

**CURRICULUM FOR  
THREE YEAR B.SC. (HONOURS) PROGRAMME  
IN PHYSICAL EDUCATION: CBCS  
2020-2021**



**DEPARTMENT OF PHYSICAL EDUCATION AND SPORT SCIENCE  
VINAYA BHAVANA, VISVA-BHARATI**

**Department of Physical Education and Sport Science  
Vinaya Bhavana (Institute to Education)  
Visva-Bharati, Santiniketan. (WB).**

**Course of Study**

**B.Sc. Honours in Physical Education  
Choice Based Credit System  
(CBCS)**

**Name of the Course: B.Sc. Honours  
Honours Subject: Physical Education  
Duration: Three- year (Six Semesters)**

## **OBJECTIVES OF THE COURSE**

In this era of rapid changes in the domain of knowledge, the main objective of B.Sc. (H) in Physical Education is to prepare graduates having deep conceptual understanding and knowledge of the subject as well as the ability to analyze in a given situations and draw out conclusion. The primary aim of the programme is to produce broad base graduates able to face the challenges of this globalized world through creativity, critical thinking and life skills.

The unique morphology of physical education - the constellation of natural sciences and social sciences - provides the multidisciplinary nature of the subject that caters to the modern day necessity in education system. This multidisciplinary knowledge of the subject helps students:

- To understand the basic knowledge of different fields of study in Physical Education.
- To be empowered to establish and develop a viable and forceful line between concepts, theories and practice in the field of Physical Education and Sport Science.
- To develop the ability to choose their learning trajectories and programmes, and thereby choose their own paths in life according to their talents and interests.
- To ensure the unity and integrity of all knowledge across the natural sciences, social sciences and sports.
- To develop good human beings capable of rational thought and action, possessing compassion and empathy, courage and resilience, scientific temper and creative imagination, with sound ethical values.

## **ORDINANCE**

### **Name of the Course: B.Sc. (Honours) in Physical Education**

1. Name of the Course: B.Sc. (Honors) in Physical Education.
2. There will be a course of studies for the Bachelor Degree Honours in Physical Education [B.Sc. (Honours)] in the Department of Physical Education and Sport Science under Vinaya-Bhavana (Institute of Education), Visva-Bharati. The duration of the course will be three years consisting of six semesters.
3. The nature of the course will be three-year Bachelor of Science with Honours in Physical Education at par with other undergraduate courses.
4. The eligibility criteria for admission to B.Sc. (Honours) course shall be Higher Secondary Certificate of 12 years schooling or its equivalent with at least 50% marks in aggregate or at par with the rules of the UGC and Visva-Bharati from time to time. The age of the candidates shall be not more than 21 year.
5. The system called the 'Choice Based Credit System and Semester' accommodates the undergraduate course having six semesters in three years. Usually, the 1<sup>st</sup>, 3<sup>rd</sup> & 5<sup>th</sup> semesters shall run in the first half of the academic year and 2<sup>nd</sup>, 4<sup>th</sup> & 6<sup>th</sup> shall run in the second half of the same academic year.
6. The course of study will be comprised of the following:
  - i. Core courses
  - ii. Ability Enhancement compulsory courses
  - iii. Skill Enhancement Courses
  - iv. Discipline Specific Elective Courses
  - v. Generic Elective Courses

7. There shall be total of 140 Credits distributed in the six semesters as following

Semester	I	II	III	IV	V	VI
Credit	20	20	26	26	24	24

8. The medium of instruction shall be English. However, the medium of examination may be English/Bengali.
9. Candidates for the B.Sc. (Hons) in Physical Education degree shall have to pass all the courses of studies.
10. Semester terminal examinations for Semester-I, III & V will ordinarily be held in the month of December while that for Semester- II, IV & VI will ordinarily be held in the month of April-May in every academic year.
11. The duration for semester terminal examinations of different courses will be as follows:
- Theory Core Courses of 75 marks will be of 3 hours duration.
  - Practical Core Courses of 75 marks will be of 6 hours duration
  - Theory of Ability Enhancement Compulsory Courses of 25 marks will be of 2 hours duration.
  - Practical of Skill Enhancement Courses of 75 marks will be of 6 hours duration.
  - Theory of Discipline Specific Elective Courses of 75 marks will be of 3 hours duration.
  - Practical of Discipline Specific Elective Courses of 75 marks will be of 6 hours duration.
  - Theory of Generic Elective Courses of 50 marks will be of 3 hours duration
  - Practical of Generic Elective Courses of 25 marks will be 3 hours duration.
12. One credit indicates One-hour lecture or Two hours practical per week.
13. The pass marks for both Theory and Practical papers/courses in honours and subsidiary will be 33% of the total marks of each paper/course. Candidates who fail to secure pass marks in any course/paper of any even/odd Semester will be declared as failed in that particular paper/course. A candidate may appear as Back candidate in that course/paper and he/she shall have two consecutive chances to clear a course/paper of any Semester Examination including the first chance and they will be allowed to avail these chances only with the odd and even Semesters as the case may be. Ordinarily there will be no special chance. Chances will be counted from the year of admission at the B.Sc. (Honours) course.
14. In each theory and practical course/paper, 20% of the total marks will be earmarked for Continuous Evaluation.
15. For continuous evaluation there should be a minimum of two tests and a combination of at least two forms of tests per paper/course from among the following:
- (a)Tutorials (b) Short Class Tests (Objective and /or Essay type) (c)Assignment (d) Term Papers (e) Viva-voce (f) Seminars (g) Seminar Readings
16. The tests should be spread through out the Semester. At least 50% of the weightage should be given to the written forms of tests.
17. In case of a candidate who fails to appear in the terminal examination of a given Semester but appears in continuous evaluation of the courses/ papers, his/ her marks of continuous evaluation will remain valid during his/ her next chances. But if a candidate remains absent or scores low or nil marks, he/ she, even in continuous evaluation, will not be permitted to reappear for continuous evaluation after the Semester is over.

18. In the Choice Based Credit System (CBCS), the Grade and Grade Points (P) earned by a candidate on the basis of his/her performance in the Semester Examination shall be as follows:

Marks obtained %	Grade	Point (P)	Remarks
96 to 100	O	10:00	Out
90 to 95	S	9:00	Standing
80 to 89	A++	8.00	Excellent
70 to 79	A+	7.00	Distinction
60 to 69	A	6.00	Very Good
55 to 59	B+	5.50	Good
50 to 54	B	5.00	Satisfactory
40 to 49	C	4.00	Average
Below 40	F	0.00	Below Average Failed

19. The results of a candidate will indicate the Grade Point Average (GPA) earned by a candidate in a Semester Examination and the Cumulative Grade Point Average (CGPA) of all subsequent Semesters on a 10-point scale in which

$$\text{Grade Point} = \text{Credit} \times \text{Point} = C \times P$$

$$\text{GPA} = \frac{\sum C \times P}{\sum C} = (\text{Sum of Grade Points}) \div (\text{Total Credit})$$

The CGPA of Semester Examinations is computed as follows:

$$\text{CGPA} = \frac{\sum \text{Grade Points of Semesters}}{\sum \text{Credits}} = \frac{\sum (\text{Grade Points of Semesters})}{\sum (\text{Credit Points of Semesters})}$$

On the basis of CGPA, Final Grade in the Semester Examination shall be as follows:

Grade Point	Letter Grade
10	O
9	S
8	A++
7	A+
6	A
5.5	B+
5	B
4	C
0	F

20. If a candidate drops a semester for exigencies beyond his/her control or, otherwise, will be allowed to repeat the semester in the next available semesters.
21. The mark sheet of a candidate should reflect the title of each course/paper, marks obtained in the course/paper and equivalent grade point.

22. Paper setting in all courses shall be done both by Internal and External Examiners on the recommendations of the Board of Studies (B.O.S) in Physical Education and Sport Science.
23. A Board of Moderators consisting of Internal Teachers and External Experts as recommended by B.O.S in Physical Education and Sport Science will moderate the question papers for the semester terminal theory examinations.
24. Ordinarily 50% of the Question Papers of theory courses/papers in each semester will be set by the External examiners.
25. The evaluation of Answer Scripts (Theory papers) will be done internally. Continuous internal assessment is to be made on 20% marks in each course/paper.
26. All practical courses will be assessed by external examiner except the Generic Elective practical which will be assessed internally.
27. There will be provision for Review System and the evaluation will be done internally. The BOS will recommend the names of three members consisting the HOD and other two members (excluding the first examiner) for evaluation of Review Examinations. There will be no scrutiny system.
28. If an examiner fails to turn up for practical examination, Head, Department of Physical Education and Sport Science, or his nominee may act as an examiner with intimation to the Jt. Registrar (Examinations), Visva-Bharati.
29. The other relevant clauses mentioned in **"The Ordinance for the Semester System of Undergraduate Courses of the Visva-Bharati under Choice Based Credit System"** that are not covered in this ordinance, shall be applicable.

**SYLLABUS  
B.SC. (HONOURS) PHYSICAL EDUCATION  
CBCS SYSTEM**

**SEMESTER-WISE DISTRIBUTION OF COURSES, MARKS AND CREDIT  
STRUCTURE**

**SEMESTER-I**

Course Code	Course Title	Marks		Credit		Total Credit	No of lectures/ week
		Theory (External + Internal)	Practical/Tutorial (External + Internal)	Theory	Practical/Tutorial		
CC-1	Foundations of Physical Education and Sports Science	75 (60+15)		6		6	6
CC-2	Fundamental Exercises, Formal Activities & Rhythmic		75 (60+15)		6	6	12
AECC-I	English / Modern Indian Languages	25		2		2	2
	Tagore studies	50		4			4
GE-I	Physical Education: History and New Horizon	75 (60+15)		6		6	6
					TOTAL= 20		30

**SEMESTER-II**

Course Code	Course Title	Marks		Credit		Total Credit	No of lectures/ week
		Theory (External + Internal)	Practical/Tutorial (External + Internal)	Theory	Practical/Tutorial		
CC-3	Health Education	75 (60+15)		6		6	6
CC-4	Gymnastics and Adventure Activities		75 (60+15)		6	6	12
AECC-II	Environmental Studies	25		2		2	2
	Tagore studies	50		4			4
GE-II	Physical Fitness and Skills: HRF Exercises, Track & Field, Football, Volleyball, ,Kho-kho		75 (60+15)		6	6	12
					TOTAL 20		36

### SEMESTER-III

Course Code	Course Title	Marks		Credit		Total Credit	No of lectures/ week
		Theory (External + Internal)	Practical/Tutorial (External + Internal)	Theory	Practical/Tutorial		
CC-5	Anatomy & Exercise Physiology	75 (60+15)		6		6	6
CC-6	Psycho-Social Aspect of Sports	75 (60+15)		6		6	6
CC-7	Ball Games I: Football, Volleyball, Hockey		75 (60+15)		6	6	12
SEC-I	Aquatics		25		2	2	4
GE-III	Lifestyle Management and Physical Activity	75 (60+15)		6		6	6
					TOTAL=	26	34

### SEMESTER-IV

Course Code	Course Title	Marks		Credit		Total Credit	No of lectures/ week
		Theory (External + Internal)	Practical/Tutorial (External + Internal)	Theory	Practical/Tutorial		
CC-8	Fitness & Wellness	75 (60+15)		6		6	6
CC-9	Track & Field and Weight Training		75 (60+15)		6	6	12
CC-10	Ball Games II: Basketball, Handball, Cricket		75 (60+15)		6	6	12
SEC-II	Combative Sports (Any One) Judo, Wrestling, Karate		25		2	2	4
GE-IV	Sports Activities: Aerobics, Basketball, Cricket, Gymnastics & Yoga		75 (60+15)		6	6	12
					TOTAL=	26	46



## SEMESTER-V

Course Code	Course Title	Marks		Credit		Total Credit	No of lectures/ week
		Theory (External + Internal)	Practical/Tutorial (External + Internal)	Theory	Practical/Tutorial		
CC-11	Kinesiology	75 (60+15)		6		6	6
CC-12	Activity Specialization Practical: (Any One): Athletics, Basketball, Cricket, Football, Gymnastics, Handball, Hockey, Volleyball & Yoga		75 (60+15)		6	6	12
DSE-I	Yoga Education / Athletic Care & Rehabilitation	75 (60+15)		6		6	6
DSE-II	Racket sports (Any two) Badminton, Table Tennis & Tennis		75 (60+15)		6	6	12
						TOTAL= 24	36

## SEMESTER-VI

Course Code	Course Title	Marks		Credit		Total Credit	No of lectures/ week
		Theory (External + Internal)	Practical/Tutorial (External + Internal)	Theory	Practical/Tutorial		
CC-13	Sports training	75 (60+15)		6		6	6
CC-14	Activity Specialization Theory: (Any One): Athletics, Basketball, Cricket, Football, Gymnastics, Handball, Hockey, Volleyball & Yoga	75 (60+15)		6		6	6
DSE-III	Sports Management / Sports Nutrition	75 (60+15)		6		6	6
DSE-IV	Indigenous Sports(Any Two) Kho-Kho, Kabaddi & Mallakhamb		75 (60+15)		6	6	12
						TOTAL= 24	30
						<b>TOTAL CREDIT = 140</b>	

1 credit = 12.5 marks

1 credit = 1-hour theory and 2-hour practical classes per week

CC = core course

AECC = Ability Enhancement Compulsory Course

SEC = Skill Enhancement Course

DSE = Discipline Specific Elective

GE = Generic Elective

# DETAILED SYLLABUS

## SEMESTER-I

### CC - 1: FOUNDATIONS OF PHYSICAL EDUCATION AND SPORTS SCIENCE

**Full Marks-75 (60+15)**

**Credit Point -06**

**Total Lectures/Week-06**

The Learning Outcomes of this subject are:-

- To familiarize students with foundational concepts and knowledge of Physical Education & Sport Science in reference to biological, psychological, sociological, biomechanical and other foundations.

#### **Unit 1. Introduction and Historical Foundation**

- 1.1. Aim, Objectives and Definition of Physical Education and Sports Science.
- 1.2. History of Physical Education and Sports Science in India- with special reference to Ayurveda and Yoga Vayayama.
- 1.3. World History of Physical Education and Sports Science- with special reference to Olympic.
- 1.4. Gurudeva Rabindranath Tagore's Concept of Physical Education and Sports Science.

#### **Unit 2. Physiological Foundation**

- 2.1. Biological basis of life.
- 2.2. Growth and Development: Stages, Factors and Principles.
- 2.3. Age: Chronological, Anatomical, Physiological, and Mental age.
- 2.4. Modern concept of Inactive to Active life style.

#### **Unit 3. Psychological Foundation**

- 3.1. Brain and Human Psychology
- 3.2. Learning and Motor Learning
- 3.3. Play and Play Theory
- 3.4. Human Personality factors

#### **Unit 4. Biomechanical Foundation**

- 4.1. Movement and Locomotion
- 4.2. Kinetic and Kinematic: over view
- 4.3. Concept of Mechanical Energy
- 4.4. Biomechanics in Daily life and Sports

#### **Unit 5. Sociological Foundation**

- 5.1. Society and Socialization
- 5.2. Impact of Sports in Society
- 5.3. Traditional and Recreational Game
- 5.4. Cooperation and Competition in Sports: National and International level

#### **RECOMMENDED BOOKS**

1. Graham, G. (2001) Teaching Children Physical Education: Becoming a Master Teacher. Human Kinetics, Champaign, Illinois, USA.
2. Kamlesh, M.L. & Singh, M.K. (2006) Physical Education (Naveen Publication).
3. Lau, S.K. (1999) Great Indian Players, New Delhi, Sports.
4. Lumpkin, A. (2007) Introduction to Physical Education, Exercise Science and Sports Studies, McGraw Hill, New York, USA.

5. Siedentop, D. (2004) Introduction to Physical Education, Fitness and Sport, McGraw Hill Companies Inc., New York, USA.
6. Shaffer, D.R. (2002) Development Psychology: Childhood and Adolescence. Thomson, Sydney, Australia.
7. Shukla, (2000) Mother on Education, National Council of Teacher Education, New Delhi.
8. Singh, A. et al. (2000) Essential of Physical Education, Kalyani Publishers, Ludhiana, Punjab.
9. Wuest, D.A. & C.A. Bucher (2006) Foundation of Physical Education, Exercise Science, and Sports. McGraw Hill Companies Inc.; New York, USA.
10. Kansal, D.K. (2012) A Practical Approach to Test Measurement and Evaluation Sports and Spiritual Science Publication, New Delhi.

## **CC – 2: FUNDAMENTAL EXERCISES, FORMAL ACTIVITIES & RHYTHMICS**

**Full Marks-75 (60+15)**

**Credit Point -06**

**Total Lectures/Week-12**

The Learning Outcomes of this subject are:-

- To acquaint students with practical knowledge of fundamental exercise, formal activities and rhythmic exercises.

### **Unit 1. Fundamental Exercise**

1. 1. Neck and Facial Exercises
1. 2. Shoulder, Arms and Chest Exercises
1. 3. Abdominal & Hip Exercises
1. 4. Leg exercises

### **Unit 2. Marching**

2. 1. Fall in, Attention, Stand at Ease, Eyes right – Eyes front (Dressing), Turning right, left & about.
2. 2. Marching: Arm-Leg coordination, Marching, Mark Time,
2. 3. Quick march, Halt, about turn while marching and marching with Salute.
2. 4. Break off, Disperse & Dismissal

### **Unit 3. Lazim**

3. 1. Lazim skandha or Lapet, Lazim Arm, Lazim Ready or Hosiar
3. 2. Ghati Lazim- Char Thoka, Ath Thoka, Kadamtal, Aga Pan, Pabitra
3. 3. Lazim chaal
3. 4. Hindi Lazim- Char Thoka, Ath Thoka, Ari Lagao, Do Ruk, Aga Phalang, Picha Phalang

### **Unit 4. Callisthenics & Aerobics**

4. 1. Callisthenics Basics - Two count, Four count, Eight count
4. 2. Callisthenics Advance - Sixteen count, Thirty-two count
4. 3. General Aerobics
4. 4. Competitive Aerobics

### **Unit 5. Apparatus Exercise**

5. 1. Exercise with wands & dumbbell
5. 2. Exercise with hoops & umbrella
5. 3. Exercise with clubs & pole
5. 4. Exercise with ball & flag

## **AECC – I: ENGLISH / MODERN INDIAN LANGUAGES**

**Full Marks-25**

**Credit Point -02**

**Total Lectures/Week-02**

**Note:** Common syllabi offered by the concerned Department of Visva-Bharati will be followed

## **TAGORE STUDIES**

**Full Marks: 50(40+10)**

**Total Credit: 4**

**Total Lecture: 05**

**Note:** Common syllabi of Tagore Studies of Visva-Bharati will be followed

### **GE – I: PHYSICAL EDUCATION: HISTORY AND NEW HORIZON**

**Full marks: 75 (60 + 15)**

**Credit Point: 06**

**Total Lectures: 06**

The Learning Outcomes of this subject are:-

- To acquaint students with knowledge of historical development of Physical Education & Sports.
- To provide new perspectives in physical Educations.

Unit 1. Concept and Background of Physical Education

- 1.1. Meaning, Definition and Importance of Physical Education.
- 1.2. Aim and Objectives of Physical Education
- 1.3. Historical perspectives of Physical Education- a global view

Unit 2. Approaches to Physical Education

- 2.1. Physical Education an academic discipline and its multidisciplinary approaches.
- 2.2. Sports science and various sub- disciplines of Physical Education.
- 2.3. Physical fitness and its role in life and society
- 2.4.

Unit 3. Olympic Movement.

- 3.1. Ancient Olympic games
- 3.2. Modern Olympic games and its revival
- 3.3. Olympic ceremonies and events

Unit 4. Health, Fitness and Wellness

- 4.1 Concept and definition of Health, Fitness and Wellness
- 4.2 Dimension of Health
- 4.3 Role of Physical Education in achieving health

Unit 5. Health related and Performance-related Physical Fitness

- 5.1. Concept and Definition and impact of Health related and Performance-related Physical fitness
- 5.2. Components of health-related fitness - Cardio respiratory endurance, Body composition ,Muscular Strength , Muscular Endurance , Flexibility.
- 5.3. Components of Performance-related fitness- Agility, Balance, Coordination, Reaction Time, Speed Power.

### **RECOMMENDED BOOKS**

1. Deborah A. Wuest and Charles A. Bucher, Foundations of Physical Education and Sport, Friends Pub., New Delhi
2. Human Kinetics, Health and Wellness for Life, 2010, Human Kinetics.Inc., United States
3. Melvin H. Williams, Lifetime Fitness and Wellness W.C.Brown Publishers
4. ACSM, Manual of Health Fitness, American College of Sports medicine

5. Kamlesh M.L., "Physical Education, Facts and foundations" Faridabad P.B. Publications.
6. Barrow Harold M., "Man and movements principles of Physical Education" 1978.
7. Ravanes R.S., "Foundation of Physical Education" Houghton Millin Co. Boston USA (1978)
8. Singh Ajmer et.al., "Essentials of Physical Education", Kalyani Publishers Ludhiana Second revised Addition 2008.
9. Deleh V.A., "World History of Physical Education", prentice Hall Inc.
10. Loy, Lohn W. Dr. and Kenyon, Gerald S. Sports Culture and Society (Philadelphia: The MacMillan Co. 1969).
11. Brailsford Dennis Sports and Society, (London- Routledge and Kegan Paul 1969).

## **SEMESTER-II**

### **CC - 3: HEALTH EDUCATION**

**Full Marks-75 (60+15)                      Credit Point -06                      Total Lectures/Week-06**

The Learning Outcomes of this subject are:-

- To acquaint the students with knowledge of Health, Nutrition, First Aid and Personal & Environmental Hygiene.

Unit.1.            Health and Health Education

- 1.1. Health- Concept, definition and dimension.
- 1.2. Health Education- Definition, aim, objectives.
- 1.3. Principles of Health Education.
- 1.4. Health Agencies- World Health Organization (WHO), United Nations Educational Scientific and Cultural Organization (UNESCO).

Unit.2.            Personal & Environmental Hygiene

- 2.1. Concept of personal, domestic, & Community Hygiene
- 2.2. Aspect of community hygiene
- 2.3. Aspect of personal hygiene
- 2.4. Importance of rest, sleep & Exercise

Unit.3.            Health Problems, Prevention and Control

- 3.1. Communicable Diseases- Malaria, Dengue and Chicken Pox.
- 3.2. Non-communicable Diseases- Obesity, Diabetes and Hypertension.
- 3.3. Occupational Health- Occupational Health Hazards and Diseases.
- 3.4. Postural Deformities- Causes and corrective exercise of Kyphosis, Lordosis, Scoliosis, Knock Knees and Flat Foot

Unit.4.            Balance diet & Nutrition

- 4.1. Classification & Source of foods
- 4.2. Proximate principles & role of various nutrients
- 4.3. Balance diet
- 4.4. Malnutrition & Adulteration of food

Unit.5.            First-aid and Sports Injuries

- 5.1. First aid- Meaning, definition and importance
- 5.2. Golden rules of First-aid.
- 5.3. Sports Injuries- Types and Causes.
- 5.4. Definition, Types, Symptoms and Treatment of common sports injuries- Sprain, Strain, Fracture and Dislocation.

## RECOMMENDED BOOKS

1. Bucher, Charles A. "Administration of Health and Physical Education Programme".
2. Delbert, Oberteuffer, et. al." The School Health Education".
3. Ghosh, B.N. "Treaties of Hygiene and Public Health".
4. Hanlon, John J. "Principles of Public Health Administration" 2003.
5. Turner, C.E. "The School Health and Health Education".
6. Moss et. al. "Health Education" (National Education Association of U.T.A.).
7. Nemir A. "The School Health Education" (Harber and Brothers, New York).
8. Nutrition Encyclopedia, edited by Delores C.S. James, The Gale Group, Inc.
9. Boyd-Eaton S. et al (1989) The Stone Age Health Programme: Diet and Exercise as Nature Intended. Angus and Robertson.
10. Terras S. (1994) Stress, How Your Diet can Help: The Practical Guide to Positive Health Using Diet, Vitamins, Minerals, Herbs and Amino Acids, Thorons.

## CC - 4: GYMNASTICS AND ADVENTURE ACTIVITIES

**Full Marks-75 (60+15)      Credit Point -06      Total Lectures/Week-12**

The Learning Outcomes of this sport are:-

- To acquaint students with theoretical, technical and practical knowledge & fundamental movement skills of Gymnastic and gain proficiency.

To acquaint students with knowledge about environmental awareness through Adventure activities

### **GYMNASTICS (BOYS & GIRLS)**

#### **Unit 1. Floor Exercise**

1. 1. Types of Walks, Jumps & Runs
1. 2. Types of Rolls & Dives
1. 3. Types of Overhead Movements
1. 4. Types of Balances & Scales

#### **Unit 2. Parallel Bars (Boys) & Beam (Girls)**

##### **Parallel Bars (Boys)**

2. 1. Types of Mounts & Dismounts
2. 2. Types of advances
2. 3. Types of Balances
2. 4. Types of Swings, Twists & Turns

##### **Beam (Girls)**

2. 1. Types of Mounts & Dismounts
2. 2. Types of advances
2. 3. Types of Balances
2. 4. Types of Swings, Twists & Turns

#### **Unit 3. Table vault**

- 3.1 Approach run & Take off
- 3.2 Crash mat landing exercises
- 3.3 Cat, Squat & Straddle vault
- 3.4 Cartwheel & Handspring

#### **Unit 4. Adventure activities (Camp)**

- 4.1 Hikes
- 4.2 Nature lore

- 4.3 Art & Craft
- 4.4 Camp songs

### **Unit 5. Safety measure (Camp)**

- 5. 1. Concept of safety education
- 5. 2. Concept of safety equipment
- 5. 3. Rescue measures & Team building
- 5. 4. First Aid

### **AECC-II: ENVIRONMENTAL STUDIES**

**Full Marks-25**

**Credit Point -02**

**Total**

**Lectures/Week-02**

**Note:** Common syllabi of concerned department of Visva-Bharati will be followed

### **TAGORE STUDIES**

**Full Marks: 50 (40+10)**

**Total Credit: 00**

**Total Lecture: 05**

**Note:** Common syllabi of Tagore Studies of Visva-Bharati will be followed

### **GE - II: PHYSICAL FITNESS AND SKILLS (Practical)**

(HRF Exercises, Track & Field, Football, Volleyball, Kho-Kho)

**Full Marks-75 (60+15)**

**Credit Point -06**

**Total Lectures/Week-06**

The Learning Outcomes of this sport are:-

- To provide knowledge about fitness and exercises management and its application in games & sports.
- To develop health and fitness of students through training and the development of skills and playing ability of certain major games and sports.

Unit 1. Health-related Fitness (HRF) Exercises and Training for development

- 1.1 Cardio-respiratory Endurance
- 1.2 Muscular Strength
- 1.3 Muscular Endurance
- 1.4 Flexibility

Unit 2. Track & Field

- 2.1 Fundamental of Running
- 2.2 Standing & Starting technique
- 2.3 Shot put: Hold, Placement, Glide, & Release
- 2.4 Long & High Jump: Approach, Take Off, Action in the air & Landing

Unit 3. Football

- 3.1 Kicks and its variations
- 3.2 Trapping & Receiving
- 3.3 Dribbling and its variations
- 3.4 Heading & Throw in

Unit 4. Volleyball

- 4.1 Service: Under hand, Overhead & Floating
- 4.2 Pass: Under hand, Overhead
- 4.3 Spike: Approach, Take off, Jump, Arm Motion & Spike & Landing

- 4.4 Block: Fundamental posture, movement, Footwork  
4.5 Roll & Dive: Back, side roll & forward dive

Unit 5. Kho-Kho

- 5.1 Chain types  
5.2 Running skills  
5.3 Chasing skills  
5.4 Dodge & fake skills

**SEMESTER-III**

**CC - 5: Anatomy and Exercise Physiology**

**Full Marks-75 (60+15)**

**Credit Point -06**

**Total Lectures/Week-06**

The Learning Outcomes of this subject are:-

- To provide students with the basic knowledge of anatomical structures & functions of human body.

**Unit 1.**

- 1.1 Meaning and definition of Anatomy, Physiology and Exercise Physiology  
1.2 Brief history  
1.3 Need and importance  
1.4 Structure and functions of cell

**Unit 2.**

- 2.1 Meaning, structure and functions of skeletal system  
2.2 Types, Structure and function of Bones and joints  
2.3 Skeletal deformities  
2.4 Effect of exercise and training on skeletal system

**Unit 3.**

- 3.1 Meaning, Types, Structure and functions of muscular system  
3.2 Types and Mechanism of muscular contraction.  
3.3 Muscle fiber types.  
3.4 Effect of exercise and training on muscular system

**Unit 4.**

- 4.1 Anatomy and Physiology of cardiovascular system  
4.2 Anatomy and physiology of respiratory system  
4.3 Effect of Exercise and training on respiratory system  
4.4 Effect of exercise and training on Cardiovascular system.

**Unit 5.**

5. 1. Anatomy and physiology of nervous system.  
5. 2. Anatomy and physiology of endocrine system.  
5. 3. Effect of exercise and training on Nervous system  
5. 4. Effect of exercise and training on endocrine system

**Practical**

1. Identification of major bones
2. Identification of major muscles
3. Measurement of Blood Pressure
4. Measurement of VO<sub>2</sub>max
5. Measurement of Vital capacity
6. Estimation of Physical Fitness Index

**Recommended Books**

1. Pearce Evelyn (1973) Anatomy and Physiology for Nurses, Oxford University Press, Kolkata



2. CC Chatterjee Human Physiology, CBS Publishers & Distributers Pvt Ltd
3. McArdle WD, Katch FI, Katch VL. Essentials of Exercise Physiology 2<sup>nd</sup> ed Philadelphia: Lippincott Williams and Wikins:2000
4. Fax EL. Sports Physiology. Tokyo: Holt Saunders; 1984.
5. Hill AV. Muscular Movement in man. New York: Mc Graw Hill Book Co;1927

## **CC - 6: PSYCHO-SOCIAL ASPECT OF SPORTS**

**Full Marks-75 (60+15)      Credit Point -06      Total Lectures/Week-06**

The Learning Outcomes of this subject are:-

- To acquaint students with basic concept and knowledge of psychology and sociology.
- To acquaint students with knowledge about psychological perspective of sports.
- To acquaint students with knowledge about sociological perspective of sports.
- 

### **Unit 1. Introduction to Psycho-Social aspects of Sports**

- 1.1 Meaning and definition of Psychology, Educational Psychology, Sociology.
- 1.2 Meaning, nature and scope of Sports Psychology and Sports Sociology.
- 1.3 Psychological factors effecting sports performance.
- 1.4 Games and sports as man's cultural heritage.

### **Unit 2. Development Psychology**

- 2.1 Meaning, definition and nature of Individual difference
- 2.2 Heredity and Environment and their role on Individual Difference.
- 2.3 Meaning and definition of growth and development
- 2.4 Stages and Psycho-Sociological characteristics of growth and development in relation to different stages

### **Unit 3. Learning Process**

- 3.1 Meaning, definition, nature of learning & Principles of motor skill learning.
- 3.2 Theories and Principles of Laws of learning.
- 3.3 Learning Curve and it's implication in sports.
- 3.4 Transfer of learning: Meaning, types and Factors effecting transfer of learning.

### **Unit 4. Personality, Motivation and Emotion and Anxiety:**

- 4.1 Meaning, definition of personality and its Role in Physical activities games and sports in its development
- 4.2 Motivation: Meaning, definition, types, importance & Meaning of motive, need, drive, incentive and achievement
- 4.3 Emotion: Meaning, definition, nature and types of Emotion
- 4.4 Anxiety: Meaning, definition of Anxiety and its effect on sports performance.

### **Unit 5. Sports and Society**

5. 1. Sports as a social occurrence & Socialization through games and sports
5. 2. Social stratification in sports
5. 3. Sports and Women
5. 4. Sports Politics and National/International Integration

### **Recommended Books:**

1. Buchar Charles A, "Foundations of Physical Education", 8<sup>th</sup> Ed., C. V. Mosby Co., St. Luis, 1978.
2. Cox, "Sports Psychology", Human Kinetics Publishers, Champaign, Illinois.
3. Kamlesh M. L, "Psychology in Physical Education and Sports", Metropolitan Book Co., New Delhi 1998.

4. Sharma S. R., "Sociological Foundation in Physical Education and Sports", Friends Publication, New Delhi.
5. Singh Kanwaljeet, "Sociology of Sports", Friends Publication, New Delhi.
6. Singh Bhupinder, "Sports Sociology – An Indian Perspective", Friends Publication, New Delhi.
7. Silva John M and Roberts, "Psychological Foundation of Sports", Human Kinetics Publishers, Champaign, Illinois.
8. Singh A, Gill J S, Bais J, Brar R S. and Rathee N K, "Essentials of Physical Education", Kalyani Publishers, Jalandhar, 2003.
9. Skinner Charles E., "Essentials of Educational Psychology", Asia Publishing House, New Delhi, 1961.
10. Talamini J. T. and Page C. H., "Sports and Society – an Anthology", Little Brown & Co., Boston, 1973.

### **CC - 7: BALL GAMES-I: FOOTBALL, VOLLEYBALL AND HOCKEY**

**Total Marks: 75 (60+15) Total Credit: 06 Total Lectures/Week: 12**

The Learning Outcomes of this sport are:-

- To acquaint students with theoretical, technical and practical knowledge & skills of ball games of their choice and gain proficiency.

#### **FOOTBALL**

- Unit 1. Kicks and its variations
- Unit 2. Trapping & Receiving
- Unit 3. Dribbling and its variations
- Unit 4. Heading & Throw in
- Unit 5. Goal keeping

#### **Volleyball**

- Unit 1. Service: Under hand, Overhead & Floating
- Unit 2. Pass: Under hand, Overhead
- Unit 3. Spike: Approach, Take off, Jump, Arm Motion & Spike & Landing
- Unit 4. Block: Fundamental posture, movement, Footwork
- Unit 5. Roll & Dive: Back, side roll & forward dive

#### **Hockey**

- Unit 1. Rolling & Dribbling variations
- Unit 2. Hit, Push, Tap & Receive
- Unit 3. Drag, Scoop & Flick
- Unit 4. Passes and its types
- Unit 5. Goalkeeping

### **SEC – I : AQUATICS**

**Full Marks-25**

**Credit Point -02**

**Total Lectures/Week-02**

The Learning Outcomes of this sport are:-

- To acquaint students with theoretical, technical and practical knowledge & skills of swimming.
- To provide the knowledge of different strokes in swimming and gain proficiency.

- Unit 1. Introduction:
- 1.1 History development and organizations
  - 1.2 Rules and their interpretations.
  - 1.3 Water fearing drills
  - 1.4 Submerging, Jumping, Floating, Locomotion, Breathing.

- Unit 2. Front crawl/Free style
- 2.1 Body position
  - 2.2 Arm & Leg action (flutter kick), Coordination
  - 2.3 Breathing, Recovery
  - 2.4 Start, turn, finishes of Front crawl/Free style events

- Unit 3. Back stroke
- 3.1 Body position
  - 3.2 Arm & Leg action (flutter kick), Coordination
  - 3.3 Breathing, Recovery
  - 3.4 Start, turn, finishes of Back stroke events

- Unit 4. Breast stroke
- 4.1 Body position
  - 4.2 Arm & Leg action (whip kick), Coordination
  - 4.3 Breathing, Recovery
  - 4.4 Start, turn, finishes of breast stroke events

- Unit 5. Butterfly stroke
5. 1. Body position
  5. 2. Arm & Leg action (dolphin kick), Coordination
  5. 3. Breathing, Recovery
  5. 4. Start, turn, finishes of butterfly stroke events

### **GE - III: LIFESTYLE MANAGEMENT AND PHYSICAL ACTIVITY**

**Total Marks: 75 (60+15) Total Credit: 6 Total Lectures/Week: 06**

The Learning Outcomes of this subject are:-

- Students will be educated with the knowledge and importance of wellness lifestyle with the help of Physical exercises and Sporting activities.

- Unit 1. Fundamentals of Lifestyle management
- 1.1 Concept and objectives of healthful lifestyle
  - 1.2 Positive-health lifestyle- it's benefits and individual responsibility
  - 1.3 Skill resilience, assertiveness & support network

- Unit 2. Active Lifestyle and Wellness
- 2.1 Concept and definition of Physical activity, Exercise and Wellness
  - 2.2 Dimensions of Wellness
  - 2.3 Role of active lifestyle on health and wellness

- Unit 3. Approach to fitness and habits of eating
- 3.1 Concepts of nutrition, modern food pyramid, food calories and junk food
  - 3.2 Concept of Malnutrition – under and over nutrition and BMI
  - 3.3 Effect of exercises on digestive system and immune function

- Unit 4. Hypo kinetic diseases
- 4.1 Concept of hypo kinetic diseases and health threats

- 4.2 Common causes, symptoms and management of Obesity
- 4.3 Common causes, symptoms and management of Diabetes

Unit 5. Optimizing life through physical activity

- 5.1 Criteria of developing cardio-programme for health benefits of youth
- 5.2 Planning and development of personal fitness programme
- 5.3 Adherence to exercise and fitness programmes

## **Semester - IV**

### **CC - 8: Fitness and Wellness**

**Total Marks: 75 (60+15)**

**Credit Point -06**

**Total Lectures/Week-06**

The Learning Outcomes of this subject are:-

- The course is designed to provide knowledge to the students about health related fitness and wellness. To acquaint with method and process of measuring health related fitness. To appraise prevention and curative concept of lifestyle related diseases.

#### **Unit 1.**

- 1.1 Meaning, Definition of Fitness and Wellness
- 1.2 Aim and Objectives of Fitness and Wellness
- 1.3 Importance and scope of fitness and wellness
- 1.4 Modern concept of fitness and wellness

#### **Unit 2.**

- 2.1 Fitness-Types of fitness and components of fitness
- 2.2 Health related fitness components
- 2.3 Skill related fitness components
- 2.4 Physical Activity and Health benefit

#### **Unit 3.**

- 3.1 Standard test of measuring health related fitness components
- 3.2 Standard test of measuring skill related fitness components
- 3.3 Measurement of wellness
- 3.4 Development of wellness

#### **Unit 4.**

- 4.1 Means and methods of developing fitness and wellness
- 4.2 Aerobic exercises – meaning, means and methods of developing aerobic fitness
- 4.3 Anaerobic exercises - meaning, means and methods of developing anaerobic fitness
- 4.4 Fitness in relation to weight training- free weight and additional weight

#### **Unit 5.**

- 5. 1. Hypokinetic disease- Meaning, prevention and management
- 5. 2. Obesity, Hypertension, High Blood pressure, Diabetes, Heart disease etc causes, sign & symptoms, prevention and management
- 5. 3. BMI and fitness
- 5. 4. Modern Life Style and Physical activity in relation to hypokinetic diseases

## **Recommended Books**

1. SJ Brian (1997) Fitness and Health, 4<sup>th</sup> ed, Human Kinetics
2. Thygerson AL and Thygerson SM (2009), Fit to be Well, 2<sup>nd</sup> ed, Jones and Bartlett Publishers, Massachusetts
3. E Gordon and Golanty E (2004), Health and Fitness, 8<sup>th</sup> ed, Jones and Bartlett Publishers, Massachusetts
4. Health and Fitness for Life (2010), Human Kinetics
5. Kansal DK (2012), A Practical Approach to Test Measurement and Evaluation, SSS Publication, New Delhi

## **CC – 9: Track & Field and Weight Training**

**Total Marks: 75 (60+15)**

**Credit Point -06**

**Total Lectures/Week-06**

The Learning Outcomes of this sport are:–

To acquaint students with theoretical, technical and practical knowledge & skills in Track and Field events and in Resistance Training, and gain proficiency

### **Track & Field:**

Unit 1. Introduction to Track & Field

- 1.1 Brief history of Track and Field
- 1.2 Governing bodies and competitions in Track field
- 1.3 Fundamental Running, Jumping and throwing techniques
- 1.4 Measurement and layout of track, lanes, arc, circle, sector

Unit 2. Running, Hurdling and Relay races

- 2.1 Types of Standing and Crouch Start techniques
- 2.2 Lead leg, Trail leg action in hurdle and approach to first hurdle, running between the hurdles
- 2.3 Relay Baton Exchange Techniques: Visual exchange, non-Visual exchange, Up sweep, down sweep, push forward techniques
- 2.4 Finishing Techniques: Run through, shoulder surge and chest

Unit 3. Throwing Events

- 3.1 Shot Put: Hold, Placement, Glide, Delivery Stance, Delivery & Recovery
- 3.2 Discus Throw: Hold, Spinning, Turning, Delivery Stance, Delivery & Recovery
- 3.3 Javelin Throw: Grip, Carry, Withdrawal, Delivery Stance, Delivery & Recovery

Unit 4. Jumping Events

- 4.1 Long Jump: Take off, Action in the Air, Landing, Approach, Full Jump
- 4.2 High Jump (Fosbury Flop): Approach, Take off, Action in the Air, Landing, Full Jump
- 4.3 Triple Jump: Hop, Step, jumping from stationary position, Hop, Step, jump together, Approach to Hop, Jumping with full approach

Unit 5. Weight Training

5. 1. Upper limb exercises
5. 2. Lower limb exercises
5. 3. Core exercises
5. 4. Total resistance exercises

## **CC - 10: BALL GAMES: BASKETBALL, HANDBALL, CRICKET**

**Total Marks: 75 (60+15)    Total Credit: 06    Total Lectures/Week: 12**

The Learning Outcomes of this sport are:–

To acquaint students with theoretical, technical and practical knowledge & skills of ball games of their choice and gain proficiency

### **Basketball**

- Unit 1. Passing and receiving
- Unit 2. Dribbling and Pivoting
- Unit 3. Shooting
- Unit 4. Offensive play
- Unit 5. Defensive play

### **Handball**

- Unit 1. Grip & dribbling
- Unit 2. Pass & Receive
- Unit 3. Shooting
- Unit 4. Offensive play
- Unit 5. Defensive play

### **Cricket**

- Unit 1. Batting
- Unit 2. Bowling
- Unit 3. Fielding
- Unit 4. Wicketkeeping
- Unit 5. Running between wickets

## **SEC – II : COMBATIVE SPORTS (Any One)**

### **JUDO & WRESTLING**

**Total Marks: 25    Total Credit: 02    Total Lectures/Week: 02**

The Learning Outcomes of this sport are:–

- To acquaint students with theoretical, technical and practical knowledge & skills of combative sports of their choice and gain proficiency. Female students will be benefited more from this course of self-defense.

### **Judo**

- Unit 1. Rej (Salutation) & Kumi kata (Holding techniques)
- Unit 2. Tai sabaki (Body management) & Shin tai (Foot work)
- Unit 3. Ukemies (Break falls)
- Unit 4. Nage waze (throwing techniques)
- Unit 5. Katama waze (Grappling Techniques)

### **Wrestling**

- Unit 1. Take downs & Counter of it
- Unit 2. Escape from positions & counters of it
- Unit 3. Pinning combinations
- Unit 4. Escape from pinning
- Unit 5. Standing wrestling

## **GE - IV: SPORTS ACTIVITIES**

(Practical)

(Aerobics, Basketball, Cricket, Gymnastics & Yoga)

**Total Marks: 75 (60+15)**

**Total Credit: 06**

**Total Lectures/Week: 12**

The Learning Outcomes of this sport are:-

- To acquaint students with the theoretical, technical and practical knowledge & skills of Sports Activities of their choice and gain proficiency.

### Unit 1. Aerobics

- 1.1 Rhythmical exercises: with count: 2, 4, 8, 16 & 32
- 1.2 Basic turns, leaps & jumps
- 1.3 Strength exercises with music
- 1.4 Choreography with music

### Unit 2. Basketball

- 2. 1.** Passing and receiving
- 2. 2.** Dribbling and Pivoting
- 2. 3.** Shooting
2. 4. Offensive play

### Unit 3. Cricket

- 3.1 Batting
- 3.2 Bowling
- 3.3 Fielding
- 3.4 Wicket keeping

### Unit 4. Gymnastics

5. 1. Walks & its types
5. 2. Rolls & its types
5. 3. Balances & its types
5. 4. Pyramid concepts

### Unit 5. Yoga

- 4.1 Suryanamaskar
- 4.2 Asanas
- 4.3 Pranamayay
- 4.4 Kriyas

## Semester – V

### CC - 11: KINSIOLOGY

**Total Marks: 75 (60+15)**

**Total Credit: 06**

**Total Lectures/Week: 06**

The Learning Outcomes of this subject are:–

- To impart knowledge about the various movements of the body affecting performance in sports.

#### **Unit 1. Introduction to Kinesiology**

- 1.1 Definition and meaning of Kinesiology
- 1.2 Aims and Objective of Kinesiology
- 1.3 Need and importance of Kinesiology in Physical Education and Sports
- 1.4 Kinesiological terminologies used in the human body

#### **Unit 2. Human body Movement**

- 2.1 Fundamental Movements, Axes and Planes, Classification of joints of the human body
- 2.2 Center of gravity and line of gravity and its application in sports
- 2.3 Classification of voluntary muscles according to their shapes, Properties of voluntary muscles
- 2.4 Types of muscular contraction

#### **Unit 3. Kinesiology of joints and Location and action of major muscles at joints**

- 3.1 Two-joint muscles
- 3.2 Roles in which muscles may act
- 3.3 Concept of Angle of Pull, All or none law, Reciprocal innervations
- 3.4 Location and action of major muscles at joints: Ankle, Knee, Hip, Wrist, Elbow, Shoulder

#### **Unit 4. Application of mechanical concepts**

- 4.1 CGS, FPS, MKS system, units of measurements and their fundamental concepts
- 4.2 Definition and types of motion, Newton's Laws of Motion, Analogues of Newton's Laws of Motion, Application of Laws to sports activities
- 4.3 Definition of Force, Magnitude of force, Direction of application of force, Application of force to sports activities
- 4.4 Definition of Stability and Equilibrium, Types of equilibrium, Factors affecting stability, principles of dynamic stability

#### **Unit 5. Application of mechanical principles**

5. 1. Definition of lever, Types of lever, Function of Lever, Application of lever functions to human body
5. 2. Work, Power, Energy
5. 3. Mechanical analysis of Walking, Running, Jumping, Throwing, Pulling, Pushing
5. 4. Application of Kinesiological principles in daily living activities

#### **RECOMMENDED BOOKS**

1. Rasch Philip J and Burke Roger K, Kinesiology and Applied Anatomy, Lea Febiger, Philadelphia
2. Frost Robert, Applied Kinesiology, North Atlantic Books, Berkely, California



3. Goswami, Jogishwar, Basic Kinesiology: Essential Tips, Friends Publication, New Delhi
4. Scott, Text Book in Kinesiology, Friends Publication, New Delhi.
5. Rai, Ramesh, Biomechanics Mechanical Aspects of Human Motion, Agrim Publication, Mohali, Punjab
6. Hay, James G, The Biomechanics of Sports Techniques, Prentice Hall, Inc, Englewood Cliffs, New Jersey.

### **CC - 12: ACTIVITY SPECIALIZATION PRACTICAL: (ANY ONE)**

(Athletics, Basketball, Cricket, Football, Gymnastics, Handball, Hockey, Volleyball & Yoga)

**Total Marks: 75 (60+15)    Total Credit: 06    Total Lectures/Week: 12**

The Learning Outcomes of these sports are:–

The student will be taught practically in practical classes to ensure the mastery over the skills and advance strategy through performance of training and conditioning respective to the activities.

The practical aspects of the Activity Specialization: Subject such as Athletics, Basketball, Cricket, Football, Gymnastics, Handball, Hockey, Volleyball & Yoga shall be taught practically in the practical classes to ensure mastery over the skills and advanced strategy through performance of training and conditioning methodologies respective to the activities.

### **DSE - I: YOGA EDUCATION / ATHLETIC CARE & REHABILITATION**

**Total Marks: 75 (60+15)    Total Credit: 06    Total Lectures/Week: 06**

The Learning Outcomes of this subject are:–

- To provide the knowledge of Yoga including the various Asanas and pranayama and their applications.

#### **YOGA EDUCATION**

#### **UNIT -1: Introduction and Trends of Yoga**

- 1.1 Meaning and Definition of Yoga
- 1.2 History and Philosophical aspects of Yoga
- 1.3 Need and Importance of Yoga in Physical Education and Sports Science
- 1.4 Mission and vision of AYUSH System

#### **UNIT -2: Methods of Yoga**

2. 1. Karma Yoga, Jnana Yoga, Bhakti Yoga and Raja Yoga
2. 2. Steps of Hatha Yoga
2. 3. Steps of Ashtanga Yoga
2. 4. Yoga & diet

#### **UNIT –3: Asana, Pranayam, Bandha, Mudra & Kriya**

- 3.1 Asana: Definition types & benefits
- 3.2 Pranayam: Definition types & benefits
- 3.3 Bandha & Mudra: Definition types & benefits
- 3.4 Kriya: Definition types & benefits

#### **UNIT–IV: Meditation**

- 4.1 Meaning & definition
- 4.2 Types and Methods
- 4.3 Effects on various system of body
- 4.4 Effect of Yoga on human system

#### **UNIT–V: Application of Yoga**

- 5.1 Yoga for Health and Wellness
- 5.2 Yoga for Aged Population
- 5.3 Yoga for Elderly able population
- 5.4 Yoga for Elite Sports Persons

**Yoga Practical:**

- 1. Suryanamaskar
- 2. Asana
- 3. Pranayama
- 4. Kriya

**ATHLETIC CARE & REHABILITATION**

**Unit-1**

- 1.1 Meaning, definition and history of athletic care and rehabilitation.
- 1.2 Need and Importance of athletic care and rehabilitation.
- 1.3 Principal of athletic care and rehabilitation.
- 1.4 Management of sports Injury and rehabilitation

**UNIT-2**

- 2.1 Causes, symptoms, and management of skin injuries- contusion, laceration, abrasion, corn etc.
- 2.2 Causes, symptoms, and management of fracture and dislocation.
- 2.3 Need and Importance of First aid.
- 2.4 PRICE therapy.

**UNIT-3**

- 3.1 Meaning and Importance of Physiotherapy.
- 3.2 Guiding principles of Physiotherapy.
- 3.3 Therapeutic modalities and their application - Cryotherapy, Hydrotherapy, Heat therapy, Electrotherapy.
- 3.4 Electrical application in physiotherapy

**UNIT-4**

- 4.1 Meaning, definition and History of massage,
- 4.2 Importance Contraindication of massage.
- 4.3 Classification of massage.
- 4.4 Effects of massage.

**UNIT-5**

- 5. 1. Meaning and Objectives of Corrective physical education.
- 5. 2. Posture- Meaning, Types and values of Good Posture.
- 5. 3. Posture test- Examination of Posture.
- 5. 4. Meaning, Causes and Treatment of postural deformities: Kyphosis, Lordosis, Scoliosis, Flat foot, knock knee, Bow leg etc.

**Practical**

- 1. Practical application of Physiotherapy
- 2. Types of Massage
- 3. Treatment of sports injuries.

**Recommended Books**

- 1. Singh A et al (2016). Essential of Physical Education. Kalyani Publisher, New Delhi
- 2. Singh H (2017). Athletic Care and Rehabilitation. Khel Sahitya Kendra.

## **DSE - II: RACKET SPORTS (ANY TWO)**

### **BADMINTON, TENNIS, TABLE TENNIS**

**Total Marks: 75 (60+15)**

**Total Credit: 06 Total Lectures/Week: 12**

The Learning Outcomes of these sports are:–

To acquaint students with the theoretical, technical and practical knowledge & skills of Racket Sports of their choice and gain proficiency.

#### **Badminton**

- Unit 1. Racket parts, racket grips, shuttle grips
- Unit 2. The basic stances
- Unit 3. The basic strokes
- Unit 4. Drills and lead up games
- Unit 5. Types of games – singles, doubles, including mixed doubles.

#### **Tennis**

- Unit 1. Grips – Eastern forehand grip Eastern backhand grip Western grip Continental grip Chopper grip
- Unit 2. Stance and footwork
- Unit 3. Basic ground strokes; Forehand drive, Backhand drive
- Unit 4. Basic service, Basic volley, Overhead volley
- Unit 5. Chop and Spin

#### **Table Tennis**

- Unit 1. Grip of the racket: Shake Hand Grip / Pen Hold Grip Stance position: Square Stance/Parallel Stance
- Unit 2. Stance & footwork
- Unit 3. Service: Forehand, Backhand, side spin, high toss
- Unit 4. Push Chop & Drive
- Unit 5. Smash

## **Semester – VI**

### **CC - 13: SPORTS TRAINING**

**Total Marks: 75 (60+15)**

**Total Credit: 06**

**Total Lectures/Week: 06**

The Learning Outcomes of this subject are:–

- To acquaint students with knowledge of training principles and their application in enhancing sports performance.

#### **Unit-1**

- 1.1 Meaning, definition of sports training.
- 1.2 Aim and objectives sports training.
- 1.3 Characteristics of sports training.
- 1.4 Principles of sports training

#### **UNIT-2**

- 2.1 Meaning of Load, overload, adaptation and supercompensation.
- 2.2 Factors and judgement of load, Principles of load and adaptation.
- 2.3 Causes, symptoms, and remedial measures of over load.
- 2.4 Meaning, factors and phases of Recovery.

### **UNIT-3**

- 3.1 Meaning, and definition of strength, speed and endurance.
- 3.2 Need and types of strength, speed and endurance
- 3.3 Factors of determining of strength, speed and endurance.
- 3.4 Means and methods of developing of strength, speed and endurance.

### **UNIT-4**

- 4.1 Meaning, and definition of flexibility and coordinative abilities.
- 4.2 Need and types flexibility and coordinative abilities.
- 4.3 Factors of determining of flexibility and coordinative abilities.
- 4.4 Means and methods of developing flexibility and coordinative abilities.

### **UNIT-5**

5. 1. Meaning and types of periodization.
5. 2. Aim and Contents of periodization.
5. 3. Meaning, types and principles of planning
5. 4. Meaning, steps and principles of talent identification.

#### **Practical**

1. Continuous method
2. Interval method
3. Plyometric method.

#### **Recommended Books**

1. Bompa T. (1999). Periodization- Theory and Methodology of Training (4<sup>th</sup> ed). Champaign, Illinois: Human Kinetics.
2. Singh H (1999). Science of Sports Training. New Delhi. DVS Publication.
3. Uppal AK (1999). Sports Training. New Delhi. Friends Publication

### **CC - 14: ACTIVITY SPECIALIZATION THEORY: (ANY ONE)**

(Athletics, Basketball, Cricket, Football, Gymnastics, Handball, Hockey, Volleyball & Yoga)

The Learning Outcomes of these sports are:-

- To acquaint students with theoretical, technical and practical knowledge & skills of respective games and sports of their choice and gain proficiency.

#### **UNIT-I: Introduction**

- 1.1 Historical Development of the Game/Sport at the National and International levels.
- 1.2 National Bodies controlling the sport and their affiliated units.
- 1.3 International bodies controlling the sport and their affiliated units.
- 1.4 Major National and International competitions / Tournaments & Awards

#### **UNIT-II: Rules & Regulations**

2. 1. Rules & Games Procedures and their interpretations
2. 2. Officiating Techniques
2. 3. Layout and marking of play areas
2. 4. Qualifying systems of Olympics / World Championship officials & Teams

#### **UNIT-III: Techniques/Skills**

- 3.1 Fundamental principles for training (beginners & advanced)
- 3.2 Teaching fundamental techniques of the game/sport
- 3.3 Progressive practice drills
- 3.4 Faults & corrections

## **UNIT-IV: Tactics & training**

- 4.1 Tactics & Strategies: Basic team composition & formation
- 4.2 Tactical concepts applicable to the game/sport
- 4.3 Tactical Training
- 4.4 Periodization

## **UNIT-V: Competition & Evaluation**

5. 1. Meaning, type and merits of competition
5. 2. Main and build up competitions
5. 3. Preparation for competition.
5. 4. Evaluation: General, Specific Fitness Tests & Performance & Skill Tests

## **RECOMMENDED BOOKS**

1. Singh Hardayal - Science of Sports Training, DVS Publications, 1997.
2. Manilal K.P Planning in Sports, Sports Publication, 2008.
3. Bumpa Tudor O - Periodization: Theory and Methods of Training, Human Kinetics, 1999
4. A. K - Principles of Sports Training, Friends Publication (India), 2001.

## **Yoga:**

### **UNIT -1: Introduction and Trends of Yoga**

- 1.5 Meaning and Definition of Yoga
- 1.6 History and Philosophical aspects of Yoga
- 1.7 Need and Importance of Yoga in Physical Education and Sports Science
- 1.8 Mission and vision of AYUSH System

### **UNIT -2: Methods of Yoga**

2. 1. Karma Yoga, Jnana Yoga, Bhakti Yoga and Raja Yoga
2. 2. Steps of Hatha Yoga
2. 3. Steps of Ashtanga Yoga
2. 4. Yoga & diet

### **UNIT -3: Asana, Pranayam, Bandha, Mudra & Kriya**

- 3.1 Asana: Definition types & benefits
- 3.2 Pranayam: Definition types & benefits
- 3.3 Bandha & Mudra: Definition types & benefits
- 3.4 Kriya: Definition types & benefits

### **UNIT-IV: Meditation**

- 4.1 Meaning & definition
- 4.2 Types and Methods
- 4.3 Effects on various system of body
- 4.4 Effect of Yoga on human system

### **UNIT-V: Application of Yoga**

- 5.1 Yoga for Health and Wellness
- 5.2 Yoga for Aged Population
- 5.3 Yoga for Elderly able population
- 5.4 Yoga for Elite Sports Persons

## **RECOMMENDED BOOKS**

1. Asana, Pranayama, Mudra, Bandha,,Swami Satyananda Saraswati, Yoga Publication Trust, Munger, Bihar, India

2. Asana, Swami Kuvalayananda ,Kaivalyadhama S.M.Y.M Samiti, Lonavla, Pune, India
3. Pranayama, Swami Kuvalayananda, Kaivalyadhama S.M.Y.M. Samiti, Pune, India
4. The Science of Yoga-Taimini-Theosophical Publishing House, Adyar, Chennai

### **DSE - III: SPORTS MANAGEMENT / SPORTS NUTRITION**

**Total Marks: 75 (60+15) Total Credit: 06 Total Lectures/Week: 06**

The Learning Outcomes of this subject are:-

- To acquaint students with knowledge of management and planning of Sports Competitions & Tournaments. The student learns to plan, organize & execute sports events.
- To acquaint students with knowledge of sports nutrition for better performance. The students learn nutritional importance and plan for various sports.

### **SPORTS MANAGEMENT**

#### **UNIT I: Concept**

- 1.1 Meaning, definition, nature and scope of Management
- 1.2 Elements of Sports Management
- 1.3 Importance of sports management
- 1.4 School of management thoughts

#### **UNIT II: Human resource management**

- 2.1 Concept & definition
- 2.2 Nature & characteristics
- 2.3 Aim & objectives
- 2.4 Scope importance and principles

#### **UNIT III: Facilities & equipment management**

- 3.1 Care & maintenance of outdoor facilities
- 3.2 Gymnasium and swimming pool management
- 3.3 Equipment: types, procedure and principles of purchase
- 3.4 Store management

#### **UNIT IV: intramural, Extramural & financial management**

- 4.1 Intramural: meaning objective units & rules
- 4.2 Extramural: meaning objective pros & cons
- 4.3 Financial management: concept need purpose & concept of different source of income
- 4.4 Budget: meaning, purpose, type & basis principles of budget formulation.

#### **UNIT V: Sports sponsorship, Marketing and contemporary concept**

- 5.1 Sponsorship: Objectives and Process
- 5.2 Types of Sponsorship, preparation of sponsorship proposal
- 5.3 Sports Marketing – Consumer Behavior, Sports Management and Marketing Agencies;
- 5.4 Brand, professional league and related contemporary terminology

## **SPORTS NUTRITION**

### **Unit-1**

- 1.1 Meaning and definition of nutrition and sports nutrition.
- 1.2 Process and guidelines of nutrition.
- 1.3 Need and Importance of sports nutrition.
- 1.4 Factors for developing nutritional plan

### **UNIT-2**

- 2.1 Meaning and types of nutrients
- 2.2 Carbohydrate- types, sources and functions
- 2.3 Protein- types, sources and functions
- 2.4 Fat- types, sources and functions

### **UNIT-3**

- 3.1 Meaning macronutrients, micronutrients, trace elements
- 3.2 Vitamins- types, sources and functions
- 3.3 Minerals- types, sources and functions
- 3.4 Water- sources and functions

### **UNIT-4**

- 4.1 Meaning, and importance of BMI
- 4.2 Calculation and range of BMI
- 4.3 Meaning types and factors of obesity
- 4.4 Balance diet and sports performance

### **UNIT-5**

5. 1. Nutritional plan for a sedentary and sports person.
5. 2. Nutrition and weight management
5. 3. Daily calorie intake and expenditure.
5. 4. Diet plan and exercise for sports performance

### **Recommended Books**

1. Singh A et al (2016). Essential of Physical Education. Kalyani Publisher, New Delhi
2. Fink HH (2009). Practical Application in Sports Nutrition 2<sup>nd</sup> ed. Jones & Bartlett Publishers. Sudbury, Massachusetts.

## **DSE - IV: INDIGENOUS SPORTS**

### **KABADDI, KHO-KHO & Mallakhamb**

**Total Marks: 75 (60+15)**

**Total Credit: 06**

**Total Lectures: 12**

The Learning Outcomes of these sports are:-

- To acquaint students with theoretical, technical and practical knowledge & skills of the indigenous sports of their choice and gain proficiency.

### **KABADDI**

- Unit 1. Raiding skills
- Unit 2. Holding techniques
- Unit 3. Holding Formation
- Unit 4. Touch & kick skills
- Unit 5. Game plan

KHO-KHO

- Unit 1. Chain types
- Unit 2. Running skills
- Unit 3. Chasing skills
- Unit 4. Dodge & fake skills
- Unit 5. Pole skills

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