

# **VIDYASAGAR UNIVERSITY**



## **BACHELOR OF PHYSICAL EDUCATION (B. P. Ed.)**

**Revised**

**Undergraduate Syllabus  
(w. e. f. 2022-2023)**

**Vidyasagar University  
Midnapore 721102  
West Bengal**

# **REGULATIONS AND MODEL SYLLABUS STRUCTURE FOR B. P. ED. TWO YEARS PROGRAMME (FOUR SEMESTERS) UNDER CBCS**

**Preamble:** BACHELOR OF PHYSICAL EDUCATION (B. P. ED.) TWO YEARS (Four Semesters) programme (under Choice Based Credit System) is a professional programme meant for preparing teachers of Physical Education in classes VI to X and for conducting physical education and sports activities in classes XI and XII.

B. P. Ed. programme has been designed to integrate the study of childhood, social context of Physical Education, subject knowledge, pedagogical knowledge, aim of Physical Education and communication skills. The programme comprises of compulsory and optional theory as well as practical courses and compulsory school internship.

## **1. B. P. Ed. Eligibility**

Intake, Eligibility and Admission Procedure as per the NCTE norms and standards

## **2. B.P.Ed. Duration:**

The B. P. Ed programme shall be of duration of TWO (02) Academic Years, that is, four (04) semesters. However, the students shall be permitted to complete the programme requirements within a maximum of three (03) years from the date of admission to the programme.

## **3. B.P.Ed. The CBCS System:**

All Programmes shall run on Choice Based Credit System (CBCS). It is an instructional package developed to suit the needs of students, to keep pace with the developments in higher education and the quality assurance expected of it in the light of liberalization and globalization in higher education.

## **4. B.P.Ed Course:**

The term course usually referred to, as 'papers' is a component of a programme. All courses need not carry the same weight. The courses should define learning objectives and learning outcomes. A course may be designed to comprise Lectures/ tutorials/laboratory work/ field work/ outreach activities/ project work/ vocational training/viva/ seminars/ term papers/assignments/ presentations/ self-study etc. or a combination of some of these.

## **5. B.P.Ed. Courses of Programme:**

The B.P.Ed. Programme consists of a number of courses, the term 'Course' applied to indicate a logical part of subject matter of the programme and is invariably equivalent to the subject matter of a "paper" in the conventional sense. The following are the various categories of courses suggested for the B.P.Ed. Programme.

### **Theory:**

#### **Core Course:**

#### **Elective Course:**

### **Practicum: Teaching Practices:**

## **6. B.P.Ed. Semesters:**

An academic year is divided into two semesters. Each semester will consist of 17-20 weeks of academic work equivalent to 100 actual teaching days. The odd semester may be scheduled from May/June to November/ December and even semester from November / December to May/June. The institution shall work for a minimum of 36 working hours in a week (five or six days a week).

## **7. B.P.Ed. Working days:**

There shall be at least 200 working days per year exclusive of admission and examination processes etc.

## **8. B.P.Ed Credits:**

The term 'Credit' refers to a unit by which the programme is measured. It determines the number of hours of instructions required per week. One credit is equivalent to one hour of teaching (lecture or tutorial) or one and half / two hours of practical work/field work per week. The term 'Credit' refers to the weight given to a course, usually in relation to the instructional hours assigned to it. The total minimum credits, required for completing a B.P.Ed. Programme is 90 credits and for each semester 20 credits

Students can earn maximum 06 Bonus credits in each semester by his/her participation in the above mentioned activities duly certified by the Head of the institution / Department. This Bonus credit will be used only to compensate loss of credits in academic activities.

**Provision of Bonus Credits Maximum 06 Credits in each Semester**

<b>Sr. No.</b>	<b>Special Credits for Extra Co-curricular Activities</b>	<b>Credit</b>
1	Sports Achievement at State level Competition (Medal Winner)	1
	Sports Achievement National level Competition (Medal Winner)	2
2	Inter Uni. Participation (Any one game)	2
3	Inter College Participation (min. two game)	1
4	National Cadet Corps / National Service Scheme	2
5	Blood donation / Cleanliness drive / Community services /	2
6	Mountaineering – Basic Camp, Advance Camp / Adventure Activities	2
7	Organization / Officiating – State / National level in any two game	2
8	News Reposting / Article Writing / book writing / progress report writing	1
9	Research Project	4

**9. B.P.Ed. Examinations:**

- i. There shall be examinations at the end of each semester, for first semester in the month of November /December: for second semester in the month of May / June according to notification by the University. A candidate who does not pass the examination in any course(s) shall be permitted to appear in such failed course(s) in the subsequent examinations to be held in November /December or May / June.
- ii. A candidate should get enrolled /registered for the first semester examination. If enrollment/registration is not possible owing to shortage of attendance beyond condonation limit / rules prescribed OR belated joining OR on medical grounds, such candidates are not permitted to proceed to the next semester. Such candidates shall redo the semester in the subsequent term of that semester as a regular student; however, a student of first semester shall be admitted in the second semester, if he/she has successfully kept the term in first semester.

**10. B.P.Ed Condonation:**

Student must have 75% of attendance in each course for appearing the examination. Students who have 74% to 65% of attendance shall apply for condonation in the prescribed form with the prescribed fee. Students who have 64% to 50% of attendance shall apply for Condonation in prescribed form with the prescribed fee along with the Medical Certificate. Students who have below 50% of attendance are not eligible to appear for the examination.

### 11. B.P.Ed Pattern of Question Papers:

Question Papers shall have five questions corresponding to four units of each theory course.

#### **B.P.Ed.: Format of Question Paper for 4 Units.**

Each question paper shall have five questions. The pattern will be as follows:

Question No.	Description	Marks
1	Answer in detail (Long Question) Or Answer in detail (Long Question) (Form Unit 1)	15
2	Answer in detail (Long Question) Or Answer in detail (Long Question) (Form Unit 2)	15
3	Answer in detail (Long Question) Or Answer in detail (Long Question) (Form Unit 3)	15
4	Write short notes: any two out of four (Form Unit 4)	15
5	M.C.Q. Type Questions (10 out of 12 Que.) (3 Questions. from each unit)	10
<b>Total</b>		<b>70</b>

### 12. B.P.Ed. Evaluation:

The performance of a student in each course is evaluated in terms of percentage of marks with a provision for conversion to grade point. Evaluation for each course shall be done by a continuous internal assessment (CIA) by the concerned course teacher as well as by end semester examination and will be consolidated at the end of course. The components for continuous internal assessment are;

One Test	15 Marks
Seminar / Quiz	5 Marks
Assignments	5 Marks
Attendance	5 Marks
<b>Total</b>	<b>30 Marks</b>

Attendance shall be taken as a component of continuous assessment, although the students should have minimum 75% attendance in each course. In addition to continuous evaluation component, the end semester examination, which will be written type examination of at least 3 hours duration, would also form an integral component of the evaluation. The ratio of marks to be allotted to continuous internal assessment and to end semester examination is 30:70. The evaluation of practical work, wherever applicable, will also be based on continuous internal assessment and on an end-semester practical examination.

### 13. B.P.Ed. Minimum Passing Standard:

The minimum passing standard for CIA (Continuous Internal Assessment) and External Examinations shall be 40%, i.e. 12 marks out of 30 marks and 28 marks out of 70 marks respectively for theory courses. The minimum passing for both CIA & external examination shall be 50%, i.e. 15 marks out of 30 and 35 marks out of 70 marks for the practical courses.

### 14. B.P.Ed Grading:

Once the marks of the CIA (Continues Internal Assessment) and SEA (Semester end Assessment) for each of the courses are available, both (CIA and SEA) will be added. The marks thus obtained for each of the courses will then be graded as per details provided in R. B.P.Ed. 17 from the first semester onwards the average performance within any semester from the first semester is indicated by Semester Grade Point Average (SGPA) while continuous performance (including the performance of the previous semesters also) starting from the first semester is indicated by Cumulative Grade Point Average (CGPA). These two are calculated by the following formula:

$$1111_1 = \frac{\sum_{i=1}^n C_i \cdot 1111_i}{\sum_{i=1}^n C_i}$$

$$1111 = \frac{\sum_{i=1}^N 1111_i}{N}$$

Where  $C_i$  is the Credit earned for the course in any semester;  $G_i$  is the Grade point obtained by the student for the course  $i$  and  $n$  number of courses obtained in that semester;  $1111_1$  is SGPA of semester  $j$  and  $N$  number of semester. Thus CGPA is average of SGPA of all the semesters starting from the first semester to the current semester.

### 15. B.P.Ed. Classification of Final Results:

For the purpose of declaring a candidate to have qualified for the Degree of Bachelor of Physical Education in the First class / Second class / Pass class or First class with Distinction, the

Marks and the corresponding CGPA earned by the candidate in Core Courses will be the criterion. It is further provided that the candidate should have scored the First / Second Class separately in both the grand total and end Semester (External) examinations.

#### 16. B.P.Ed. Award of the B.P.Ed. Degree:

A candidate shall be eligible for the award of the degree of the B.P.Ed. only if he/she has earned the minimum required credit including Bonus Credits of the programme prescribed above.

#### 17. B.P.Ed. Letter Grades and Grade Points:

- i. Two methods-relative grading or absolute grading– have been in vogue for awarding grades in a course. The relative grading is based on the distribution (usually normal distribution) of marks obtained by all the students in the course and the grades are awarded based on a cut-off mark or percentile. Under the absolute grading, the marks are converted to grades based on pre-determined class intervals. To implement the following grading system, the colleges and universities can use any one of the above methods.
- ii. The grades for each course would be decided on the basis of the percentage marks obtained at the end-semester external and internal examinations as per following table:

Percentage	Grade	Latter	Description	Classification of final
85 & above	8.5-10.0	O	Outstanding	First class with Distinction
70-84.99	7.0-8.49	A <sup>+</sup>	Excellent	
60-69.99	6.0-6.99	A	Very Good	First Class
55-59.99	5.5-5.99	B <sup>+</sup>	Good	Higher Second Class
50-54.99	5.0-5.49	B	Above Average	Second Class
40-49.99	4.0-4.99	C	Average	Pass Class
Below 40	0.0	F	Fail/ Dropped	Dropped
	0.0	AB	Absent	

#### 18. B.P.Ed. Grade Point Calculation

Calculation of **Semester Grade Point Average (SGPA)** and **Credit Grade Point (CGP)** and declaration of class for B. P. Ed. Programme.

The credit grade points are to be calculated on the following basis:

$$SGPA = \frac{\sum_{i=1}^n C_i G_i}{\sum_{i=1}^n C_i}$$

Example – I

Marks obtained by Student in course CC101 = 5/100

Percentage of marks = 65 %

Grade from the conversion table is = A

Grade Point =  $6.0 + 5 (0.99/9.99)$

$$= 6.0 + 5 \times 0.1$$

$$= 6.0 + 0.5$$

$$= 6.5$$

The Course Credits = 04

$$\text{Credits Grade Point (CGP)} = 6.5 \times 04 = 26$$

The semester grade point average (SGPA) will be calculated as a weighted average of all the grade point of the semester courses. That is Semester grade point average (SGPA) = (sum of grade points of all eight courses of the semester) / total credit of the semester as per example given below:

### SEMESTER-1

Courses No.	Credit	Marks out of 100 (%)	Grade	Grade Point	Credit Grade point
<b>CC-101</b>	4	65	A	6.5	26
<b>CC-102</b>	4	60	A	6	24
<b>CC-103</b>	4	62	A	6.2	24.8
<b>EC-101/EC-102</b>	4	57	B+	5.7	22.8
<b>PC-101</b>	4	55	B+	5.5	22
<b>PC-102</b>	4	72	A+	7.2	28.8
<b>PC-103</b>	4	66	A	6.6	26.4
<b>PC - 104</b>	4	72	A+	7.2	28.8
	32				203.6

**Examples: Conversion of marks into grade points**

$$\text{CC-101 } 65 = 60 + 5 = 6.0 + 5 \times (0.99 / 9.99) = 6.0 + 5 \times 0.1 = 6.0 + 0.5 = 6.5$$

$$\text{CC-102 } 60 = 6.0$$

$$\text{CC-103 } 62 = 60 + 2 = 6.0 + 2 \times (0.99/9.99) = 6.0 + 2 \times 0.1 = 6.0 + 0.2 = 6.2$$

$$\text{EC-101/EC-102 } 57 = 55 + 2 = 5.5 + 2 \times (0.49 / 4.99) = 5.5 + 2 \times 0.1 = 5.5 + 0.2 = 5.7$$

$$\text{PC-101 } 55 = 5.5$$

$$\text{PC-102 } 72 = 70 + 2 = 7.0 + 2 \times (1.49 / 14.99) = 7.0 + 2 \times 0.1 = 7.0 + 0.2 = 7.2$$

$$\text{PC-103 } 66 = 60 + 6 = 6.0 + 6 \times (0.99 / 9.99) = 6.0 + 6 \times 0.1 = 6.0 + 0.6 = 6.6$$

$$\text{PC - 104 } 72 = 70 + 2 = 7.0 + 2 \times (1.49 / 14.99) = 7.0 + 2 \times 0.1 = 7.0 + 0.2 = 7.2$$

SEMESTER GRADE POINT AVERAGE (SGPA) = Total Credit Grade Points

$$= 203.6 / 32 = 6.3625$$

$$\text{SGPA Sem. I} = 6.3625$$

At the end of Semester-1

$$\text{Total SGPA} = 6.3625$$

$$\text{Cumulative Grade Point Average (CGPA)} = 6.3625/1 = 6.3$$



CGPA = 6.66875, Grade = A, Class = First Class

### SEMESTER-2

Courses No.	Credit	Marks out o f 100 (%)	Grade	Grade Point	Credit Grade point
<b>CC-201</b>	4	76	A+	7.6	30.4
<b>CC-202</b>	4	64	A	6.4	25.6
<b>CC-203</b>	4	59	B+	5.9	23.6
<b>EC-201/EC-202</b>	4	80	A+	8	32
<b>PC-201</b>	4	49	C	4.9	19.6
<b>PC-202</b>	4	64	A	6.4	25.6
<b>PC-203</b>	4	55	B+	5.5	22
<b>TP - 201</b>	4	72	A+	7.2	28.8
	32				207.6

SGPA Sem. II = 6.4875

At the end of Semester-2

Total SGPA for two Semesters = 12.85

Cumulative Grade Point Average (CGPA) =  $12.85/2 = 6.425$

CGPA = 6.66875, Grade = A, Class = First Class

### SEMESTER-3

Courses No.	Credit	Marks out o f 100 (%)	Grade	Grade Point	Credit Grade point
<b>CC-301</b>	4	64	A	6.4	25.6
<b>CC-302</b>	4	64	A	6.4	25.6
<b>CC-303</b>	4	59	B+	5.9	23.6
<b>EC-301/EC-302</b>	4	81	A+	8.1	32.4
<b>PC-301</b>	4	49	C	4.9	19.6
<b>PC-302</b>	4	64	A	6.4	25.6
<b>PC-303</b>	4	68	A	6.8	27.2
<b>TP - 301</b>	4	75	A+	7.5	30
	32				209.6

SGPA Sem. III = 6.55

At the end of Semester-3

Total SGPA for three Semesters = 19.4

Cumulative Grade Point Average (CGPA) =  $19.4/3 = 6.466667$

CGPA = 6.66875, Grade = A, Class = First Class

## SEMESTER-4

Courses No.	Credit	Marks out of 100 (%)	Grade	Grade Point	Credit Grade point
CC-401	4	83	A+	8.3	33.2
CC-402	4	76	A+	7.6	30.4
CC-403	4	59	B+	5.9	23.6
EC-401/EC-402	4	81	A+	8.1	32.4
PC-401	4	49	C	4.9	19.6
PC-402	4	78	A+	7.8	31.2
TP-401	4	81	A+	8.1	32.4
TP-402	4	75	A+	7.5	30
	32				232.8

SGPA Sem. IV = 7.275

At the end of Semester-4

Total SGPA for all the four semesters = 26.675

Cumulative Grade Point Average (CGPA) =  $26.675 / 4 = 6.66875$

CGPA = 6.66875, Grade = A, Class = First Class

### Note:

- (1) SGPA is calculated only if the candidate passes in all the courses i.e. get minimum C grade in all the courses.
- (2) CGPA is calculated only when the candidate passes in all the courses of all the previous and current semesters.
- (3) The cumulative grade point average will be calculated as the average of the SGPA of all the semesters continuously, as shown above.
- (4) For the award of the class, CGPA shall be calculated on the basis of:
  - (a) Marks of each Semester End Assessment And
  - (b) Marks of each Semester Continuous Internal Assessment for each course. The final Class for B.P.Ed. Degree shall be awarded on the basis of last CGPA (grade) from all the one to four semester examinations.

### R. B.P.Ed.19. Grievance Redressal Committee:

The college/department shall form a Grievance Redressal Committee for each course in each college/department with the course teacher / Principal / Director and the HOD of the faculty as the members. This Committee shall solve all grievances of the students.

### R. B.P.Ed.20. Revision of Syllabi:

1. Syllabi of every course should be revised according to the NCTE.
2. Revised Syllabi of each semester should be implemented in a sequential way.
3. In courses, where units / topics related to governmental provisions, regulations or laws, that change to accommodate the latest developments, changes or corrections are to be made consequentially as recommended by the Academic Council

4. All formalities for revisions in the syllabi should be completed before the end of the semester for implementation of the revised syllabi in the next academic year.
5. During every revision, up to twenty percent of the syllabi of each course should be changed so as to ensure the appearance of the students who have studied the old (unrevised) syllabi without any difficulties in the examinations of revised syllabi.
6. In case, the syllabus of any course is carried forward without any revision, it shall also be counted as revised in the revised syllabi.

## Semester - I

Part A: Theoretical Course						
Course Code	Title of the Papers	Total Hours	Credit	Internal Marks	External Marks	Total Marks
Core Course						
CC-101	History, Principle and Foundation of Physical Education& Olympic Movement	4	4	30	70	100
CC-102	Anatomy and Physiology	4	4	30	70	100
CC-103	Health Education and Environmental Studies	4	4	30	70	100
Elective Course (Anyone)						
EC-101	Physical Literacy through Movement Education	4	4	30	70	100
EC-102	Officiating and Coaching					
Part-B: Practical Course						
PC-101	Track and Field (Running Events): All Running Events – 80 Relay Race - 20	60	4	30	70	100
PC-102	Gymnastics & Mass Demonstration Activities: Gymnastics-60 Mass Demonstration Activities: Any Five (5 X 8= 40) Dumbbells/ Wands/ Hoop/ Umbrella/ Malkhamb/ Lazium/ Calisthenics/ Apparatus Drills.	60	4	30	70	100
PC-103	March Past, Ball Games and Indigenous Sports: March Past - 20 Ball Games: Handball-30 Indigenous Sports: Kabaddi and Kho-kho 25+25= 50	60	4	30	70	100
PC-104	Yoga, Weight training Aerobics and Bratochari: Yoga- 40, Weight training- 20 Aerobics- 20, Bratochari: 20	60	4	30	70	100
Total		400	32	240	560	800

## Semester - II

Part A: Theoretical Course						
Course Code	Title of the Papers	Total Hours	Credit	Internal Marks	External Marks	Total Marks
Core Course						
CC-201	Yoga Education and Inclusive Education	40	4	30	70	100
CC-202	Educational Technology and Methods of Teaching in Physical Education	40	4	30	70	100
CC-203	Organization, Administration and Management in Physical Education & Sports	40	4	30	70	100
Elective Course (Any one)						
EC-201	Contemporary Issues in Physical Education, Fitness and Wellness	40	4	30	70	100
EC-202	Sports Nutrition and Weight Management					
Part-B: Practical Course						
PC-201	Track and Field (Jumping Events): Track and Field: 100 (All Jumping events)	60	4	30	70	100
PC-202	Swimming & Team Games Swimming-40 Team Games: Volleyball, & Softball (2x30=60)	60	4	30	70	100
PC-203	Team Games & Racket Sports: Team Games: Hockey and Cricket (2x20=60) Racket Sports: Badminton, Table Tennis/ Squash/ Tennis (2x20=40)	60	4	30	70	100
Part – C Teaching Practices						
TP-201	Practice Teaching: Class room teaching (Teaching Practice): Atleast 8 lessons: 4 from Physical Education field and 4 from other School Subjects. 50 Outdoor teaching: Atleast 8 (4 Campus and 4 off-campus): 50 Examination Pattern: one Class room teaching & one activity teaching.	60	4	30	70	100
Total		400	32	240	560	800

## Semester - III

Part A: Theoretical Course						
Course Code	Title of the Papers	Total Hours	Credit	Internal Marks	External Marks	Total Marks
Core Course						
CC-301	Sports Training	40	4	30	70	100
CC-302	Computer Applications in Physical Education and Sports Science	40	4	30	70	100
CC-303	Sports Psychology and Sociology in Physical Education and Sports	40	4	30	70	100
Elective Course (Any one)						
EC-301	Sports Medicine, Physiotherapy and Rehabilitation	40	4	30	70	100
EC-302	Curriculum Design and Gender Education					
Part-B Practical Course						
PC-301	Track & Field (Throwing Events): Throwing Events: Shot Put-30, Discus-30 & Javelin-30, Hurdles-10	60	4	30	70	100
PC-302	Combative Sports: Karate/ Judo/Boxing/ Taekwondo/ Wrestling/Lathi. 2X30=60 Adventure activity/Outdoor activity: Camping/Trekking/Hiking/Rock-climbing /Artificial Climbing etc. (10) Lab-based Practical on Physical and Physiological/Psychological/Biomechanical measures (Total Internal and Final curriculum will be framed and assed by concerned University/Department (30)	60	4	30	70	100
PC-303	Ball Games: Ball Games: Football – 40 Netball – 30, Throw ball - 30	60	4	30	70	100
TP-301	Practice Teaching: Teaching Lessons: Atleast 6+6=12 Coaching lessons in school. Total 02 Coaching lessons, one from each game for external examination. (6 on campus & 6 at school) (30+30=60) Teaching Practice: On Yoga/Weight Training or Aerobics. Yoga- 4 lessons. 2 On campus & 2 at school). (20) Weight Training or Aerobics- 2 On campus & 2 at school). (20) Examination: One Lesson from each group.	60	4	30	70	100
Total		400	32	240	560	800

## Semester - IV

Part A: Theoretical Course						
Course Code	Title of the Papers	Total Hours	Credit	Internal Marks	External Marks	Total Marks
Core Course						
CC-401	Measurement and Evaluation in Physical Education	40	4	30	70	100
CC-402	Kinesiology and Biomechanics	40	4	30	70	100
CC-403	Research and Statistics in Physical Education	40	4	30	70	100
Elective Course (Any One)						
EC-401	Theory of Sports and Games	40	4	30	70	100
EC-402	Sports Management					
Part-B Practical Course						
PC-401	<b>AAHPER Youth Fitness &amp; Motor Fitness:</b> Measurement of AAHPER Youth Fitness Test – 60 Marks Measurement of Motor Fitness Test-40 Marks	60	4	30	70	100
PC-402	<b>Layout and Officiating ability:</b> Layout and Officiating ability of Track and Field events. 2X20=40 Marks Layout and Officiating ability of all Court Marking. 3X20=60 Marks	60	4	30	70	100
TP-401	<b>Coaching Lesson-I</b> 5+5=10 Coaching lessons from any two choice games opted by the student. Total 02 Coaching lessons, one from each game for external examination. (50+50=100)	60	4	30	70	100
PC-404	<b>Coaching Lesson-II</b> 5+5=10 Coaching lessons from Indigenous Sports and Racket Sports. Total 02 Coaching lessons, one from each section for external examination. (50+50=100)	60	4	30	70	100
Total		400	32	240	560	800
Grand Total ( SEM I+II+III+IV)		1600	128	960	2240	3200

## **SEMESTER-I**

### **Theory Courses**

#### **CC-101: HISTORY, PRINCIPLES AND FOUNDATION OF PHYSICAL EDUCATION & OLYMPIC MOVEMENT**

##### **UNIT-1: Introduction to the Concept of Physical Education**

- 1.1 Meaning, Definition, Misconceptions and Scope of Physical Education.
- 1.2 Aims and Objectives of Physical Education.
- 1.3 Relationship of Physical Education with General Education, Need for Physical Education in Modern society.
- 1.4 Physical Education as an Art and Science. Sports Ethics.

##### **UNIT-2: History of Development of Physical Education**

- 2.1 History of the development of Physical Education during pre-independence period.
- 2.2 Post-Independence Period - Physical Education in India with reference to development of Physical education in West Bengal. History of Sports Federations: FIFA, ICC, FINA, FIG. National and International records in different Sports and Games.
- 2.3 Contribution of Akhras, Vyayamshalas and YMCA. National Sports Awards: Major Dhyan Chand Khel Ratna Award, Arjuna Award, Maulana Abul Kalam Azad Trophy, Rashtriya Khel Protsahan Puruskar, Dronacharya Award and Tenzing Norgay National Adventure Award.
- 2.4 Contribution of Eminent Physical Educationists: J.B. Basedow, J.F. Gustmuth, F.L.Jahn, Franz Natchtegall, Niles Bukh, P.H.Ling. H.C.Buck, James Buchanan, P.M. Joshep, Rabindranath Tagore, Swami Vivekananda, Rishi Aurobindo.

##### **UNIT-3: Foundation & Principles of Physical Education**

- 3.1 **Philosophical foundation:** Idealism, Realism, Pragmatism and Naturalism in Physical Education.
- 3.2 **Biological Principles:** Change of locomotion from Biped to Quadruped position – Advantages and Disadvantages. - Age & Gender Characteristics, Body type, Fitness and wellness movement in the contemporary perspectives.
- 3.3 **Psychological principles:** Psychological factors affecting sports performance, Growth and Development – meaning, difference and principles.
- 3.4 **Sociological principles:** Socialization through Physical Education, social integration and cohesiveness, National & International integration through sports.

##### **UNIT-4: Olympic Movement**

- 4.1 The history of ancient Olympic movement.
- 4.2 The significant stages in the development of the modern Olympic movement, Philosophy of Olympic movement.
- 4.3 Significance of Olympic Ideals, Olympic Rings, Olympic Flag, Olympic Oath.
- 4.4 International Olympic Committee - Structure and Functions, National Olympic committees and their role in Olympic movement, Types of Olympic Games.

##### **References:**

1. Bucher, C. A. (n.d.) Foundation of physical education. St. Louis: The C.V. Mosby Co. Deshpande, S. H. (2014). Physical Education in Ancient India. Amravati: Degree college of Physical education.
2. Mohan, V. M. (1969). Principles of physical education. Delhi: Metropolitan Book Dep. Nixon, E. E. & Cozen, F.W. (1969). An introduction to physical education. Philadelphia: W.B. Saunders Co.
3. William, J. F. (1964). The principles of physical education. Philadelphia: W.B. Saunders Co.



## **CC-102: ANATOMY AND PHYSIOLOGY**

### **UNIT-1: Introduction of the Human Body**

- 1.1 Organization of the human body and Brief introduction of Anatomy Physiology in the field of Physical Education and Sports.
- 1.2 Cell-structure and functions of cells.
- 1.3 Tissue- Types of tissue and their functions.
- 1.4 Skeletal System- Bones of the human body- Axial and Appendicular skeleton. Classification and functions of bone Anatomical sex difference. Brief description of Joints.

### **UNIT-2: System I**

- 2.1 Muscular system- Types of muscle and functions-Structure of skeletal muscle, Major muscles of shoulder, hip and knee joint.
- 2.2 Digestive system: The alimentary canal /G.I. tract, Accessory glands and digestive juices – Brief outline of process of carbohydrate, fat and protein digestion.
- 2.3 Energy metabolism: Brief discussion on energy metabolism, Fuel for muscular work.
- 2.4 Circulatory System: Function of circulatory system. Composition and function of blood, Heart- location and structure, pulmonary circulation, Systemic circulation. Cardiac cycle, Blood pressure, Blood group, Blood coagulation. Blood and immunity.

### **UNIT-3: System II**

- 3.1 Respiratory system: Organs of respiration, meaning internal and external respiration. mechanism of respiration,
- 3.2 Excretory system: Structure and function of kidney, urine formation.
- 3.3 Endocrine system: Location, secretion and functions of different endocrine glands.
- 3.4 Nervous system: organization, central nervous system- Brain, spinal cord, autonomic nervous system. Concept of nerve- muscle physiology: Neuromuscular junction and transmission.

### **UNIT-4: Effect of Exercise on Different System**

- 4.1 Exercise-Concept and type.
- 4.2 Types of muscular contraction. Effect of exercise on muscular system.
- 4.3 Effect of exercise on circulatory system- Heart rate, stroke volume, cardiac output, athletic heart
- 4.4 Effect of exercise on respiratory system- Tidal volume, respiratory rate, pulmonary ventilation, oxygen uptake, oxygen debt or EPOC (Excess Post exercise oxygen consumption.)

### **References:**

1. Gupta, A. P. (2010). Anatomy and physiology. Agra: Sumit Prakashan.
2. Gupta, M. and Gupta, M. C. (1980). Body and anatomical science. Delhi: Swaran Printing Press.
3. Guyton, A.C. (1996). Textbook of Medical Physiology, 9th edition. Philadelphia: W.B.
4. Karpovich, P. V. (n.d.). Philosophy of muscular activity. London: W.B. Saunders Co. Lamb, G. S. (1982). Essentials of exercise physiology. Delhi: Surjeet Publication.
5. Moorthy, A.M. (2014). Anatomy physiology and health education.Karaikudi: MadalayamPub.
6. Morehouse, L. E. & Miller, J. (1967). Physiology of exercise. St. Louis: The C.V. Mosby Co. Pearce,
7. E. C. (1962). Anatomy and physiology for nurses. London: Faber & Faber Ltd.
8. Sharma, R. D. (1979). Health and physical education, Gupta Prakashan.
9. Singh, S. (1979). Anatomy of physiology and health education. Ropar: Jeet Publications.

## **CC-103: HEALTH EDUCATION AND ENVIRONMENTAL STUDIES**

### **UNIT-1: Health Education**

- 1.1 Concept, Dimensions, Spectrum and Determinants of Health.
- 1.2 Definition of Health, Health Education, Aims, objectives and principles of Health Education
- 1.3 Personal Hygiene: Care of eye, ear, skin, pumps & feet and hair.
- 1.4 School Health Program: Health service, Health instruction, Health supervision, health appraisal and Health record.

### **UNIT-2: Health Problems in India- Prevention and Control**

- 2.1 Communicable diseases: Malaria, Dengue, Dysentery, Cough and cold, chicken pox. **COVID-19.**
- 2.2 Non-Communicable diseases: Obesity, Diabetes, Hyper Tension, Cancer.
- 2.3 Nutritional Disorder: Mother-child Health Care, Explosive Population, Food Adulteration, First-Aid and emergency care.
- 2.4 Postural Deformities and their prevention and remedies.

### **UNIT- 3: Environmental Studies**

- 3.1 Historical Background and concept of Environmental Studies.
- 3.2 Definition, scope, need and importance of Environmental Studies. Observation of different Environmental Days.
- 3.3 Recycling of wastes, plastic recycling and probation of plastic bag/cover.
- 3.4 Role of School in Environmental conservation and sustainable development. Different Environmental Laws and regulations.

### **UNIT- 4: Natural Resources and Related Environmental Issues**

- 4.1 Water resources, food resources and Land resources.
- 4.2 Definition, effects and control measures of air pollution, water pollution, soil pollution, Noise pollution and thermal pollution.
- 4.3 Management of environment and Govt. Policies- role of Pollution Control Board
- 4.4 Celebration of various days in relation with environment.

### **References:**

1. Agrawal, K.C. (2001). Environmental biology. Bikaner: Nidhi publishers Ltd.
2. Frank, H. & Walter, H., (1976). Turners school health education. Saint Louis: The C.V. Mosby Company.
3. Nemir, A. (n.d.). The school health education. New York: Harber and Brothers. Odum, E.P. (1971). Fundamental of ecology. U.S.A.: W.B. Saunders Co.

## **EC-101: PHYSICAL LITERACY THROUGH MOVEMENT EDUCATION (ELECTIVE)**

### **UNIT-1: Introduction to Movement Education and Physical Literacy**

- 1.1 Definition, Meaning & Importance of Movement Education.
- 1.2 Definition, Meaning & Importance of Physical Literacy.
- 1.3 Concept of developmentally Appropriate Physical Activities.
- 1.4 Standards based Physical Education Curriculum (NASPE Standards).

### **UNIT-2: Motor Skill & Movement Pattern**

- 2.1 Classification of Motor Skills: Fundamental (Locomotor, Nonlocomotor, Body Management Skill), Specialized (Manipulative, Rhythmic Movement, Game & Sport Skills).
- 2.2 Skill Themes Approach and Development of Skill Themes: Traveling, Chasing, fleeing, dodging, jumping, landing, transferring body weight, striking, kicking, throwing and catching.
- 2.3 Introduction to Movement Concepts, Development of Movement Concepts: Space Awareness, Effort Concepts, Relationships.
- 2.4 Long Term Athlete Development (LTAD).

### **UNIT- 3: Participation in Physical Activity and Personal & Social Development**

- 3.1 Personal Development: Self-concept, Cognitive Functioning and Motivational outcomes
- 3.2 Social Development: Altruism, Controlling Aggression, Cooperation, Group development.
- 3.3 United Nations and other organizations using Sport and Traditional Sports for Social Development.
- 3.4 Sport for Development: Sport for Education, Economic, Gender, Health and Peace.

### **UNIT- 4: Pedagogical Models for Physical Literacy & Movement Education**

- 4.1 Need for child centered teaching models.
- 4.2 Teaching Games for Understanding (TGFU) model: Invasion Games, Net/Wall Games, Striking/Fielding Games, Target Games.
- 4.3 Education through Movement (ETM) program.
- 4.4 Coaching life skills through sport.

#### **References:**

1. Abels, K. & Bridges, J. M. (2010) Teaching Movement Education: Foundations for active lifestyles. Human Kinetics
2. Graham, G., Holt, Shirley & Parker, Melissa (1993) Children Moving. A Reflective Approach to Teaching Physical Education with Movement Analysis, Wheel 3<sup>rd</sup> Edition, Mayfield Publishing Company.
3. Lund, J & Tannehill & Lund, Jacalyn (2010) Standards-Based Physical Education Curriculum Development, 2nd Edition. Jones & Barlett Learning.
4. Frank, A. M (2003) Sports and Education: A Reference Handbook (Contemporary Education Issues), ABC-CLIO.
5. Ciccomascolo, L. E. & Sullivan, E. C. (2013) The Dimensions of Physical Education. Jones & Barlett Learning.
6. Pangrazi, R. P. (1998) Dynamic Physical Education for Elementary School Children, 12th Edition. Allyn & Bacon.
7. Griffin, L. & Butler, J. (2005) Teaching Games for Understanding: Theory, Research, and Practice. Human Kinetics
8. Coalter, F. (2013) Sport for Development: What game are we playing?. Routledge.

## **EC-102: OFFICIATING AND COACHING (ELECTIVE)**

### **UNIT – 1: Introduction of Officiating and Coaching**

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

### **UNIT – 2: Coach as a Mentor**

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

### **UNIT – 3: Duties of Official**

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

### **UNIT – 4: Qualities and Qualification of Coach and Official**

- 4.1 Qualities and Qualification of coach and official. Rule changes in different games and Sports (Under syllabus of all Games and Sports).
- 4.2 General rules of game and sports.
- 4.3 Eligibility rules of inter-collegiate and inter-university tournaments, preparation of TA, DA bills.
- 4.4 Integrity and values of sports.

### **Reference Books:**

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

## **SEMESTER-II**

### **Theory Courses**

#### **CC-201: YOGA EDUCATION AND INCLUSIVE EDUCATION**

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

- 1.1 Meaning and Definition of Yoga.
- 1.2 Aim and Objectives of Yoga.
- 1.3 History and Philosophical aspects of Yoga.
- 1.4 Need and Importance of Yoga in Physical Education and Sports.

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

- 2.1 Karma Yoga, Jnana Yoga, Bhakti Yoga and Raja Yoga.
- 2.2 Steps of Hatha Yoga, Astanga Yoga and Yogic Teaching Method.
- 2.3 Effect of asana and pranayama on human body and mind.
- 2.4 Yoga as therapy.

##### **UNIT-3: Introduction to Inclusive Education**

- 3.1 Concept and history of special education, integrated education and inclusive education and their relationship.
- 3.2 Philosophical, Sociological, Economical and Humanitarian dimensions of inclusive education.
- 3.3 Advantages of inclusive education for the individual and society.
- 3.4 Factors affecting inclusion.

##### **UNIT- 4: Inclusion in Operation & Teacher preparation for inclusive school**

- 4.1 Class room management and organizations, curricular adaptations, learning designing and development of suitable Teaching Learning Method.
- 4.2 Pedagogical strategies to respond to individual needs of students: Cooperative learning strategies in the class room, peer tutoring, social learning, buddy system, reflective teaching, multisensory teaching etc.
- 4.3 Problems in inclusion in the real class room situations; ways for overcoming the problems.
- 4.4 Teacher preparation for inclusive education. Skills and competencies of teachers.

##### **Reference Books:**

1. Brown, F.Y. (2000). Howtouseyoga. Delhi: Sports Publication.
2. Gharote, M.L. &Ganguly, H, (1988). Teaching methods for yogic practices. Lonawala: Kaixydhmoe.
3. Rajjan,S.M.(1985). Yoga strengthening of relaxation for sportsman. NewDelhi: Allied Publishers.
4. Shankar, G. (1998). Holistic approach of yoga. New Delhi: Aditya Publishers. Shekar, K.C. (2003). Yoga for health. Delhi: Khel Sahitya Kendra.
5. Nanda, B.P.(2014) Sikhya Ekibhaban, Classiq Books, Kolkata.
6. Nanda, B.P.(2012) Challenged Children: Problems and Management. Ankush Prakashan, Kolkata.
7. Nanda, B.P. (2008) School without walls in 21st Century: From exclusion to inclusion practices in education. Mittal Publications, New Delhi.
8. Nanda, B.P. and Ghosh, S. (2010) Bishes Sikshar Itihas, Rabindra Bharati Prakasana, Kolkata.
9. Nanda, B.P. and Zaman, S.S. (2002) Batichrom dharmi Sishu Mawola Brothers, Dhaca, Bangladesh.

## **CC-202: EDUCATIONAL TECHNOLOGY AND METHODS OF TEACHING IN PHYSICAL EDUCATION**

### **UNIT – 1: Introduction**

- 1.1 Education and education technology- meaning and definitions.
- 1.2 Types of education – Formal, Informal and non-formal education.
- 1.3 Educative Processes.
- 1.4 Importance of device and methods of teaching and class management.

### **UNIT – 2: Teaching Technique**

- 2.1 Teaching Techniques – Lecture Method, Command Method, Demonstration Method, Imitation Method, Project Method etc. ; Teaching procedure – Whole method, Whole – part- whole method, Part- whole method.
- 2.2 Presentation technique – personal and technical preparation and presentation.
- 2.3 Verbal Non-verbal communication technique.
- 2.4 Details of three fundamental methods – meaning, types and its uses in different situation.

### **UNIT – 3: Teaching Aids and Competition**

- 3.1 Teaching Aids – meaning importance and its criteria for selecting teaching aids.  
Community Aids, Co-curricular Aids.
- 3.2 Type of Teaching Aids – Audio aids, Visual Aids, Audio-visual Aids.
- 3.3 Meaning, Principles and advantages of team teaching.
- 3.4 Group Competition, Intramural and extramural Competition.

### **UNIT – 4: Learning Designing and Teaching Innovations**

- 4.1 Meaning, Types and Principle of Learning designing.
- 4.2 General and Specific Learning designing. Simulation Teaching – meaning, types and steps of Simulation Teaching.
- 4.3 Meaning, Types and Steps of Micro and Macro Teaching.
- 4.4 Methods of Classification of students.

### **References:**

1. Bhardwaj, A. (2003). New media of Educational Planning. New Delhi: Sarup of sons.
2. Bhatia & Bhatia, (1959). The Principle and Methods of Teaching. New Delhi: Doaba House.
3. Kochar, S.K. (1982). Methods and Technique of Teaching. New Delhi: Sterling Publishers Pvt. Ltd.
4. Sampath, K., Pannirselvam, A. & Santhanam, S. (1981). Introduction to educational technology. New Delhi: Sterling Publishers Pvt. Ltd.
5. Wlia, J.S. (1999). Principles and Methods of Education. Jullandhar: Paul Publishers.

## **CC-203: ORGANIZATION, ADMINISTRATION AND MANAGEMENT IN PHYSICAL EDUCATION AND SPORTS**

### **UNIT - 1: Introduction to Organization and Administration**

- 1.1 Meaning Definition, and Importance of organization and Administration in Physical Education.
- 1.2 Meaning, Definition and Importance of Planning.
- 1.3 Basic principles of Planning.
- 1.4 Functions of Organization and Administration.

### **UNIT-2: Office and Time Table Management**

- 2.1 Meaning Definition and Functions of Office Management.
- 2.2 Kinds of Office Management.
- 2.3 Maintenance of different types of Register.
- 2.4 Time Table Management: Meaning, Need and Importance.

### **UNIT – 3: Management of Sports Facility**

- 3.1 Types of facilities: Infrastructure of Indoor and Outdoor
- 3.2 Facility Management: Equipment Store Room, Gymnasium, Swimming Pool, Play ground, Cricket pitches,
- 3.3 Equipment: Need, Importance, Procedure of purchase, Care and Maintenance.
- 3.4 Physical efficiency Record, Medical examination Record.

### **UNIT – 4: Tournament**

- 4.1 Importance of Tournament.
- 4.2 Types of Tournament and its organizational structure.
- 4.3 Organizational structure of athletic meet. Preparation and Planning for Organizations of different Games and Sports.
- 4.4 Sports Event, Intramural and Extramural Tournament Planning.

### **References:**

- 1. Broyles, F. J. & Rober, H. D. (1979). Administration of sports, Athletic programme: A Managerial Approach. New York: Prentice hall Inc.
- 2. Bucher, C. A. (1983). Administration of Physical Education and Athletic programme. St. Louis: The C.V. Mosby Co.
- 3. Kozman, H.C. Cassidy, R. & Jackson, C. (1960). Methods in Physical Education. London: W.B. Saunders Co.
- 4. Pandey, L.K. (1977). Methods in Physical Education. Delhi: Metropolitan Book Depot.



## **EC-201: CONTEMPORARY ISSUES IN PHYSICAL EDUCATION, FITNESS AND WELLNESS (ELECTIVE)**

### **UNIT – 1: Concept of Fitness**

- 1.1 Meaning and Definition of Fitness.
- 1.2 Type of fitness.
- 1.3 Definitions and components of physical fitness. Health Related and Performance Related Physical Fitness components and their role in Games and Sports.
- 1.4 Changing concept of physical fitness.

### **UNIT – 2: Concept of Wellness and Lifestyle**

- 2.1 Concept and dimensions of wellness.
- 2.2 Cyber culture and modern life style.
- 2.3 Diseases due to lifestyle – Their prevention and management through physical activities.
- 2.4 Construction of Wellness profile.

### **UNIT – 3: Principle of Exercise Programme**

- 3.1 Means of fitness development – aerobic and anaerobic exercises.
- 3.2 Principle of obesity control and weight management.
- 3.3 Concept of sets, repetition, volume, intensity, density of exercise.
- 3.4 Concept of designing different fitness training programme for different age groups.

### **UNIT – 4: Safety Education and Fitness Promotion**

- 4.1 Definition and need of Safety Education.
- 4.2 Determination of desirable body weight.
- 4.3 Health drinks and sports drinks- their need and importance. Different Forms of Health drink and sports drink.
- 4.4 Common injuries and their management

### **References:**

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



## **EC-202: SPORTS NUTRITION AND WEIGHT MANAGEMENT (ELECTIVE)**

### **UNIT-1: Introduction to Nutrition**

- 1.1 Meaning and definition of Nutrition and sports nutrition.
- 1.2 Guidelines of basic nutrition.
- 1.3 Role of nutrition in sports.
- 1.4 Factors for developing a nutritional plan.

### **UNIT- 2: Nutrients**

- 2.1 Macro Nutrients- Carbohydrate, protein, fat - Meaning, Sources and functions.
- 2.2 Micro Nutrients- Vitamins, minerals, water – meaning, Sources, classification and functions.
- 2.3 Role of carbohydrate, fat, protein and minerals during exercise.
- 2.4 Role of hydration during exercise and water balance.

### **UNIT- 3: Nutrition and Weight Management**

- 3.1 Meaning and concept of weight management in modern era. Factors affecting weight management and values of weight management.
- 3.2 Concept of B.M.I.(Body Mass Index), H.W.R and Obesity.
- 3.3 Obesity and its hazards, Myth of Spot reduction, dieting versus exercise for weight control, Common Myths about weight loss.
- 3.4 Health risks associated with Obesity – Causes and solution for overcoming obesity.

### **UNIT- 4: Steps of Planning of Weight Management**

- 4.1 Nutrition – Daily calorie intake and expenditure.
- 4.2 Balance diet and athletic diet.
- 4.3 Role of diet and exercise in weight management.
- 4.4 Weight management programme for sporty child, Design diet and exercise schedule for weight gain and loss.

### **References:**

- 1. Bessesen, D. H. (2008). Update on obesity. J ClinEndocrinolMetab.93(6), 2027-2034.
- 2. Butryn, M.L., Phelan, S., &Hill, J. O.(2007). Consistent self-monitoring of weight: a key component of successful weight loss maintenance.Obesity(Silver Spring). 15(12), 3091- 3096.
- 3. Chu, S.Y. & Kim, L. J. (2007). Maternal obesity and risk of stillbirth: a metaanalysis. Am J ObstetGynecol, 197(3), 223-228.
- 4. DeMaria, E. J. (2007). Bariatric surgery for morbid obesity. N Engl J Med,356(21), 2176-2183.
- 5. Dixon, J.B., O'Brien, P.E., Playfair, J. (n.d.). Adjustable gastric banding and conventional therapy for type 2 diabetes: a randomized controlled trial. JAMA. 299(3), 316-323.

## **SEMESTER – III**

### **Theory Courses**

#### **CC-301: SPORTS TRAINING**

##### **UNIT – 1: Introduction to Sports Training**

- 1.1 Meaning and Definition of Sports Training and Sports Coaching
- 1.2 Aim and Objectives of Sports Training
- 1.3 Principles of Sports Training and qualification and duties of sports trainer
- 1.4 Components of games and sports training (Motor fitness components Technique, Tactics and Strategic approach, Psychological components facilities and infrastructure)

##### **UNIT – 1: Process of development of motor fitness component**

- 2.1 Strength- Means and method of Strength development
- 2.2 Speed - Means and method of Speed development
- 2.3 Endurance- Means and method of Endurance development
- 2.4 Power and Balance - Means and method of Power and Balance development

##### **UNIT – 1: Training load, load dynamics and Training processes**

- 3.1 Concept definition and types of training load
- 3.2 Components of training load
- 3.3 Concept of load dynamics and its principles
- 3.4 Technical and Tactical training- Meaning, Importance and methods.

##### **UNIT – 1: Programme, planning and system of sports training**

- 4.1 Periodization- Meaning, definition and types. Aims, Objectives and Content of different periods- Preparatory, Competition and Transition.
- 4.2 Planning- Training session for Micro, Meso and Macro cycles.
- 4.3 Systems of Sports Training- Basic Performance, Good Performance and High Performance.
- 4.4 Talent identification. Meaning of Flexibility and coordinative ability and their role in High Performance.

##### **Reference:**

- 1. Dick, W. F. (1980).Sports training principles. London: Lepus Books.
- 2. Harre, D.(1982).Principles of sports training. Berlin: Sporulated.
- 3. Jensen, R. C.& Fisher, A.G. (1979). Scientific basis of athletic conditioning. Philadelphia: Lea and Fibiger, 2ndEdn.
- 4. Matvyew, L.P. (1981).Fundamental of sports training. Moscow: Progress Publishers.
- 5. Singh, H. (1984).Sports training, general theory and methods.Patials: NSNIS.
- 6. Uppal, A.K., (1999).Sports Training.New Delhi: Friends Publication.

## **CC-302 COMPUTER APPLICATIONS IN PHYSICAL EDUCATION AND SPORTS SCIENCE**

### **UNIT – 1: Introduction to Computer Application**

- 1.1 Components of computer-input and output unit, storage unit, CPU, ALU, control unit.
- 1.2 Starting & quitting windows, setting display, time & date, managing files and folders.
- 1.3 Meaning, need and importance of information and communication technology (ICT).
- 1.4 Application of computer and computer software in Physical Education and Sports

### **UNIT – 2: Word**

- 2.1 Introduction to word
- 2.2 Creating, saving and opening a document
- 2.3 Formatting & editing features, drawing table and graphs, page setup, paragraph alignment, spelling and grammar check, bullets and numbering, page number, header and footer, footnote and endnotes, mail merge, printing option and hyperlink.
- 2.4 Preparation of word document

### **UNIT – 3: Excel**

- 3.1 Introduction to Excel
- 3.2 Creating, saving and opening spreadsheet
- 3.3 Format and editing features, adjusting columns width and row height, Creating formulas, short and filter, inserting graph and pictures, printing option
- 3.4 Preparation of Excel worksheet

### **UNIT – 4: Power Point**

- 4.1 Introduction to Power Point
- 4.2 Creating, saving and opening a ppt file
- 4.3 Format and editing features, slide show, design, inserting slide number, picture, graph, table, hyperlink and graphics.
- 4.4 Preparation of Power Point Presentation

### **References:**

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

## **CC – 303: PSYCHOLOGY AND SOCIOLOGY IN PHYSICAL EDUCATION AND SPORTS**

### **UNIT – 1: Introduction to Psychology and Sociology**

- 1.1 Meaning, Importance and scope of Sports Psychology and Sociology.
- 1.2 Biological Basis of Human Behaviour
- 1.3 Individual Differences – Heredity and Environment
- 1.4 Psycho-social aspects of Human behavior in relation to Physical Education and Sports

### **UNIT – 2: Learning, Maturity and Growth & Development**

- 2.1 Learning-Definition, Types and Laws of Learning. Theories of Learning. Factors affecting Learning, Transfer of Learning. Learning Curve – Stagnation in learning.
- 2.2 Growth and Development – Stages of Development, need of Physical Activity
- 2.3 Personality - Meaning and definition of personality, characteristics of personality, Dimension of personality, Personality and Sports performance.
- 2.4 Mental Aspects – Attention, Interest, Motivation, Aggression, Emotion, Anxiety.

### **UNIT – 3: Social Science and Physical Education**

- 3.1 Orthodoxy, customs, Tradition and Physical Education.
- 3.2 Importance of Festivals in physical Education.
- 3.3 Theories of Play, Socialization through Physical Education.
- 3.4 Social Group life Social conglomeration– Social group, Primary group and Remote group.

### **UNIT – 4: Culture and Physical Education**

- 4.1 Features of culture, Importance of culture
- 4.2 Importance of sports in modern society
- 4.3 Effects of culture on people lifestyle.
- 4.4 Different methods of studying (Observation/ Inspection method Questionnaire method, Interview method.)

### **Suggested Readings**

- 1. B. J. Cratty. Psychology of Contemporary sports Champaign: Human Kinetics Publishers,
- 2. John M. Silva & Roberts. Psychological Foundations of Sport. Champaign: Human Kinetics Publishers.
- 3. Diane Gills, Psychological Dynamics of sports. Champaign: Human Kinetics Publishers.
- 4. Cox, Sports Psychology. Champaign: Human Kinetics Publishers.
- 5. Richard M. Sumin, “Psychology in Sports, Methods & Application. New Delhi: Surjeet Publication.

## **EC-301: SPORTS MEDICINE, PHYSIOTHERAPY AND REHABILITATION (ELECTIVE)**

### **UNIT-1: Sports Medicine**

- 1.1 Meaning and concept of sports medicine, Aim and objectives of sports medicine.
- 1.2 Development of sports medicine as discipline –aspect of sports medicine
- 1.3 Common regional injuries and their management- shoulder, elbow, wrist knee and ankle – signs , symptoms and diagnosis of injuries
- 1.4 Concept of doping and doping agents banded by WADA

### **UNIT-2: Physiotherapy**

- 2.1 Brief introduction of Physiotherapy
- 2.2 Need and importance of Physiotherapy
- 2.3 Different types of therapeutic modalities (cryotherapy, superficial thermo therapy, penetrating thermotherapy, Electrical stimulation)
- 2.4 Guiding principles of therapeutic modalities

### **UNIT-3: Athletic Care and Massage**

- 3.1 Prevention of athletic injuries – steps of prevention –pre-participation evaluation –Warm up and conditioning.
- 3.2 Emergency care in athletics and First aid – Meaning and principles – First aid care for I) Loss of consciousness II) control of building III) Drowning and basic life support.
- 3.3 Protective and supportive equipment: Taping, Bandaging, padding and orthotics.
- 3.4 Massage: Classification – general principles, indication and contraindication.

### **UNIT –4: Rehabilitations**

- 4.1 Concept and goal of rehabilitation
- 4.2 Principle of therapeutic exercises –Classification ,uses of
- 4.3 Passive movement and active movement
- 4.4 Mobility exercise

### **References:**

1. Christine, M. D., (1999). Physiology of sports and exercise.USA: Human Kinetics.
2. Conley, M. (2000). Bioenergetics of exercise training. In T.R. Baechle, & R.W. Earle, (Eds.), Essentials of Strength Training and Conditioning (pp. 73-90). Champaign, IL: Human Kinetics.
3. David, R. M. (2005).Drugs in sports, (4th Ed). Routledge Taylor and Francis Group.
4. Hunter, M. D. (1979). A dictionary for physical educators. In H. M. Borrow & R. McGee, (Eds.), A Practical approach to measurement in Physical Education (pp. 573-74). Philadelphia: Lea &Febiger.

## **EC-302: CURRICULUM DESIGN AND GENDER EDUCATION (ELECTIVE)**

### **UNIT-1: Modern concept of the curriculum**

- 1.1 Need and importance of curriculum, Need and importance of curriculum development, the role of the teacher in curriculum development.
- 1.2 Factors affecting curriculum- Social factors- Personnel qualifications-Climatic consideration
- 1.3 Equipment and facilities-Time suitability of hours.
- 1.4 National and Professional policies, Research finding

### **UNIT-2: Basic Guideline for curriculum construction; contest (selection and expansion).**

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

### **UNIT-3: Curriculum-Old and new concepts, Mechanics of curriculum planning.**

- 3.1 Basic principles of curriculum construction.
- 3.2 Curriculum Design, Meaning, Importance and factors affecting curriculum design.
- 3.3 Principles of Curriculum design according to the needs of the students and state and national level policies.
- 3.4 Role of Teachers

### **UNIT-4: Under-graduate preparation of professional preparation.**

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

### **Reference:**

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

## **SEMESTER – IV**

### **Theory Courses**

#### **CC– 401: MEASUREMENT AND EVALUATION IN PHYSICAL EDUCATION**

##### **UNIT- 1: Introduction to Test, Measurement & Evaluation**

- 1.1 Meaning of Test, Measurement & Evaluation in Physical education
- 1.2 Need, Importance of Test, Measurement & Evaluation in Physical Education
- 1.3 Application of Test, Measurement & Evaluation in Physical Education
- 1.4 Principles of Evaluation

##### **UNIT - 2: Criteria, Classification and Administration of Test**

- 2.1 Criteria of a good Test and Scientific authenticity (reliability, objectivity, validity and availability of norms)
- 2.2 Types of Test
- 2.3 Difference between Physical Fitness Test, Motor Fitness test, and Sports Skill Test
- 2.4 Administration of test- Advance preparation, Duties during test and after test.

##### **UNIT- 3: Physical Fitness; Motor Fitness and Cardio-respiratory Tests**

- 3.1 AAHPER Youth Fitness Test
- 3.2 AAHPERD Health Related Physical Fitness Test
- 3.3 Indiana Motor Fitness Test and JCR test
- 3.4 Harvard Step test and Tattle pulse ratio test

##### **UNIT- 4: Sports Skill Tests**

- 4.1 Mitchei's modification of McDonald Soccer Test
- 4.2 Johnson Basketball Test
- 4.3 Lockhart and McPherson Badminton Test
- 4.4 Russel-Lange Volleyball Test
- 4.5 Schmithal-French Field Hockey Test

##### **References:**

1. Bangsbo, J. (1994). Fitness training in football: A scientific approach. Bagsvaerd, Denmark: Ho+Storm.
2. Barron, H. M., & Mchee, R. (1997). A practical approach to measurement in physical education. Philadelphia: Lea and Febiger.
3. Barron, H.M. & Mchee, R. (1997). A Practical approach to measurement in physical education. Philadelphia: Lea and Febiger.
4. Kansal, D.K. (1996). Test and measurement in sports and physical education. New Delhi: D.V.S. Publications.
5. Mathews, D.K., (1973). Measurement in physical education, Philadelphia: W.B. Saunders Company.
6. Pheasant, S. (1996). Body space: anthropometry, ergonomics and design of work. Taylor & Francis, New York.
7. Phillips, D. A., & Hornak, J. E. (1979). Measurement and evaluation in physical education. New York: John Willey and Sons.
8. Sodhi, H.S., & Sidhu, L.S. (1984). Physique and selection of sports- a kinanthropometric study. Patiala: Punjab Publishing House.



## **CC-402: KINESIOLOGY AND BIOMECHANICS**

### **UNIT – 1: Introduction to Kinesiology and Sports Biomechanics**

- 1.1 Meaning and Definition of Kinesiology, Biomechanics and Sports Biomechanics
- 1.2 Importance and Scope of Kinesiology and Sports Biomechanics in Physical Education and Sports Science
- 1.3 Terminology of Fundamental Movements
- 1.4 Fundamental Concepts of Following Terms – Axes and Planes, Centre of Gravity, Line of Gravity, Scalars and Vectors Quantities, Equilibrium.

### **UNIT – 2: Kinesiological Aspects of Human Movement**

- 2.1 Classification of Joints and Muscles, Name of the Major Superficial Muscles, movements around the joints
- 2.2 Types of Muscle Contractions
- 2.3 Posture – Meaning, Types and Importance of Good Posture.
- 2.4 Fundamental Concepts of Following Terms- Angle of Pull, All or None Law, Reciprocal Innervations

### **UNIT – 3: Mechanical Concepts**

- 3.1 Force - Meaning, Definition, Types, Units and its Application to Sports Activities
- 3.2 Lever - Meaning, Definition, Types and Body Lever. Wheel, Axel and Pulley.
- 3.3 Motion – Concept, Types and its Application to Sports Activities. Newton's Laws of Motion
- 3.4 Projectile Motion – Concept, Types, Principles and Factors Influencing Projectile Motion.

### **UNIT – 4: Kinematics and Kinetics of Human Movement**

- 4.1 Linear Kinematics – Distance and Displacement, Speed and Velocity, Acceleration
- 4.2 Angular kinematics – Angular Distance and Displacement, Angular Speed and velocity, Angular Acceleration.
- 4.3 Linear Kinetics – Inertia, Mass, Momentum, Impulse, Friction.
- 4.4 Angular Kinetics – Moment of Inertia, Couple, Stability.

### **Reference:**

1. Bunn, J. W. (1972).Scientific principles of coaching. Englewood Cliffs, N.J. Prentice HallInc.
2. Hay, J. G. & Reid, J. G.(1982).The anatomical and mechanical basis of human motion. Englewood Cliffs, N.J.: prentice Hall Inc.
3. Hay, J. G. & Reid, J. G. (1988).Anatomy, mechanics and human motion. Englewood Cliffs, N.J.: prentice Hall Inc.
4. Hay, J. G. (1970).The biomechanics of sports techniques. Englewood Cliffs, N.J.: Prentice Hall, Inc.
5. Simonian, C.(1911).Fundamentals of sport biomechanics. Englewood Cliffs, N.J.: Prentice Hall Inc.
6. Hall, J.S. (1991). Basic Biomechanics. The McGraw-Hill Companies, Inc. First Edition 1991, Brown and Benchmark Publishers.



# **CC– 403: RESEARCH AND STATISTICS IN PHYSICAL EDUCATION**

## **UNIT- 1: Introduction to Research**

- 1.1 Definition of Research, Need and importance of Research in Physical Education and Sports.
- 1.2 Scope of Research in Physical Education & Sports.
- 1.3 Classification of Research
- 1.4 Research Problem, Quality of a good researcher

## **UNIT -2: Research Proposal and Project Report**

- 2.1 Need for surveying related literature and Literature Sources
- 2.2 Research Proposal- Meaning and Significance of Research Proposal.
- 2.3 Preparation of a Project proposal and Project report.
- 2.4 Methods of Collection of data

## **UNIT-3: Basics of Statistical Analysis**

- 3.1 Statistics: Meaning, Definition, Nature and Importance
- 3.2 Class Intervals: Raw Score, Continuous and Discrete Series
- 3.3 Frequency and Frequency Distribution, Construction of Frequency Distribution Tables
- 3.4 Graphical Presentation of Data: Histogram, Frequency Polygon, Frequency Curve.

## **UNIT-4: Statistical Models in Physical Education and Sports**

- 4.1 Measures of Central Tendency: Mean, Median and Mode :
  - 4.2 Definition, Importance, Advantages, Disadvantages and Calculation from Group and Ungrouped data.
  - 4.3 Measures of Variability: Meaning, importance, computing from group and ungroup data
  - 4.4 Percentiles and Quartiles: Meaning, importance, computing from group and ungroup data.
- Correlation – Meaning, Magnitude and application. Simple calculation by Rank Order method.

## **References:**

1. Best, J.W. (1963). Research in education. U.S.A.: Prentice Hall.
2. Bompaa, T. O. &Haff, G. G. (2009). Periodization: theory and methodology of training, 5th ed.Champaign, IL: Human Kinetics.
3. Brown, L. E., &Ferrigno, V. A. (2005). Training for speed, agility and quickness, 2nd ed.Champaign, IL: Human Kinetics.
4. Brown, L.E. & Miller, J., (2005). How the training work. In: Training Speed, Agility, and Quickness. Brown, L.E. &Ferrigno, V.A &Ferrigno, V.A., eds. Champaign, IL: Human Kinetics.
5. Carl, E. K., & Daniel, D. A. (1969). Modern principles of athletes training. St. Louis: St. Louis's Mosby Company.
6. Clark, H. H., & Clark, D. H. (1975). Research process in physical education. Englewood cliffs, New Jersey: Prentice Hall, Inc.
7. Garrett, H.E. (1981). Statistics in psychology and education. New York: VakilsFeffer and Simon Ltd.
8. Oyster, C. K., Hanten, W. P., &Llorens, L. A. (1987). Introduction to research: A guide for the health science professional. Landon: J.B. Lippincott Company.
9. Thomas, J.R., & Nelson J.K. (2005). Research method in physical activity. U.S.A: Champaign, IL: Human Kinetics Books.
10. Thomas, J.R., Nelson, J.K. & Silverman, S.J. (2011). Research method in physical activity.U.S.A: Champaign, IL: Human Kinetics Books.
11. Uppal, A. K. (1990). Physical fitness: how to develop. New Delhi: Friends Publication.
12. Verma, J. P. (2000). A text book on sports statistics. Gwalior: Venus Publications.

## **EC- 401: THEORY OF SPORTS AND GAMES (ELECTIVE)**

### **UNIT – 1: Introduction**

- 1.1 General Introduction of specialized game and sports: Athletics, Badminton, Basketball, Volleyball, Cricket, Football, Gymnastics, Hockey, Hand ball, Kabaddi, Kho-Kho, Tennis, Yoga. Each Game or sportsto be dealt under the following heads: history and development of the game and of sports(any two)
- 1.2 Ground preparation, dimension and marking
- 1.3 Standard equipment and their specification
- 1.4 Ethics of sports and sportsmanship

### **UNIT – 2: Scientific principles of coaching (particular sports and game specific)**

- 2.1 Motion- Types of motion and displacement, speed, Velocity, Acceleration, distance and Newton's Laws of motion.
- 2.2 Force- Friction, Centripetal and Centrifugal force, principles of force.
- 2.3 Equilibrium and lever: Their types
- 2.4 Sports training- Aims, Principles and characteristics. Training load- Component, principles of load, over load (Causes and symptoms), Crest load, Maximum and Sub maximum load.

### **UNIT – 3: Physical fitness components: (Particular sports and games specific)**

- 3.1 Definition and types of speed, Strength and endurance.
- 3.2 Flexibility and its types.
- 3.3 Coordinative ability and its types
- 3.4 Training methods: Development of Components of Physical fitness and motor fitness through following training methods (Continuous method, Interval method, Circuit method, Fartlek and Weight Training)

### **UNIT – 4: Conditioning Exercise and warming up**

- 4.1 Concept and conditioning of warming up
- 4.2 Role of weight training in games and sports
- 4.3 Teaching of fundamental skill and their mastery(Technique, Tactics and different phases of skill acquisition). Recreational and lead up games
- 4.4 Strategy- Offence and defense, Principles of offense and defense.

### **References:**

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

## **EC-402: SPORTS MANAGEMENT (ELECTIVE)**

### **UNIT – 1: Introduction to Sports Management**

- 1.1 Nature, Scope and Purpose of Sports Management
- 1.2 Steps and Principles of Sports Management
- 1.3 Qualities and Competencies require for the Sports Manager
- 1.4 Event Management in Physical Education and Sports

### **UNIT – 2: Development of Leadership Qualities**

- 2.1 Meaning and Definition of Leadership
- 2.2 Forms of Leadership- Autocratic, Laissez-faire, Democratic, Benevolent Dictator
- 2.3 Qualities of administrative Leader
- 2.4 Preparation of administrative Leader

### **UNIT – 3: Sports Management in Different Agencies**

- 3.1 Sports Management in schools, Colleges and Universities
- 3.2 Factors affecting planning
- 3.3 Planning a school or college sports programme
- 3.4 Controlling a school, college and University sports programme- Developing Performance standard, establishing a reporting system, Evaluation

### **UNIT – 4: Financial Management in Physical Education**

- 4.1 Financial Management in Physical Education and Sports in different Institutions
- 4.2 Budget-Meaning, Importance, Criteria of preparing a good Budget
- 4.3 Steps of Budget making
- 4.4 Principles of Budgeting

### **References:**

1. Ashton, D. (1968).Administration of physical education for women.New York: The Ronal Press Cl.
2. Bucher, C.A. Administration of physical education and athletic programme. 7th Edition, St.Louis: The C.V. Mosby Co.
3. Daughtrey, G. & Woods, J.B. (1976). Physical education and intramural programmes, organisation and administration. Philadelphia U.S.A.: W.B. Saunders Cp.
4. Earl, F. Z, & Gary, W. B. (1963).Management competency development in sports and physical education. Philadelphia: W. Lea and Febiger.

## PRACTICAL COURSES

### Semester – I

Course Code	PAPER TITLE	Marks		
		Internal	External	Credit
<b>PC-101</b>	<b>Track and Field (Running Events)</b>	<b>30</b>	<b>70</b>	<b>4</b>
1.1	<b>Running Events:</b> Starting techniques: Standing start, Crouch start and its variations, Proper use of blocks.	<b>24</b>	<b>56</b>	
1.2	Finishing Techniques: Run Through, Forward lunging, Shoulder Shrug Marking, Rules and Officiating <b>Relay:</b> Baton Exchange for different distances, Understanding of Relay Zones, Marking and interpretation of rules and officiating	<b>6</b>	<b>14</b>	
<b>PC-102</b>	<b>Gymnastics &amp; Mass Demonstration Activities</b>	<b>30</b>	<b>70</b>	<b>4</b>
2.1	<b>Gymnastics: 60</b> <b>(Both Men &amp; Women)</b> Floor Exercise, Forward Roll, Backward Roll, Hand stand, Cart Wheel, Leg Split, Different dancing steps (Combination) <b>30</b> <b>Men:</b> Table Vault: Approach Run, Take off from the beat board, Cat Vault, Squat Vault. <b>10</b> Parallel bar, Horizontal bar/Roman rings, <b>10</b> Rhythmic Gymnastics, Pyramid (Pair, Trio, Quadrates, Penthats) <b>10</b> <b>Women:</b> Uneven bars: <b>10</b> Balance Beam: <b>10</b> Rhythmic Gymnastics, Pyramid (Pair, Trio, Quadrates, Penthats): <b>10</b>	<b>18</b>	<b>42</b>	
2.2	Mass Demonstration Activities: Any Five <b>5 X 8= 40</b> Dumbbells/ Wands/ Hoop/ Umbrella/ Malkhamb/ Lazium/ Calisthenics/ Apparatus Drills (Atleast 8 exercises for different joints and major muscle group for each activity)	<b>12</b>	<b>28</b>	
<b>PC-103</b>	<b>Marching, Ball Games &amp; Indigenous Sports</b>	<b>30</b>	<b>70</b>	<b>4</b>
3.1	<b>Marching - 20</b> Command, Stand at Ease, Stand Easy, Attention, Turning: Right Turn, Left Turn, About Turn, Half Right Turn, Half Left Turn. Fall-in a Single Line, Fall-in Three Ranks. By the Right Number, Right Dress, Mark Time, Open Order March, Close Order March, Forward March/Quick March, Right Turn at the March, Left Turn at the March, About Turn at the March, Slow March, Saluting to the Front, Salute to the Right, Eye Right & Eye Front, Fall Out, Dismiss.	<b>6</b>	<b>14</b>	

3.2	<p>Ball Games: <b>Handball-30</b></p> <ol style="list-style-type: none"> <li>Catching, Throwing and Ball control.</li> <li>Goal Throws: Jump shot, Center shot, Dive shot, Reverse shot.</li> <li>Dribbling: High and low.</li> <li>Attack and counter attack, simple counter attack, counter attack from two wings and center.</li> <li>Blocking, Goalkeeping and Defensive skills.</li> <li>Game practice with application of Rules and Regulations and duties of officials.</li> </ol> <p>Major National and International tournaments.</p>	9	21	
3.3	<p><b>Indigenous Sports:</b></p> <p><b>Kabaddi and Kho-Kho 25+25= 50</b></p> <p><b><u>Kho-Kho</u></b></p> <ol style="list-style-type: none"> <li>Chasing Skills: Sitting on the box-Parallel and Bullet toe method; Getting up from the box Proximal and Distal foot method; Giving Kho- Simple, Early, Late and Judgment Kho; Pole Turn, Pole Diving, Tapping, Hammering, Rectification of foul.</li> <li>Running Skills: Chain Play, Ring play and Chain, Ring mixed play, Avoiding and Dodging.</li> <li>Game practice with application of Rules and Regulations.</li> <li>Rules and their interpretations and duties of the officials.</li> <li>Conduct skill related test (s).</li> <li>Major National and International tournaments.</li> </ol> <p><b><u>Kabaddi</u></b></p> <ol style="list-style-type: none"> <li>Raiding Skills: Cant, Touching with hands, Use of leg-toe touch, squat leg thrust, side kick, mule kick, arrow flying kick, roll back; crossing of baulk line; Crossing of Bonus line.</li> <li>Holding skills: Ankle, Knee, Thigh, Wrist, Crocodile and Washer man hold.</li> <li>Formation during holding: Various formations, catching from particular position.</li> <li>Additional Raiding skills: Escaping from various holds, techniques of escaping from chain formation, offense and defense.</li> <li>Game practice with application of Rules and Regulations.</li> <li>Rules and their interpretations and duties of the officials.</li> <li>Conduct skill related test (s).</li> </ol> <p>Major National and International tournaments</p>	15	35	
<b>PC-104</b>	<b>Yoga, Weight Training, Aerobics &amp; Bratochari</b>	<b>30</b>	<b>70</b>	<b>4</b>
<b>4.1</b>	<p>Yoga: Surya Namaskar and Pranayam <b>10+10+20=40</b></p> <p><b>SURYA NAMASKAR:</b> 12 Figures.</p> <p><b>YOGASANAS:</b></p> <p>Tadasana, Vrikshasana, Urdhva-Hastottanasana, Kati Chakrasana, Ardha Chakrasana, Paada</p>	<b>12</b>	<b>28</b>	

	Hastasana, Trikonasana, Parshva Konasana, Veerabhadrasana, Bhunamanasana, Hanumanasana, Dandasana, Swastikasana, Sidhasana, Bhadrasana, Padmasana, Vajrasana, Utkatasana, Gomukhasana, Ushtrasana, Shashankasana, Kurmasana, Navasana, Baddha Padmasana, Janusirasana, aschimottanasana, Supta Vajrasana, Mandukasana, Utthana Mandukasana, Vakrasana, Ardha Matsyendrasana, Simhasana, Pavanamuktasana, Utthanapadasana, Ardha Halasana, Setubandha Sarvangasana, Halasana, Sarvangasana, Matsyasana, Chakrasana, Shavasana, Makarasana, Bhujangasana, Shalabhasana, Dhanurasana, Kapotasana, Bakasana, Kukkutasana, Matsyendrasana, Padangusthasana, Hastapadangusthasana, Garudasana, Natarajasana, Mayurasana, Sirshasana.			
<b>4.2</b>	<b>PRANAYAMA</b> Nadi Shodhana (Technique 1: Same Nostril Breathing), Nadi Shodhana (Technique 2: Alternate Nostril Breathing), Nadi Shodhana (Technique 3: Alternate Nostril Breathing + Antar Kumbhak), Surya-bhedi and Chandra-bhedi Pranayama, Ujjayi Pranayama, Sheetali Pranayama, Shitkari Pranayama, Bhramari Pranayama, Pranayama (with Antar & Bahya Kumbhaka)	<b>6</b>	<b>14</b>	
<b>4.3</b>	<b>Weight Training:</b> Crouch Sitting Position, Different types of grip, Standing with weight, Dead lift Curling: Two arm dumbbell curling, Barbell curling, Front Curling, Reverse Curling Dumbbell and Barbell press, Front and back press, Bench press (Incline & Decline) Squat: Front and back squat <b>20</b>	<b>6</b>	<b>14</b>	
<b>4.4</b>	<b>Aerobics:</b> Low impact core moves - 1. March, 2. Side to side, 3. Double side to side, 4. grapevine, 5. Knee up, 6. Leg curl, 7. Toe touch, 8. Side lunge, 9. Back lunge, 10. Kick front, 11. Kick side, 12. Heel to raft, 13. 'E' shape, 14. 'v' shape 15. Introduction of Bench Exercise <b>Bratochari:</b> Atleast one residential camp for seven days duration.	<b>6</b>	<b>14</b>	

## Semester – II

Corse Code	Paper title	Marks		
		Internal	External	Credit
<b>PC-201</b>	<b>Track and Field (Jumping Events)</b>	<b>30</b>	<b>70</b>	<b>4</b>
<b>1.1</b>	Jumping Events: High Jump - Approach run, Take off, Bar clearance, Landing 40	<b>12</b>	<b>28</b>	
<b>1.2</b>	Broad Jump - Approach run, Take off, Action in the Air and Landing 30	<b>9</b>	<b>21</b>	
<b>1.3</b>	Triple Jump- Approach run, Take off, Action in the Air and Landing 30	<b>9</b>	<b>21</b>	
<b>PC-202</b>	<b>Swimming and Ball Games</b>	<b>30</b>	<b>70</b>	<b>4</b>
<b>2.1</b>	Swimming: Floating, Gliding, Leg Action, Arm action, Breathing technique Introduction of various strokes : Front crawl, Back crawl, Butterfly, Brest Stroke: Starting Technique and entry into water Medley, Life Savings <b>40</b>	<b>12</b>	<b>28</b>	
<b>2.2</b>	<b>Ball Games: Volleyball, &amp; Softball (2x30=60)</b>	<b>18</b>	<b>42</b>	
<b>PC-203</b>	<b>Team Games &amp; Racket Sports</b>	<b>30</b>	<b>70</b>	<b>4</b>
<b>3.1</b>	<b>Team Games:</b> Hockey and Cricket ( <b>3x20=60</b> )	<b>18</b>	<b>42</b>	
<b>3.2</b>	<b>Racket Sports:</b> Badminton, Table Tennis/ Squash/ Tennis ( <b>2x20=40</b> )	<b>12</b>	<b>28</b>	
<b>TP-201</b>	<b>Teaching Practices</b>	<b>30</b>	<b>70</b>	<b>4</b>
<b>4.1</b>	Class room teaching (Micro Teaching): 4 lessons- 2 from Physical Education field and 2 from other School Subjects. <b>50</b>	<b>15</b>	<b>35</b>	
<b>4.2</b>	Outdoor teaching (4 Campus and 4 off-campus) : 4 lessons- 2 General and 2 Specific activities <b>50</b>	<b>15</b>	<b>35</b>	



	<b>Game Details</b>
<b>Volley ball</b>	<ul style="list-style-type: none"> <li>a) Service: Underhand service, Side arm service; Over-head service, Tennis service, Standing floating service, Jumping floating service, Jump Service.</li> <li>b) Passing: Fore arm passing, Over-head passing.</li> <li>c) Setting: Front set, Back set and Long set.</li> <li>d) Spiking: Short ball, Medium ball and High ball (approach, arm and foot movement, and landing).</li> <li>e) Blocking: Offensive and Defensive with one or more than one blockers (approach, arm and foot movement, and landing).</li> <li>f) Service reception and Court coverage.</li> <li>g) Rotation of front court and back court players.</li> <li>h) Libero positions and change.</li> <li>i) Game practice with application of Rules and Regulations and duties of officials.</li> <li>j) Conduct skill related test (s).</li> <li>k) Major National and International tournaments.</li> </ul>
<b>Soft ball</b>	<ul style="list-style-type: none"> <li>a) Catching: One handed, two handed, with feet grounded, in flight.</li> <li>b) Throwing (different passes and their uses): one handed passes (shoulder, high shoulder, underarm, bounce, and lob); two handed passes (push, overhead, bounce).</li> <li>c) Footwork: Landing on one foot; landing on two feet; pivot; running pass.</li> <li>d) Shooting: One hand; two hands; forward step shot; backward step shot.</li> <li>e) Techniques of getting free: dodge and sprint; sudden sprint; sprint and stop; sprinting with change of speed.</li> <li>f) Defending: marking the player; marking the ball; blocking; inside the circle; outside the circle (that is, defending the circle edge against the pass in).</li> <li>g) Intercepting: Pass; shot.</li> <li>h) The toss-up.</li> <li>i) Role of individual players</li> <li>j) Rules and their interpretations and duties of officials.</li> </ul>
<b>Hockey</b>	<ul style="list-style-type: none"> <li>a) Player stance &amp; Grip</li> <li>b) Rolling the ball</li> <li>c) Dribbling</li> <li>d) Push</li> <li>e) Stopping</li> <li>f) Hit</li> <li>g) Flick</li> <li>h) Scoop</li> <li>i) Passing: Forward pass, Square pass, Triangular pass, diagonal pass, return pass.</li> <li>j) Reverse hit</li> <li>k) Dodging</li> <li>l) Goal keeping –Hand defense, Foot defense.</li> <li>m) Positional play in attack and defense.</li> <li>n) Rules and their interpretations and duties of officials.</li> <li>1. o) Ground marking.</li> </ul>



<b>Cricket</b>	<ul style="list-style-type: none"> <li>a) Batting - Forward Defense, Backward Defense, Off Drive, On Drive, Straight Drive, Cover Drive, Square Cut. Hook, Pull, etc.</li> <li>b) Bowling - Out-swing, In-swing, Off Break, Leg Break.</li> <li>c) Fielding: Catching- The High Catch, The Low and Flat Catch, The Close Catch and throwing at the stumps from different angles, Long Barrier Throw, Short Throw, Long Throw.</li> <li>d) Wicket Keeping.</li> <li>e) Rules and their interpretation and duties of officials.</li> <li>f) Score sheet preparation.</li> </ul>
<b>Badminton</b>	<ul style="list-style-type: none"> <li>a) Basic Knowledge: Various parts of the Racket and Grip-hand-shake grip, figure pointing grip.</li> <li>b) Basic foot work and court coverage.</li> <li>c) Basic Stance: Defensive, attacking, net stance.</li> <li>d) Service: Short service, Long service, Long-high service.</li> <li>e) Shots: Fore Hand, Back Hand, Clearing, Lobbing, Over-Head Shot, Defensive Clear Shot, Attacking Clear Shot, Drop Shot, Net Shot, Smash.</li> <li>f) Game practice with application of Rules and Regulations.</li> <li>g) Rules and their interpretations and duties of the officials.</li> <li>h) Conduct skill related test (s).</li> <li>i) Major National and International tournaments.</li> </ul>
<b>Table Tennis</b>	<ul style="list-style-type: none"> <li>a) Basic Knowledge: Various parts of the racket and grip (shake hand &amp; pen hold grip), back-hand, fore-hand grip.</li> <li>b) Stance: Alternate and Parallel.</li> <li>c) Service: Backhand and Forehand high toss service, spin, top spin, back spin, side spin.</li> <li>d) Chop: Backhand and Forehand.</li> <li>e) Receive return and receiving: Push, Chop, Drive Loop and Flick with both Backhand &amp; Forehand.</li> <li>f) Game practice with application of Rules and Regulations.</li> <li>g) Rules and their interpretations and duties of the officials.</li> <li>h) Conduct skill related test (s).</li> <li>i) Major National and International tournaments.</li> </ul>
<b>Squash</b>	<ul style="list-style-type: none"> <li>a) Service-Under hand and Over hand, Service Reception</li> <li>b) Shot- Down the line, Cross Court, Drop, Half Volley</li> <li>c) Tactics – Defensive, attacking in game</li> <li>d) Rules and their interpretations and duties of officials.</li> </ul>
<b>Tennis</b>	<ul style="list-style-type: none"> <li>a) Grips- Eastern Forehand grip and Backhand grip, Western grip, Continental grip, Chopper grip.</li> <li>b) Stance and Footwork.</li> <li>c) Basic Ground strokes-Forehand drive, Backhand drive.</li> <li>d) Basic service.</li> <li>e) Basic Volley.</li> <li>f) Over-head Volley.</li> <li>g) Chop</li> <li>h) Tactics – Defensive, attacking in game</li> <li>i) Rules and their interpretations and duties of officials</li> </ul>

## **SEMESTER – III**

<b>Course Code</b>	<b>COURSE TITLE</b>	<b>Marks</b>		
		<b>Internal</b>	<b>External</b>	<b>Credit</b>
<b>PC-301</b>	<b>Track &amp; Field (Throwing Events)</b>	<b>30</b>	<b>70</b>	<b>4</b>
1.1	Putting the shot: Fundamental Skills- Starting, Clearance and Landing Techniques. 30	<b>9</b>	<b>21</b>	
	Discus: Fundamental Skills- Starting, Clearance and Landing Techniques. 30	<b>9</b>	<b>21</b>	
	Javelin: Fundamental Skills- Starting, Clearance and Landing Techniques. 30	<b>9</b>	<b>21</b>	
	Hurdles: Types of Hurdles, Marking and Officiating. Fundamental Skills- Starting, Clearance and Landing Techniques. 10	<b>3</b>	<b>7</b>	
<b>PC-302</b>	<b>Combative Sports</b>	<b>30</b>	<b>70</b>	<b>4</b>
2.1	Combative Sports: Karate, Judo, Boxing, Taekwondo, Wrestling, Lathi (Any two) 2 X 30=60	<b>18</b>	<b>42</b>	
2.2	Adventure/Outdoor Activities: Camping /Trekking /Hiking /Rock-climbing /Artificial Climbing etc. 20	<b>6</b>	<b>14</b>	
2.3	Lab-based Practical: Physical/Physiological /Psychological /Biomechanical/Anthpometric measurement will be set up in the laboratory as per NCTE guideline. 20	<b>6</b>	<b>14</b>	
<b>PC-303</b>	<b>Ball Games</b>	<b>30</b>	<b>70</b>	<b>4</b>
	Ball Games: Football – 40 Netball – 30 Throw ball - 30	<b>30</b>	<b>70</b>	<b>4</b>
<b>TP-302</b>	<b>Practice Teaching</b>	<b>30</b>	<b>70</b>	<b>4</b>
1	6+6=12 Teaching lessons from any two choice games. Total 02 Coaching lessons, one from each game for external examination. (30+30=60)	<b>18</b>	<b>42</b>	
2	Teaching Practice: Yoga/Weight Training or Aerobics Yoga-4 lessons in School Situation- Best of 3 will be internally evaluated and 1 final lesson will be externally evaluated.(20)	<b>6</b>	<b>14</b>	
3	Weight Training or Aerobics- 4 lessons in School Situation- Best of 3 will be internally evaluated and 1 final lesson will be externally evaluated (20)	<b>6</b>	<b>14</b>	

	<b>Syllabus</b>
<b>Karate</b>	<p>a) Player Stances – walking, hand positions, front-leaning, side-fighting.</p> <p>b) Hand Techniques - Punches (form of a punch, straight punch, and reverse punch), Blocks (eight basic).</p> <p>c) Leg Techniques - Snap kicks, stretching straight leg, thrust kicks, sidekicks, round house.</p> <p>d) Forms - The first cause Katas.</p> <p>e) Self Defense - against punches, grabs and strikes, against basic weapons (knife, club sticks).</p> <p>f) Sparring - One step for middle punch, high punch and groin punch. (Defended by appropriate block from eight basic blocks).</p> <p>g) Rules and their interpretations and duties of officials.</p>
<b>Judo</b>	<p>a) Rei (Salutation)-Ritsurei(Salutation in standing position), Zarai (Salutation in the sitting position)</p> <p>b) Kumi kata (Methods of holding judo costume)</p> <p>c) Shisei(Posture in Judo)</p> <p>d) Kuzushi(Act of disturbing the opponent posture)</p> <p>e) Tsukuri and kake (Preparatory action for attack)</p> <p>f) Ukemi (Break Fall)-UrhiroUkemi (Rear break Fall), Yoko Ukemi (Side Break Fall), Mae Ukemi (Front Break Fall), Mae mawariUkemi (Front Rolling break fall)</p> <p>g) Shin Tai (Advance or retreat foot movement)-Suri-ashi (Gliding foot), Twugiashi (Following footsteps), Ayumi-ashi (Waling steps).</p> <p>h) Tai Sabaki (Management of the body)</p> <p>i) NageWaze (Throwing techniques)-HizaGuruma (Knee wheel), SesaeTwurikomi-ashi (Drawing ankle throw), De ashihari (Advance foot sweep), O Goshi (Major loinm), SeoiNage (Shoulder throw).</p> <p>j) Katamawaze(Grappling techniques)-Kesagatame (Scaff hold), Kata gatame (Shoulder hold), Kami shihogatama (Locking of upper four quarters), Method of escaping from each hold.</p>
<b>Boxing</b>	<p>a) Stances – Upright Stances, Semi-crouch, Full crouch</p> <p>b) Footwork – Attack, defense.</p> <p>c) Punches – Jab, Cross, Hook, Overhead right, Bolo punch, check hook, Upper cut.</p> <p>d) Defense – Bob and Weave, Parry/Block, The Cover up, Clinch, Cross-armed, Philley Shell or Shoulder Roll.</p> <p>e) Tactics – Toe to toe, counter attack, fighting in close, feinting</p> <p>f) Rules and their interpretations and duties of officials</p>

<b>Taekwondo</b>	<p>a) Player Stances – walking, extending walking, L stance, cat stance.</p> <p>b) Fundamental Skills – Sitting stance punch, single punch, double punch, and triple punch.</p> <p>c) Punching Skill from sparring position – front-fist punch, rear fist punch, double punch, and four combination punches.</p> <p>d) Foot Techniques (Balgisul) – standing kick (soseochagi), Front kick (AP chagi), Arc kick (BandalChagi), Side kick, (YeopChagi), Turning kick (DollyoChagi), Back kick (Twit Chagi), Reverse turning kick (BandaeDollyoChagi), Jump kick (TwimyoChagi),</p> <p>e) Poomsae (Forms) – Jang, Yi Jang, Sam Jang, Sa Jang, O Jang, Yook Jang, Chil Jang, Pal Jang (Fundamental Movement – eye control, concentration of spirit, speed control, strength control, flexibility, balance, variety in techniques)</p> <p>f) Sparring (Kyorugi) – One Step Sparring (hand techniques, foot techniques, self defense techniques, combination kicks), Free Sparring.</p> <p>g) Board Breaking (Kyokpa) – eye control, balance, power control, speed, point of attack.</p> <p>h) Rules and their interpretations and duties of officials.</p>
<b>Wrestling</b>	<p>a) <b>Escapes and Reversals:</b> (i) Sit out and turn in, (ii) Side roll, (iii) Outside switch, (iv) Stand up with inside leg.</p> <p>b) <b>Pinching Combination:</b> (i) Arm bar and half nelson, (ii) Half nelson, (iii) Near cradle, (iv) Cross face cradle.</p> <p>c) <b>Breakdowns and rides:</b> (i) Near arm, tight wrist breakdown and double waist ride, (ii) Head lever and tight waist breakdown, (iii) Head lever and tight face breakdown, (iv) Far ankle and near wrist breakdown..</p> <p>d) <b>Game Practice</b></p>
<b>Lathi</b>	<p>a) Holding, Height and weight of a Lathi.</p> <p>b) Anulom and Bilom- Uttar &amp; Dakshin</p> <p>c) Sannukhuttarpresthabeetan.</p> <p>d) Sandipani, Jamak, Chalit, Risramandal – Baddha, Chalit&amp;Pluta.</p> <p>e) Ran of harua – Greda, Palat, Tamecha&amp;Asar Man, Behera, Ratkathi, and Bhandar.</p>
<b>Football</b>	<p>a) Kicking: Kicking the ball with inside of the foot, Kicking the ball with Full Instep of the foot, Kicking the ball with Inner Instep of the foot, Kicking the ball with Outer Instep of the foot and Lofted Kick.</p> <p>b) Trapping: Trapping- the Rolling ball, and the Bouncing ball with Sole of the foot, Thigh and Chest Trapping.</p> <p>c) Dribbling: Dribbling the ball with Instep of the foot, Dribbling the ball with Inner and Outer Instep of the foot.</p> <p>d) Heading: In standing, running and jumping conditions.</p> <p>e) Throw-in: Standing throw-in and Running throw-in.</p> <p>f) Feinting: With the lower limb and upper part of the body.</p> <p>g) Tackling: Simple Tackling, Slide Tackling.</p> <p>h) Goal Keeping: Collection of Ball, Ball clearance-kicking, throwing and deflecting.</p> <p>i) Rules and their interpretation and duties of officials.</p> <p>j) Conduct skill related test (s).</p>

<b>Netball</b>	a) Catching at Standing, Jumping and Catching, one Hand Catch. b) Passing Shoulder pass (Baseball Pass), chest Pass, one handed underarm pass, two handed under arm pass, two handed over head pass. c) Shooting one and two handed over head shot. d) Game Practice.
<b>Throwball</b>	a) Stance b) Service c) Catching d) Passing e) Smash f) Block Rules and their interpretations and duties of the officials. Strategically approach during competition.

## **SEMESTER-IV**

<b>Course Code</b>	<b>PAPER TITLE</b>	<b>Marks</b>		
		<b>Internal</b>	<b>External</b>	<b>Credit</b>
<b>PC-401</b>	<b>AAHPER Youth Fitness &amp; Motor Fitness:</b> AAHPER Youth fitness Test (60 marks) Sports Specific Fitness Test (40 marks) Games Evaluation of Performance Ability (To select one activity except Track & Field/Gymnastics/Swimming)	<b>30</b>	<b>70</b>	<b>4</b>
<b>PC-402</b>	<b>Layout and Officiating ability:</b> Layout of Arenas: Track & Field – <b>40</b> (Layout of any two events will be evaluated by the external examiner) Games – <b>60</b> (Layout of any three games will be evaluated by the external examiner)	<b>12</b>          <b>18</b>	<b>28</b>          <b>42</b>	
<b>TP-401</b>	<b>Coaching Lesson-I</b> 5+5=10 Coaching lessons from any two choice games opted in the SEM-III Total 02 Coaching lessons, one from each game for external examination. (50+50=100)	30	70	4
<b>TP-402</b>	<b>Coaching Lesson-II</b> 5+5=10 Coaching lessons from Indigenous Sports and Racket Sports Total 02 Coaching lessons, one from each section for external examination. (50+50=100)	30	70	4

**Table – 1: Semester wise distribution of hours per week**

Semester	Theory	Practicum	Teaching practice	Total
I	16	24	00	40
II	16	18	06	40
III	16	18	06	40
IV	16	12	12	40
Total	64	72	24	160
Minimum of 36 teaching hours per week is required in five or six days in a week				

**Table – 2: Number of credits per semester**

Semester	Theory	Practicum	Teaching practice	Total
I	16	16	00	32
II	16	12	04	32
III	16	12	04	32
IV	16	08	08	32
Total	64	48	16	128
Minimum of 36 teaching hours per week is required in five or six days in a week				

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