinesiology of human motion. Khel Sahitya Kendra: New Delhi.

Note: Examination scheme and mode shall be as prescribed by the Examination Branch, University of Delhi, from time to time.

SEMESTER III DSC-8(4)

DSC-8(4) EXERCISE & SPORTS PSYCHOLOGY

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
EXERCISE & SPORTS PSYCHOLOGY	4	3	0	1	Class XII pass	Nil

Learning Objective: - The student is provided with the knowledge Practices Applications and Innovative of psychological aspects of sports performance.

Learning Outcome: - The student learns the psychological aspects to apply to improve the performance in sports. Such core knowledge and skills helps to create a strong foundation to engage human subject of all ages, sex, and ability.

The students will gain knowledge about

1. Sports and Exercise Psychology, Concept, Scope, role of sports and exercise psychologist, Importance of Sports and exercise psychology and Historical development and future of Sports and Exercise Psychology,
2. Motivation: guidelines for building motivation, achievement motivation, Arousal and Anxiety: Types, phenomena of Anxiety in relation to performance – Drive Theory, Inverted U Theory and IZOF.
3. Personality- approaches to personality– Trait, types and psychodynamic theories, determinants of personality, assessment of personality, Team Cohesion: a conceptual model of Cohesion, assessment of Cohesion, relationship of Cohesion with performance.
4. Aggression in sports : types, phenomena of Aggression– Instinct Theory and Social Learning Theory, Assessment of Aggression and Leadership in Sports, Psychological preparation– Long term and short term psychological preparation, Goal setting and self-confidence
5. Practically the students will learn Measurement of Motivation, Measurement of Anxiety, Measurement of Personality, Measurement of Team Cohesion, and Measurement of Aggression

THEORY SYLLABUS (45 HOURS)

Unit-I (12 HOURS)

- (i) Sports and Exercise Psychology
- (ii) Concept, Scope, role of sports and exercise psychologist
- (iii) Importance of Sports and exercise psychology
- (iv) Historical development and future of Sports and Exercise Psychology,

Unit-II (11 HOURS)

- (i) Motivation: guidelines for building motivation, achievement motivation.
- (ii) Arousal and Anxiety: Types, phenomena of Anxiety in relation to performance – Drive Theory, Inverted U Theory and IZOF.

Unit-III (11 HOURS)

- (i) Personality- approaches to personality– Trait, types and psychodynamic theories, determinants of personality, assessment of personality.
- (ii) Team Cohesion: a conceptual model of Cohesion, assessment of Cohesion, relationship of Cohesion with performance.

Unit-IV (11 HOURS)

- (i) Aggression in sports : types, phenomena of Aggression– Instinct Theory and Social Learning Theory, Assessment of Aggression and Leadership in Sports
- (ii) Psychological preparation– Long term and short term psychological preparation, Goal setting and self-confidence

PRACTICAL SYLLABUS (30 HOURS)

1. Measurement of Motivation
2. Measurement of Anxiety
3. Measurement of Personality
4. Measurement of Team Cohesion
5. Measurement of Aggression

SUGGESTED READINGS:

1. Coakley, J.J. (2009). *Sporting Sociology, Issues and Controversies*, McGraw Hill International (Unit-1, 3, 4 & 5) Dixit S (2006). *Khel-Manovigyan*. Sports Publications. Delhi
2. Cohen R J and Swerdlik M E (2002). *Psychological testing and Assessment: An Introduction to Tests and Measurement*. McGraw Hill. New York. U.S.A.
3. Cox R H (2002). *Sport Psychology*. McGraw Hill. London.
4. Liukkonen J E D (2007). *Psychology for Physical Educators*. Human Kinetics. U.S.A. Mortin G L (2003). *Sports Psychology*, Sports Science. Press. USA.
5. Sahni S P (2005). *Psychology and Its Application in Sports*. D.V.S. Delhi. Shaw D and Other (2005). *Sport & Exercise Psychology*. Bios. U.K.
6. Verma V (1999). *Sport Psychology & All Round Development*. Sport Pub. New Delhi.
7. Wann D L (1997). *Sport Psychology*. Prentice Hall. New Jersey.

Note: Examination scheme and mode shall be as prescribed by the Examination Branch, University of Delhi, from time to time.

SEMESTER-III

BSc-PE-DSC-9(4)-: PROFESSIONAL PREPARATION AND CAREER AVENUES IN PHYSICAL EDUCATION AND SPORTS

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
PROFESSIONAL PREPARATION AND CAREER AVENUES IN PHYSICAL EDUCATION AND SPORTS	4	3	0	1	Class XII pass	Nil

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.

Learning Outcomes:

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.

The student will gain knowledge about-

1. Professional Preparation in India, Pre-Independence perspective and Post-Independence perspective
2. 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
3. Concept and meaning of Profession, Professional and Professionalism, Physical education as a profession, Career avenues after certificate course, diploma, under-graduation and post-graduation and research degrees.
4. Planning for a career: self-assessment, motivational dynamics, decision making, counseling and guidance, Challenges and opportunities in physical education, Inter-relationship among various careers in physical education and sports
5. Practically the students will do Case study on National Sports Policy, Case study on National Education Policy highlighting the role of physical education and A Survey on current job avenues with certificate course, diploma course, under-graduation degree, post-graduation degree and doctoral degree in physical education.

THEORY SYLLABUS (45 HOURS)

UNIT-I HISTORICAL PERSPECTIVE (10 HOURS)

6. Professional Preparation in India
7. Pre-Independence perspective
8. Post-Independence perspective

UNIT-II PROFESSIONAL PREPARATION PROGRAMMES (12 HOURS)

- i. Foundation: need, objectives and characteristic of professional preparation programmes
- ii. Courses available in physical education and sports
- iii. Role of physical education teacher and institutes in professional preparation programmes

UNIT-III PHYSICAL EDUCATION AND PROFESSIONALISM (11 HOURS)

- Concept and meaning of Profession, Professional and Professionalism
- Physical education as a profession

UNIT-IV CAREER AVENUES & JOB OPPORTUNITIES IN PHYSICAL EDUCATION & SPORTS (12 HOURS)

- Career avenues after certificate course, diploma, 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
- Inter-relationship among various careers in physical education and sports

PRACTICALS:30 hrs

1. Case study on National Sports Policy
2. Case study on National Education Policy highlighting the role of physical education.
3. A Survey on current job avenues with certificate course, diploma course, under-graduation degree, post-graduation degree and doctoral degree in physical education.

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

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SEMESTER- III

BSc-PE-DSE-1 (4) : OPTIONAL GAME-1

(CHOOSE ANY ONE FROM THE LIST OTHER THAN CHOSEN BEFORE IN DSC 1 AND 2)

Semester-III

BSc-PE-DSE-1(4)-101 :ATHLETICS

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
ATHLETICS	4	2	0	2	Class XII pass	Nil

Learning Objective:-The Students will acquire knowledge and understanding of a specific sport in which an individual wishes to excel.

Learning Outcome:-The student will attain knowledge, understanding, interpreting and analyzing proficiency in a game of one's choice.

1. The student will be able to gain knowledge with respect to Historical Development, Organizational Structure and Playfield Technology of the respective sport/game.
2. 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.
3. 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.
4. 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.

THEORY SYLLABUS (30 HOURS)

Unit-I (07 HOURS)

- Historical Development and Modern Trends (National and International Level)
- Organizational Structure (State, National and International Level)

Unit-II (08 HOURS)

- Rules related to various Track & field events

Basis of Warming up and Cooling down and its effect..

- Techniques of Coaching – Peptalk, Pre, during and Post match competition Coaching.

Unit-III (08 HOURS)

- Basic skills and techniques various Track & field events : sprint races, middle and long distance races, hurdles races, jumping event-long jump, throwing events-shot put, hammer throw.

Unit-IV (07 HOURS)

- Introduction to Physical Fitness components related various Track & field events
- Track marking and marking of different arenas for selected events mentioned in unit-III.

PRACTICAL- (60 HOURS)

1. Learning and demonstrating various skills/techniques of sprint races, middle and long distance races, hurdles races, jumping event-long jump & High Jump, throwing events-shot put & Discus .

2. Track marking and marking of different arenas for selected events in unit-III.

SUGGESTED READINGS:

- Chauhan VS (1999). *Khel Jagat Mein Athletics*. A.P. Pub, Jalandhar.
- Bompa O. Tudor and Half G. Gregory. (2009) " *Periodization Theory and Methodology of Training*" Humankinetics. NY.
- Evans DA (1984). *Teaching Athletics*. Hodder, London.
- Fox EL (1998). *Physiological Basis of Physical Education and Athletics* Brown Pub.
- Gothi E (2004). *Teaching & Coaching Athletics*. Sport Pub., New Delhi.
- Gupta R. (2004). *Layout & Marking of Track & Field*. Friends Publications. India. New Delhi.
- *Handbook-Rules and Regulation*. International Athletic Federation (2010).
- Herb Amato, DAAT Cetal (2002). *Practical Exam Preparation Guide of Clinical Skills of Athletic Training*. Slack Incorporated. 1st ed., USA.
- Kumar, Pardeep. (2008). *Historical Development of Track & Field*. Friends Publication. New Delhi
- Maughan, R. and Gluson, M. (2004). *The Biomechanical Basics of Athletic Performance*. Oxford University Press, U.K.
- Prentice, W. and Arnheim, D. (2005). *Arnheim's Principles of Athletic Training* 12th Ed. McGraw Hill. in place of Knight (1988).

- RenwickGR(2001).PlayBetterAthletics. SportsPub,Delhi.
- Singh,Hardayal.(1919).ScienceofSportsTraining.DVSPublication,N.Delhi.
- VanaikA.(2017).OfficiatingandCoaching,FriendsPublication.NewDelhi.

SEMESTER- IV
BSc-PE-DSE-1 (4)-102 : BADMINTON

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
BADMINTON	4	2	0	2	Class XII pass	Nil

Learning Objective:-The Students will acquire knowledge and understanding of a specific sport in which an individual wishes to excel.

Learning Outcome:-The student attains knowledge, understanding, interpreting and analyzing proficiency in a game of one's choice.

- i. A student will be able to gain knowledge with respect to Historical Development, Organizational Structure and Playfield Technology of a sport/game.
- 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.
- 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.
- 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.

THEORY SYLLABUS (30 HOURS)

Unit-I (08 HOURS)

- Historical Development and Modern Trends (National and International Level)

- organizational Structure (State, National and International Level)
- Introduction to Badminton Court

Unit-II (08 HOURS)

- Rules and their interpretation.
- Basis of Warming up and Cooling down and its effect.

Unit-III (07 HOURS)

- Techniques of Coaching – Pep talk, Pre, during and Post match coaching.
- Basic skills and techniques of the skills

Drills to improve skills of Badminton

Unit-IV (07 HOURS)

- Introduction to Physical Fitness components: Strength, Speed, Endurance, Coordinative Abilities and Flexibility.
- Importance of skill related components for Badminton performance

PRACTICAL SYLLABUS - (60 HOURS.)

- Learning and demonstrating various skills/techniques of sports.
- Drills to improve skills of Badminton

SUGGESTED READINGS:

1. Bloss,M.V.etal(2000).Badminton.McGrawHill,USA.
2. BompaOTudor andHalffG.Gregory.(2009)
“ PeriodizationTheoryandMethodologyofTraining” Humankinetics. NY.
3. Brahm sBernd-Voler.(2010).BadmntonHandbook.Mayer&MayerSports:UK.Unt-II,III&IV-p-9-14.
4. DarisPal.(1988).Badminton-Thecompletepracticalguide.Dairs&CharlesInc.:USA.Unit-IIp-1-28III-p-29-88,109-152 &IV-p-97-108
5. DowneyJ(1990).HowtoCoachBadminton. CollinsPub.London.
6. Golds,M.(2002).Badminton:SkillsoftheGame.GrowoodPress,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 Edi.). 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, M. K. (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.

SEMESTER- IV
BSc-PE-DSE-1(4)-103 : BASKETBALL

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
BASKETBALL	4	2	0	2	Class XII pass	Nil

Learning Objective:-The Students will acquire knowledge and understanding of a specific sport in which an individual wishes to excel.

Learning Outcome:-The student attains knowledge, understanding, interpreting and analyzing proficiency in a game of one's choice.

- i. A student will be able to gain knowledge with respect to Historical Development, Organizational Structure and Playfield Technology of a sport/game.
- 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.
- 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.
- 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.

THEORY SYLLABUS (30 HOURS)

Unit-I (08 HOURS)

- Historical Development and Modern Trends (National and International Level)
- organizational Structure (State, National and International Level)
- Introduction to Basketball Court

Unit-II (08 HOURS)

- Rules and their interpretation
 - Team Composition
- Basis of Warming up and Cooling down and its effect.

Unit-III (07 HOURS)

- Techniques of Coaching – Pep talk, Pre, during and Post match coaching.
- Basic skills and techniques of the skills

Drills to improve skills of Basketball

Unit-IV (07 HOURS)

- Introduction to Physical Fitness components: Strength, Speed, Endurance, Coordinative Abilities and Flexibility.
- Importance of skill related components for Basketball performance

PRACTICAL SYLLABUS - (60 HOURS.)

- Learning and demonstrating various skills/techniques of sports.
- Drills to improve skills of Basketball

SUGGESTED READINGS

- Bompa O. Tudor and Halff G. Gregory. (2009) “ Periodization Theory and Methodology of Training” Humankinetics.NY.
- Drewett,J.(2007).How to Improve at Basketball.Crabtree Publishing Co.,USA.
- Goldstein,S.(1998).Basketball Fundamentals.2ndEd.Golden Aura Publishing,USA.
- Jain Naveen(2003).Play and Learn Basketball.Khel Sahitya Kendra.New Delhi.
- NatBB(1997).Conditioning Coaches Association.NBA Power Conditioning.Human Kinetics.
- Sharma OP(2003).Basket Ball Skills and Rules.Khel Sahitya Kendra,Delhi.
- Singh,Hardayal.(1919).Science of Sports Training.DVSPublication,N.Delhi.
- Wilmore&Costill(2004).Physiology of Sports&Exercise.Human Kinetics,US

SEMESTER- IV
BSc-PE-DSE-1(4)-104 : CRICKET

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
CRICKET	4	2	0	2	Class XII pass	Nil

Learning Objective:-The Students will acquire knowledge and understanding of a specific sport in which an individual wishes to excel.

Learning Outcome:-The student attains knowledge, understanding, interpreting and analyzing proficiency in a game of one's choice.

- i. A student will be able to gain knowledge with respect to Historical Development, Organizational Structure and Playfield Technology of a sport/game.
- 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.
- 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.
- 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.

THEORY SYLLABUS (30 HOURS)

Unit-I (08 HOURS)

- Historical Development and Modern Trends (National and International Level)
- organizational Structure (State, National and International Level)
- Introduction to Cricket ground

Unit-II (08 HOURS)

- Rules and their interpretation
 - Team Composition
- Basis of Warming up and Cooling down and its effect.

Unit-III (07 HOURS)

- Techniques of Coaching – Pep talk, Pre, during and Post match coaching.
- Basic skills and techniques of the skills

Drills to improve skills of Cricket

Unit-IV (07 HOURS)

- Introduction to Physical Fitness components: Strength, Speed, Endurance, Coordinative Abilities and Flexibility.
- Importance of skill related components for Cricket performance

PRACTICAL SYLLABUS - (60 HOURS.)

- Learning and demonstrating various skills/techniques of sports.
- Drills to improve skills of Cricket

SUGGESTED READINGS

1. Amarnath M. (1996). *LearntoPlayGoodCricket*. UBSPublishers. New Delhi.
2. Bompa O. Tudor and Halff G. Gregory. (2009) " Periodization Theory and Methodology of Training " Humankinetics. NY.
3. Boycott, G. (2010). *PlayCrickettheRightWay*. GreatNorthernBooks Limited, U.K.
4. Cricket (2008). *SportsSkills:CricketFielding(KnowtheGame)*. A&CBlackPublishers.
5. Gupta, K. (2006). *HowtoPlayCricket*. GoodwillPublishingHouse, New Delhi.
6. Hobbs, J. (2008). *TheGameofCricketAsitshouldbeplayed*. Jepson Press, USA.
7. Jain R. (2003). *FieldingDrillsinCricket*. KhelSahityaKendra. New Delhi.
8. Rachna (2002). *CoachingSuccessfully:Cricket*. KhelSahityaKendra. New Delhi.
9. Singh, Hardayal. (1919). *ScienceofSportsTraining*. DVSPublication, N. Delhi.
10. Sharma P. (2003). *Cricket*. Shyam Parkashan. Jaipur.
11. Vanaik A. (2017). *OfficiatingandCoaching*, Friends Publication. New Delhi

Semester-III

BSc-PE-DSE-1(4)-105: FOOTBALL

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
FOOTBALL	4	2	0	2	Class XII pass	Nil

Learning Objective:-The Students will acquire knowledge and understanding of a specific sport in which an individual wishes to excel.

Learning Outcome:-The student attains knowledge, understanding, interpreting and analyzing proficiency in a game of one's choice.

- i. A student will be able to gain knowledge with respect to Historical Development, Organizational Structure and Playfield Technology of a sport/game.
- 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.
- 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.
- 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.

THEORY SYLLABUS (30 HOURS)

Unit-I (08 HOURS)

- Historical Development and Modern Trends (National and International Level)
- organizational Structure (State, National and International Level)
- Introduction to Football Field

Unit-II (08 HOURS)

- Rules and their interpretation.
 - Team Composition

- Basis of Warming up and Cooling down and its effect

Unit-III (07 HOURS)

- Techniques of Coaching – Pep talk, Pre, during and Post match coaching.
- Basic skills and techniques of the skills

Drills to improve skills of Football

Unit-IV (07 HOURS)

- Introduction to Physical Fitness components: Strength, Speed, Endurance, Coordinative Abilities and Flexibility.
- Importance of skill related components for Football performance

PRACTICAL SYLLABUS - (60 HOURS.)

- Learning and demonstrating various skills/techniques of sports.
- Drills to improve skills of Football

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 Czarniecki, 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

SEMESTER- III
BSc-PE-DSE-1(4)-106: GYMNASTICS

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
GYMNASTICS	4	2	0	2	Class XII pass	Nil

Learning Objective:-The Students will acquire knowledge and understanding of a specific sport in which an individual wishes to excel.

Learning Outcome:-The student attains knowledge, understanding, interpreting and analyzing proficiency in a game of one's choice.

- i. A student will be able to gain knowledge with respect to Historical Development, Organizational Structure and Playfield Technology of a sport/game.
- 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.
- 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.
- 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.

THEORY SYLLABUS (30 HOURS)

Unit-I (08 HOURS)

- Historical Development and Modern Trends (National and International Level)
- organizational Structure (State, National and International Level)
- Introduction to Gymnastic Arena

Unit-II (08 HOURS)

- Rules and their interpretation: Introduction to various events : Team & Individual Events
 - Team Composition
- Basis of Warming up and Cooling down and its effect

Unit-III (07 HOURS)

- Techniques of Coaching – Pep talk, Pre, during and Post match coaching.
- Basic skills and techniques of the skills
 - Drills to improve skills of various events

Unit-IV (07 HOURS)

- Introduction to Physical Fitness components: Strength, Speed, Endurance, Coordinative Abilities and Flexibility.
- Importance of skill related components for Gymnastics performance

PRACTICAL SYLLABUS - (60 HOURS.)

- Learning and demonstrating various skills/techniques of sports.
- Drills to improve various Gymnastics skills

SUGGESTED READINGS

1. Bompa O. Tudor and Halff G. Gregory. (2009) “ Periodization Theory and Methodology of Training” Humankinetics. NY.
2. Brown(2009).How to Improve at Gymnastics. Crabtree Publishing Co., USA.
3. Chakraborty Sand Sharma L (1995).Fundamental of Gymnastics.D.V.S.Pub.New Delhi.
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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 Sahitaya Kendra
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.andDunn,CR.(2001).TheGymnasticsBook:TheYoungPerformer'sGuideto
Gymnastics.FireflyBooks,USA.

13. SmitherGraham(1980).BehingtheScienceofGymnastics.London.

14. Singh,Hardayal.(1919).ScienceofSportsTraining.DVSPublication,N.Delhi.

15. Stickland,L.R.(2008).GenderGymnastics.TransPacificPress,Japan.

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SEMESTER- III
BSc-PE-DSE-1(4)-107: HANDBALL

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
HANDBALL	4	2	0	2	Class XII pass	Nil

Learning Objective:-The Students will acquire knowledge and understanding of a specific sport in which an individual wishes to excel.

Learning Outcome:-The student attains knowledge, understanding, interpreting and analyzing proficiency in a game of one's choice.

- i. A student will be able to gain knowledge with respect to Historical Development, Organizational Structure and Playfield Technology of a sport/game.
- 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.
- 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.
- 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.

THEORY SYLLABUS (30 HOURS)

Unit-I (08 HOURS)

- Historical Development and Modern Trends (National and International Level)
- organizational Structure (State, National and International Level)
- Introduction to Handball court

Unit-II (08 HOURS)

- Rules and their interpretation.
 - Team Composition
- Basis of Warming up and Cooling down and its effect

Unit-III (07 HOURS)

- Techniques of Coaching – Pep talk, Pre, during and Post match coaching.
- Basic skills and techniques of the skills

Drills to improve skills of Handball

Unit-IV (07 HOURS)

- Introduction to Physical Fitness components: Strength, Speed, Endurance, Coordinative Abilities and Flexibility.
- Importance of skill related components for Handball performance

PRACTICAL SYLLABUS - (60 HOURS.)

- Learning and demonstrating various skills/techniques of sports.
- Drills to improve skills of Handball

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.
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5. Phillips, B. E. (2009). Fundamental Handball. Kessinger Publishers, USA.
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9. Surhone, L. M. et al (2010). Team Handball. Betascript Publishing, USA
10. Vanaik A. (2005). Playfield Manual, Friends Publication. New Delhi
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SEMESTER- III
BSc-PE-DSE-1(4)-108: HOCKEY

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
HOCKEY	4	2	0	2	Class XII pass	Nil

Learning Objective:-The Students will acquire knowledge and understanding of a specific sport in which an individual wishes to excel.

Learning Outcome:-The student attains knowledge, understanding, interpreting and analyzing proficiency in a game of one's choice.

- i. A student will be able to gain knowledge with respect to Historical Development, Organizational Structure and Playfield Technology of a sport/game.
- 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.
- 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.
- 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.

THEORY SYLLABUS (30 HOURS)

Unit-I (08 HOURS)

- Historical Development and Modern Trends (National and International Level)
- organizational Structure (State, National and International Level)
- Introduction to Hockey Field

Unit-II (08 HOURS)

- Rules and their interpretation.
 - Team Composition
- Basis of Warming up and Cooling down and its effect

Unit-III (07 HOURS)

- Techniques of Coaching – Pep talk, Pre, during and Post match coaching.
- Basic skills and techniques of the skills

Drills to improve skills of Hockey

Unit-IV (07 HOURS)

- Introduction to Physical Fitness components: Strength, Speed, Endurance, Coordinative Abilities and Flexibility.
- Importance of skill related components for Hockey performance

PRACTICAL SYLLABUS - (60 HOURS.)

- Learning and demonstrating various skills/techniques of sports.
- Drills to improve skills of Football

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. Khe Sahitya Kendra. New Delhi.
4. Narang P (2003). Play & Learn Hockey. Khe 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. DVSP 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. VanaikA.(2017).OfficiatingandCoaching,Friends Publication.New Delhi

SEMESTER- III
BSc-PE-DSE-1(4)-109: JUDO

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
JUDO	4	2	0	2	Class XII pass	Nil

Learning Objective:-The Students will acquire knowledge and understanding of a specific sport in which an individual wishes to excel.

Learning Outcome:-The student attains knowledge, understanding, interpreting and analyzing proficiency in a game of one's choice.

- i. A student will be able to gain knowledge with respect to Historical Development, Organizational Structure and Playfield Technology of a sport/game.
- 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.
- 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.
- 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.

THEORY SYLLABUS (30 HOURS)

Unit-I (08 HOURS)

- Historical Development and Modern Trends (National and International Level)
- organizational Structure (State, National and International Level)
- Introduction to Judo Arena

Unit-II (08 HOURS)

- Rules and their interpretation
- Individual & Team Events
- Basis of Warming up and Cooling down and its effect

Unit-III (07 HOURS)

- Techniques of Coaching – Pep talk, Pre, during and Post match coaching.
- Basic skills and techniques of the skills

Drills to improve skills of Judo

Unit-IV (07 HOURS)

- Introduction to Physical Fitness components: Strength, Speed, Endurance, Coordinative Abilities and Flexibility.
- Importance of skill related components for Judo performance

PRACTICAL SYLLABUS - (60 HOURS.)

- Learning and demonstrating various skills/techniques of sports.
- Drills to improve various skills of Judo

PRACTICAL SYLLABUS - (60 HOURS.)

- 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" Humankinetics. 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.
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7. Singh, Hardayal. (1919). Science of Sports Training. DVSPublication, N. Delhi.

8. Takahashi, M. (2005). Mastering Judo. Human Kinetics, USA.

SEMESTER- III
BSc-PE-DSE-1(4)-110: KABBADI

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
KABBADI	4	2	0	2	Class XII pass	Nil

Learning Objective:-The Students will acquire knowledge and understanding of a specific sport in which an individual wishes to excel.

Learning Outcome:-The student attains knowledge, understanding, interpreting and analyzing proficiency in a game of one's choice.

- i. A student will be able to gain knowledge with respect to Historical Development, Organizational Structure and Playfield Technology of a sport/game.
- 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.
- 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.
- 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.

THEORY SYLLABUS (30 HOURS)

Unit-I (08 HOURS)

- Historical Development and Modern Trends (National and International Level)
- organizational Structure (State, National and International Level)
- Introduction to Kabbadi Court

Unit-II (08 HOURS)

- Rules and their interpretation.
- Team Composition
- Basis of Warming up and Cooling down and its effect

Unit-III (07 HOURS)

- Techniques of Coaching – Pep talk, Pre, during and Post match coaching.
- Basic skills and techniques of the skills
- Drills to improve skills of Kabbadi

Unit-IV (07 HOURS)

- Introduction to Physical Fitness components: Strength, Speed, Endurance, Coordinative Abilities and Flexibility.
- Importance of skill related components for Kabbadi performance

PRACTICAL SYLLABUS - (60 HOURS.)

- Learning and demonstrating various skills/techniques of sports.
- Drills to improve skills of Kabaddi

SUGGESTED READINGS

- Bompa O. Tudor and Halff G. Gregory. (2009) “ Periodization Theory and Methodology of Training” Humankinetics.NY.
- Kumar,Dharmander.(2018).KabaddiandIt“ sPlayingTechniques. Writers Choice, NewDelhi.
- Mishra,S.C.(2007).TeachYourselfKabaddi.SportsPublications,NewDelhi.
- RaoCV(1983).Kabaddi.NativeIndianSports.NSNIS. PatialaPublisher
- RaoEP(1994).ModernCoachinginKabaddi.D.V.S.Pub
- Singh,Hardayal.(1919).ScienceofSportsTraining.DVSPublication,N.Delhi.
- Syal,M.(2004).KabaddiTeaching.PrernaParkashan,NewDelhi.
- VanaikA.(2017).OfficiatingandCoaching,FriendsPublication.NewDelhi.

SEMESTER- III
BSc-PE-DSE-1(4)-111: KHO-KHO

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
KHO-KHO	4	2	0	2	Class XII pass	Nil

Learning Objective:-The Students will acquire knowledge and understanding of a specific sport in which an individual wishes to excel.

Learning Outcome:-The student attains knowledge, understanding, interpreting and analyzing proficiency in a game of one's choice.

- i. A student will be able to gain knowledge with respect to Historical Development, Organizational Structure and Playfield Technology of a sport/game.
- 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.
- 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.
- 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.

THEORY SYLLABUS (30 HOURS)

Unit-I (08 HOURS)

- Historical Development and Modern Trends (National and International Level)
- organizational Structure (State, National and International Level)
- Introduction to Kho-Kho Court

Unit-II (08 HOURS)

- Rules and their interpretation.

- Team Composition
 - Basis of Warming up and Cooling down and its effect

Unit-III (07 HOURS)

- Techniques of Coaching – Pep talk, Pre, during and Post match coaching.
- Basic skills and techniques of the skills
- Drills to improve skills of Kho-Kho

Unit-IV (07 HOURS)

- Introduction to Physical Fitness components: Strength, Speed, Endurance, Coordinative Abilities and Flexibility.
- Importance of skill related components for Kho-Kho performance

PRACTICAL SYLLABUS - (60 HOURS.)

- Learning and demonstrating various skills/techniques of sports.
- Drills to improve skills of Kho-Kho

SUGGESTED READINGS

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

SEMESTER- III
BSc-PE-DSE-1(4)-112: VOLLEYBALL

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
VOLLEYBALL	4	2	0	2	Class XII pass	Nil

Learning Objective:-The Students will acquire knowledge and understanding of a specific sport in which an individual wishes to excel.

Learning Outcome:-The student attains knowledge, understanding, interpreting and analyzing proficiency in a game of one's choice.

- i. A student will be able to gain knowledge with respect to Historical Development, Organizational Structure and Playfield Technology of a sport/game.
- 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.
- 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.
- 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.

THEORY SYLLABUS (30 HOURS)

Unit-I (08 HOURS)

- Historical Development and Modern Trends (National and International Level)
- organizational Structure (State, National and International Level)
- Introduction to Volley Ball Court

Unit-II (08 HOURS)

- Rules and their interpretation.

- Team Composition
 - Basis of Warming up and Cooling down and its effect

Unit-III (07 HOURS)

- Techniques of Coaching – Pep talk, Pre, during and Post match coaching.
- Basic skills and techniques of the skills
- Drills to improve skills of Volley Ball

Unit-IV (07 HOURS)

- Introduction to Physical Fitness components: Strength, Speed, Endurance, Coordinative Abilities and Flexibility.
- Importance of skill related components for Volley Ball performance

PRACTICAL SYLLABUS - (60 HOURS.)

- Learning and demonstrating various skills/techniques of sports.
- Drills to improve skills of Volley Ball

SUGGESTED READINGS

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

SEMESTER- III
BSc-PE-DSE-1(4)-113: YOGA

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
YOGA	4	2	0	2	Class XII pass	Nil

Learning Objective: -The Students will acquire knowledge and understanding of a specific sport in which an individual wish to excel.

Learning Outcome: -The student will attain knowledge, understanding, interpreting and analyzing proficiency in a game of one's choice.

- i. 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 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.
- ii. The student will learn about the prayer. The Students will develop the understanding and knowledge of Meaning, techniques, precautions & effects of the following:-Asanas : padmasana, vajrasana, sidhasana, paschimottanasa, halasana, sarvangasana, shalabhasana, ardhmatsyendrasana, bhujangasana, tadasana, vrikshasana, matsyasana, gomukhasana, ushtrasana, shavasana, makarasana, vrishchikasana, dhanurasana, purna matsyendrasana, chakrasana, ek pad sikandasana, bakasana, mayurasana, shirshasanaPranayama : anulom-vilom, bhastrika, suryabhedhen pranayama, sheetali, sheetkari, bhramari, ujjayiShatkarma : neti, dhauti, nauli, basti, kunjali, kapal bhati, shankh prakshalanaBandhas : jalandhar, uddyana, mool bandha.
- iii. The student will be able to perform Asanas, pranayama, shatkarma, bandha. The Students will gain knowledge of Disease wise treatment through yoga therapy- Asthma, high & low B.P, diabetes, obesity, heart disease, insomonia, arthritis, backache & female disease.
- iv. The student will learn Yoga-nidra/relaxation techniques 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 learn Visit to yoga centers/institutes

THEORY SYLLABUS (30 HOURS)

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, ardhmatsyendrasana, 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, kunjil, 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, insomonia, 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 SYLLABUS (60 HOURS)

1. Prayer
2. Asanas, pranayama, shatkarma, bandha (as mentioned in theory)
3. Yoga-nidra/relaxation techniques

SUGGESTED READINGS

- Anand Omprakash (2001). Yog Dawra Kaya Kalp, Kanpur. Sewasth Sahitya Perকাশan
- 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.
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- 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
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- 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
- Text Book Patanjali Yoga Sutra

DEPARTMENT OF PHYSICAL EDUCATION AND SPORTSSCIENCES
UNIVERSITY OF DELHI

B.Sc. (Hons.) (Physical Education, Health Education and Sports)

SEMESTER- IV

BSc-PE-DSC-10(4) SPORTS SOCIOLOGY

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
BSc-PE-DSC-10(4) SPORTS SOCIOLOGY	4	3	0	1	Class XII pass	Nil

Learning Objective:

To provide the knowledge and applications of Sports sociology as well as to familiarize the

learners with the concept of sociology, culture and sport, Socialization and sports, Gender and sports as well as sports education with application point of view.

Learning Outcomes :

At the end of the course the student will be able to-

- understand the meaning and its importance of sports sociology
- Understand the concept of culture and sports along with its components to deal with cultural aspects
- differentiate between gender, feminism social, cultural & economical barriers for women participation in sports.
- identify Sports as a tool for gender equality & women empowerment at present day context.
- understand the importance and applications of sports sociology.
- explain sociological perspectives with sports.
- Inculcate the sports culture in their life & society.
- Establish the relationship between society and sports.
- understand the significance of socialization through games and sports forth development of the society.

THEORY SYLLABUS (45 HOURS)

I Introduction

- 1.1 Meaning & definitions of sociology & sports sociology
- 1.2 Aim and importance of sports sociology
- 1.3 Meaning and importance of society
- 1.4 Sports as a part of society

II Culture and sports

- 2.1 Concept of culture & sports culture
- 2.2 Characteristic of sports culture
- 2.3 Functions of sports culture
- 2.4 Components of sports culture

III Socialization and sports

- 3.1 Concept of Socialization & Sports Socialization
- 3.2 Importance of sports socialization
- 3.3 Types of sports socialization
- 3.4 Agents of sports socialization

IV Gender and sports

- 4.1 Meaning of Gender and feminism
- 4.2 Social, cultural & economical barriers for women participation in sports
- 4.3 Gender discrimination and equality in sports
- 4.4 Sports as a tool for gender equality & women empowerment.

PRACTICAL SYLLABUS (30 HOURS)

1. Collect data and analysis on the status of women in sports in society/Community
2. Conduct a survey of any sports choice based on commercial growth.
3. Superstition scale collect data and write an article on at least 15 members of sports team
4. Cultural determination test (collect data and write an article on at least 10 members of sports team)

SUGGESTED READINGS

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29. Sharma, R. N, Urban Sociology, New Delhi :Surjeet Pub., 1993.
30. Shoebridge, M., Women in Sports, a selected biography, Mansell publishing Ltd. London and New York 1987
31. Singh, Bhupinder, Sports Sociology, New Delhi : Friends, 2004.
32. Singh, J.P., SamaajshastraAvdharanaayeAurSidhaant, Prentis Hall of India New Delhi 1999
33. Snyder, E.E. and Prentis Hall Jersey, Social aspect of Sport, 1978
34. Sports in Contemporary Society: An ethnology worth publications, New York-2001
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SEMESTER- IV

BSc-PE-DSC-11 (4) : BIOMECHANICS

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
BSc-PE-DSC-11 (4) : BIOMECHANICS	4	3	0	1	Class XII pass	Nil

Learning Objective:

The objective of this course is to provide an understanding with practical skills to the learners about Sports Biomechanics and its applications to sports as well as to develop the foundation of sports biomechanics for performance analysis and improvement.

Learning Outcomes:

1. The learners will be able to understand the fundamental concepts and practices related to Sports Biomechanics.
2. The learners will be able to develop an understanding for practical applications of the fundamental structure of movement with related mechanics and its principles.
3. The learners will be able to analyze the sport movements and design movement-oriented exercise for improvement of performance.
4. The learners will be able to develop the program for improving performance as an innovative approach applying biomechanics.
5. The learners will be able to apply the knowledge and skills related to science of movement to create a strong foundation for better sports performance and research.

THEORY SYLLABUS (45 HOURS)

Unit – I Introduction to Sports Biomechanics (10 Hours)

- i. Meaning and Definition of Sports Biomechanics.
- ii. Importance of Sports Biomechanics to Physical Education Teacher, Athletes and Sports Coaches.
- iii. Terminology of Fundamental Movements- Fundamental concepts of Centre of Gravity, Equilibrium, Line of Gravity

Unit – II Mechanical Concepts (10 Hours)

- i. Force - Meaning, definition, types and its application to sports activities
- ii. Lever - Meaning, definition, types and its application to human body.
- iii. Newton' s Laws of Motion – Meaning, definition and its application to sports activities (linear and angular).
- iv. Projectile – Factors influencing projectile trajectory.

Unit – III Kinematics of Human Movement (10 Hours)

- i. Linear Kinematics – Distance and Displacement, speed and velocity, Acceleration
- ii. Angular kinematics – Angular Distance and Displacement, Angular Speed and velocity, Angular Acceleration.

Unit – IV Kinetics of Human Movement And Biomechanical Principles (15 Hours)

- i. Linear Kinetics – Inertia, Mass, Momentum, Friction.
- ii. Angular Kinetics – Moment of Inertia, Couple, Stability.
- iii. The Principle of the Optimum Path of Acceleration.
- iv. The Principle of the Initial Force.
- v. The Principle of Reaction.
- vi. The Principle of Conservation of Momentum.

PRACTICALS (30 Hours)

1. Evaluation of Velocity- Time Graph.
2. Determination of Centre of Gravity by Reaction Board Method.
3. Determination of Centre of Gravity by Joint Point Method.
4. Determination of Centre of Gravity by Main Point Method.
5. Determination of Centre of Combined Gravity (Joint Point Method).
6. Demonstration of the Principle of Conservation of Angular Momentum.

7. Demonstration of the Principle of Action and Reaction.

SUGGESTED READINGS:

1. Shaw, D. (2003). Sports Biomechanics. Khel Sahitya Kendra.
2. Shaw, D. (2022). Biomechanics and Kinesiology of Human Motion. Khel Sahitya Kendra.
3. Shaw, D. (2007). Mechanical Basis of Bio-Mechanics. Sports Publication.
4. Shaw, D. (2018). Pedagogic Kinesiology. Sports Publication.
5. Shaw, D. & Kumar, G. (2022). Kinesiology of Exercises with Apparatus. Khel Sahitya Kendra.
6. Shaw, D. & Mathur, N. (2022). Kinesiology of Freehand Exercises. Sports Publication.
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8. Hay, J. G. & Reid, J. G. (1982). The Anatomical and Mechanical basis of Human Motion. Englewood Cliffs, N.J.: prentice Hall Inc.
9. Hay, J. G. & Reid, J. G. (1988). Anatomy, Mechanics and Human Motion. Englewood Cliffs, N.J.: prentice Hall Inc.
10. Hay, J. G. (1970). The Biomechanics of sports techniques. Englewood Cliffs, N.J.: Prentice Hall, Inc.
11. Simonian, C. (1911). Fundamentals of Sport Biomechanics. Englewood Cliffs, N.J.: Prentice Hall Inc.

SEMESTER- IV

BSc-PE-DSC-12 (4) : EXERCISE PRESCRIPTION FOR HEALTH AND FITNESS

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
BSc-PE-DSC-12 (4) : EXERCISE PRESCRIPTION FOR HEALTH AND FITNESS	4	3	0	1	Class XII pass	Nil

Learning Objective:

The objective of this course is to provide an understanding, skill and practices to the learners about exercise prescription for health and fitness.

Learning Outcomes:

At the end of the course the student will be able to

1. Acquire the knowledge and practices of exercise prescription on the behalf of health status.
2. Deal with differentiation and relation between exercise & physical activity.
3. Understand and demonstrate the direct and indirect health benefits of the exercise
4. Get understanding and applications of acronyms FITT (Frequency, Intensity, Time (duration), type (Mode of Exercise) (Training principles for batter training)

THEORY SYLLABUS (45 HOURS)

UNIT I - (09 Hours)

1.1 Background of exercise prescription to non-sports person, basis of exercise prescription and measurement of motivation for physical exercise/activity health status

1.2 Physical personality in relation to physique, attitude, interests.

1.3 Exercise for recreation, health, fitness, wellness and competition.

UNIT II - (09 Hours)

2.1 Meaning and definition of exercise & physical activity

2.1.1 Differences between exercise & physical activity (chronic and acute effect for adaptation)

2.1.2 Relation between exercise & physical activity

UNIT III - (09 Hours)

3.1 Health benefits of exercise, exercise as pro-active health care.

3.2 Sedentary population, Differently abled population

3.3 Exercise for prevention of heart disease, osteoporosis, diabetes type-II, hypertension, obesity etc.

3.4 Self-responsibilities and behaviour change stages for exercise regularity

UNIT IV - (09 Hours)

4.1 Necessity of exercise prescription

4.2 Steps for exercise prescription.

4.3 Exercise, stress test, physical fitness test,

4.4 Understanding acronyms FITT (Frequency, Intensity, Time (duration), Type (Mode of Exercise).

4.5 Principles of fitness training

PRACTICAL SYLLABUS (30 HOURS)

1. Assessment of Physical fitness components (At least three)

2. Assessment of physical activity readiness of a person (PAR-Q)

3. Measurement of health status (BMI, WHR, Blood Pressure, Resting heart rate, Questionnaire for acute or chronic ailments)

4. Prescribing exercise / Programme

5. Evaluation of an exercise Programme

SUGGESTED READINGS-

1. American College of Sports Medicine (2000). ACSM' s Guidelines for Exercise Testing and Prescription. Lippincott Williams & Wilkines. Philadelphia. USA.

2. Corbin C G Welk W Corbin & K Welk (2005). Concepts of Fitness and Wellness. McGraw Hill Company. New York. USA.

3. Goldberg L and DL Elliot (2002). The Power of Exercise. National Health &

Wellness Club. USA.

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5. Harrison GA, Weiner JS Tanner JM and. Barnicot NA (1984). Human Biology. Oxford University Press. Oxford. U.K.

6. Howley ET and BD Franks (2003). Health Fitness Instructors Handbook, Human Kinetics. Champaign. Illinois. USA

7. Kolecki JE and DQ Thomas (2007). Activities and Assessment Manual. Jones and Barlett Publishers. Sandburg. Massachusetts. USA.

8. Powers S and E Howley (2006). Exercise Physiology- Theory and Applications. McGraw Hill Co. New York. USA.

9. Thomas DQ and JE Kotecki (2007). Physical Activity and Health – An Interactive Approach. Jones and Bartlett Publishers. Sndbury. Masschusett. USA.

10. USDHHS (2000) Healthy People 2010: National Health Services (USDHHS). Washingtons D.C. USA.

SEMESTER- IV

BSc-PE-DSE-2 (4) : OPTIONAL GAME -II

(CHOOSE ANY ONE GAME FROM THE LIST OTHER THAN CHOSEN BEFORE IN SEM 1 AS DSC 1 AND SEM 2 AS DSC 2 AND IN SEM 3 AS DSE 3)

BSc-PE-DSE-2(4)-201 :ATHLETICS

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
BSc-PE-DSE-2(4)-201 ATHLETICS	4	2	0	2	Class XII pass	Nil

Learning Objective:-The Students will acquire knowledge and understanding of a specific sport in which an individual wishes to excel.

Learning Outcome:-The student will attain knowledge, understanding, interpreting and analyzing proficiency in a game of one' s choice.

5. The student will be able to gain knowledge with respect to Historical Development, Organizational Structure and Playfield Technology of the respective sport/game.

6. 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.

7. 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.

8. 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.

THEORY SYLLABUS (30 HOURS)

Unit-I (07 HOURS)

- Historical Development and Modern Trends (National and International Level)
- Organizational Structure (State, National and International Level)

Unit-II (08 HOURS)

- Rules related to various Track & field events

Basis of Warming up and Cooling down and its effect..

- Techniques of Coaching – Peptalk, Pre, during and Post match competition Coaching.

Unit-III (08 HOURS)

- Basic skills and techniques various Track & field events : sprint races, middle and long distance races, hurdles races, jumping event-long jump, throwing events-shot put, hammer throw.

Unit-IV (07 HOURS)

- Introduction to Physical Fitness components related various Track & field events
- Track marking and marking of different arenas for selected events mentioned in unit-III.

PRACTICAL- (60 HOURS)

3. Learning and demonstrating various skills/techniques of sprint races, middle and long distance races, hurdles races, jumping event-long jump & High Jump, throwing events-shot put & Discus .

4. Track marking and marking of different arenas for selected events in unit-III.

SUGGESTED READINGS:

- Chauhan VS (1999). *Khel Jagat Mein Athletics*. A.P. Pub, Jalandhar.
- Bompa O. Tudor and Halff G. Gregory. (2009) "Periodization Theory and Methodology of Training" *Humankinetics*. NY.
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- Maughan,R. and Gluson, M.(2004).The Biomechanical Basics of Athletic Performance.OxfordUniversityPress,U.K.
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- Singh,Hardayal.(1919).ScienceofSportsTraining.DVSPublication,N.Delhi.
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SEMESTER- IV
BSc-PE-DSE-2 (4)-202 : BADMINTON

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
BSc-PE-DSE-2 (4)-202 : BADMINTON	4	2	0	2	Class XII pass	Nil

Learning Objective:-The Students will acquire knowledge and understanding of a specific sport in which an individual wishes to excel.

Learning Outcome:-The student attains knowledge, understanding, interpreting and analyzing proficiency in a game of one's choice.

- v. A student will be able to gain knowledge with respect to Historical Development,

Organizational Structure and Playfield Technology of a sport/game.

- vi. 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.
- vii. 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.
- viii. 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.

THEORY SYLLABUS (30 HOURS)

Unit-I (08 HOURS)

- Historical Development and Modern Trends (National and International Level)
- organizational Structure (State, National and International Level)
- Introduction to Badminton Court

Unit-II (08 HOURS)

- Rules and their interpretation.
- Basis of Warming up and Cooling down and its effect.

Unit-III (07 HOURS)

- Techniques of Coaching – Pep talk, Pre, during and Post match coaching.
- Basic skills and techniques of the skills

Drills to improve skills of Badminton

Unit-IV (07 HOURS)

- Introduction to Physical Fitness components: Strength, Speed, Endurance, Coordinative Abilities and Flexibility.
- Importance of skill related components for Badminton performance

PRACTICAL SYLLABUS - (60 HOURS.)

- Learning and demonstrating various skills/techniques of sports.
- Drills to improve skills of Badminton

SUGGESTED READINGS:

14. Bloss, M.V. et al (2000). Badminton. McGraw Hill, USA.
15. Bompa O Tudor and Halff G. Gregory. (2009)
“ Periodization Theory and Methodology of Training” Human Kinetics. NY.
16. Brahm s Bernd-Voler. (2010). Badmnton Handbook. Mayer & Mayer Sports: UK. Unt-II, III & I
V-p-9-14.
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t-II p-1-28 III-p-29-88, 109-152 & IV-p-97-108
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20. Grice, T. (2007). Badminton: Steps to Success. 2nd Ed. Human Kinetics, USA.
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26. Vanaik A. (2017). Officiating and Coaching, Friends Publication. New Delhi.

SEMESTER- IV
BSc-PE-DSE-2(4)-203 : BASKETBALL

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
BASKETBALL	4	2	0	2	Class XII pass	Nil

Learning Objective:-The Students will acquire knowledge and understanding of a specific sport in which an individual wishes to excel.

Learning Outcome:-The student attains knowledge, understanding, interpreting and analyzing proficiency in a game of one's choice.

v. A student will be able to gain knowledge with respect to Historical Development, Organizational Structure and Playfield Technology of a sport/game.

vi. 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.

vii. 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.

viii. 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.

THEORY SYLLABUS (30 HOURS)

Unit-I (08 HOURS)

- Historical Development and Modern Trends (National and International Level)
- organizational Structure (State, National and International Level)
- Introduction to Basketball Court

Unit-II (08 HOURS)

- Rules and their interpretation
 - Team Composition
- Basis of Warming up and Cooling down and its effect.

Unit-III (07 HOURS)

- Techniques of Coaching – Pep talk, Pre, during and Post match coaching.
- Basic skills and techniques of the skills

Drills to improve skills of Basketball

Unit-IV (07 HOURS)

- Introduction to Physical Fitness components: Strength, Speed, Endurance, Coordinative Abilities and Flexibility.
- Importance of skill related components for Basketball performance

PRACTICAL SYLLABUS - (60 HOURS.)

- Learning and demonstrating various skills/techniques of sports.
- Drills to improve skills of Basketball

SUGGESTED READINGS

- Bompa O. Tudor and Halff G. Gregory. (2009) “ Periodization Theory and Methodology of Training” Humankinetics.NY.
- Drewett,J.(2007).How to Improve at Basketball.Crabtree Publishing Co.,USA.
- Goldstein,S.(1998).Basketball Fundamentals.2ndEd.Golden Aura Publishing,USA.
- Jain Naveen(2003).Play and Learn Basketball.Khel Sahitya Kendra.New Delhi.
- NatBB(1997).Conditioning Coaches Association.NBA Power Conditioning.Human Kinetics.
- Sharma OP(2003).Basket Ball Skills and Rules.Khel Sahitya Kendra,Delhi.
- Singh,Hardayal.(1919).Science of Sports Training.DVSPublication,N.Delhi.
- Wilmore&Costill(2004).Physiology of Sports&Exercise.Human Kinetics,US

SEMESTER- IV
BSc-PE-DSE-2(4)-204 : CRICKET

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
CRICKET	4	2	0	2	Class XII pass	Nil

Learning Objective:-The Students will acquire knowledge and understanding of a specific sport in which an individual wishes to excel.

Learning Outcome:-The student attains knowledge, understanding, interpreting and analyzing proficiency in a game of one's choice.

v. A student will be able to gain knowledge with respect to Historical Development, Organizational Structure and Playfield Technology of a sport/game.

vi. 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.

vii. 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.

viii. 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.

THEORY SYLLABUS (30 HOURS)

Unit-I (08 HOURS)

- Historical Development and Modern Trends (National and International Level)
- organizational Structure (State, National and International Level)
- Introduction to Cricket ground

Unit-II (08 HOURS)

- Rules and their interpretation
 - Team Composition
- Basis of Warming up and Cooling down and its effect.

Unit-III (07 HOURS)

- Techniques of Coaching – Pep talk, Pre, during and Post match coaching.
 - Basic skills and techniques of the skills
- Drills to improve skills of Cricket

Unit-IV (07 HOURS)

- Introduction to Physical Fitness components: Strength, Speed, Endurance, Coordinative Abilities and Flexibility.
- Importance of skill related components for Cricket performance

PRACTICAL SYLLABUS - (60 HOURS.)

- Learning and demonstrating various skills/techniques of sports.
- Drills to improve skills of Cricket

SUGGESTED READINGS

12. Amarnath M. (1996). *Learnto Play Good Cricket*. UBSPublishers. New Delhi.
13. Bompa O. Tudor and Halff G. Gregory. (2009)
“ Periodization Theory and Methodology of Training” Humankinetics. NY.
14. Boycott, G. (2010). *Play Cricket the Right Way*. Great Northern Books Limited, U.K.
15. Cricket (2008). *Sports Skills: Cricket Fielding (Know the Game)*. A&C Black Publishers.
16. Gupta, K. (2006). *How to Play Cricket*. Goodwill Publishing House, New Delhi.
17. Hobbs, J. (2008). *The Game of Cricket As it should be played*. Jepson Press, USA.
18. Jain R. (2003). *Fielding Drills in Cricket*. Khel Sahitya Kendra. New Delhi.
19. Rachna (2002). *Coaching Successfully: Cricket*. Khel Sahitya Kendra. New Delhi.
20. Singh, Hardayal. (1919). *Science of Sports Training*. DVSPublication, N. Delhi.
21. Sharma P. (2003). *Cricket*. Shyam Parkashan. Jaipur.
22. Vanaika. (2017). *Officiating and Coaching*, Friends Publication. New Delhi

Semester-IV

BSc-PE-DSE-2(4)-205: FOOTBALL

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
FOOTBALL	4	2	0	2	Class XII pass	Nil

Learning Objective:-The Students will acquire knowledge and understanding of a specific sport in which an individual wishes to excel.

Learning Outcome:-The student attains knowledge, understanding, interpreting and analyzing proficiency in a game of one's choice.

v. A student will be able to gain knowledge with respect to Historical Development, Organizational Structure and Playfield Technology of a sport/game.

vi. 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.

vii. 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.

viii. 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.

THEORY SYLLABUS (30 HOURS)

Unit-I (08 HOURS)

- Historical Development and Modern Trends (National and International Level)
- organizational Structure (State, National and International Level)
- Introduction to Football Field

Unit-II (08 HOURS)

- Rules and their interpretation.
 - Team Composition

- Basis of Warming up and Cooling down and its effect

Unit-III (07 HOURS)

- Techniques of Coaching – Pep talk, Pre, during and Post match coaching.
- Basic skills and techniques of the skills

Drills to improve skills of Football

Unit-IV (07 HOURS)

- Introduction to Physical Fitness components: Strength, Speed, Endurance, Coordinative Abilities and Flexibility.
- Importance of skill related components for Football performance

PRACTICAL SYLLABUS - (60 HOURS.)

- Learning and demonstrating various skills/techniques of sports.
- Drills to improve skills of Football

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 Czarniecki, 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

SEMESTER- IV
BSc-PE-DSE-2(4)-206: GYMNASTICS

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
GYMNASTICS	4	2	0	2	Class XII pass	Nil

Learning Objective:-The Students will acquire knowledge and understanding of a specific sport in which an individual wishes to excel.

Learning Outcome:-The student attains knowledge, understanding, interpreting and analyzing proficiency in a game of one's choice.

v. A student will be able to gain knowledge with respect to Historical Development, Organizational Structure and Playfield Technology of a sport/game.

vi. 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.

vii. 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.

viii. 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.

THEORY SYLLABUS (30 HOURS)

Unit-I (08 HOURS)

- Historical Development and Modern Trends (National and International Level)
- organizational Structure (State, National and International Level)
- Introduction to Gymnastic Arena

Unit-II (08 HOURS)

- Rules and their interpretation: Introduction to various events : Team & Individual Events
 - Team Composition
- Basis of Warming up and Cooling down and its effect

Unit-III (07 HOURS)

- Techniques of Coaching – Pep talk, Pre, during and Post match coaching.
- Basic skills and techniques of the skills
 - Drills to improve skills of various events

Unit-IV (07 HOURS)

- Introduction to Physical Fitness components: Strength, Speed, Endurance, Coordinative Abilities and Flexibility.
- Importance of skill related components for Gymnastics performance

PRACTICAL SYLLABUS - (60 HOURS.)

- Learning and demonstrating various skills/techniques of sports.
- Drills to improve various Gymnastics skills

SUGGESTED READINGS

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21. Chakraborty S(1998).Women's Gymnastics.Friends Pub.Delhi.
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24. Harvey FJ (1998).Physical Exercises & Gymnastics.Khel Sahitya.New Delhi.
25. Jain R(2005).Play and Learn Gymnastics.Khel Sahitaya Kendra
26. Mitchell,D.,Davis, B.and Lopez,R.(2002). Teaching Fundamental Gymnastics Skills.Human Kinetics, USA.
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Gymnastics. 2ndEd.Sportsworkout.com.

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Gymnastics.FireflyBooks,USA.

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30. Singh,Hardayal.(1919).ScienceofSportsTraining.DVSPublication,N.Delhi.

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32. VanaikA.(2017).OfficiatingandCoaching,FriendsPublication.NewDelhi

SEMESTER- IV
BSc-PE-DSE-2(4)-207: HANDBALL

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
HANDBALL	4	2	0	2	Class XII pass	Nil

Learning Objective:-The Students will acquire knowledge and understanding of a specific sport in which an individual wishes to excel.

Learning Outcome:-The student attains knowledge, understanding, interpreting and analyzing proficiency in a game of one's choice.

- v. A student will be able to gain knowledge with respect to Historical Development, Organizational Structure and Playfield Technology of a sport/game.
- vi. 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.
- vii. 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.
- viii. 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.

THEORY SYLLABUS (30 HOURS)

Unit-I (08 HOURS)

- Historical Development and Modern Trends (National and International Level)
- organizational Structure (State, National and International Level)
- Introduction to Handball court

Unit-II (08 HOURS)

- Rules and their interpretation.
 - Team Composition
- Basis of Warming up and Cooling down and its effect

Unit-III (07 HOURS)

- Techniques of Coaching – Pep talk, Pre, during and Post match coaching.
- Basic skills and techniques of the skills

Drills to improve skills of Handball

Unit-IV (07 HOURS)

- Introduction to Physical Fitness components: Strength, Speed, Endurance, Coordinative Abilities and Flexibility.
- Importance of skill related components for Handball performance

PRACTICAL SYLLABUS - (60 HOURS.)

- Learning and demonstrating various skills/techniques of sports.
- Drills to improve skills of Handball

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.
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6. Schmottlach N
McManama J (1997). Physical Education Handbook. 9th Edition. Allyn & Bacon. London.
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8. Singh, Hardayal. (1919). Science of Sports Training. DVSP 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

SEMESTER- IV
BSc-PE-DSE-2(4)-208: HOCKEY

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
HOCKEY	4	2	0	2	Class XII pass	Nil

Learning Objective:-The Students will acquire knowledge and understanding of a specific sport in which an individual wishes to excel.

Learning Outcome:-The student attains knowledge, understanding, interpreting and analyzing proficiency in a game of one's choice.

v. A student will be able to gain knowledge with respect to Historical Development, Organizational Structure and Playfield Technology of a sport/game.

vi. 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.

vii. 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.

viii. 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.

THEORY SYLLABUS (30 HOURS)

Unit-I (08 HOURS)

- Historical Development and Modern Trends (National and International Level)
- organizational Structure (State, National and International Level)
- Introduction to Hockey Field

Unit-II (08 HOURS)

- Rules and their interpretation.
 - Team Composition
- Basis of Warming up and Cooling down and its effect

Unit-III (07 HOURS)

- Techniques of Coaching – Pep talk, Pre, during and Post match coaching.
- Basic skills and techniques of the skills

Drills to improve skills of Hockey

Unit-IV (07 HOURS)

- Introduction to Physical Fitness components: Strength, Speed, Endurance, Coordinative Abilities and Flexibility.
- Importance of skill related components for Hockey performance

PRACTICAL SYLLABUS - (60 HOURS.)

- Learning and demonstrating various skills/techniques of sports.
- Drills to improve skills of Football

SUGGESTED READINGS

13. Bompa O. Tudor and Halff G. Gregory. (2009)
“ Periodization Theory and Methodology of Training” Human Kinetics. NY.
14. International Hockey Federation, Rules of the Game of Hockey with
Guidance for Players and Umpires. International Hockey Federation.
15. Jain D (2003). Hockey Skills & Rules. Khe Sahitya Kendra. New Delhi.
16. Narang P (2003). Play & Learn Hockey. Khe Sahitya Kendra. New Delhi.
17. Pecknold, R. and Foeste, A. (2009). Hockey: Essential Skills. McGraw Hills, USA.
18. Rossiter, S. (2003). Hockey the NHL Way : Goaltending
Illustrated Edition. Sterling Publishers, USA.
19. Singh, Hardayal. (1919). Science of Sports Training. DVSP Publication, N. Delhi.
20. Walter, R. and Johnson, M. (2009). Hockey Plays and Strategies. Human Kinetics, USA.
21. Weekes, D. (2003). The Biggest Book of Hockey Trivia. Greystone Books, USA.
22. Wukovits, J. F. (2000). History of Hockey 1st Ed. Lucent Books, USA.
23. Vanaik A. (2005). Playfield Manual, Friends Publication. New Delhi

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SEMESTER- IV
BSc-PE-DSE-2(4)-209: JUDO

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
JUDO	4	2	0	2	Class XII pass	Nil

Learning Objective:-The Students will acquire knowledge and understanding of a specific sport in which an individual wishes to excel.

Learning Outcome:-The student attains knowledge, understanding, interpreting and analyzing proficiency in a game of one's choice.

v. A student will be able to gain knowledge with respect to Historical Development, Organizational Structure and Playfield Technology of a sport/game.

vi. 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.

vii. 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.

viii. 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.

THEORY SYLLABUS (30 HOURS)

Unit-I (08 HOURS)

- Historical Development and Modern Trends (National and International Level)
- organizational Structure (State, National and International Level)
- Introduction to Judo Arena

Unit-II (08 HOURS)

- Rules and their interpretation
- Individual & Team Events
- Basis of Warming up and Cooling down and its effect

Unit-III (07 HOURS)

- Techniques of Coaching – Pep talk, Pre, during and Post match coaching.
- Basic skills and techniques of the skills

Drills to improve skills of Judo

Unit-IV (07 HOURS)

- Introduction to Physical Fitness components: Strength, Speed, Endurance, Coordinative Abilities and Flexibility.
- Importance of skill related components for Judo performance

PRACTICAL SYLLABUS - (60 HOURS.)

- Learning and demonstrating various skills/techniques of sports.
- Drills to improve various skills of Judo

PRACTICAL SYLLABUS - (60 HOURS.)

- 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

9. Bompa O. Tudor and Halff G. Gregory. (2009) "Periodization Theory and Methodology of Training" Humankinetics. NY.
10. Diago, T. (2005). Kodokan Judo Throwing Techniques. Kodansha International Publishers, Japan.
11. Harrison EJ (2002). Coaching Successfully Judo. Sports. Delhi.
12. Jain D (2003). Play and Learn Judo. Khel Sahitaya Kendra. New Delhi.
13. Law, M. (2009). Falling Hard: A Journey into the World of Judo. Trumpeter Publisher, Japan.
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16. Takahashi, M. (2005). *Mastering Judo*. Human Kinetics, USA.

SEMESTER- IV
BSc-PE-DSE-2(4)-210: KABBADI

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
KABBADI	4	2	0	2	Class XII pass	Nil

Learning Objective:-The Students will acquire knowledge and understanding of a specific sport in which an individual wishes to excel.

Learning Outcome:-The student attains knowledge, understanding, interpreting and analyzing proficiency in a game of one's choice.

v. A student will be able to gain knowledge with respect to Historical Development, Organizational Structure and Playfield Technology of a sport/game.

vi. 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.

vii. 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.

viii. 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.

THEORY SYLLABUS (30 HOURS)

Unit-I (08 HOURS)

- Historical Development and Modern Trends (National and International Level)
- organizational Structure (State, National and International Level)
- Introduction to Kabbadi Court

Unit-II (08 HOURS)

- Rules and their interpretation.
- Team Composition
- Basis of Warming up and Cooling down and its effect

Unit-III (07 HOURS)

- Techniques of Coaching – Pep talk, Pre, during and Post match coaching.
- Basic skills and techniques of the skills
- Drills to improve skills of Kabbadi

Unit-IV (07 HOURS)

- Introduction to Physical Fitness components: Strength, Speed, Endurance, Coordinative Abilities and Flexibility.
- Importance of skill related components for Kabbadi performance

PRACTICAL SYLLABUS - (60 HOURS.)

- Learning and demonstrating various skills/techniques of sports.
- Drills to improve skills of Kabaddi

SUGGESTED READINGS

- Bompa O. Tudor and Halff G. Gregory. (2009) “ Periodization Theory and Methodology of Training” Humankinetics.NY.
- Kumar,Dharmander.(2018).KabaddiandIt’sPlayingTechniques. Writers Choice, New Delhi.
- Mishra,S.C.(2007).TeachYourselfKabaddi.SportsPublications,New Delhi.
- RaoCV(1983).Kabaddi.NativeIndianSports.NSNIS. PatialaPublisher
- RaoEP(1994).ModernCoachinginKabaddi.D.V.S.Pub
- Singh,Hardayal.(1919).ScienceofSportsTraining.DVSPublication,N.Delhi.
- Syal,M.(2004).KabaddiTeaching.PrernaParkashan,New Delhi.
- VanaikA.(2017).OfficiatingandCoaching,FriendsPublication.New Delhi.

SEMESTER- IV
BSc-PE-DSE-2(4)-211: KHO-KHO

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
KHO-KHO	4	2	0	2	Class XII pass	Nil

Learning Objective:-The Students will acquire knowledge and understanding of a specific sport in which an individual wishes to excel.

Learning Outcome:-The student attains knowledge, understanding, interpreting and analyzing proficiency in a game of one's choice.

v. A student will be able to gain knowledge with respect to Historical Development, Organizational Structure and Playfield Technology of a sport/game.

vi. 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.

vii. 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.

viii. 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.

THEORY SYLLABUS (30 HOURS)

Unit-I (08 HOURS)

- Historical Development and Modern Trends (National and International Level)
- organizational Structure (State, National and International Level)
- Introduction to Kho-Kho Court

Unit-II (08 HOURS)

- Rules and their interpretation.

- Team Composition
 - Basis of Warming up and Cooling down and its effect

Unit-III (07 HOURS)

- Techniques of Coaching – Pep talk, Pre, during and Post match coaching.
- Basic skills and techniques of the skills
- Drills to improve skills of Kho-Kho

Unit-IV (07 HOURS)

- Introduction to Physical Fitness components: Strength, Speed, Endurance, Coordinative Abilities and Flexibility.
- Importance of skill related components for Kho-Kho performance

PRACTICAL SYLLABUS - (60 HOURS.)

- Learning and demonstrating various skills/techniques of sports.
- Drills to improve skills of Kho-Kho

SUGGESTED READINGS

7. Bompa O. Tudor and Halff G. Gregory. (2009) "Periodization Theory and Methodology of Training" Humankinetics. NY.
8. Chakrabarty G (2002). Kho-Kho Aveloken. Khe Sahitya Kendra. Delhi.
9. Panday L (1982). Kho-Kho Sarvaswa. Metropolitan. New Delhi
10. Singh, Hardayal. (1919). Science of Sports Training. DVSPublication, N. Delhi.
11. Vanaik A. (2005). Playfield Manual, Friends Publication. New Delhi
12. Vanaik A. (2017). Officiating and Coaching, Friends Publication. New Delhi

SEMESTER- IV
BSc-PE-DSE-2(4)-212: VOLLEYBALL

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
VOLLEYBALL	4	2	0	2	Class XII pass	Nil

Learning Objective:-The Students will acquire knowledge and understanding of a specific sport in which an individual wishes to excel.

Learning Outcome:-The student attains knowledge, understanding, interpreting and analyzing proficiency in a game of one's choice.

v. A student will be able to gain knowledge with respect to Historical Development, Organizational Structure and Playfield Technology of a sport/game.

vi. 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.

vii. 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.

viii. 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.

THEORY SYLLABUS (30 HOURS)

Unit-I (08 HOURS)

- Historical Development and Modern Trends (National and International Level)
- organizational Structure (State, National and International Level)
- Introduction to Volley Ball Court

Unit-II (08 HOURS)

- Rules and their interpretation.

- Team Composition
 - Basis of Warming up and Cooling down and its effect

Unit-III (07 HOURS)

- Techniques of Coaching – Pep talk, Pre, during and Post match coaching.
- Basic skills and techniques of the skills
- Drills to improve skills of Volley Ball

Unit-IV (07 HOURS)

- Introduction to Physical Fitness components: Strength, Speed, Endurance, Coordinative Abilities and Flexibility.
- Importance of skill related components for Volley Ball performance

PRACTICAL SYLLABUS - (60 HOURS.)

- Learning and demonstrating various skills/techniques of sports.
- Drills to improve skills of Volley Ball

SUGGESTED READINGS

- American Volleyball Coaches Association (2005). Volleyball : Skills & Drills. Human Kinetics, USA.
- Bompa O. Tudor and Halff G. Gregory. (2009) " Periodization Theory and Methodology of Training" Human Kinetics. NY.
- FIVB (1996). Backcourt Spiking in Modern Volley Ball. FIVB. Chennai.
- Kenny, B. and Gregory, C. (2006). Volleyball: Steps to Success. Human Kinetics, USA.
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- Scates AE (1993). Winning Volley Ball. WCB Brown. USA.
- Scates, A. and Linn, M. (2002). Complete Conditioning for Volleyball. Human Kinetics, USA.
- Shondell, D. and Reynaud, C. (2002). The Volleyball Coaching Bible. Human Kinetics, USA.
- Singh, Hardayal. (1919). Science of Sports Training. DVSPublication, N. Delhi.
- The National Alliance for Youth Sports (2009). Coaching Volleyball. For Dummies Publishers, USA.
- Volleyball, USA (2009). Volleyball: Systems and Strategies. Human Kinetics, USA.
- Vanaik A. (2017). Officiating and Coaching, Friends Publication. New Delhi

SEMESTER- IV
BSc-PE-DSE-2(4)-213: YOGA

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
YOGA	4	2	0	2	Class XII pass	Nil

Learning Objective: -The Students will acquire knowledge and understanding of a specific sport in which an individual wish to excel.

Learning Outcome: -The student will attain knowledge, understanding, interpreting and analyzing proficiency in a game of one's choice.

- v. 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 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.
- vi. The student will learn about the prayer. The Students will develop the understanding and knowledge of Meaning, techniques, precautions & effects of the following:-Asanas : padmasana, vajrasana, sidhasana, paschimottanasa, halasana, sarvangasana, shalabhasana, ardhmatsyendrasana, 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, kunjali, kapal bhati, shankh prakshalana
Bandhas : jalandhar, uddyana, mool bandha.
- vii. The student will be able to perform Asanas, pranayama, shatkarma, bandha. The Students will gain knowledge of Disease wise treatment through yoga therapy- Asthma, high & low B.P, diabetes, obesity, heart disease, insomonia, arthritis, backache & female disease.
- viii. The student will learn Yoga-nidra/relaxation techniques 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 learn Visit to yoga

centers/institutes

THEORY SYLLABUS (30 HOURS)

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, ardhmatsyendrasana, 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, kunjil, 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, insomonia, 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 SYLLABUS (60 HOURS)

1. Prayer
2. Asanas, pranayama, shatkarma, bandha (as mentioned in theory)
3. Yoga-nidra/relaxation techniques

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.
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- 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.
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- Sarin N (2003). Yoga Dawara Rogoon Ka Upchhar. Khel Sahitya Kendra
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- 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