



**BACHELOR OF PHYSICAL EDUCATION AND SPORTS  
(B.P.E.S.)**

**THREE YEARS CBCS PROGRAMME**

**ORDINANCE AND REGULATION FOR THE COURSE OF BACHELOR  
OF PHYSICAL EDUCATION AND SPORTS**

**JULY 2025**

**Department of Physical Education  
MAA PATESHWARI UNIVERSITY,  
BALRAMPUR – UTTAR PRADESH (271201)**

# Curriculum Framework of B. P. E. S. Programme

## **Preamble:**

The Bachelor of Physical Education and Sports (B.P.E.S.) three years (Six Semesters, Choice Based Credit System) programme is a professional programme meant for preparing Physical Education and Sports Professionals as per UGC norms and Standard and Specifications of Degree in Sports Science. The programme of study in Physical Education is designed to encourage the acquisition of subject knowledge, orientation in fundamentals skills of different sports and professional competence required for Physical Education professionals and sports educators. Learning experience are designed and implemented to foster active learning approach for professional growth to strengthen sports ecosystem.

The Bachelor of Physical Education and Sports (B.P.E.S.) has designed to develop skilled workforce with Professional Skill, Vocational Competence and Core Subject Knowledge, Pedagogical knowledge, Physical Literacy and Active Learning and Perfect Communication Skills. The programme comprises of compulsory and optional theory as well as practical courses and compulsory internship at community sports centers/Schools /College/Sports Organizations/Sports Academy/Sports Club and in Sports Industry.

Moreover, A variety of approaches to teaching-learning process, including lectures, seminars, tutorials, workshops, peer teaching and learning, practicum and project- based learning, field-based learning, substantial laboratory-based practical component and experiments, open-ended project work, games, technology-enabled learning, internship in sports industry and research establishments in sports science lab etc. will be adopted to achieve this. Problem-solving skills and higher-order skills of reasoning and analysis will be encouraged through teaching strategies.

## **Essence of the Academic Programmes:**

A sports education programme needs to be designed to develop quality sports trainers who are committed, motivated and confident: who are knowledgeable about content and their pedagogy, understand how to plan to train, are able to engage athletes interactively and inclusively, and reflect upon their teaching and develop their professional competencies.

As we know, the aspiration levels of the athletes have changed considerably under the overreaching influences of technological revolution. In this context, the athlete's preparation programmes in sports education must be revamped such as:

- Introducing Integrated Sports Education Programme of longer duration.
- Enhancing the duration of existing sports education programme.
- Upgrading the status of fitness and sports education by making the entire system a part of

Higher Education.

- Ensuring continuity in professional development of existing sports teachers / trainers and coaches.
- Strengthening the upgrading, regulatory and monitoring mechanism.
- Establishing performance appraisal systems for institutes running sports education programme.

### **Carrier Opportunities**

A sport integrates the mind, body and spirit, purges one's negativity and thereby provides strength. Over the last few decades, the Indian sports ecosystem has seen great metamorphosis. From, one Saturday evening fun event to the dynamic and professional multimillion dollar industry, today sports involve multiple stake holders. Mushrooming of the hi-tech gyms, specialized sports academies, sports colleges, universities, and indeed the high-profile league matches have been reiterating that the graph of Indian sports industry shall only ascend in the years to come. Today sportspersons rely on the expertise, guidance and advice from a wide network of support personnel in order to maximize their potential and achieve their goals. Science, Nutrition, Medicine, Psychology, Rehabilitation, Strength and conditioning are key factors in the preparation of the sportsperson in modern days. In order to ensure that outstanding sportspersons represent the state in National Games/Championships and further go on to win medals at International Events, Institutional Capacity Building is being worked upon.

### **Eligibility: For Admission:**

The student who passed in the Higher Secondary Examination with any discipline conducted by the Central Government and State Government; or an examination accepted as equivalent there to by the Board of Governors / MHRD, India, subject to such conditions as may be prescribed therefor.

Admission shall be made on merit on the basis of marks obtained in the entrance test (written test, sports proficiency test, physical fitness test & marks obtained in the qualifying examination) or any other selection process as per the policy of university with due weight for physical fitness test.

### **Duration:**

The B.P.E.S. Programme is for a period of three years. Each academic year shall comprise of two semesters viz. Odd and Even semesters. Odd semesters shall be from June / July to October / November and Even Semesters shall be from November / December to April / May. There shall be not less than 90 working days which shall comprise 450 teaching clock hours for each semester. (Exclusive of the days for the conduct of university or external end-semester examinations).

### **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 from it in the light of liberalization and globalization in higher education.

### **Courses in Programme:**

The B.P.E.S. Programme consists of a number of courses, the term 'Course' is applied to indicate a logical part of the 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 for the B.P.E.S. Programme.

#### ***Theory:***

Core Course, Elective Course and Add on Course

#### ***Practicum:***

Field practical, Lab practical and Internship

### **Semesters:**

An academic year is divided into two semesters. In each semester, courses are offered in 15 teaching weeks and the remaining 5 weeks are to be utilized for conducting examinations and evaluation purposes. Each week has 36 working hours spread over 6 days a week.

#### **Credits:**

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.E.S. programme is 120 credits and for each semester- 20 credits.

### **Course:**

Each course is to be designed variously under lectures, lessons, practical, instructional work, seminar, workshop, assignment, term paper, book review, project work, viva etc., to meet effective teaching and learning needs of teacher.

### **Examinations:**

There shall be examinations at the end of each semester, for first, third & fifth semester in the month of October/November; for second, fourth & sixth semester in April/May. 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 October/November or April/May.

### **Attendance & Condonation:**

Students must have 75% of attendance in each course for appearing in the examination (15% attendance Relaxation included medical/leave). Students having below 74% of attendance shall apply for condonation in the prescribed form as on duty leave (Sports participation AIU/Affiliated Government Federations) / Medical Leave.

### **Evaluation:**

The performance of a student in each course is evaluated in terms of percentage of marks with a provision for

conversion to grade points. Evaluation for each course shall be done by a Continuous Internal Assessment (CIA) by the concerned course teacher as well as by an end semester examination and will be consolidated at the end of the course. The components for continuous internal assessment are: **Questions Paper pattern of End Semester theory Examination:**

Each Question Paper shall have five questions corresponding to five units of each theory course. Style of question paper is shown below.

External Evaluation; Question

The total marks for end semester examination consists of 45 and 30 for 3 credit and 2 credit theory paper respectively.

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

Question No	Description	Marks for 3 credit subjects	Marks for 2 credit subjects
1	Answer in detail (Long Question) Or Answer in detail (Long Question)	10	8
2	Answer in detail (Long Question) Or Answer in detail (Long Question)	10	8
3	Answer in detail (Long Question) Or Answer in detail (Long Question)	10	8
4	Answer in detail (Long Question) Or Answer in detail (Long Question)	10	-----
5	Short Question (A) (B) (C) (D) Attempt any two	2.5+2.5	2+2+2 (three short questions have to attempt out of six questions)
	<b>Total</b>	<b>45 marks</b>	<b>30 marks</b>

#### Internal Examination

<b>For Theory (A)</b>	One Test	:	15 marks
	Seminar/Quiz	:	05 marks
	Assignments	:	05 marks
	Attendance	:	05 marks
	<b>Total</b>		<b>30 marks</b>
<b>(B)</b>	One Test	:	8 marks

Seminar/Quiz	:	05 marks
Assignments	:	05 marks
Attendance	:	02 marks
<b>Total</b>		<b>20 marks</b>

Attendance shall be taken as a component of continuous assessment, although the students should put in minimum of 75% attendance in each course. In addition to continuous evaluation component, the end semester examination, which will be a 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 40: 60 in theory & 50: 50 in practical.

### **Minimum Passing Marks:**

The passing minimum for CIA (Continuous Internal Assessment) shall be 40% out of 30 marks (i.e., 12 marks) and 8 marks out of 20 in theory Internal. In practical examination 50% marks required to pass in practical examination. The students who fail in the internal assessment are permitted to improve their Internal Assessment marks in the subsequent semester (2 chances will be given) by writing test and by submitting Assignments. The passing minimum for University or External Examinations shall be 40% out of 45 marks (i.e., 18 marks) and 14 out of 30 marks in each theory paper.

### **Grading:**

Once the marks of the CIA (Continues Internal Assessment) and end-semester examinations for each of the courses are available, they will be added. The marks thus obtained will then be graded as per details provided in B.P.E.S.. From the First semester onwards the total performance within a semester and continuous performance starting from the first semester are indicated respectively by Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA). These two are calculated by the following formulae:

Where 'Ci' is the Credit earned for the Course i in any semester; 'Gi' is the Grade Point obtained by the student for the Course i and 'n' is the number of Courses passed in that semester.  $CGPA = SGPA$  of all the Courses starting from the first semester to the current semester.

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

$$\sum_{i=1}^n C_i \quad i = 1$$

### **Environmental Studies**

The UGC recommended Certificate Course on Environmental Studies is to be offered in the second semester of all the UG programmes as elective course.

### **Classification of Final Results:**

For purposes 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.

### **Clearing and carrying forward the Semester:**

Rules for carrying forward the semesters are:

1. A candidate must have at least 75% overall attendance in the program (As explained in R.B.P.E.S. 9) and should have satisfactory performance in class-room participation of each course and must have appeared in internal written test to be eligible for grant of term.
2. In case, a candidate obtains Grade D in any one course / all courses in the first semester, he / she shall be allowed to proceed to the second semester provided he / she has kept his / her term of the first semester successfully.
1. The candidate shall be allowed to appear his/her back papers of first semester in the third semester.
2. In case, a candidate obtains Grade D in any one course / all courses in the second semester, he / she shall be allowed to proceed to the third semester provided he / she has kept his / her term of the second semester successfully.
3. The candidate shall be allowed to appear his/her back papers of second semester in the fourth semester.
4. In case a candidate obtains Grade D in any one course / all courses in the third semester, he / she shall be allowed to proceed to the fourth semester provided he/ she has kept his / her term of the third semester successfully.
5. The candidate shall be eligible for the award of the degree after successful clearance of all the courses of semester I, II, III, IV, V & VI by the sixth semester examination of the third-year programme or before the expiry of registration /enrolment.
6. Whenever a candidate fails in a course due to failure of obtaining minimum marks in the internal component of the examination, the marks obtained in project and assignment shall be carried forward for the consideration of the repeat examination. The student has to appear in the internal test only to complete the requirement of the internal assessment.

### **Assessment and Evaluations:**

1. All the theory papers consist of 4 credits (75 marks) and 2 credits (50 marks) as per
2. the weightage of the course. The marks would be divided between internal and external assessment.
3. There shall be one end-semester external examination of each course in every semester consisting of 60% (45marks and 30 marks)
4. Each Theory course shall have internal assessment of 40% weightage.
5. **The evaluation of practical work, wherever applicable, will also be based on continuous internal assessment at semester end practical examinations.**
6. Each Practical course will be assessed on the basis of 70/30 marks. The marks would be divided between internal and external assessment.
7. Minimum fifty percent is required to pass in practical examination.

### Conferment of the B.P.E.S. Degree:

A candidate shall be eligible for the conferment of the Degree of B.P.E.S. only if he/she has earned the minimum required credits for the programme prescribed therefore (i.e.,120 Credits).

### Examinations and Fee:

The University shall conduct the External or Semester-End Examination for the Semester-I, II, III, IV, V & VI. The Internal Examination for the Semester-I, II, III, IV, V & VI shall be conducted by the University themselves. However, the common format of question papers suggested and / or prepared by the University has to be followed by all the Faculties / Departments for Examinations of Internal practical & the Foundation courses mentioned.

The Examination fees for all end-semester exams shall be decided by university from time to time.

### Conversion Table for B.P.E.S. Course:

The grades for each course would be decided on the basis of the percentage marks obtained in the end-semester external and internal examinations as per following table:

Percentage	Grade Point	Grade	Description
85 & above	8.5-10.0	O	Outstanding
70-84.99	7.0-8.49	A+	Excellent
60-69.99	6.0-6.99	A	Very Good
55-59.99	5.5-5.99	B+	Good
50-54.99	5.0-5.49	B	Above Average
40-49.99	4.0-4.99	C	Average
Below 40	0	F	Fail/Dropped
	0	AB	Absent
	0	R	Reappear

## Grade Point Calculations

**Calculation of Semester Grade Point Average (SGPA) and Credit Grade Point (CGP) and declaration of class for U.G. B.P.E.S. Programme. The credit grade points are to be calculated on the following basis:**

Sum of grade points of all courses of the particular semester SGPA=.....

Total credit of the semester

### Example-

Marks obtained by Student in course A 101 = 78/100 percentage of marks = 78 % Grade from the conversion table is = O

Grade Point =  $7.0 + 8 (1.49/14.99) = 7.0 + 8 \times 0.1 = 7.0+0.8$

The Course Credits = Credits Grade Point =  $7.8 \times 4 = 31.2$

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

Course	Credit	Marks out of 100/50	Grade	Grade Point	Credit Grade Point
E050101T	4	65	A	6.5	26.0
E050102T	4	60	A	6.0	24.0
E050103P	4	62	A	6.2	24.8
E050104P	4	57	B+	5.7	22.8
E050105T	2	35	O	7.0	14.0
E050105T	2	72	O	7.2	28.8
Total	20				154.8

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

$$65 = 60 + 5 = 6.0 + 5 \times (0.99 / 9.99) = 6.0 + 5 \times 0.1 = 6.0 + 0.5 = 6.5$$

$$57 = 55 + 2 = 5.5 + 2 \times (0.49 / 4.99) = 5.5 + 2 \times 0.1 = 5.5 + 0.2 = 5.7$$

$$72 = 70 + 2 = 7.0 + 2 \times (1.49 / 14.99) = 7.0 + 2 \times 0.1 = 7.0 + 0.2 = 7.2$$

### **SEMESTER GRADE POINT AVERAGE (SGPA) = Total**

**Credit Grade Points** =  $154.8 / 24 = 6.45$  SGPA Sem. I = 6.45 SGPA Sem.

II = 7.63

SGPA Sem. III = 5.89 SGPA Sem. IV =

7.26 SGPA Sem. V = 6.78 SGPA Sem.

VI = 6.89

Total SGPA = 40.9

Cumulative Grade Point Average (CGPA) =  $40.9 / 6 = 6.81$  CGPA = 6.81

Grade = A

Class = First Class

### **Note:**

- a) SGPA is calculated only if the candidate passes in all the courses i.e., get minimum C grade in all the courses.
- b) CGPA is calculated only when the candidate passes in all the courses of all the semesters.
- c) The cumulative grade point average will be calculated as the average of the SGPA of all the two semesters, as shown above.
- d) For the award of the class, CGPA shall be calculated on the basis of:
- e) Marks of End Semester External Examination And
- f) Total Marks obtained (Marks of End Semester External Examination + Marks of Internal Assessment) for each course. The final Class for B.P.E Degree shall be awarded on the basis of lowest CGPA (marks) of (a) & (b) of one to sixth semester examinations.

### **End-Semester Examination:**

The University shall conduct the external Examination for the Semester-I, II, III, IV, V&VI. The internal Examination shall be conducted by the concerned Faculty and submitted to Controller of Examination through Head of the Department (HOD).

### **Grievance Redressal Committee:**

The department shall form a Grievance Redressal Committee for each course in each department with the Course teacher / Dean / Vice-Chancellor and Head of the Department HOD of the faculty as the members. This Committee shall solve all grievances of the students.

### Revisions of Syllabi:

- a) Syllabus of every course should be revised according to the Maa PatEshwari University, Balrampur (MPU) and University Grant Commission (UGC) norms.
- b) Revised Syllabi of each semester should be implemented in sequential way.
- c) In courses, where units / topics relate 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 / Board of Studies of National Sports University.
- d) All formalities for revisions in the syllabi should be completed before the end of the 2<sup>nd</sup> / 4<sup>th</sup> semester for implementation of the revised syllabi in the next academic year.
- e) During every revision, up to twenty percent (20%) 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.
- f) In case, the syllabus of any course is carried forward without any revision, it shall also be counted as revised in the revised syllabi.



**SEMETER-I**

Course Code	Course/ Paper Name	Credit	Learning Hours	Internal Marks	External Marks	Total Marks
<b>PART-A, THEOREY COURSE</b>						
E050101T	History and Foundation of Physical Education and Sports	4	48	30	70	100
E050102T	Officiating and Coaching-I Athletics, Major Games-Any one	4	48	30	70	100
<b>PART-B, PRACTICAL COURSE</b>						
E050103P	Officiating and Coaching-1 Athletics- Running (Sprint) and Throwing events	4	128	30	70	100
E050104P	Officiating and Coaching-1 Major Games (Volley ball Football, Handball, Basketball) (Any One)	4	128	30	70	100
<b>PARRT-C, ELECTIVE COURSE (Select any One)</b>						
E050105T	Physical Fitness and wellness	2	32	30	70	100
E050106T	Sports Event Management					
<b>PART-D, MULTIDISCIPLINARY COURSE</b>						
E050107T	Introduction to Information Technology	2	32	30	70	100
	Total	20		180		600

**SEMESTER I**  
**PART – A: THEORY COURSE**  
**HISTORY AND FOUNDATION OF PHYSICAL EDUCATION AND**  
**SPORTS**  
**COURSE CODE: E050101T**

Course Code	Course Name	Credit	Learning Hours	Internal Marks	External Marks	Total Marks
E050101T	History and Foundation of Physical Education and Sports	4	48	30	70	100

**Course Learning Outcome:**

After completing this course, the students will be able to

- Understand the concept of physical education and Sports
- Understand the historical development of physical education and sports education in India and abroad.
- Understand Olympic movements and major international games and its committees.
- Understanding the concept of Foundation of Philosophical, Biological, Psychology and Sociological aspect of Physical Education and Sports

**UNIT-I**

**Introduction of Physical Education and Sports**

1.1 Meaning, Definition, Nature and Scope of Physical Education and Sports Education

1.2 Aim and Objectives of Physical Education and Sports Education

1.3. Need and importance of Physical Education and Sports in modern society.

1.4. Misconception about physical Education. Relationship of physical education, Sports education and General education

**UNIT-II**

**History of Physical Education and Sports Education**

2.1. Ancient Physical Education in India – Harappa civilization, Vedic age, Epic age, etc.

2.2 Science of Exercise and Sports: Ancient Indian Origin

2.3 Medieval age, British period till 1947, Physical Education and Sports after Independence

2.4. Ancient Physical Education in Greece, Rome, Germany, UK, and USA etc.

**UNIT-III**

**Olympic Movement and Major International Games, IOC**

3.1 Ancient Olympic Games – historical background, significance of ancient games,

3.2 Modern Olympic Games – revival organization and conduct of games and ceremonies (opening and closing ceremonies), objectives and functions of International Olympic Committee (IOC)

3.3. World Cups and World Championships

3.4. Commonwealth games, Asian games, SAF games

## UNIT – IV

### Foundation of Physical Education and Sports

- 4.1 Meaning and Definition of Philosophy - Idealism, Naturalism, Realism, Pragmatism, Existentialism and Humanism
- 4.2 Biological Foundation: Evolution of Man, Biped Position: Advantages and Disadvantages, Age, Gender characteristics, Body Types, Anthropometric differences
- 4.3 Psychological Foundation: Learning types, Learning curve, Laws and principles of learning, Attitude, Interest, Cognition, Emotions
- 4.4 Sociological Foundation: Socialization through Physical Education

### SUGGESTED READINGS:

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4. Burbank, J. M., Andranovich, G. D. &Heying Boulder, C. H. (2001). *Olympic dreams: the impact of mega-events on local politics*: LynneRienner
5. Deshpande, S. H. (2014). *Physical Education in Ancient India*. Amravati: Degree college of Physicaleducation.
6. Frank, A.M. (2003). *Sports & education*. CA: ABC-CLIO
7. Kretchmar, R.S. (1994). *Practical Philosophy of Sport*. IL: Human Kinetics.
8. Nixon, E. E. & Cozen, F.W. (1969). *An introduction to physical education*. Philadelphia: W.B. Saunders Co.
9. Osborne, M. P. (2004). *Magictree house fact tracker: ancient Greece and the Olympics: a nonfiction companion to magic tree house: hour of the Olympics*. New York: Random House Books for Young Readers.
10. Susan Capel, Susan Piotrowski (2000). *Issues in Physical Education*. London: Routledge Young, D.C. (2004). *A brief History of Olympic Games*. UK: Blackwell Publishing.
11. Ziegler, E.F. (2007). *An introduction to Sports & Phy.Edu.Philosophy*. Delhi: Sp.
12. Mondal. S. Science of Exercise: Ancient Indian Origin, Journal of Association Physicians of India, 2013

**OFFICIATING AND COACHING – I (ATHLETICS AND MAJOR GAMES** *(Volleyball, Football, Handball and Basketball Any One)*  
**COURSE CODE: E050102T**

Course Code	Course Name	Credit	Learning Hours	Internal Marks	External Marks	Total Marks
E050102T	Officiating and Coaching-I Athletics, Major Games <i>(Volleyball, Football, Handball and Basketball)-Any one</i>	4	48	30	70	100

**Course Learning Outcome:**

After completing this course, the students will be able to

- To understanding the, Rules and regulation officiating of Sprint (athletics)
- To understanding the, Techniques and tactics of throwing event (athletics)
- To understand the officiating and coaching of major games (Volleyball, Football, Handball and Basketball)
- Students would be able to organize the concerned sports event

**UNIT-I**

**Athletics: Rules and officiating of Sprint and throwing events:**

- 1.1 Brief history of sprint and throwing events. Layout, dimensions and markings of Track
- 1.2 Ethics in officiating, Duties of Officials, Rules and officiating of sprint events
- 1.3 Layout, dimensions and markings of throwing events
- 1.4 Rules and Officiating of Throwing events.

**UNIT-II**

**Techniques and their coaching aspects of sprint and throwing events**

- 2.1 Starting and finishing techniques of sprint events (crouch start and its variations, proper use of blocks, Run through, forward lunging, shoulder shrug)
- 2.2 Fault and their corrections of starting and finishing sprint events, teaching and coaching stages of sprint events
- 2.3. Responsibilities of a coach on and off the field, Techniques of throwing events
- 2.4. Fundamentals of coaching (throwing events).

**N.B. Apart from first two units of Athletics the students would study another two units as per their choice of the game.**

### **UNIT-III**

#### **Introduction of Volleyball**

- 3.1. Introduction of Volleyball, Historical development of volleyball in India and world
- 3.2. Dimensions, layouts and marking of fields of Volleyball, Tournament and its types.
- 3.3 IVBF Rules, regulations and their interpretation of Volleyball, Score sheet of Volleyball
- 3.4 Officiating procedure of volleyball tournament, Qualifications of Officials conducting various tournaments.  
Duties and responsibilities of Volleyball officials

### **UNIT-IV**

#### **Techniques and their coaching aspects of Volleyball**

- 4.1 Fundamental techniques of volleyball (attacking and defensive techniques),  
Players positional responsibilities.
- 4.2 Demonstration, explanation and fault correction and principles of coaching
- 4.3. Fundamental teaching and coaching principles of Volleyball
- 4.4 Coaches role and coaching in volleyball

**The students will choose any one major game. First two units distributed to Athletics and unit- III and unit- IV are related with many one major game.**

### **FOOTBALL (B-II)**

#### **UNIT-III**

##### **Introduction of Football**

- 3.1. Introduction of football, Historical development of football in India and world
- 3.2. Dimensions, layouts and marking of fields of football, Tournament and its types.
- 3.3 AIFF Rules, regulations and their interpretation of football, Score sheet of football
- 3.4 Officiating procedure of football tournament, Qualifications of Officials conducting various tournaments. Duties and responsibilities of football officials

#### **UNIT-IV**

##### **Techniques and their coaching aspects of Football**

- 4.1 Techniques and strategies of football (attacking and defensive techniques),  
Players positional responsibilities.
- 4.2 Demonstration, explanation and fault correction and principles of coaching
- 4.3. Fundamental teaching and coaching principles of football coaching
- 4.4 Coaches role and planning in football coaching

### **HANDBALL**

#### **(B-III)**

#### **UNIT-III**

##### **Introduction of Handball**

- 3.1. Introduction of handball, Historical development of handball in India and world.
- 3.2. Dimensions of handball ground, equipment and ball. Tournament and its types.
- 3.3 AHF and HFI Rules, regulations and their interpretation, Score sheet of handball

3.4 Officiating procedure of handball tournament, Qualifications of Officials conducting various tournaments. Duties and responsibilities of handball officials.

#### **UNIT-IV**

##### **Techniques and their coaching aspects of Handball**

- 4.1 Techniques and strategies of handball (attacking and defensive techniques),  
Players positional responsibilities.
- 4.2 Demonstration, explanation and fault correction and principles of coaching
- 4.3. Fundamental teaching and coaching principles of handball coaching
- 4.4 Coaches role and planning in handball coaching

#### **BASKETBALL**

##### **(B-IV) UNIT-III**

##### **Introduction of Basketball**

- 3.1. Introduction of Basketball, Historical development of Basketball in India and world
- 3.2. Dimensions of Basketball ground, equipment and ball. Tournament and its type.
- 3.3 IBF and BFI Rules, regulations and their interpretation, Score sheet of Basketball
- 3.4 Officiating procedure of Basketball tournament, Qualifications of Officials conducting various tournaments. Duties and responsibilities of Basketball officials

#### **UNIT-IV**

##### **Techniques and their coaching aspects of Basketball**

- 4.1 Techniques and strategies of Basketball (attacking and defensive techniques),  
Players positional responsibilities.
- 4.2 Demonstration, explanation and fault correction and principles of coaching
- 4.3. Fundamental teaching and coaching principles of Basketball coaching
- 4.4 Coaches role and planning in Basketball coaching

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

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6. Dyson, G. H. (1963). The mechanics of Athletics. London: University of London Press Ltd. Lawther, J.D. (1965).
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9. Nikola Radicc; Andraz Repar; Primož Pori; Dusan Krizzman & Mitja Ilc. (2013). Handball: from beginner to top player. Self-publishing N. Radic Publisher.
10. Phulkar Ashish, Sports officiating and coaching, Sports Publication, 2021
11. Rose. H. Lee (2004). The Basketball Handbook. Human kinetics, USA.
12. Ranganathan P.P. (2003). Volleyball, A Guide to Playing and Coaching. Friends Publication, Delhi.
13. Singer, R. N. (1972). Coaching, athletic & psychology. New York: M.C. Grew Hill.
14. Thomas Reilly & Mark Williams. (2003). Science and Soccer. Routledge London.

**SPORTS PRACTICAL**  
**OFFICIATING AND COACHING - I**  
**ATHLETICS RUNNING (SPRINT) AND THROWING EVENTS**

Course Code	Course Name	Credit	Learning Hours	Internal Marks	External Marks	Total Marks
E050103P	Officiating and Coaching – I Athletics – Running (Sprint) and Throwing Events	4	128	30	70	100

**Course Learning Outcome:**

After completing this course, the students will be able to

- Understand the dimensions of track and throwing events
- Appraise the rule & regulation and learning skills
- Demonstrate and assess various techniques of starts and finish.
- Interpret the rules, regulations and officiating and coaching.

**UNIT-I**

**Dimension and layout of track and field events**

- 1.1. Dimension and lay out of 200m track
- 1.2. Dimension and lay out of 400 m track
- 1.3. Dimension and lay out of Shot put and Discuss sector
- 1.4. Dimension of Javelin and Hammer throw sector

**UNIT-II**

**Rules and Skill of Running Events**

- 2.1. Sprint: Starting techniques: Standing start, Crouch start and its variations
- 2.2. Proper use of blocks.
- 2.3. Finishing Techniques: Run, Through, Forward lunging, Shoulder Shrug
- 2.4. Rules and regulations and their interpretations

**UNIT- III**

**Throwing events**

- 3.1. Putting the shut: Grip, hold the shut, Perri O'Brien, Disco Put technique
- 3.2. Discuss technique: Grip, Stance, Wind up, Starting the throw, Bringing the turn to the center of the ring, complete the turn to the center of the ring, turn to power position, release and balance
- 3.3. 3.3 Javelin techniques: Grip, hold the Javelin, approach run, perform withdrawal, make the transition, Delivery stride, perform the delivery throw, follow throw
- 3.4. 3.4. Hammer: Grip, swing, entry, turns, delivery, heel-toe turn footwork, release angle,

## UNIT-IV

### Officiating and Coaching

- 4.1. Rules and their interpretations and duties of officials in track and field events.
- 4.2 Learning officiating of track and field events
- 4.3. Fundamentals of coaching ability (Demonstration, explanation, rectification and class control)
- 4.4. Tactical aspects of sprint and throwing events

### TEACHING LEARNING STRATEGIES

The content will be taught by using lecture, demonstration, explanation, presentation methods, videos, learning by doing, Whole part whole method Drills.

### SUGGESTED MODE OF TRANSACTION

Field Work/ Outreach Activities/ Vocational Training/Viva/ learning by doing/ Shadow Practice etc.

### ASSESSMENT RUBRICS

- End Semester Exam (External) **Marks: 100**  
(Skill Proficiency, Project File, Officiating, Viva) **Marks:70**
- Internal **Marks: 30**  
(Skill Proficiency, Project File, Officiating, Attendance, Viva)

### Suggested Reading:

1. Brewer, Clive, Athletic Movement Skills, Human Kinetics, USA, 2017.
2. Cartwright, L.A. Fundamentals of Athletics Training, Human Kinetics, 2011.
2. David H. Perrin, Athletic Tapping and Bracing, Third Edition, Human Kinetics, 2012.
4. Freeman, W. Track and Field Coaching Essentials, AADI Books, Delhi, 2015
5. Gupta, U.C. Athletic- Skills & Techniques, Human Kinetics, 2016.
3. Schneider, R. C. (2009). Ethics of Sport and Athletics: Theory, Issues, and Application. Wolters Kluwer Health/Lippincott Williams & Wilkins
4. 8. USA Track & Field, Track & Field Coaching Essentials, Human Kinetics, 2017

**SEMESTER – I**  
**PRACTICUM COURSE:**  
**Officiating and Coaching-1: Any One- Major Games (Volleyball, Football, Handball, Basketball VOLLEYBALL (B-I))**

Course Code	Course Name	Credit	Learning Hours	Internal Marks	External Marks	Total Marks
E050104P	Volleyball (B-I)	4	128	30	70	100

**Course Learning Outcome:**

- After completing this course, the students will be able to
- Understand Ground marking and Fundamental Skills of Volleyball
  - Acquire and interpret basic Volleyball skills
  - Appraise the rules and regulation.
  - Demonstrate and assess various basic skills/techniques and game strategies.
  - Officiate in competition.

**UNIT-I**

**Ground marking and Fundamental Skills of Volleyball**

- 1.1. Ground marking of volleyball court
- 1.2. Players Stance, Receiving the ball, Passing to the team mates
- 1.3. The Volley (Overhead pass)
- 1.4 The Dig (Under handpass)

**UNIT-II**

**Service and setting skill in Volleyball**

- 2.1 Service-Under Arm Service, side arm service, tennis service
- 2.2 Effective service performance
- 2.3 Service strategy and reception
- 2.4 Basic technique in setting skill

**UNIT-III**

**Attacking and defensive skill**

- 3.1. Types of attack, spike straight arm spick,
- 3.2 Service reception and block, single block,
- 3.3 Attack combination and blocking evaluation
- 3.4 Defense and importance of block, defense of libero, Individual player and positional responsibility, basic offensive and defensive pattern play

**UNIT-IV**

**Officiating and Coaching**

- 4.1 learning Officiating skill, Interpretation of rules and officiating
- 4.2 Fundamentals of coaching ability (Demonstration, explanation, rectification and class control)
- 4.3 Tactical aspects of Volleyball coaching
- 4.4 Drills and lead up activities

## **TEACHING LEARNING STRATEGIES**

- The content will be taught by using demonstration, explanation, presentation methods, training videos, video analysis, e-learning modules, learning by doing, Whole part whole method, Drills.

## **SUGGESTED MODE OF TRANSACTION**

Field Work/ Viva/ learning by doing/ Individual and Team Drills.

## **ASSESSMENT RUBRICS**

**Marks: 100**

- End Semester Exam (External)

**Marks:70**

(Skill Proficiency, Project File, Officiating, Viva)

- Internal

**Marks: 30**

(Skill Proficiency, Project File, Officiating, Attendance, Viva)

## **SUGGESTED READINGS**

1. Anthony C. Varghese., & Lawrence V. (2009). Volleyball Player. Handbook Friends Publication, New Delhi
2. Bob Bertucci, ToshiakiYoshida, Makoto Kattsumoto,The Complete Volleyball, Coaches Choice (December 7, 2011)
3. Becky Schmidt,Volleyball: Steps to Success, Human Kinetics; First edition September 29, 2015)
4. Dumphy Mary & Wilde Rad (2000). Volleyball Today. 2nd Edition, Fritz/Brett.
5. Ranganathan P.P. (2003). Volleyball, A Guide to Playing and Coaching. Friends Publication, Delhi.
6. Soudhu S. Gurbaksh (1982). Volleyball Basic and Advanced. Sports People, Chandigarh.
7. Sagar, S.K. Skills & Tactics Volleyball, sports Publication, 2018.
8. USA Volleyball. (2007). Coaching Youth Volleyball, 4th Edition, Human Kinetics

## FOOTBALL (B-II)

Course Code	Course Name	Credit	Learning Hours	Internal Marks	External Marks	Total Marks
E050104P	Football (B-II)	4	128	30	70	100

### Course Learning Outcome:

After completing this course, the students will be able to

- Acquire, analyze and interpret basic skills of Football.
- Implication of the laws of Football.
- Demonstrate and assess various basic skills and team strategies.
- Officiating in football match.

### UNIT-I

#### Ground marking, dribbling and trapping

- 1.1. Ground marking
- 1.2. Dribbling-With instep, inside and outer instep of the foot
- 1.3. Trapping-trapping rolling the ball
- 1.4. Trapping bouncing ball with sole

### UNIT-II

#### Kicks in Football

- 2.1. Kicks-Inside kick
- 2.2. Instep kick
- 2.3. Outer instep kick
- 2.4. Lofted kick, throw in

### UNIT-III

#### Heading, tackling and Goal keeping

- 3.1 Heading-From standing, running and jumping.
- 3.2 Feinting-With the lower limb and upper part of the body.
- 3.3 Tackling-Simple tackling, Slide tackling.
- 3.4. Goal Keeping-Collection of balls, Ball clearance-kicking, throwing and deflecting.

### UNIT-IV

#### Officiating and Coaching

- 4.1. Rules and their interpretations.
- 4.2 Learning officiating in Football
- 4.3. Fundamentals of coaching ability (Demonstration, explanation, rectification and class control)
- 4.4. Principles of football coaching, Tactical aspects of football coaching and training.

## TEACHING LEARNING STRATEGIES

The content will be taught by using demonstration, explanation, presentation methods, training videos, video analysis, e-learning modules, learning by doing, Whole part whole method, Drills. **SUGGESTED MODE OF TRANSACTION**

Field Work/ Viva/ learning by doing/ Individual and Team Drills.

## ASSESSMENT RUBRICS

**Marks:**

**100**

- End Semester Exam (External) **Marks:30**  
(Skill Proficiency, Project File, Officiating, Coaching & Viva)
- Internal **Marks: 70**  
(Skill Proficiency, Project File, Officiating, Coaching, Attendance, Viva)

## SUGGESTED READINGS

1. Bill Beswick. (2010). Focused for Soccer. 2nd Edition, Human Kinetics.
2. Bobby Moffat. (1985), The Basic Soccer Guide. Collier Books.
3. Dylan Joseph, Soccer Coaching: A Step-by-Step Guide on How to Lead Your Players, Manage Parents, and Select the Best Formation, Understand, LLC, 2019
4. John Hughson, Handbook of Football Studies Routledge, 2018
5. Jacob Danial, The Complete Guide to Coaching Soccer Systems and Tactics, Reedswain (October 1, 2003)
6. Nelson McAvoy, Teaching soccer fundamentals, Human Kinetics; 1st edition (August 24, 1998)
7. Robert Koger 101 Great Youth Soccer Drills McGraw-Hill Education; 1st edition (2005).
8. Thomas Reilly & Mark Williams. (2003), Science and Soccer. Routledge, London. Thomson, W. Teaching Soccer

## HANDBALL (B-III)

Course Code	Course Name	Credit	Learning Hours	Internal Marks	External Marks	Total Marks
E050104P	Handball (B-III)	4	128	30	70	100

### Course Learning Outcome:

After completing this course, the students will be able to

- Acquire, analyze and interpret basic skills of Handball
- Appraise the rules and regulation.
- Demonstrate and assess various basic skills/techniques and game strategies.
- Understand the fundamental of coaching and officiate in competition.

### Unit-I

#### Ground Marking, Catching, Dribbling and Passing:

- 1.1 Ground Marking, Players Positions and Ball Handling in Handball.
- 1.2 Catching the Ball: Overhead Catch (Catching Above the Head), Medium Catch (Catching Above the Waist), Low Catch (Catching Below the Waist) and Catching While Running.
- 1.3 Dribbling: Dribbling High and Dribbling Low
- 1.4 Passing the Ball: Overhead Pass, Wrist Pass, Push Pass, Pitch Pass, Behind the Back Pass and Behind the shoulder Pass

### Unit-II

#### Shooting and 7 Meter Throw:

- 1.5 Set Shot or straight shot, Jump Shot High, Jump Shot Long,
- 1.6 Wing Shot, Dive Shot, running shot (without blocking steps),
- 1.7 Lob shoot, Side Step shot and Fast Break.
- 1.8 Penalty Shoot (7 Meter throw) shooting variation.

### Unit-III

#### Goal Keeping, Defensive and Attacking Systems.

- 1.9 Goalkeeper Position in Goal Post
- 1.10 Blocking High Shots, Blocking Low Shots
- 1.11 Blocking Medium High Shot, Blocking Wing Shot, Defending fast break ball
- 1.12 Defensive systems and Attacking system

### Unit-IV

#### Officiating and Coaching in Handball

- 4.1 Rules and their interpretations and duties of officials.
- 4.2 Learning officiating in Handball.
- 4.3 Fundamentals of coaching ability (Demonstration, explanation, rectification and class control)
- 4.4 Tactical aspects of Handball Coaching.

## TEACHING LEARNING STRATEGIES

The content will be taught by using demonstration, explanation, presentation methods, training videos, video analysis, e-learning modules, learning by doing, Whole part whole method, Drills.

## SUGGESTED MODE OF TRANSACTION

Field Work/ Viva/ learning by doing/ Individual and Team Drills.

## ASSESSMENT RUBRICS

**Marks: 100**

- End Semester Exam (External)

**Marks:70**

(Skill Proficiency, Project File,

Fundamentals of coaching, Officiating, Attendance,

Internal

**Marks: 30**

(Skill Proficiency, Project File, Fundamentals of coaching, Officiating, Attendance, Viva)

### Suggested Reading:

1. Bernath E Phillips, Fundamental Handball, (2011), Create space Independent Publishing Platform
2. Baha M. H and James D. L (1994). Team Handball: Skills, Strategies and Training. Eddie Bowers Publishing Company.
3. Bernath E. Phillips (2013). Fundamentals of Handball. Literary Licensing publisher.
4. Narang Priyanka, (2016) Teach yourself Handball, Sports Publication.
5. Reita Clanton & Mary P. D. (1996). Team Handball: Steps to Success: Steps to Success Sports. Human Kinetics Publishers.
6. Nikola Radicc; Andraz Repar; Primoz Pori; Dussan Krizzman & Mitja Ilc. (2013). Handball: from beginner to top player. Self-publishing N. Radic Publisher.

## BASKETBALL (B-IV)

Course Code	Course Name	Credit	Learning Hours	Internal Marks	External Marks	Total Marks
E050104P	Basketball(B-IV)	4	128	30	70	100

### Course Learning Outcome:

After completing this course, the students will be able to

- Acquire, analyze and interpret basic skills of Basketball
- Appraise the rules and regulation.
- Demonstrate and assess various basic skills/techniques and games strategies.
- Officiate in competition and fundamental knowledge of Coaching

### UNIT-I

#### Basketball Court Measurement and Marking and fundamental Skills

- 1.1. Basketball Court Measurement and Marking
- 1.2. Player stance and ballhandling, Passing-Two Hand chest pass, two hands Bounce Pass
- 1.3. One Hand Baseball pass, Side Arm Pass, Over Head pass, Hook Pass.
- 1.4. Drills and lead up activities on the above-mentioned skills

### UNIT-II

#### Dribbling and receiving the ball

- 2.1. Dribbling-How to start dribble, how to drop dribble, High dribble, Low dribble, Reverse dribble, rolling dribble.
- 2.2. Receiving-Two Hand receiving, one hand receiving, receiving in stationary position, receiving while jumping, receiving while running.
- 2.3. Shooting-Layup shot and its variations, one hand set shot, one hand jump shot, Hook shot, and Free throw, Pivoting.
- 2.4. Drills and lead up activities on the above-mentioned skills

### UNIT-III

#### Offensive and Defensive rebound

- 3.2. Rebounding- Offensive rebound
- 3.3. Defensive rebound
- 3.4. Individual Defense- Guarding the man with the ball and without the ball,
- 3.5. Drills and lead up activities on the above-mentioned skills

### UNIT-IV

#### Officiating and Coaching

- 4.1. Rules and their interpretations and duties of officials.
- 4.2. Learning officiating in Basket ball

4.3. Fundamentals of coaching ability (Demonstration, explanation, rectification and class control)

4.4. Tactical aspects of Basketball Coaching

### **TEACHING LEARNING STRATEGIES**

- The content will be taught by using demonstration, explanation, presentation methods, training videos, video analysis, e-learning modules, learning by doing, Whole part whole method, Drills.

### **SUGGESTED MODE OF TRANSACTION**

- Field Work/ Viva/ learning by doing/ Individual and Team Drills

### **SUGGESTED READINGS**

1. Brian T. McCormick, The 21st Century Basketball Practice: Modernizing the basketball practice to develop the global player, Independently published, 2020.
2. DeVenzio, Stuff Good Players Should Know: Intelligent Basketball from A to Z, Pgc Basketball; 4th ed. edition (2014).
3. Geyer Dick (1977). Full Court Control Basketball. Parker Publishing Company, Inc. New York
4. Jerry Krause, Craig R. Nelson Basketball skills and Drills, Human Kinetics; Fourth edition, 2018.
5. Laszlo, N. Basketball skill of the games, Crowood Press (March 1, 2002)
6. Rose. H. Lee (2004). The Basketball Handbook. Human kinetics, USA.
7. Wissel, H. Basketball steps to success, Human Kinetics, 1994.

**DISCIPLINE SPECIFIC ELECTIVE (DSE)**  
**PHYSICAL FITNESS AND WELLNESS**  
**COURSE CODE: E050105T**

Course Code	Course Name	Credit	Learning Hours	Internal Marks	External Marks	Total Marks
<b>ELECTIVE COURSE (DSE)</b>						
E050105T	Physical Fitness and Wellness	2	32	30	70	100

**Course Learning Outcome:**

After completing this course, the students will be able to

- Understand the modern concept of physical fitness and wellness.
- Understand the components of health and skill related physical fitness wellness
- Develop competencies of different types of exercises for physical fitness

**UNIT-I**

**1. Introduction**

- 1.1 Meaning and importance of Health, Exercise, Fitness and Wellness
- 1.2. Meaning and importance of Fitness and Wellness, Dimensions of Wellness
- 1.3. Misconceptions about Health, Exercises, Benefits of Fitness and Wellness
- 1.4 Relationship among fitness, wellness and holistic health.

**UNIT-II**

**2. Components of Physical Fitness**

- 2.1. Introduction to Physical Fitness: Meaning and Definition
- 2.2 Aim & Objectives of Physical Fitness, Principles of Physical Fitness
- 2.3 Components of health - related fitness: Muscular strength, Muscular Endurance, Cardio Respiratory Endurance, Body composition, Flexibility
- 2.4 Components of performance/Skill related fitness: Strength, Endurance, Power, Agility, Co-ordination, Speed, Balance, reaction time.

**UNIT-III**

**3. Types of Exercise**

- 3.1. Aerobic, Anaerobic, Types of Aerobic and Anaerobic Exercises
- 3.2 Strength/Weight Training, Types of exercises, Isometric- Isotonic and Iso-kinetic exercises, Circuit training and Plyometric exercises
- 3.3 Stretching, Types of Stretching, Stretching exercises,
- 3.4 Cross Fit Exercise
- 3.5 Circuit training exercises
- 3.6 Plyometric training exercises
- 3.7 Design of Complete fitness training programme for different age group
- 3.8 Gym equipment and their exercises with set and repetition

## SUGGESTED READINGS

1. Aggarwal Ameet, (2018).Heal Your Body, Cure Your Mind,CreateSpace Independent Publishing Platform
2. Chouksey itendra (2021).Lose fat, get fittr: the simple science of staying healthy for life, Rupa Publications, India.
3. Carol K. Armbruster, Ellen M. Evans and Catherine M. Laughlin(2018) Fitness and wellness away of life,Human Kinetics.
4. Difiore, J. (1998). *Complete guide to postnatal fitness*. London: A & C Black,
5. Diwekar Rujuta,(2020).The 12-Week Fitness ProjectJuggernaut.
6. Giam, C. K & The, K.C. (1994). *Sport medicine exercise and fitness*. Singapore: P.G. Medical Book.
7. Mcglynn, G., (1993). *Dynamics of fitness*. Madison: W.C.B Brown. 4-Sharkey, B. J. (1990). *Physiology of fitness*, Human Kinetics Book.
8. Rath, Shyam Sundar. (2017). Physical Fitness and wellness, Sports Publication, New Delhi.
9. Werner W.K, Sharon A, Cherie I. and Amber L. (2018) Fitness and wellness, Cengage Learning.
10. Werner W.K. Hoeger and Sharon A. (2015) Principles and lab for fitness and wellness, Cengage Learning



**DISCIPLINE SPECIFIC ELECTIVE (DSE)  
SPORTS EVENT MANAGEMENT  
COURSE CODE:**

<b>COURSE CODE:</b>	<b>Course Name</b>	<b>Credit</b>	<b>Learning Hours</b>	<b>Internal Marks</b>	<b>External Marks</b>	<b>Total Marks</b>
<b>E050106T</b>	Sports Event Management	2	32	30	70	100

**Course Learning Outcome:**

After completing this course, the students will be able to

- To Identify and understanding various types of contemporary sporting events
- Understand the internal and the external sponsorship to sport event management
- To understand the misconnect and the negligence affect to event management

**UNIT-I**

**Introduction:**

- 1.1. Understanding Sport Facilities/Planning, Importance of Sports Event Management
- 1.2. Different types of sports events, sports event and sport tourism
- 1.3. Event Planning Sequence, Opening and Closing ceremony
- 1.4. Event manager and role of management staffs and different committee

**UNIT-II**

**Budgeting, Sponsorship and Marketing**

- 2.1 Sports event budget, Planning and preparation of budget, Event Cost Estimate
- 2.2 Sponsorship and advertisement of the event
- 2.3 Marketing strategies and Event Marketing
- 2.4 Media role and promotion, Media partner

**UNIT-III**

**Event Management and Negligence:**

- 1.1 Sports Venue location and selection and facilities
- 1.2 Event and GameDay Management, Risk Management and negligence, analysis of strength and weakness of risk factors of event
- 1.3 Services and Logistics, Pre-Event and Post event evaluation, evaluation of managing staffs
- 1.4 Crowd Management

**Suggested Readings**

2. Bucher, C.H.(1983) *Administration of Physical Education and Athletic Programmes*, The C.V. Mosby Company,London.
3. Zeigler, E.M. and Dewie, G.W. (1983) *Management Competency Development in Sports and Physical Education*, Lea and Febiger, Philadelphia.
4. Allen, L.A.(1958) *Management and Organization*,Mc-Graw Hill Book Company, Inc.,London.
5. Huges, W.L. et. al. (1962) *Administrative of Physical Education*,The Ronald Press, Company, NewYork.
6. Venderzwaq, H.J.(1935) *Sports Management in Schools andColleges*,

McMillan Publishing Company, New York.

7. Larry Horine,(1991) *Administration of Physical Education and Sports*, Wm.C. Brown Publishers (IIndEdition).
8. Rober L. Mathis & John H. Jackson(2000)*Human Resource Management*(NinthEdition) South Western College Publishing.
9. JackquelynCuneed& M. Joy Sidwell,(1994) *Sports Management Field Experiences*, Fitnson InformationTechnology;Inc.



## INTRODUCTION TO INFORMATION TECHNOLOGY

COURSE CODE: E050107T

Course Code	Course Name	Credit	Learning Hours	Internal Marks	External Marks	Total Marks
E050107T	Introduction to Information Technology	2	32	30	70	100

### Course Learning Outcome:

After completing this course, the students will be able to

- To Understand about Information Technology in Physical Education and sports
- Recognize and use application software used in Physical Education and sports.
- Utilization of platform and application of software in the field of physical education and sports.

### UNIT-I

#### Introduction to Information Technology

- 1.1 Evolution of computers, characteristics and applications.
- 1.2 Concept, and importance of Information Technology in Physical Education
- 1.3 Need of Information Technology in Physical Education
- 1.4 Applications and Challenges faced in the present context

### UNIT-II

#### Microsoft Office and Introduction to Networking

- 1.1 Multimedia– Meaning, Components and Applications
- 1.2 Microsoft office MS word, MS excel and MS PowerPoint.
- 1.3 History of Internet: Uses of Internet
- 1.4 Electronic mail, file transfer protocol, Telnet, Usenet, WWW, Browsers, Search Engines

### UNIT-III

#### Platforms and Applications in Sports

- 3.1 Software and Hardware: concept and importance
- 3.2 Software platforms used in teaching and learning process: online applications
- 3.3 Gadgets: Equipment and Technology in Sports and Physical Education, Heart Rate Monitor; Polar watches; Heddoko – Uniforms with sensors; Myovolt pads for sports therapy
- 3.4 Information Technology-possibilities and future oriented context in relation to Physical education and sports. Sports Technologies: Hawk-Eye Technology; Stump Camera in cricket; Goal Line Technology in Soccer; Radar Gun technology in Tennis

## Suggested Reading

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. P.M. Heathcote (2000), „A' Level Computing (4th ed), Payne-Gallway Publishers Ltd ISBN 1-903112-2
5. Sinha, P. K. & Sinha, P. (n.d.). *Computer fundamentals*. 4th edition, BPB Publication.



**SEMESTER- II**

Course Code	Course/ Paper Name	Credit	Learning Hours	Internal Marks	External Marks	Total Marks
<b>PART-A THEOREY COURSE</b>						
<b>E050201 T</b>	Anatomy and Physiology	4	48	30	70	100
<b>E050202 T</b>	Officiating and coaching II Athletics, Major Games: (Any One)	4	48	30	70	100
<b>PART-B PRACTICAL COURSE</b>						
<b>E050203 P</b>	Athletics- Running (Middle and long distance) and Jumping event	4	128	30	70	100
<b>E050204 P</b>	Major Game: Cricket, Hockey, Kho Kho and Kabaddi (Any one)	4	128	30	70	100
<b>PART-C ELECTIVE COURSE (Select any One)</b>						
<b>E050205 T</b>	Recreation and Adventure Sports	2	32	30	70	100
<b>E050206 T</b>	Value Education					
<b>PART-D MULTIDISCIPLINARY COURSES</b>						
<b>E050207 T</b>	Environmental Science	2	32	30	70	100

**SEMESTER - II**  
**ANATOMY AND PHYSIOLOGY**  
**COURSE CODE: E050201T**

Course Code	Course Name	Credit	Learning Hours	Internal Marks	External Marks	Total Marks
<b>THEORY</b>						
<b>E050201T</b>	Anatomy and Physiology	4	48	30	70	100

**Course Learning Outcome:**

After completing this course, the students will be able to

- Understand the Need and importance of anatomy and physiology in the field of physical education.
- To know about types, structure and characteristics of muscles and circulatory system
- To understand digestive and respiratory system
- To understand and to understand excretory, nervous and endocrine system

**UNIT – I**

**Introduction of Anatomy & Physiology**

- 1.1 Meaning, Definition, Need and importance of anatomy and Physiology in the field of physical Education and Sports science
- 1.2 Skeletal System, Classification of Bones, Function of bones, Types of Joints, Classification of joints and their functions.
- 1.3 Definition, Structure and Function of the Cell,
- 1.4 Tissue: Types and structure of Tissues, Organs and systems

**UNIT – II**

**Introduction of Muscular and Nervous System**

- 2.1. Muscular System: Gross Anatomy of Skeletal Muscles.
- 2.2. Types of Muscles and Muscle Contraction, Group action in skeletal muscles
- 2.3. Motor unit, functional types of skeletal muscles, muscles metabolism and fatigue
- 2.4. Nervous system: Central Nervous System, Peripheral Nervous Systems, function of nervous system.

**UNIT-III**

**3. Cardiovascular and Respiratory System**

- 3.1 Heart: its structure and function, Systemic and pulmonary circulatory system
- 3.2 Cardiac Cycle, Stroke volume, Cardiac output and Blood Pressure
- 3.3 Respiratory System: lungs, Respiratory tract, Mechanism of Respiration (internal and external respiration)

- 3.4 Exchanges of gases, Ventilation and lungs volumes, Pulmonary Volumes and Vital Capacity
- 3.5 Demonstration of cell, tissue, major muscles (origin and insertion) through video
- 3.6 Identification of human bones, Joints and its explanation by the students
- 3.7 Measurement of BP, resting heart rate and exercise heart rate
- 3.8 Measurement of Lungs volumes and Capacities

#### UNIT – IV

- 4.1 Digestive System: Structure and Function
- 4.2 Endocrine System: Structure and Function
- 4.3 Excretory System: Structure and Function
- 4.4 Reproductive System: Structure and Function
- 4.5 Video presentation of digestive system and its explanation by the students
- 4.6 Video Presentation of endocrine grand its explanation by the students
- 4.7 Video Presentation of Kidney and urinary tract and its explanation by the students
- 4.8 Video Presentation of human Brain and its explanation by the students

#### SUGGESTED READINGS

1. Chaurasia B.D (2020) B D Chaurasias Handbook of General Anatomy, 6 th edition, CBS Publisher.
2. Dr. A. Chandra Sekhar (2014) Handbook of Anatomy & Physiology, All India Publishers & Distributors; 2ndEdition
3. Elaine Marieb and Suzanne Keller (2017) Essentials of Human Anatomy & Physiology, Global Edition, Publisher-Pearson; 12th edition.
- 4 Fredric H. Martini, Michael J. Timmons Human Anatomy Prentice Hall, New Zealand 2000.
- 5 Garg K. (2020) Essentials of Anatomy and Physiology for GNM with Clinical Importance, Publisher -CBS Nursing.
- 6 Jamet Parker The Human Body Atlas Om Books Publication Comp. Inc. 2006.
- 7 Ken Ashwell The Student Anatomy of Exercise Manual Medtec an Imprint of Scientific International Pvt. Ltd., Australia 2012.
- 8 Moorthy, A. M. (2014). Anatomy physiology and health education. Karaikudi: Madalayam Publications.
- 9 Richard L. Drake Grays Anatomy for Students Elsevier Churchill Livingstone Comp. Inc., Philadelphia 2005.
- 10 Gerard J. Tortora and Bryan H. Derrickson (2017) “Tortora&39’s Principles of Anatomy and Physiology” Publisher : Wiley 15th edition.
- 11 G.L. Khanna (2016) Exercise Physiology and Nutrition, Friends Publications (India); First edition.

**SEMESTER-II**  
**OFFICIATING AND COACHING II**  
**COURSE CODE: E050202T**

**(A and B-I, II, III, IV) ATHLETICS AND MAJOR GAMES**

**Running (Middle and Long distance) and jumping events, Major games (Any one) Cricket, Hockey and softball**

Course Code	Course Name	Credit	Learning Hours	Internal Marks	External Marks	Total Marks
E050202T	Officiating and coaching II Athletics, Major Games: Cricket, Hockey, Softball, Kho Kho and Kabaddi(Any one)	4	60	30	70	100

**Course Learning Outcome:**

After completing this course, the students will be able to

- To understanding the, Rules and regulation officiating of long distance and jump (athletics)
- To understanding the, Techniques and tactics and the officiating aspects of Running and jumping athletics)
- understand the officiating and coaching of major games (Cricket, Hockey, softball)

**UNIT-I**

Rules of Middle, long distance running and Jumping events:

- 1.1. Introduction of AFI and IAAF
- 1.2. Brief history of middle, long distance running and jumping events. Layout, dimensions and markings of jumping Events.
- 1.3. Ethics in officiating, Duties of Officials in middle and long distance running and jumping events
- 1.4. 1.4 Rules and Officiating of Jumping events.

**UNIT II**

Coaching Techniques and their coaching aspects of running jumping events

- 2.1. Middle and long distance Running events and their technique, movement economy
- 2.2 Importance of Interval and continuous training for middle- and long-distance training
- 2.3. Responsibilities of a coach on and off the field in jumping events
- 2.4. Classifying training methods, long term development of jumpers, training organization strategies.

### **UNIT - III**

- 3.1 Introduction of Cricket, Historical development of Cricket in India and world
- 3.2 Dimensions, layouts and marking of cricket, Major cricket Tournament.
- 3.3 ICC Rules, regulations and their interpretation, LBW rules
- 3.4 Cricket officiating procedure, Qualifications for Officials conducting cricket tournament, Duties and Responsibilities of Cricket Umpire and third Umpire

### **UNIT-IV**

Coaching aspects of Cricket

- 4.1 Batting Fundamental techniques ball (attacking and defensive techniques), Players and captains Position and responsibilities in the ground.
- 4.2 Demonstration, explanation and fault correction and principles of coaching in cricket
- 4.3 Fundamental teaching and coaching principles of bowling and wicket keeping in cricket. Demonstration method, explanation and rectification
- 4.4 Training session template in cricket

**HOCKEY (B-II)**

### **UNIT-III**

Introduction of Field Hockey

- 3.1 Introduction of Hockey, Historical development of hockey in India and world
- 3.2 Dimensions, layouts and marking of hockey, Major hockey Tournament. The performance of Indian team in Olympics and other international competition
- 3.3 FIH Rules, Regulations and their interpretation.
- 3.4 Hockey officiating procedure, Qualifications for Officials conducting Hockey tournament, Duties and Responsibilities of Hockey officials

### **UNIT-IV**

Coaching aspects of Hockey

- 4.1 Fundamental techniques (attacking and defensive techniques), Players and captains Position and responsibilities in the ground
- 4.2 Demonstration, explanation and fault correction and principles of coaching in Hockey
- 4.3 Fundamental teaching and coaching principles of Hockey. Demonstration method, explanation and rectification
- 4.4 Training session models in Hockey

### **Unit-III**

**KHO-KHO (B-III)**

#### **Introduction of Field Kho-Kho**

- 3.1 Introduction of Kho-Kho, Historical development of Kho-Kho in India and world
- 3.2 Dimensions, layouts and marking of Softball, Major Kho-Kho Tournament in India
- 3.3 Kho-Kho Rules, Regulations and their interpretation.
- 3.4 Kho-Kho officiating procedure, Qualifications for Officials conducting Kho - Kho tournament, Duties and Responsibilities of Kho-Kho officials

## UNIT-IV

### Coaching aspects of Kho-Kho

- 4.1 Fundamental techniques (attacking and defensive techniques), Players and Captains position and responsibilities in the ground
- 4.2 Demonstration, explanation and fault correction and principles of coaching in Kho-Kho
- 4.3 Fundamental teaching and coaching principles of Kho-Kho, Demonstration method, explanation and rectification
- 4.4 Training session models in Kho-Kho.

### Reference Books:

1. Aneja, O.P. (2012). How to Play Cricket, Prerna Prakashan.
2. Arora, Monika (2005). Cricket Coaching Manual. Sports Publication.
3. Bertagna Joe, The Hockey Coaching Bible, Human Kinetics 2015
4. Brewer, Clive, Athletic Movement Skills, Human Kinetics, USA, 2017.
5. Cartwright, L.A. Fundamentals of Athletics Training, Human Kinetics, 2011.
6. David H. Perrin, Athletic Tapping and Bracing, Third Edition, Human Kinetics, 2012.
7. Deshmukh Anil A, Kabaddi, (2020) Sports Publication, New Delhi
8. Dave Chambers, The hockey drill book, Human Kinetics; Second edition, 2016
9. Jain Deepak, How to play Hockey, Prerana Prakashana, 2016
10. Karikalan. I, (2021) The book of Kabaddi, Sports Publications, New Delhi.
11. Kaur Balwinder, Officiating and Coaching, Sports Publication, 2020
12. Phulkar Ashish, Sports officiating and coaching, Sports Publication, 2021
13. Naval Kishore, (2016), How to play Kho Kho, Sports Publication, New Delhi
14. Singh .C.P, Sports coaching and Officiating, Sports Publication, 2020
15. Verma Kavita, (2015) Text book on Kho Kho, International E Publication.

SEMESTER II

SPORTS PRACTICAL

COURSE CODE: E050203P

Course Code	Course Name	Credit	Learning Hours	Internal Marks	External Marks	Total Marks
E050203P	Athletics- Running (Middle and Long Distance) and Jumping event	4	128	30	70	100

**LEARNING OUTCOMES:**

**Athletics-Running (Middle and Long distance) and Jumping event**

- Acquire, analyze and interpret the required jumping techniques.
- Demonstrate and assess various techniques of jump in events.
- Interpret the rules, regulations and officiate in competitions.
- Understand fundamental principles of coaching

**UNIT-I**

**Middle and long distance run and Long jump:**

- 1.1. Starting and finishing technique of middle- and long-distance run
- 1.2. Movement economy and shoulder with pelvic coordination of middle and long distance run
- 1.3. Hang Style: Approach Run, Take off, Flight in the air and Landing
- 1.4. Long jump Ground Marking, Rules and Officiating

**UNIT-II**

**High Jump**

- 2.1 High Jump Techniques: Scissor jump, Straddle Roll, Fosbury Flop
- 2.2 Approach Run, Takeoff, Clearance over the bar and landing
- 2.1 Rules of the high jump and their interpretation
- 2.2 Officiating of High jump

**UNIT-III**

**Triple Jump**

- 3.1. Basic skill (Hop, Step and Jump)
- 3.2. Approach run, Take-off and landing of all the three Phase-Hop, Step and Jump.
- 3.3. Rules of the triple jump and their interpretation
- 3.4. officiating of Triple jump

**UNIT-IV**

**Concept of Coaching**

- Fundamental concept and principles of coaching in athletics
- Differentiates various coaching styles and recognizes appropriate coaching behavior
- Demonstration, explanation and rectification of techniques

- Communication techniques in coaching

### **TEACHING LEARNING STRATEGIES**

The content will be taught by using demonstration, explanation, presentation methods, videos, learning by doing, Whole part whole method Drills.

### **SUGGESTED MODE OF TRANSACTION**

Field Work/ Viva/ learning by doing/ Practice without implement

### **ASSESSMENT RUBRICS**

End Semester Exam (External)

(Skill Proficiency, Project File, Officiating, Viva)

#### **Internal**

(Skill Proficiency, Project File, Officiating, Attendance, Viva)

### **Suggested Reading**

Brewer, Clive, Athletic Movement Skills, Human Kinetics, USA, 2017.

Cartwright, L.A. Fundamentals of Athletics Training, Human Kinetics, 2011.

David H. Perrin, Athletic Taping and Bracing, Third Edition, Human Kinetics, 2012.

Freeman, W. Track and Field Coaching Essentials, AADI Books, Delhi, 2015

Gupta, U.C. Athletic- Skills & Techniques, Human Kinetics, 2016.

Jain Deepak, Teach Yourself Middle Distance Running, Sports Publication, 2016

Nagi Kunnal, Teach yourself Jumping, Sports Publication, 2016

Schneider, R. C. (2009). Ethics of Sport and Athletics: Theory, Issues, and Application. Wolter Kluwer

USA Track & Field, Track & Field Coaching Essentials, Human Kinetics, 2017

**SEMESTER – II**  
**SPORTS PRACTICAL: Major Games (Any One)**  
**CRICKET (B-I)**

Course Code	Course Name	Credit	Learning Hours	Internal Marks	External Marks	Total Marks
E050204P	Cricket(B-I)	4	128	30	70	100

**COURSE LEARNING OUTCOME**

- Acquire, analyze and interpret basic skills of Batting, Bowling and Fielding in Cricket.
- Appraise the laws of Cricket.
- Demonstrate and assess various basic skills of Batting, Bowling and Fielding in Cricket.
- Officiate in match.

**UNIT-I**

**Cricket pitch and Fundamental batting Skills**

- 1.1. Dimensions of the Cricket pitch
- 1.2. Grip, stance, guard, and back swing
- 1.3. Batting-Forward and backward defensive stroke
- 1.4. Batting skill: Cut, drive, hook, Leg Glance, Sweep, Pull

**UNIT-II**

**Bowling skills**

- 2.1 Basic grip for pace and spin bowlers
- 2.2 Upright seam – observation, Practice spinning the ball across a stump or line – underarm/over arm
- 2.3. Bowling skill: Simple bowling techniques, fast and spin bowling
- 2.4. Bowling plan for different batsman

**UNIT-III**

**Fielding and Wicket keeping techniques**

- 3.1 Fielding-Defensive and offensive fielding, field placement with attacking variations
- 3.2 Catching-High Catching and Slip catching
- 3.3 Stopping and throwing techniques
- 3.4 Wicket keeping techniques

**UNIT-IV**

**Officiating, Coaching Ability, Tactics, Rules and their interpretation**

- 4.1. Learning Officiating skill, Interpretation of rules and officiating
- 4.2. Fundamentals of coaching ability (Demonstration, explanation, rectification and class control)
- 4.3. Tactical aspects of Cricket coaching, use a whiteboard to demonstrate the different fields for different bowlers
- 4.4 ‘load’ a field to make it difficult for a batsman to use his/her preferred shots

## **TEACHING LEARNING STRATEGIES**

The content will be taught by using demonstration, explanation, presentation methods, training videos, video analysis, e-learning modules, learning by doing, Whole part whole method, Drills.

## **SUGGESTED MODE OF TRANSACTION**

Field Work/ Viva/ learning by doing/ Shadow, Partner and Net Practice

## **ASSESSMENT RUBRICS**

**Marks: 100**

End Semester Exam (External)

(Skill Proficiency, Project File, Officiating, fundamentals of coaching Viva)

Internal

(Skill Proficiency, Project File, Officiating, fundamentals of coaching Attendance, Viva)

## **SUGGESTED READINGS**

1. Aneja, O.P. (2012). How to Play Cricket, Prerna Prakashan.
2. Arora, Monika (2005). Cricket Coaching Manual. Sports Publication.
3. Arun Kumar. (2012). Cricket Skills & Rules. Khel Sahitya Kendra.
4. Bagga Kulwinder Singh, (2016)The art of Cricket, sports Publication,
5. Syal, & Meenu. (2004). Teach Yourself Cricket. Prerna Prakashan.
6. Srivastava A.K.,(2016) Touch yourself cricket, Sports Publisher
7. Tyagi, & Arun Kumar. (2012). Cricket Skills & Rules. Khel Sahitya Kendra

## HOCKEY (B-II)

Course Code	Course Name	Credit	Learning Hours	Internal Marks	External Marks	Total Marks
E050204P	Hockey (B-II)	4	128	30	70	100

### Course Learning Outcome:

After completing this course, the students will be able to

- Acquire, analyze and interpret basic skills of Hockey
- Appraise the rules and regulation.
- Demonstrate and assess various basic skills/techniques and game strategies.
- Officiate in competition.

### UNIT-I

#### Dimension and fundamental Skills

- 1.1. Dimension and lay out of Hockey field
- 1.2. Grip, rolling the ball, dribbling foot position, ball position, head position, body position
- 1.3. Push, hitting foot position, ball position, head position, body position
- 1.4. Stopping foot position, ball position, head position, body position

### UNIT-II

#### Passing and stopping

- 2.1. Passing-Forward pass, square pass, Triangular pass, diagonal and return pass.
- 2.2. Flick and scoop foot position, ball position, head position, body position
- 2.3. Goal keeping skill –Hand defense and Foot defense
- 2.4. Flat stick tackle, block tackle and cover

### UNIT-III

#### Leading and positioning, Ball control drills

- 3.1. Jab/poke, give and go, reverse stick
- 3.2. Trapping first touch
- 3.3. Leading and positioning, foul and Obstruction
- 3.4. Ball control drills, dodging drill, pull back drill, cone wave, spin around the cones

### UNIT-IV

#### Officiating, Coaching Ability, Tactics, Rules and their interpretation

- 4.1 Rules and their interpretations and duties of officials, learning officiating skill.  
Umpire, s and their Signals, officiating practice
- 4.2 Fundamentals of coaching ability (Demonstration, explanation, rectification and class control)
- 4.3. Tactical aspects of Hockey coaching
- 4.4 Coaching various hockey training drills

### TEACHING LEARNING STRATEGIES

The content will be taught by using demonstration, explanation, presentation methods, training videos, video analysis, e-learning modules, learning by doing, Whole part whole method, Drills.

### **SUGGESTED MODE OF TRANSACTION**

Field Work/ Viva/ learning by doing/ Individual and TeamDrills.

### **ASSESSMENT RUBRICS**

**Marks: 100**

- End Semester Exam (External) **Marks:50**  
(Skill Proficiency, Project File, Officiating and coaching, Viva)
- **Internal** **Marks: 50**  
(Skill Proficiency, Project File, Officiating and coaching, Attendance, Viva)

### **SUGGESTED READINGS**

1. Bertagna Joe, The Hockey Coaching Bible, Human Kinetics 2015
2. Dave Chambers, The hockey drill book, Human Kinetics; Second edition, 2016
3. Jain Deepak, How to play Hockey, Prerana Prakashana, 2016
4. Johnston Mike, Hockey Plays and Strategies, Human Kinetics; Second edition, 2018
5. Lokesh Thani, Skill and Tactics in Hockey, sports Publication, 2020
6. Sean Skahan, Total Hockey Training, Human Kinetics; First edition, 2016
7. Tiger Ramesh, Indian Hockey, Sports Publication, 2018



## KHO-KHO (B-III)

Course Code	Course Name	Credit	Learning Hours	Internal Marks	External Marks	Total Marks
E050204P	Kho-Kho (B-III)	4	128	30	70	100

### **Course Learning Outcome:**

After completing this course, the students will be able to

- Acquire, analyze and interpret basic Kho-Khoskills
- Appraise the rules and regulation.
- Demonstrate and assess various basic skills/techniques and gamestrategies.
- Officiate and fundamentals of coaching.

### **UNIT-I**

#### **Dimension Fundamental Skills**

- 1.1. Dimension and lay out of Kho-Kho ground
- 1.2. General skill of the game Running, cashing, Dodging, Faking
- 1.3. Skill in chasing, correct Kho, moving on the lane, pursuing the runner
- 1.4. Tapping the inactive runner, Tapping the inactive runner in the heel

### **UNIT-II**

#### **Foul and Running Skills**

- 2.1. Tapping on the pole, diving, Judgment in giving the Kho
- 2.2. Rectification of foul
- 2.3. Skill in Running: jig jag running, single and double chain, Ring Play
- 2.4. Rolling on the side, dodging while facing and on back, fake on the pole, Fake leg

### **UNIT-III**

#### **Officiating of Kho-Kho**

- 3.1. Rules and their interpretations and duties of Kho-Kho officials.
- 3.2 Officiating positions, signals in Kho-Kho
- 3.3. Officiating equipment
- 3.4 Officiating practice and their corrective measures

### **UNIT-IV**

#### **Coaching in Kho-Kho**

- 4.1. Responsibilities of a coach on and off the field

- 4.2 Fundamentals of coaching ability (Demonstration, explanation, rectification and class control)
- 4.3. Tactical aspects of Kho-Kho coaching
- 4.4 Kho-Kho coaching model for different performance level

### **TEACHING LEARNING STRATEGIES**

The content will be taught by using demonstration, explanation, presentation methods, training videos, video analysis, e-learning modules, learning by doing, Whole part whole method, Drills.

### **SUGGESTED MODE OF TRANSACTION**

Field Work/ Viva/ learning by doing/ Individual and Team Drills.

### **ASSESSMENT RUBRICS**

**Marks: 100**

- End Semester Exam (External)  
(Skill Proficiency, Project File, Officiating and coaching, Viva)
- Internal  
(Skill Proficiency, Project File, Officiating and coaching, Attendance, Viva)

### **Suggested Reading:**

1. Lap Lambert Academic Publishing. Yogesh Yadav. (1969). Kho-Kho. Maharashtra Kho-Kho Association.
2. Khalatkar (2016). Kho-Kho Paperback. Nachiket Prakashan; First Edition, 2016.
3. Naval Kishore, (2016), How to play Kho Kho, Sports Publication, New Delhi
4. Verma Kavita, (2015) Text book on Kho Kho, International E Publication.

## KABADDI (B-IV)

Course Code	Course Name	Credit	Learning Hours	Internal Marks	External Marks	Total Marks
E050204P	Kabaddi (B-IV)	4	128	30	70	100

### Course Learning Outcome:

After completing this course, the students will be able to

- Acquire, analyze and interpret basic Kabaddi skills
- Appraise the rules and regulation.
- Demonstrate and assess various basic skills/techniques and game strategies.
- Officiate and fundamentals of coaching.

### UNIT - I

#### Dimension and offensive skill

- 1.1. Dimension and lay out of Kabaddi court
- 1.2. Raiding, Side, front and back kick
- 1.3. Hand touch, touch and head touch
- 1.4. Sudden squat leg thrust, fault correction

### UNIT - II

#### Defensive skill

- 2.1. Ankle hold, thigh hold and waist hold
- 2.2. Tackle and Block
- 2.3. Chain Tackle
- 2.4. Diving ankle holds, fault correction

### UNIT - III

#### Officiating of Kabaddi

- 3.1. Rules and their interpretations and duties of Kabaddi officials.
- 3.2 Officiating positions, signals in Kabaddi
- 3.3. Officiating equipment
- 3.4 Officiating practice and their corrective measures

## UNIT-IV

### Coaching in Kabaddi

4.1. Responsibilities of a coach on and off the field

4.1 Fundamentals of coaching ability (Demonstration, explanation, rectification and class control)

4.3. Tactical aspects of kabaddi coaching

4.4 Kabaddi coaching model for different level of players

### TEACHING LEARNING STRATEGIES

- The content will be taught by using demonstration, explanation, presentation methods, training videos, video analysis, e-learning modules, learning by doing, Whole part whole method, Drills.

### ASSESSMENT RUBRICS

**Marks: 100**

- End Semester Exam(External)  
(Skill Proficiency, Project File, Officiating and coaching, Viva)
- Internal  
(Skill Proficiency, Project File, Officiating, Attendance, Viva)

### SUGGESTED READINGS

1. Prasad Rao (2002). Kabaddi the complete hand book. Jagadamba Publications, Vizianagaram.
2. Deshmukh Anil A, Kabaddi, (2020) Sports Publication, New Delhi.
3. Karikalan. I, (2021) The book of Kabaddi, Sports Publications, New Delhi.
4. Mishra. S.C. Kabaddi,(2016) teach Yourself Kabaddi, Sports Publication, New Delhi.
5. Muniraju, S. (2015). A Text Book on Kabaddi: LAP Lambert Academic Publishing.
6. Sudhakara. G. and Ravindra Gouda S. (2020) Kabaddi (Skills, Drills, Tactics and Strategies), sports publication, New Delhi.

## Recreation and Adventure Sports

CODE: E050205T

Course Code	Course Name	Credit	Learning Hours	Internal Marks	External Marks	Total Marks
E050205T	Recreation and Adventure Sports	2	64	30	70	100

### Course Learning Outcome:

After completing this course, the students will be able to

- Understand meaning, definition, need and importance of recreation
- Understand branches and types of recreation
- Understand the adventure sports and its scope

### UNIT – I

#### Introduction to Recreation

- 1.1 Meaning & Definition of Recreation, Need and Importance of Recreation
- 1.2 Concept in Sports Recreation
- 1.3 History of Recreation in India, Trends of Recreational activities in India
- 1.4 Camping, Types of Camping, Importance of Camping in Physical Education

### UNIT-II

#### Branches and Types of Recreation

- 2.1. Branches: Aquatic branch, community branch, Park resources branch, State Parks branch, Therapeutic branch
- 2.2. Types of Recreation – Indoors & Outdoor
- 2.3. Recreational Therapy: introduction and its benefits
- 2.4. Misconception regarding Recreation Hiking, Trekking, River Crossing as Recreational Activity

### UNIT-III

#### Adventure Sports

- 3.1 Introduction to Adventure Sport, Adventure Sports Management and Risk Management
- 3.2 Mountaineering and Rock Climbing their Equipment, Clothing & Techniques
- 3.3 Rafting, Scuba Diving their Equipment, Clothing & Techniques
- 3.4 Hang gliding & Paragliding: Equipment, Clothing & Techniques

### SUGGESTED READING:

1. www.unesco.org : Traditional Games and Sports (TSG)
2. www.tafisa.org
3. Encyclopedia of Traditional Games, Gremese International; 192nd ed. edition (1 March 1995)
4. Traditional Games, Sports Publication (1 December 2015)
5. www.mallakhambindia.com
6. Rath. ShyamSundar, Martial Arts A critical Analysis of Orissa, KalpazPublisher, New Delhi, 2005.
7. L. Kokngang, Thang- Ta, 2008
8. KonjengbamBiren Singh, Meitei HuyenLanlong, Manipur State Kala Academy, 1985.
9. sgfibharat.com/images/stories/RULES/Rules\_Thangta.pdf

10. <https://www.keralatourism.org/kalaripayattu/origin>
11. <https://gatkaa.com>
12. <https://themanipurpage.tripod.com/culture/thangta.html>
13. [blog.globalindianschool.org](http://blog.globalindianschool.org)
14. [www.sportanddev.org](http://www.sportanddev.org)
15. [www.chaseyoursport.com](http://www.chaseyoursport.com)



**SEMESTER II**  
**DISCIPLINE SPECIFIC ELECTIVE (DSE)**  
**VALUE EDUCATION**  
**COURSE CODE E050205T**

Course Code	Course Name	Credit	Learning Hours	Internal Marks	External Marks	Total Marks
E050205T	Value Education	2	32	30	70	100

**Course Learning Outcome:**

After completing this course, the students will be able to

- Understand introduction to value education
- Understand Value System and Guidelines
- Social Value and citizenship

**UNIT-I**

**Introduction of Value education**

- 1.1. Need, Importance and Objectives of Value Education, Value education-its purpose and significance in the present world
- 1.2. Theories of Moral Values, Value system – The role of culture and civilization
- 1.3. Holistic living – balancing the outer and inner – Body, Mind and Intellectual level
- 1.4. Duties and responsibilities of the citizen, Commitment and commitment to values.

**UNIT-II**

**Value System and Guidelines**

- 2.2 Salient values for life – Truth, commitment, honesty and integrity, forgiveness and love, empathy and ability to sacrifice, care, unity, and inclusiveness, Self-esteem and self-confidence, punctuality
- 2.3 Value for Time, task and resource management
- 2.4 Ethical and Moral value, Values tend to influence attitudes and behavior and help to solve common human problems
- 2.5 Social value, Interpersonal and Intra personal relationship, Team work, Positive and creative thinking.

**UNIT-III**

**Social Value and citizenship**

- 3.1. The role of educational institution on value building.
- 3.2. Human Rights violations, National Integration – Peace and non-violence
- 3.3. Dr. A P J Kalam's ten points for enlightened citizenship – Social Values and Welfare of the citizen
- 3.4. Social evils, corruptions, domestic violence

## SUGGESTED READINGS

1. Bandiste, D.D. (1999) Humanist Values: A Source Book, B.R. Publishing Corporation, Delhi,
2. Chakravarthy, S.K. (1999) Values and ethics for Organizations: Theory and Practice, Oxford University Press, New Delhi
3. Das, M.S. & Gupta, V.K. (1995) Social Values among Young adults: A changing Scenario, M.D. Publications, New Delhi.
4. Kaul, G.N. (1975) Values and Education in Independent Indian, Associated Publishers, Mumbai.
5. M.G. Chitakra: (2003) Education and Human Values, A.P.H. Publishing Corporation, New Delhi.
6. NCERT, 1992 Education in Values, New Delhi.
7. Ruhela, S.P.: Human (1986.) Values and education, Sterling Publications, New Delhi,
8. Satchidananda, (1991) M.K: Ethics, Education, Indian Unity and Culture, Ajantha Publications, Delhi.
9. Swami Budhananda (1983) How to Build Character A Primer : Rmakrishna Mission, New Delhi.
10. Values, A Vedanta Kesari Presentation, (1996) Sri Ramakrishna Math, Chennai



**SEMESTER – II**  
**ENVIRONMENTAL SCIENCE**  
**COURSE CODE: E05020T**

Course Code	Course Name	Credit	Learning Hours	Internal Marks	External Marks	Total Marks
E050207T	Environmental science	2	32	30	70	100

**Course Learning Outcome:**

After completing this course, the students will be able to

- a. Understand the definition of environmental studies, its scope and importance in the educational system.
- b. Determine the renewable and non-renewable resources. and develop public awareness about environment
- c. The role of an Individual in the conservation of natural resources.
- d. To understand the structure and functions of an ecosystem.

**UNIT-I**

**1. Environmental studies**

- 1.1. Introduction to environmental studies with their importance.
- 1.2. Need for public awareness.
- 1.3. Sensitization and participation.
- 1.4. Swatch Bharat Abhiyan.

**UNIT-II**

**2. Natural Resources**

- 2.1. Types of natural resources and their importance.
- 2.2. Renewable and Non-Renewable Resources.
- 2.3. Land resources, Water resources, Forest resources- use and overuse Minerals and Energy resources- importance of renewable and sustainable energy.
- 2.4. Role of an individual in the conservation of natural resources

**UNIT-III**

**3. Ecosystems**

- 3.1. Concept of an ecosystem,
- 3.2. Types of ecosystems, of Forest ecosystem, Grassland ecosystem and Desert ecosystem, Aquatic ecosystems (ponds, streams, lakes, rivers, ocean estuaries)
- 3.3. Structure and function of an ecosystem, Producers, consumers and decomposers.
- 3.4. Energy flow in the ecosystem, Food chains, food webs and ecological pyramids, Ecological succession.

**SUGGESTED READING**

1. A.C. Pandey (2014). *Frontiers in Environmental Research, Academic Excellence*, India.
2. Agrawal, K. C. (2001). *Environmental biology*. Bikaner: Nidhi publishers Ltd.
3. Gupta (2001) *Methods in Environmental Analysis, Water, Soil and Air*, AGROBIOS (India).

4. Hofrichter, R. (ed.) *Toxic Struggle: The Theory and Practice of Environmental Justice*. Philadelphia: New Society Publishers.
5. K. Glaz, B.K. Rimer, K. Viswanath (2008). *Healthy Behavior and Healthy Education* (4<sup>th</sup> edition). Jossey-Bass A Wileyimprint.
6. K. Tones, Y.K. Robinson"s, S. Tilfor (2013). *Health Education*, Springer.
7. L.B. Lave, E.P. Seskin (2013). *Air Pollution and Human Health*, Ref. Press, New York. P.K.
8. Lancaster, R. N. and Leonardo, M. (eds.) 1997. *The Gender /Sexuality Reader: Culture, History, Political Economy*. New York: Routledge. 10
9. P. Elliot, J.C. Wakefield, N.G. Best, D.J. Biggs (2000). *Spatial Epidemiology: Methods and Application*.
10. Park J.E. & Park K. (2002). *Textbook of preventive and social medicine*. Jabalpur: Banarasi Das Bhanot Publication.
11. Shiva, V. 1989. *Staying Alive: Women, Ecology and Development*. London: Zed Books.
12. Stein, R. 2004. *New Perspective on Environmental Justice: Gender, Sexuality and Activism*. New Jersey: Rutgers University Press.
13. UGC (2005). *Textbook of Environmental Studies*, University Press.
14. UNDP: Human Development Report (2000) New Delhi: OUP.
15. W.P. Cummingham, B.W. Saigo (2001). *A Global Conce Cummingham*



**SEMETER-III**

Course Code	Course/ Paper Name	Credit	Learning Hours	Internal Marks	External Marks	Total Marks
<b>PART- A THEOREY COURSE</b>						
E050301T	Exercise Physiology	4	48	30	70	100
E050302T	Officiating and coaching III Swimming, Racket Games: Badminton, Tennis and Table Tennis (any one)	4	48	30	70	100
<b>PART-B PRACTICAL COURSE</b>						
E050303P	Officiating and Coaching-III Racket Game: Badminton, Tennis, Table Tennis (Any One)	4	128	30	70	100
E050304P	Science of Yoga and Naturopathy	4	128	30	70	100
<b>PART-C ELECTIVE COURSE (Select any One)</b>						
E050305T	Sports Journalism	2	32	30	70	100
E050306T	Sports Venue Management					
<b>PART-D MULTIDISCIPLINARY COURSES</b>						
E050307T	Health Education	2	32	30	70	100

**SEMESTER III  
EXERCISE PHYSIOLOGY  
COURSE CODE: E050301T**

<b>Course Code</b>	<b>Course Name</b>	<b>Credit</b>	<b>Learning Hours</b>	<b>Internal Marks</b>	<b>External Marks</b>	<b>Total Marks</b>
<b>E050301T</b>	Exercise Physiology	3	48	30	70	100

**Course Learning Outcome:**

After completing this course, the students will be able to

- Understand about the exercise physiology and structure and types of muscles
- Understand the bioenergetics and muscles contraction
- Understand the effect of Conditioning and Training on circulatory and respiratory Systems
- Understand the acclimatization conditions to sports performance

**UNIT-I**

**Introduction of Exercise Physiology and Structure of Muscle**

- 1.1 Meaning and Definition of Physiology, Sport and Exercise Physiology.
- 1.2 Different types of muscles (Voluntary, Involuntary and cardiac).
- 1.3 Macro and Micro Structure of Skeletal Muscle,
- 1.4 Muscle Fibers type (Red, White, and Intermediate). Type of muscle contraction

**UNIT-II**

**Bioenergetics and Muscle Contraction**

- 2.1 Fuel for Muscular work (ATP).
- 2.2 Aerobic and anaerobic metabolism
- 2.3 Aerobic and Anaerobic system during rest and exercise.
- 2.4 Theories of muscular contraction and sliding filament theory.

**UNIT-III**

**Conditioning and Training on circulatory and respiratory Systems**

- 3.1 Cardiac Cycle, Stroke Volume, Cardiac Output, factors affecting heart rate and Cardiac Hypertrophy.
- 3.2 Effect of Exercises and training on the Cardio vascular system.
- 3.3 Mechanism of Breathing, Respiratory muscles, Minute ventilation, Diffusion of gases, Oxygen Debt, Lung Volumes and Capacities, Second Wind.
- 3.4 Effects of exercises and training on respiratory system.

**UNIT-IV**

**Climatic condition and Sports Performance**

- 4.1 Effects of Variation in temperature and Humidity in sports performance
- 4.2 Thermoregulation, Sports performance in hot climate and cool climates.
- 4.3 Meaning and definition of altitude training, types of altitude training and Altitude sickness in sports.
- 4.4 Effects of altitude training on sports performance.

**REFERENCE**

1. Bob Murray, Practical Guide to Exercise Physiology, Human Kinetics,2016
2. Jonathan K. Ehrman,Advanced Exercise Physiology: Essential Concepts and Applications, Human Kinetics,2017
3. Jack H. Wilmore, Physiology of Sports and Exercise, Human Kinetics, 1994.
4. Tiwari Sandhya, Exercise Physiology, sports Publication, New Delhi, 2021
5. SmithDinesh L., Advanced Cardiovascular Exercise Physiology, Human Kinetics 2010
6. W. Larry Kenney,Physiology of Sport and Exercise, Sixth Edition Human Kinetics, 2015
7. Yadav Hiralal, Physiological Responses and Recovery Pattern in Athletics, Sports Publication, New Delhi,2020



## SEMESTER III

### OFFICIATING AND COACHING III COURSE CODE: CODE: (A& B-I,II,III)

#### SWIMMING & RACKET GAMES: BADMINTON, TENNIS AND TABLE TENNIS ANYONE

Course Code	Course Name	Credit	Learning Hours	Internal Marks	External Marks	Total Marks
E050302T	Officiating and coaching III Swimming, Racket Games: Badminton, Tennis and Table Tennis(any one)	3	48	30	70	100

#### Course Learning Outcome:

After completing this course, the students will be able to

- Understand the historical development of swimming
- Understand officiating and coaching in swimming
- Oriented with the rules and regulations of the chosen game
- Students would able to lay out and mark the dimensions of the court and officiating and coaching

#### SWIMMING (A)

##### UNIT-I

#### Introduction to Swimming

- 1.1 Introduction of Swimming and historical development in India and world
- 1.2 FINA (Federation Internationale de Natation) and SFI (Swimming Federation of India), Events, Aims and Objectives
- 1.3 Swimming events and Dimension of swimming pool.
- 1.4 Swimming rules and their interpretation

##### UNIT-II

#### Officiating and coaching of swimming

- 2.1. Coaching and teaching basic swimming skills – submerging, jumping, floating, locomotion & breathing.
- 2.2. Laws of learning applied in swimming
- 2.3 Methods of teaching and sequence of teaching competitive swimming strokes and their fault correction
- 2.4 Management of Competitions, Officials, Seeding, The Start, Freestyle, Backstroke, Breaststroke, Butterfly, Medley Swimming,
- 2.5 The Race, Timing, and Automatic Officiating

## **BADMINTON (B-I)**

### **UNIT-III**

#### **Introduction of Badminton**

- 3.1 Introduction of Badminton Game, History and Development of the Badminton in India and world
- 3.2 Structure and Functions of BWF and BAI
- 3.3 Dimensions of Badminton court, Major tournaments in Badminton
- 3.4 Rules and their interpretations of Badminton and Qualification and number of officials in Badminton competitions.

### **UNIT-IV**

#### **Officiating and coaching in Badminton**

- 4.1 Mechanics of officiating: Duties of Referee(s), Umpire, Service Judge, Line Judges  
Clothing Regulations
- 4.2 Fundamental aspects of coaching in Badminton, Coaching prior to Competition, During Competition
- 4.3 Tactics and Strategy in Badminton
- 4.4 principles of training in Badminton

## **TENNIS (B -II)**

### **UNIT – III**

#### **Introduction of Tennis**

- 3.1 Introduction of Tennis Game, History and Development of the Tennis in India and world
- 3.2 Structure and Functions of ITF and AITA
- 3.3 Dimensions of Tennis Court, Racquet, Ball, Major tournaments of Tennis
- 3.4 Rules and their interpretations of Tennis
- 3.5 Official Qualification and their responsibilities in Tennis game

### **UNIT-IV**

#### **Officiating and coaching in Tennis**

- 4.1 Mechanics of officiating: Duties of Chair and line Umpire, community officials, Referees, Clothing Regulations
- 4.2 Fundamental aspects of coaching in Tennis, Coaching prior to Competition, During Competition
- 4.3 Tactics and Strategy in singles, Doubles, Mixed doubles in Tennis Badminton
- 4.4 Principles of training in Tennis

## **TABLE TENNIS (B-III)**

### **UNIT-III**

#### **Fundamental of Table Tennis**

- 3.1 Introduction of Table tennis Game, History and Development of the Table Tennis

in India and world

3.2 Structure and Functions of ITTF and TTFI

3.3 Dimensions of TT board, TT Bat, Ball, Major tournaments in Table Tennis

3.4 Rules and their interpretations of Table Tennis and Qualification and number of officials in Table tennis game.

#### UNIT-IV

##### Officiating and coaching of Table Tennis

4.1 Mechanics of officiating: Duties of Referee(s), Umpire, Service Judge, Line Judges Clothing Regulations

4.2 Fundamental aspects of coaching in Table Tennis, Coaching prior to Competition, During Competition

4.3 Tactics and Strategy in Table Tennis

4.4 Principles of training in Table Tennis

##### SUGGESTED READINGS

1. A.K., Uppal(1999).*Sports Training*. New Delhi: Friends Publication.
2. Aneja O P. (2012). *How to play badminton*.PrernaPrakashan.
3. Bose, Tapan & Mukherjee, Bhawani (2000).
4. Brahams. (2010). *Badminton handbook*. Meyer and Meyer sports.
5. Dick, W. F. (1980). *Sports training principles*. London: Lepus Books.
6. Dehart ken,(2019).Master Your Tennis Game , Rockridge Press
7. Jensen, R. C. & Fisher, A. G. (1979).*Scientific basis of athletic conditioning*. Philadelphia: Lea and Fibiger.
8. Jain Anoop,(2017)Table Tennis Rule Book Sports Publication.
9. Tennis Association, (2006) Tennis (Know the game) A and C Black Publishers Ltd
10. Priyanka, (2016) Teach Yourself Table Tennis, Sports publication.
11. Professional Tennis Registry, (2013)International Book of Tennis Drills: Over 100 Skill-Specific Drills, Triumph Books; Revised edition.
12. Kumar S. (2010). *Badminton skills and rules*. Vishalkanishk printers.
13. Grice T. (2008). *Badminton steps to success (2<sup>nd</sup>ed.)*.Human kinetics.
14. Matvyew, L. P. (1981). *Fundamental of sports training*. Moscow: Progress Publishers.
15. Singh, H. (1984). *Sports training, general theory and methods*.Patials: NSNIS. Uppal,
16. Singh C.P. (2020)Sports coaching and Officiating, Sports Publication
17. Table Tennis Training Manual. (Phulkian Press Pvt. Ltd., SAI, NSNIS, Patiala, India).
18. Tina Hoskins-Burney and Lex Carrington (2014) The Tennis Drill Book Human Kinetics
19. W. Timothy Gallwey (1997) The Inner Game of Tennis, Random House Trade

**SPORTS PRACTICAL**  
**OFFICIATING AND COACHING-III SWIMMING**  
**CODE: E050303P**

Course Code	Course Name	Credit	Learning Hours	Internal Marks	External Marks	Total Marks
E050303P (A)	Officiating and Coaching-III Swimming	4	128	30	70	100

**Course Learning Outcome:**

After completing this course, the students will be able to

- Acquire, analyze and interpret basic strokes in swimming
- Appraise the rules and regulation.
- Demonstrate and assess various techniques of starts and finish in basic strokes.
- Officiate in competition.

**UNIT-I**

**Fundamental skills and important rules to be followed in swimming pool**

- 1.1. Swimming pool dimension, Entry into the pool.
- 1.2. Developing water balance and confidence: Water-fear removing drills, Floating-Mushroom and Jelly- fish etc. and Gliding-with and without kickboard.
- 1.3. Safety rules to be followed at swimming pool.
- 1.4. Health and hygiene of Swimming pool.

**UNIT-II**

**Front Roll and Back Technique**

- 2.1. Front Crawl: Body Position, Leg Action, Arm Action, Breathing and Co-ordination
- 2.2. Front Crawl: Start (Grab Start, Track Start & Circular Arm Swing Start), Turns (Open turn & Flip turn) & Finish
- 2.4. Backstroke: Body Position, Leg Action, Arm Action, Breathing, Co-ordination
- 2.5. Backstroke: Start, Turns (Simple turn & Roll over turn) & Finish

**UNIT-III**

**Breast and Butterfly Technique**

- 3.1. Breaststrokes: Body Position, Leg Action, Arm Action, Breathing, Co-ordination
- 3.2. Breaststroke: Start, Turn & Finish
- 3.3. Butterfly: Body Position, Leg Action, Arm Action, Breathing and Co-ordination
- 3.4. Butterfly: Start (Grab Start & Track Start), Turn and Finish

**UNIT-IV**

**Officiating and Management**

- 4.1 Management of Competitions, Officials, Seeding, Start, Freestyle, Backstroke
- 4.2 Breaststroke, Butterfly, Medley Swimming, Time Keeping, Automatic Officiating
- 4.3 Officiating of swimming competition Teaching basic swimming skills – submerging, jumping, floating, locomotion & breathing.
- 4.4. Methods of coaching and Sequence of coaching competitive swimming strokes

**TEACHING LEARNING STRATEGIES**

The content will be taught by using lecture, demonstration, explanation, presentation methods, videos, learning by doing, Whole part whole method, Drills.

### **SUGGESTED MODE OF TRANSACTION**

Work in the Pool/ Viva/ learning by doing/ Individual Practice etc.

### **ASSESSMENT RUBRICS**

**Marks: 100**

- End Semester Exam (External)  
(Skill Proficiency, Project File, Officiating and coaching, Viva)

**Marks: 35**

- Internal

**Marks: 15**

(Skill Proficiency, Project File, Officiating and coaching, Attendance, Viva)

### **References**

1. Aneja, Om Prakash, Swimming Skills & Rules, Khel Sahitya Kendra, New Delhi, 2010.
2. D. Jain, Swimming Skill & Rules, Khel Sahitya Kendra, New Delhi, 2003.
3. Dick Hannula, Coaching Swimming, successfully (Second edition) Friends Publication (India), 2003.
4. Harlen, Bruce, How to improve your diving, Poona Modern Book Stall.
5. Juba, Bill. Swimming Stanely Paul, London Published, 1961.
6. FINA Handbook.
7. Kanika K. Swimming Coaching Manual, Sports Publication, New Delhi, 2005.
8. Kelvin Juba, Swimming for Fitness, Kelvin Juba-2001.
9. Ernest W Maglischo, Swimming Fastest

## **SPORTS PRACTICAL**

**OFFICIATING AND COACHING-III CODE: E050304P**

**RACKET GAMES: BADMINTON, TENNIS, TABLE TENNIS (ANY ONE)**

### **Badminton (B – I)**

<b>Course Code</b>	<b>Course Name</b>	<b>Credit</b>	<b>Learning Hours</b>	<b>Internal Marks</b>	<b>External Marks</b>	<b>Total Marks</b>
<b>E050343P</b>	Badminton (B-I)	2	64	30	70	100

### **Course Learning Outcome:**

After completing this course, the students will be able to

- Acquire, analyze and interpret basic techniques and skill
- Appraise the rules and regulation.
- Demonstrate and assess various techniques of Badminton skill
- Officiating knowledge and fundamentals of coaching.

### **UNIT-I**

#### **Badminton court, grip, service**

- 1.1. Lay out of Badminton court
- 1.2. Type of Grips: Forehand Grip and Backhand Grip Neutral Grip Short and Long Grip, flying pan grip
- 1.3. Types Of service: High lob serve for Singes and high serve for doubles, short serve, flick serve, Drive service
- 1.4. Forehand Overhead Strokes: clear, smash and drop, Drills to learn the skill

### **UNIT-II**

#### **Forehand and backhand stroke:**

- 2.1. Forehand Underarm Strokes: Lob and Net shot
- 2.2. Forehand Sidearm Strokes: Parallel/ Drives
- 2.3. Overhead Backhand Strokes
- 2.4. Backhand Sidearm Strokes

### **UNIT-III**

#### **Movement and Hitting**

##### **Cycle**

- 3.1. Footwork
  - 3.1 Shadow practice
  - 3.2 Lead up activities
- 3.3 Recreational games.

### **UNIT-IV**

#### **Officiating and Coaching:**

- 4.1. Officiating in Badminton: Service Court Errors Faults and Lets Shuttle not in Play and Continuous Play Misconduct and Penalties

- 4.2 Technique Training in Badminton (Demonstration explanation, and fault correction)
- 4.3 Tactics and Strategy Singles, Doubles and Mixed Doubles
- 4.4 Principle of coaching in Badminton

#### RECOMMENDED BOOKS

1. Dr. Aneja O P. (2012). *How to play badminton*. PrernaPrakashan.
2. Sudhir T S. (2012). *An inspirational biography SaniaNewhal*. Nimby books.
3. Brahams. (2010). *Badminton handbook*. Meyer and Meyer sports.
4. Kumar S. (2010). *Badminton skills and rules*. Vishalkanishk printers.
5. Grice T. (2008). *Badminton steps to success* (2<sup>nd</sup>ed.). Human kinetics.
6. Dr Singh M K. (2007). *Comprehensive badminton*. Friends publication, India.
7. Jain A. (2005). *Badminton coaching manual*. Jain media graphics.
8. Narang P. (2005). *Play and learn badminton*. Jain media graphics.
9. Jain D. (2003). *Badminton skills and rules*. Chawla offset printers.
10. Robert G. (2003). *Ultimate guide to weight training for badminton*. Price world enterprise



## TENNIS (B – II)

Course Code	Course Name	Credit	Learning Hours	Internal Marks	External Marks	Total Marks
E050304P	Tennis (B-II)	2	64	30	70	100

### Course Learning Outcome:

After completing this course, the students will be able to

- Acquire, analyze and interpret basic techniques and skill
- Appraise the rules and regulation of Tennis.
- Demonstrate and assess various techniques of Tennis skill
- Officiating knowledge and fundamentals of coaching.

### UNIT-I

#### Tennis rules Equipment, grip, service

- 1.1. Tennis rules, Dimension of Court, Racquet, Ball and Net
- 1.2. Type of Grips, footwork
- 1.3 Service
- 1.4 Different training drills to learn the skill

### UNIT=II

#### Tennis strokes

- 2.1 Tennis Forehand, Back Hand stroke
- 2.2 Tennis Lob
- 2.3. Tennis overhead, Tennis volley
- 2.4. Different training drills to learn the skill

### UNIT-III

#### Forehand and Backhand

1. Forehand Ground stroke
2. Backhand ground stroke
3. Overhead smash
4. Different training drills to learn the skill

### UNIT-IV

#### Officiating and Coaching

- 4.1. Officiating in Tennis
- 4.2. Technique Training in Table tennis (Demonstration explanation, and fault Correction)
- 4.3. Tactics and Strategy Singles, Doubles and Mixed Doubles in Tennis
- 4.4. Principle of coaching in Tennis

### Suggested Reading

1. Ken DeHart, (2019) Master Your Tennis Game: 50 Mental Strategies and Tactics, Rockridge Press
2. Tennis Association, (2006) Tennis (Know the game) A and C Black Publishers Ltd
3. Marty Smith, (2017), Absolute Tennis: The Best and Next Way to Play the Game, New Chapter Press
4. Professional Tennis Registry, (2010) Top Tennis Tips from around the world, PTR.
5. Professional Tennis Registry, (2013) International Book of Tennis Drills: Over 100 Skill- Specific Drills, Triumph Books; Revised edition.
6. Tina Hoskins-Burney and Lex Carrington (2014) The Tennis Drill Book Human Kinetics.
7. W. Timothy Gallwey (1997) The Inner Game of Tennis, Random House Trade



### TABLE TENNIS (B – III)

Course Code	Course Name	Credit	Learning Hours	Internal Marks	External Marks	Total Marks
E050304P	Table Tennis (B-III)	2	64	30	70	100

#### Course Learning Outcome:

After completing this course, the students will be able to

- Acquire, analyze and interpret basic techniques and skill
- Appraise the rules and regulation.
- Demonstrate and assess various techniques of Table tennis skill
- Officiating knowledge and fundamentals of coaching.

#### UNIT-I

##### Table Tennis Equipment, grip, service

- 1.1. Dimension of Table, Table tennisbat, Ball
- 1.2. Type of Grips: the tennis grip, pen hold grip
- 1.3 Stance and Ready position and foot work
- 1.4 Different training drills to learn the skill

#### UNIT-II

##### Service and Stroke:

- 2.1. Forehand service and backhand service
- 2.2. Top and backspin serve, Sidespin and high toss serve
- 2.3. Forehand and backhand Push, Chop, Forehand and Backhand drive, Halfvolley
- 2.4. Different training drills to learn the skill

#### UNIT-III

##### Smash:

- 3.1. Smash (both forehand and backhand)
- 3.2. Forehand attack the semi-long ball, Drop shot, Balloon
- 3.3. Forehand and backhand Flick, backhand Loop to under spin ball
- 3.4. Different training drills to learn the skill

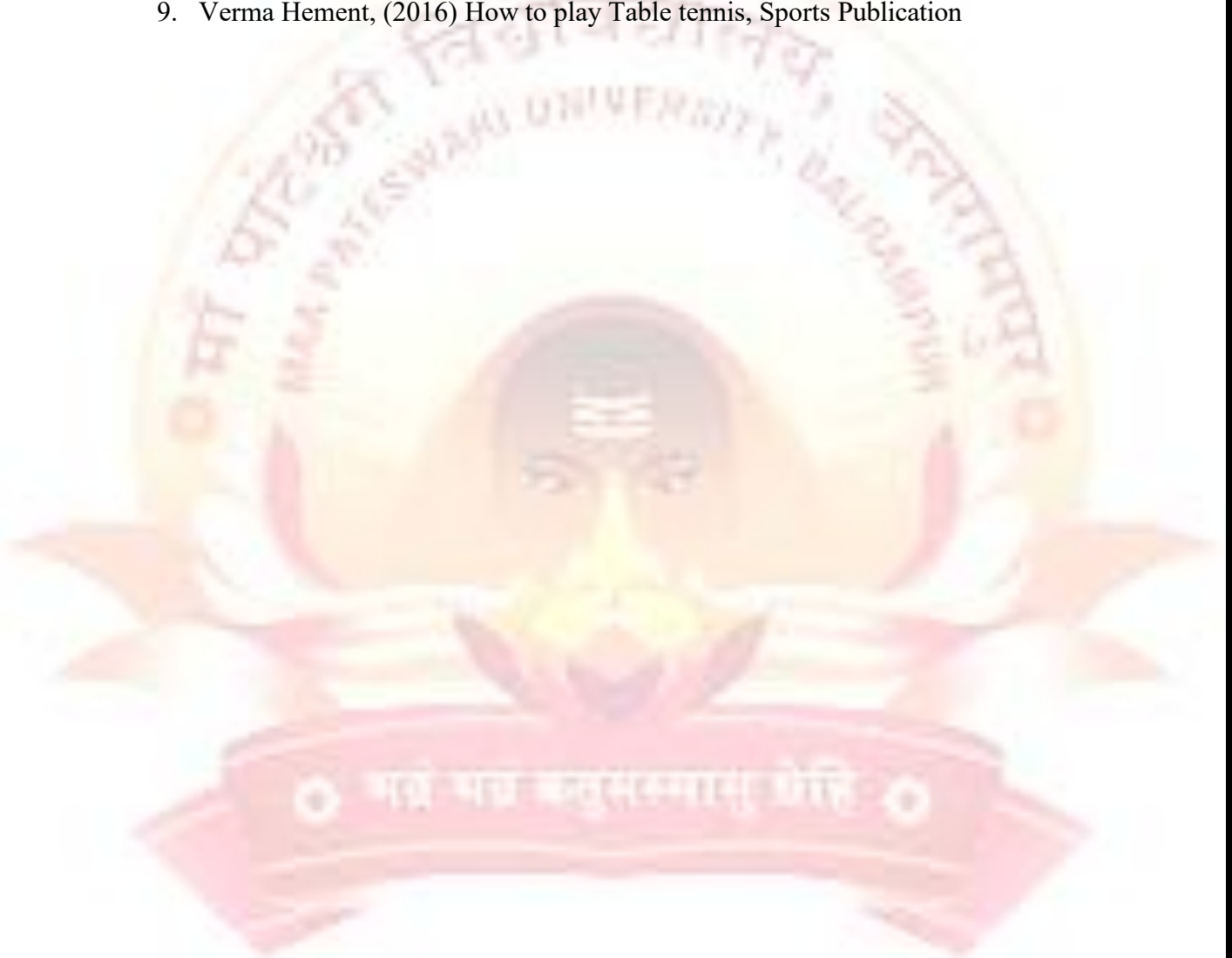
#### UNIT-IV

##### Officiating and Coaching:

- 4.1. Officiating in Table Tennis
- 4.2. Technique Training in Table tennis (Demonstration explanation, and fault Correction)
- 4.3. Tactics and Strategy Singles, Doubles and Mixed Doubles
- 4.4. Principle of coaching in Table tennis

### **Suggested Reading:**

1. Choudhury P. (2005) Table Tennis Coaching Manual, Sports Publication
2. Jain Anoop, (2017)Table Tennis Rule Book Sports Publication.
3. Lodziak, Tom, (2020)SPIN: Tips and tactics to win at table tennis, Independently published.
4. Priyanka Narang, (2016) Teach Yourself Table Tennis, Sports publication.
5. Priestley Sam, and Ben Larcombe, (2015)The Ultimate Table Tennis Challenge, CreateSpace
6. Independent Publishing,
7. Richard McAfee, (2009)Table Tennis: Steps to Success, Human Kinetics; First edition
8. SeemillerDan and Mark Holowchak, (2020)Winning Table Tennis: Skills, Drills, and Strategies Independently published, ISBN-13: 8651205967-979
9. Verma Hement, (2016) How to play Table tennis, Sports Publication



**SEMESTER III**  
**SCIENCE OF YOGA AND NATUROPATHY**  
**COURSE CODE:**

Course Code	Course Name	Credit	Learning Hours	Internal Marks	External Marks	Total Marks
E050304P	Science of Yoga and Naturopathy	2	32	30	70	100

**Course Learning Outcome:**

After completing this course, the students will be able to

- Understand Historical development of Yoga and science behind it.
- Relate Yoga with health and wellness.
- Demonstrate and apply variations benefit of Yoga in the physical, mental spiritual body.
- Understand the Naturopathy (Nisargopachar) form the traditional and scientific point of view with its application in daily life.

**UNIT-I**

**History, Philosophy, Ayurveda and Yoga**

- 1.1. Indian civilization: Harappa, Vedic, Puranic, Buddha & Jain, Golden period. Etc.
- 1.2. Yoga Physiology and different schools of Yoga
- 1.3. Ayurveda: Vyayama and Yoga
- 1.4. Definitions and objectives of Yoga and its application.

**UNIT- II**

**Astanga Yoga and Science behind it**

- 2.1. Yama and Niyama and its social impact
- 2.2. Kriya and Asana and its effect on human Physiology
- 2.3. Pranayama, Mudra, Pratyahara and its relationship with human Psychophysiology
- 2.4. Dharana, Dhyana, Samadhi and its effect on Spiritual body

**UNIT- III**

**Naturopathy(Nisargopachar): its concept and effects**

- 3.1. Ayurveda and Naturopathy (Nisargopachar)
- 3.2. Composition of human body: Pancha Mahabhoota and Sankhaya Tattava
- 3.3. Fundamental Principles of Naturopathy and Upavasa
- 3.4. Naturopathy and wellness concept.

### Text and Reference Book

1. Muktibodhananda S. (2013). *Hatha Yoga Pradipika*, Munger, Bihar School of Yoga Publication (3<sup>rd</sup> ed.). ISBN-10:9788185787381
2. Niranjananda S. S. *GherandaSamhita*. (2012).Munger, Bihar School of Yoga. Publication ISBN-9789381620199
3. Maheshananda S, Sharma B.R., Sahay GS, Bodha R.K, Jha B.L, Bharadwaj C.L. (2009).*Siva Samhita*.Lonavalla,Kaivalyadhama Publication. ISBN: 9788189485535
4. Maheshananda S, Sharma B.R, Sahay G.S. (2005). *VasisthaSamhita*. LonavallaKaivalyadhama Publication. ISBN:8189485377
5. Kuvalayananda S. (1993). *Asanas*. Lonavala,KaivalyadhamaPublication, India.
6. Satyananda S.S. (2004). *Asana Pranayama Mudra Bandha*,Munger,Yoga Publications Trust, Bihar,India. ISBN: 8186336141
7. Nagarathna R, Nagendra H.R. (2008).*Yoga for Promotion of Positive Health*. Vivekananda Yoga Research Foundation Swami Vivekananda Yoga Prakashana. ISBN:9788187313083
8. Iyengar B.K.S. (2003). *Light on Yoga*, USA, HarperCollins. ISBN: 8172235011
9. Mondal S. (2013). Science of exercise: ancient Indian origin. *J Assoc Physicians India* . 61: 40-42.
10. S.D. Dwivedi: Naturopathy for perfect health, kalpaz publication Delhi, 2002
11. Pravesh Handa: Naturopathy and Yoga, kalpaz publication Delhi, 2006
12. S.J. Singh: My Nature cure of Practical Naturopathy
13. M.K. Gandhi: The story of my experiment with truth
14. M.K. Gandhi: My Nature Cure

**SEMESTER III**  
**SPORTS JOURNALISM (ELECTIVE)**  
**COURSE CODE: E050305T**

Course Code	Course Name	Credit	Learning Hours	Internal Marks	External Marks	Total Marks
E050305T	Sports Journalism	2	32	30	70	100

Course Learning Outcome:

After completing this course, the students will be able to

- Understand importance of sports journalism to develop social acceptance of sports
- Understand the use of Sports News, Print/Multi-media Journalism to promote sports
- Understand Broad Cast Journalism to promote sports

**UNIT 1**

**Sports Journalism**

- 1.1 Introduction to Sports Journalism: Sports Journalist and guiding principles
- 1.2 Media basics: Writing, Reporting, Editing, Mass Communication
- 1.3 Sports Law/Policy; Media Law, ethics, Platforms
- 1.4 Sports Public Relation
- 1.5 Field trip to various stadium indoor hall and observe sports competition Methods of gathering information
- 1.6 Practice of Content writing with title of the sports event
- 1.7 Practicing writing skill of Sport news for Radio and TV

**UNIT-II**

**Sports News Print/Multi-media Journalism**

- 2.1 Journalistic and technical aspects of Print media
- 2.2 Journalism and technical aspects of electronic media
- 2.3 Critical thinking in Sports Journalism
- 2.4 Sports current affairs and general Knowledge
- 2.5 Writing skill practice Sports news and article for news paper
- 2.6 Observe of sports competition and submitting news report
- 2.7 attend sports conference, seminar and covering news report

### UNIT-III

#### Broad Cast Journalism

- 3.1 Introduction: Ideas, Script writing, Interviews, Anchoring, Reporting
- 3.2 Different platforms: Convergence across media
- 3.3 Content development, delivery and media studies
- 3.4 T.V, Radio and other media
- 3.5 Skill enhancement of writing sports article for leading sports journal
- 3.6 Interview with National repute sports person and submitting report Group discussion

#### SUGGESTED READINGS

1. Andrews Phil (2013). *“Sports Journalism: A practical introduction”*. SAGE PublicationsLtd; second edition. ISBN-13:978-1446253373.
2. Chouhan Bhupindar Singh and Hitesh Chandra Rawal, Sports Journalism and Mass Media, Sports Publication, New Delhi,2019.
3. Motiz, Brian (2014). *“Rooting for the story: Institutional sports Journalism in the digital age”*. Syracuse University.
4. Stofer, Kathryn T. et al., (October 2009). *“Sports Journalism: An introduction to reporting and writing”*. Rowman & Little field Publishers.
5. Singh Hoshiyar, Sports Journalism and Mass media, Khel Sahitya Kendra, 1917.



**SEMESTER III**  
**SPORTS VENUE MANAGEMENT**  
**COURSE CODE: E050306T**

Course Code	Course Name	Credit	Learning Hours	Internal Marks	External Marks	Total Marks
E050306T	Sports Venue Management	2	32	30	70	100

Course Learning Outcome:

After completing this course, the students will be able to

- Understanding the available resources for venue management both indoor and outdoor facilities
- Understand Sports Venue Operation Management
- Understand Marketing and Risk Management

UNIT-I

Sports Venue and Infrastructure Facilities

- 1.1 Sports venue its meaning and “Sports Venue by type”
- 1.2 Indoor and outdoor sports venue with their infrastructure facilities
- 1.3 Multipurpose sports venue and their facilities
- 1.4 Sports complex and recreation center

UNIT-II

Sports Venue Operation Management

- 2.1. Responsibilities of sports venue manager and other staffs
- 2.2. Staff requirement to maintain sports venue and employment opportunity
- 2.3 Parking area and crowd management at the time of competition
- 2.4 Safety precaution at sports venue and their management

UNIT- III

Marketing and Risk Management

- 3.1. Event booking and Sales
- 3.2. Marketing and branding
- 3.3. Legal and risk management
- 3.4. Sports venue with latest technology

### **Suggested Readings:**

2. Fried, G. (2015). Managing Sport Facilities, Third Edition. E-Book. Champaign, IL: Human Kinetics
3. Greenwell, et al (2014). Managing Sport Events. Champaign, IL: Human Kinetics.
4. Kimberly L. Mahoney, Lee A. Eskilsen, Adonis N. Jeralds, Steve Came, Public Assembly Venue Management: Sports, Entertainment, Meeting, and Convention Venues (2nd edition) Kendall Hunt,2020.
5. Sawyer H. T. (Editor-in-chief) (2012). Facility planning for health, fitness, physical activity and sports: concepts and applications (11th Edition). Sagamore Publishing, Inc
6. Supovitz Frank, The Sports Event Management and Marketing Playbook 2nd Edition, kindle, 2013



**SEMESTER III**  
**HEALTH EDUCATION**  
**COURSE CODE: E050307T**

Course Code	Course Name	Credit	Learning Hours	Internal Marks	External Marks	Total Marks
E050307T	Health Education	2	32	30	70	100

**Course Learning Outcome:**

After completing this course, the students will be able to

- Understand about the concept of health, hygiene and health education.
- Understand about nutrition and balanced diet
- Apply the comprehensive knowledge of the concept of health education, school health services.

**UNIT-I**

**Introduction to Health Education and Hygiene**

- 1.1. Definition and Meaning of Health and Health Education Importance of Health Education
- 1.2. Aims, Objectives and Principles of Health Education, Qualities of Good Health,
- 1.3. Factors effecting Personal Hygiene, Personal Hygiene – Care of skin, mouth, teeth, nails, clothing etc.
- 1.4 Rest, Sleep and exercises, Effect of Heredity and environment on Health

**UNIT-II**

**Nutrition and Balanced diet**

- 2.1 Detail information of nutritional components, Function of nutritious food.
- 2.2. Details of micro and macro nutrients
- 2.3. Balanced Diet, Components of Balanced Diet
- 2.4. Steps for maintaining good health habits

**UNIT-III**

**Health Education in School**

### 3.1. School Health Education Programme, role and function of World Health Organization

3.1 Health Facilities in School, School health education, Health instructions, School health service.

3.2 Communicable Diseases and Non-Communicable Diseases, steps for preventing communicable diseases in school children

3.3 First aid, Qualities and duties of a first aid personal, Medicine for first aid box

#### **Suggested Readings -**

1. Bessesen, D. H. (2008). Update on obesity. *J Clin Endocrinol Metab.* 93(6), 2027-2034.
  2. Butryn, M.L., Phelan, S., & Hill, J. O. (2007). Consistent self-monitoring of weight: a key component of successful weight loss maintenance. *Obesity (Silver Spring)*. 15(12), 3091- 3096.
  3. Chu, S.Y. & Kim, L. J. (2007). Maternal obesity and risk of stillbirth: a metaanalysis. *Am J Obstet Gynecol*, 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.
  6. Bates M. (2008). *Health Fitness Management (2nd Ed.) USA: Human Kinetics.*
  7. Fink, H.H., Burgoon, L.A., & Mikesky, A.E. (2006). *Practical Applications in Sports Nutrition. Canada : Jones and Bartlett Publishers.*
  8. Lancaster S. & Teodoro, R. (2008). *Athletic Fitness for Kids. USA: Human Kinetics.*
  9. Michael J. Gibney (2002) – *Human Nutrition*, Atlantic publication, New Delhi.
- Martin Estwood (2005) – *Principle of human nutrition*, Atlantic publication, New Delhi

**SEMESTER- IV**

Course Code	Course/ Paper Name	Credit	Learning Hours	Internal Marks	External Marks	Total Marks
<b>PART-A THEOREY COURSE</b>						
E050401T	Kinesiology and Sports Biomechanics	4	48	30	70	100
E050402T	Officiating and Coaching IV (Gymnastics, Combative Games any one)	4	48	30	70	100
<b>PART-B PRACTICAL COURSE</b>						
E050403P	Officiating and Coaching IV Gymnastics	4	128	30	70	100
E050404P	Coaching IV Combative Game: Taekwondo, Judo, Boxing (Any One)	4	128	30	70	100
<b>PART-C ELECTIVE COURSE (Select any One)</b>						
E050405T	Sports Entrepreneurship	2	32	30	70	100
E050406T	Strength and Conditioning					
<b>PART-D MULTIDISCIPLINARY COURSE</b>						
E050407T	Sports Psychology and Sociology	2	32	30	70	100

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## SEMESTER IV

### KINESIOLOGY AND SPORTS BIOMECHANICS

COURSE CODE: E050401T

Course Code	Course Name	Credit	Learning Hours	Internal Marks	External Marks	Total Marks
E050401T	Kinesiology and Sports Biomechanics	4	48	30	70	100

#### Course Learning Outcome:

After completing this course, the students will be able to

- To know the concept of kinesiology and biomechanics
- Understanding the classification and fundamental movements
- To know the concept of kinetics and kinematics and movement analysis
- To understand the locomotion of movements and mechanical analysis

#### UNIT - I

##### Introduction to Kinesiology

- 1.1 Definition, Aims and Objectives of Kinesiology and sports Biomechanics
- 1.2 Role of Kinesiology and biomechanics in Sports.
- 1.3 Brief history with important contributions of Aristotle, Leonard Da Vinci, Weber brothers
- 1.4 Basic Concepts of Axes and Planes, Center of Gravity & Line of Gravity

#### UNIT-II

##### Joints and Movements (Upper Extremity and Lower Extremity)

- 2.1 Location and action of major muscles acting at the following joints: (Shoulder, Elbow, Wrist, Hip, Knee & Ankle)
- 2.1. Fundamental Movements of Human Body)
- 2.3 Two-joint muscles (Origin, Insertion and Function)
- 2.4 All or None Law, Reciprocal Innervations,

#### UNIT-III

##### Application of Mechanical Concepts

- 3.1 Quantities in biomechanics, Scalar and vector quantities, Motion, type of motion, Distance and speed, Displacement and velocity, Acceleration, Angular distance and Angular displacement, Angular Speed, Angular Velocity, Angular Acceleration, Inertia, mass, weight, Newton's Laws of motion.
- 3.2 Work, Power & Energy, potential and kinetic energy.
- 3.3 Force and its characteristics, Internal and external forces and application of force, centripetal and centrifugal forces
- 3.4 Stability and Equilibrium (Nature, Types and Advantages), factors affecting stability, principles of stability and Lever: Types and Implications in Sports, mechanical advantages of levers

#### UNIT-IV

## **Projectile motion, Kinesiological and mechanical analysis of movements**

- 4.1 Kinesiological analysis of fundamental movements
- 4.2 Motion, its importance in sports with reference to Diving, Gymnastics, Jumping & Throwing
- 4.3 Projectile Motion: Principles, Factors affecting Projectile Motion and its Applications in Sport
- 4.4 Mechanical Analysis of Fundamental Movements: (Walking, Running, Jumping, Throwing, Catching, Landing)

### **SUGGESTED READING**

1. A.K. Lawrence Mamta MP *Kinesiology* (Friends Publication India 2004)
2. Broer, M.R. *Efficiency of Human Movement* (Philadelphia: W.B. Saunders Co., 1966)
3. Bunn, John W. *Scientific Principles of Coaching* (Engle wood cliffs: N.J. Prentice Hall Inc., 1966)
4. Duvall, E.N. *Kinesiology* (Engle wood cliffs: N.J. Prentice Hall Inc., 1956)
5. Hoffman S.J. *Introduction to Kinesiology* (Human Kinesiology publication In.2005)
6. Uppal Rasch and Burke, *Kinesiology and Applied Anatomy* (Philadelphia: Lea and Fibger, 1967)
7. Scott, M. G. *Analysis of Human Motion*, New York.
8. Wells, K. P. *Kinesiology* (Philadelphia: W.B. Saunders Co. 1966) Cooper, John M. and Glasgow, R.B. *Kinesiology* (St. Louis: C.V. Mosby Co., 1963)

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**SEMESTER IV OFFICIATING AND COACHING IV  
(GYMNASTICS AND COMBATIVE GAMES ANY ONE)  
COURSE CODE: BPES/CC/402 (A)**

<b>Course Code</b>	<b>Course Name</b>	<b>Credit</b>	<b>Learning Hours</b>	<b>Internal Marks</b>	<b>External Marks</b>	<b>Total Marks</b>
<b>E050402T</b>	Officiating and Coaching IV (Gymnastics, Combative Games any one)	4	48	30	70	100

**Course Learning Outcome:**

After completing this course, the students will be able to

- To orient with the rule's regulations and competition procedure
- To know layouts of competition arenas and marking and dimensions of the court/arena.
- To understand organization structure of concerned sports event
- To orient in the art of coaching and officiating

**GYMNASTICS**

**Unit-I**

**Introduction to Gymnastics**

- 1.1. Introduction of Gymnastics and historical development in India and world
- 1.2. IGF (Federation Internationale de Gymnastique) and GFI (Gymnastic Federation of India),

Events, Aims and Objectives

- 1.3. Gymnastic men and women events and Dimension of Men and women apparatus.
- 1.4. Gymnastics rules and their interpretation, Gymnastics terminology and Scoring system

**UNIT-II**

**Officiating and coaching**

- 2.1. Coaching and Teaching basic Gymnastic skills
- 2.2. Laws of learning applied in Gymnastics
- 2.3. Methods of teaching and sequence of teaching competitive Gymnastics events and their fault correction
- 2.4. Management of Competitions, Officials, Men and women events, Gymnastics coaching for beginners

**TAEKWONDO 402 (B - I) UNIT-III**  
**Introduction to Taekwondo**

3.1 Introduction of Taekwondo, History and Development of the Taekwondo in India and world  
Structure and Functions of WTF world Taekwondo Federation and TFI Taekwondo Federation of India  
Dimensions of completion arena of Taekwondo, Mat equipment and dress code of Taekwondo.  
Rules and their interpretations of Taekwondo, Qualification and number of officials and their responsibilities in the competition

**UNIT-IV**

**Officiating and coaching in Taekwondo**

- 4.1 Mechanics of officiating: Duties of Referee(s), Judge, recorder or score keeper Regulations
- 4.2 Fundamental aspects of coaching in Taekwondo, Coaching prior to Competition and During Competition
- 4.3 Tactics and Strategy in taekwondo
- 4.4 Principles of training in Taekwondo Coaching and competition facilities required for Taekwondo

**JUDO 402 (B – II)**  
**UNIT-III**

**Introduction to Judo**

- 3.1. Introduction to Judo, History and Development of the Judo in India and world
- 3.2. Structure and Functions of IJF, International Judo Federation and JFI, Judo Federation of India
- 3.3. Dimensions of completion arena of Judo, Mat equipment and dress code of Judo.
- 3.4. Rules and their interpretations of Judo, terminology in Judo
- 3.5. Qualification and number of officials and their responsibilities in the competition

**Unit-IV**

**Officiating and coaching in Judo**

- 4.1. Mechanics of officiating: Duties of Referee(s), Judges, recorder, competition controller, timekeeper Regulations
- 4.2. Fundamental aspects of coaching in Judo, Coaching prior to Competition and During Competition
- 4.3. Tactics and Strategy in Judo
- 4.4. Principles of training in Judo, Coaching and competition facilities required for Judo

**UNIT-III**

**BOXING 402 (B – III)**

**Introduction to Boxing**

- 3.1. Introduction to Boxing, History and Development of the Boxing in India and world
- 3.2. Structure and Functions of IBF, International Boxing Federation and BFI, Boxing Federation of India
- 3.3. Boxing completion arena dimension, equipment and dress code of Boxing.
- 3.4. Rules and their interpretations of Boxing, terminology in Boxing, Qualification and

number of officials and their responsibilities in the competition

#### UNIT-IV

##### **Officiating and coaching in Boxing**

- 4.1. Mechanics of officiating: Duties of Referee(s), Judges, recorder, competition controller, timekeeper Regulations
- 4.2. Fundamental aspects of coaching in Boxing, Coaching prior to Competition and During Competition
- 4.3. Tactics and Strategy in Boxing
- 4.1 Principles of training in Boxing, Coaching and competition facilities required for boxing

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

1. Andy Dumas and Jamie Dumas, Successful Boxing: The Ultimate Training Manual, Crowood Press, 2013
2. Carle, D.T. (1963). Hand book of progressive gymnastics. Englewood Cliffs: N.J. Printice Hall.
3. Chakraborty, S. (2006). Activities for children teaching gymnastics Pyramids. Sports Publication.
4. Chakraborty. S. and Baljit Singh Sakhon, Basis of Judo, Sports Publication, 2020
5. Doug Cook, Traditional Taekwondo: Core Techniques, History, and Philosophy, YMAA Publication Center, 2006
6. Harry Mullan and Bob Mee, The Ultimate Encyclopedia of Boxing Welbeck Publishing, 2020
7. Negi, Teach Yourself Women Gymnastics, Sports Publication, 2016.
8. Kunal Negi, Teach Yourself Men Gymnastics, Sports Publication, 2016.
9. Kaur Balwinder, Officiating and Coaching, Sports Publication, 2020
10. Kalra Deepti, Teach Yourself Judo, Sports Publication, 2016.
11. Kärrlander. Peter Y, The Complete Boxing handbook: A step by step guide to Boxing CreateSpace Independent Publishing Platform, 2010
12. Phulkar Ashish, Sports officiating and Coaching, Sports Publication, 2021 Scott Shaw, Taekwondo Basics, Tuttle Publishing; Illustrated edition, 2018
13. Soon Man Lee and Gaetane Ricke, Official Taekwondo Training Manual, tuttle publishing, 2005.
- 15- Yeon Hee Park, Yeon Hwan Park and Jon Gerrard, Tae Kwon Do: The Ultimate, Reference Guide to the World's Most Popular Martial Art, Skyhorse; 1st edition, 2014

**SPORTS PRACTICAL  
OFFICIATING AND COACHING IV  
CODE: E050401T**

Course Code	Course Name	Credit	Learning Hours	Internal Marks	External Marks	Total Marks
E050403P	Officiating and Coaching IV Gymnastics	4	128	30	70	100

**Course Learning Outcome:**

After completing this course, the students will be able to

- Acquire, analyze and interpret basic skills
- Appraise the rules and regulation.
- Demonstrate and assess various basic skills/techniques and game strategies.
- Officiating and coaching in competition.

**UNIT-I**

**Introduction and Fundamental Skills**

- 1.1. Gymnastics hall, competition arena, equipment and costume
- 1.2. Floor Exercise: Stance Forward Roll, Backward Roll, Sideward Roll, cartwheel
- 1.3. Different kinds of scales, Leg Split, Bridge, Dancing steps (for girls)
- 1.4. Hand stand, Jumps-leap, scissors leap

**UNIT-II**

**Vaulting Table and Ring**

- 2.1. Vaulting Horse: Approach Run, Take off from the beat board, Cat Vault, Squat Vault.
- 2.2. Ring hang, pull and push up, top support, swing and dismount
- 2.3 Rules and interpretation of Vaulting horse and Ring
- 2.4. High bar basic skills and rules

**Unit III**

**Pommel Horse and Parallel Bar**

- 3.1. Pommel horse: front support swings, back support swings, false scissor
- 3.2. Rules and interpretation of Pommel horse
- 3.3. Parallel bar: Swings, L sit support, V sit, Hand stand, Swing and dismount
- 3.4. Rules and interpretation of Parallel bar

**UNIT-IV**

**Officiating and Coaching**

- 4.1. Rules and their interpretations and competition management
- 4.2 Officiating of Gymnastic competition
- 4.3. Teaching and coaching basic of Gymnastics skills
- 4.4. Methods and principles of coaching and Sequence of coaching in Gymnastics

## **TEACHING LEARNING STRATEGIES**

The content will be taught by using lecture, demonstration, explanation, presentation methods, videos, learning by doing, Whole part whole method, Drills.

## **SUGGESTED MODE OF TRANSACTION**

Work in the Pool/ Viva/ learning by doing/ Individual Practices.

## **ASSESSMENT RUBRICS Marks: 100**

- End Semester Exam (External)  
(Skill Proficiency, Project File, Officiating, Viva)
- Internal  
(Skill Proficiency, Project File, Officiating, Attendance, Viva)

### **Suggested Reading:**

1. Carle, D.T. (1963). Hand book of progressive gymnastics. Englewood Cliffs: N.J. Printice Hall.
2. Chakraborty, S. (2006). Activities for children teaching gymnastics Pyramids. Sports Publication.
3. Kunal Negi, Teach Yourself Men Gymnastics, Sports Publication, 2016.
4. Lokesh Thani, Skill & Tactics Gymnastics, Sports Publication, 2020
5. Mohit, How to play Floor exercises Gymnastics, Sports Publication, 2016
6. O. P. Aneja, Teach Yourself Rhythmic Gymnastics, Sports Publication, 2016
7. Savage Jeff, Top 25 Gymnastics Skills, Tips, and Tricks Enslow Publisher, 2011
8. Vincent Walduck, My Books of Gymnastics, DK, 2020

## SEMESTER IV

### SPORTS PRACTICAL OFFICIATING AND COACHING IV

#### COMBATIVE GAME: TAEKWONDO, JUDO, BOXING (ANY ONE) CODE:

Course Code	Course Name	Credit	Learning Hours	Internal Marks	External Marks	Total Marks
E050404P	Coaching IV Combative Game: Taekwondo, Judo, Boxing (Any One)	4	128	30	70	100

#### Course Learning Outcome:

After completing this course, the students will be able to

- Develop concept of skill.
- Appraise the rule & regulation.
- Demonstrate and assess various techniques of starts and finish.
- Interpret the rules and regulations officiate and coaching of the game.

### TAEKWONDO 402 (B – I)

#### UNIT-I

##### Introduction and Fundamental Skills

- 1.1. Taekwondo hall, competition arena, equipment and costume
- 1.2. Player Stances – walking, extending walking, L stance, cat stance
- 1.3. Sitting stance punch, single punch, double punch, and triple punch.  
Punching Skill from sparring position
- 1.4. Front-fist punch, rear fist punch, double punch, and four combination punch.

#### UNIT-II

##### Front and Back kick with Foot Techniques

- 2.1. Foot Techniques (Balgisul) – standing kick (soseochagi)
- 2.2. Front kick (AP chagi), Arc kick (Bandal Chagi), Side kick, (Yeop Chagi),  
Turning kick (Dollyo Chagi),
- 2.3. Back kick (Twit Chagi), Reverse turning kick (Bandaedollyo Chagi), Jump kick (Twimyo Chagi),
- 2.4. 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)

### UNIT-III

#### Sparring and Self Defense Techniques

- 3.1. Sparring (Kyorugi) – One Step Sparring (hand techniques, foot techniques)
- 3.2. Self-defense techniques, combination kicks
- 3.3. Free Sparring. Board Breaking (Kyokpa) – eye control, balance, power control
- 3.4. Speed, point of attack.

### UNIT-IV

#### Officiating and Coaching

- 4.1. Rules and their interpretations and competition management
- 4.2. . Officiating of Taekwondo competition
  - 4.3. Teaching and coaching basic of taekwondo skills
  - 4.4. Methods and principles of coaching and Sequence of coaching taekwondo Techniques

#### TEACHING LEARNING STRATEGIES

The class will be taught by using lectures, demonstration, explanation, videos, learning by doing, Whole part whole method, Lead-ups games and presentations method.

#### SUGGESTED MODE OF TRANSECTION

Lectures/Demonstration/Explanation/FieldWork/OutreachActivities/Vocational Training/Viva/ learning by doing / Lead-up Games/ Minor Games/ Dummy Practice etc.

#### ASSESSMENTRUBRICS

End Semester Exam (External)	<b>Marks: 100</b>
(Skill Proficiency, Project File, Officiating and coaching, Viva)	<b>Marks:70</b>
Internal	<b>Marks:30</b>
(Skill Proficiency, Project File, Officiating and coaching, Attendance, Viva)	

#### Suggested Reading

1. Gilles R. Savoie, Taekwondo:A Technical Manual,Blue snake books, 2010
2. Kevin Hornsey, Taekwondo, Tuttle publishing, 2003
3. Lee Kyu Hyung,Tae Kwon do:The ultimate Reference Guide to the World's Most Papaular Martial Art, Skyhouse, 2014.
4. Stuart Anslow Paul, The Encyclopedia of Taekwondo Patterns, Check point,Press,2010
5. Scott Shaw, Taekwondo Basics, tuttle publishing, 2018.
6. Soon Man Lee and Gaetane Ricke, Official Taekwondo Training Mannual, Tuttle publishing, 2005.

## **JUDO 402 (B – II)**

### **UNIT-I**

#### **Fundamental Skills**

- 1.1 Judo hall, dimension of judo mat, and equipment
- 1.2 Rei (Salutation)-Ritsurei (Salutation in standing position), Zarai (Salutation in the sitting position), Shisei (Posture in Judo)
- 1.3 Kumi kata (Methods of holding judo costume)
- 1.4 Kuzushi (Act of disturbing the opponent posture) Tsukuri and kake (Preparatory action for attack)

### **UNIT-II**

#### **Break Fall and Front Break Fall**

- 2.1 Ukemi (Break Fall)-Urhiro Ukemi (Rear break Fall), Yoko Ukemi (Side Break Fall),
- 2.2 Mae Ukemi (Front Break Fall), Mae mawari Ukemi (Front Rolling break fall)
- 2.3 Shin Tai (Advance or retreat foot movement)-Suri-ashi (Gliding foot), Twugi-ashi (Following footsteps), Ayumi-ashi (Waling steps).
- 2.4 Tai Sabaki (Management of the body)

### **UNIT-III**

#### **Throwing Technique**

- 3.1 Nage Waze (Throwing techniques)-Hiza Guruma (Knee wheel), Sesae Twurikomi-ashi (Drawing ankle throw), De ashi hari (Advance foot sweep),
- 3.2 Goshi (Major Irimi), Seoi Nage (Shoulder throw).
- 3.3 Katama waze (Grappling techniques)-Kesa gatame (Scarf hold)
- 3.4 Kata gatame (Shoulder hold), Kami shiho gatama (Locking of upper four quarters), Method of escaping from each hold.

### **UNIT-IV**

#### **Officiating and Coaching**

- 4.1 Management of Competitions, Rules and their interpretations
- 4.2 Officiating of Judo competition
- 4.3. Teaching and coaching basic of Judo skills
- 4.4. Methods and principles of coaching and Sequence of coaching judo techniques

#### **TEACHING LEARNING STRATEGIES**

The class will be taught by using lectures, demonstration, explanation, videos, learning by doing, Whole part whole method, Lead-ups games and presentations method.

#### **SUGGESTED MODE OF TRANSECTION**

Lectures/Demonstration/Explanation/FieldWork/OutreachActivities/Vocational Training/Viva/ learning by doing / Lead-up Games/ Minor Games/ Dummy Practice etc.

## **ASSESSMENT RUBRICS**

End Semester Exam (External)

(Skill Proficiency, Project File, Officiating and coaching, Viva)

Internal

(Skill Proficiency, Project File, Officiating and coaching, Attendance, Viva)

**Marks: 100**

**Marks:50**

**Marks:50**

## **Suggested Reading**

1. Aurélien Broussal-Derval, Training and Conditioning for Judo, Human Kinetics, 2020.
2. Charkrabarty Somnath and Baljit Singh Sakhon, Sports publication, 2020.
3. Dominy Eric, Judo: Basic Principles Independently published, 2020.
4. Donn F. Draeger and Tadao Otaki Judo Formal Techniques: A Basic Guide to Throwing and Grappling Tuttle Publishing, 2019.
5. Jigoro Kano, Kodokan Judo: The Essential Guide to Judo, Kodansha International, 2013
6. Kalra Deepti, Teach Yourself Judo, Sports Publication, 2016.
7. O.P Aneja, How to play Judo, Sports Publication, 2016.
8. Steve Scott, The Judo Advantage: Controlling Movement with Modern Kinesiology, YMAA Publication Center; 1st edition, 2018.



## **BOXING 402 (B – III)**

### **UNIT-I**

#### **Introduction and Fundamental Skills**

- 1.1. Boxing hall, competition arena, equipment and costume
- 1.2. Player Stances Target and vulnerable points, Wrapping of Bandage, Clenching of fist, On Guard Position
- 1.3. Foot work in different direction, circling to the left, circling to the right, Side Step, Organization of footwork training for beginners
- 1.4. Straight arm blow in boxing and its defense action

### **UNIT-II**

#### **Bent Arm Blows I and II, South Pow and Range Distance**

- 2.1. Bent arm blows I, Defensive actions for bent arm blows (Hooks)
- 2.2. Bent arm blows II, Left upper cut to the head and body, right upper cut to the Head and body
- 2.3. South Pow Boxing, offensive and defensive action
- 2.4 Range distance in Boxing

### **UNIT-III**

#### **Sparring:**

- 3.1 School fight, Technique Sparring,
- 3.2 Control sparring, Free sparring
- 3.3 Competition bout
- 3.4 Organization of sparring session

### **UNIT - IV**

#### **Officiating and Coaching**

- 4.1. Rules and their interpretations and competition management
- 4.2. Officiating of Boxing competition
- 4.3. Teaching and coaching basic of Boxing skills
- 4.4. Methods and principles of coaching and Sequence of coaching in Boxing

#### **TEACHING LEARNING STRATEGIES**

The class will be taught by using lectures, demonstration, explanation, videos, learning by doing, Whole part whole method, Lead-ups games and presentations method.

#### **SUGGESTED MODE OF TRANSECTION**

Lectures/Demonstration/Explanation/Field Work/Outreach Activities/Vocational Training/Viva/ learning by doing / Lead-up Games/ Minor Games/ Dummy Practice etc.

## **ASSESSMENTRUBRICS**

End Semester Exam (External)

(Skill Proficiency, Project File, Officiating and coaching, Viva)

Internal

(Skill Proficiency, Project File, Officiating and coaching, Attendance, Viva)

**Marks: 100**

**Marks:30**

**Marks:70**

## **Suggested Reading**

1. Andy Dumas and Jamie Dumas, Successful Boxing: The Ultimate Training Manual Crowood Press, 2013
2. Dempsey Jack, Championship Fighting: Explosive Punching and Aggressive Defense, Simon & Schuster; Illustrated edition, 2015.
3. Haislet L. Edwin, Boxing, The Worldwide Art of Hand-to-Hand Combat, 2016.
4. Harry Mullan and Bob Mee, The Ultimate Encyclopedia of Boxing Welbeck Publishing, 2020
5. Louis Jeo and Edward J Mallory, How to Box, Literary Licensing, LLC, 2012
6. Y Kärlande Peter, The Complete Boxing handbook: A step by step guide to Boxing, CreateSpace Independent Publishing Platform, 2010



**SEMESTER IV**  
**SPORTS ENTREPRENEURSHIP**  
**COURSE CODE: E050405T**

Course Code	Course Name	Credit	Learning Hours	Internal Marks	External Marks	Total Marks
E050405T	Sports Entrepreneurship	2	32	30	70	100

**Course Learning Outcome:**

After completing this course, the students will be able to

- Understand nature and types of sports entrepreneurships
- Develop the knowledge and skills to manage and implement a sport venture;
- Use creativity, critical thinking, analysis of sport entrepreneurship
- Understand business plan and marketing
- Identifying opportunity for innovation in sports

**UNIT I**

**Nature and Types of Entrepreneurships**

- 1.1 Nature and importance of entrepreneurship
- 1.2. Types of entrepreneurships
- 1.1 Sport as a catalyst for entrepreneurialism
- 1.3. Mindset, Intentions of corporate entrepreneurship

**UNIT II**

**Creativity and new business ideas**

- 2.1. Generating and exploring new entries in sports field
- 2.2. Creativity the Business Idea in Sports, identifying opportunities for innovation in sport
- 2.3 Characteristics of individual entrepreneurs in sport 2.4.
- Entrepreneurialism within large sporting organizations

**UNIT III**

**Business plan and marketing**

- 2.1. Domestic and international opportunities and Legal issues
- 2.2. Business plan and Marketing
- 2.3. Organizational plan, financial plan, identifying opportunities for innovation in sport
- 2.4. Sources of capital, and informal risk capital, venture capital.

### **Suggested Readings:**

1. Aldrich, H.E. (2005) Entrepreneurship. In Handbook of Economic Sociology, N. Smelser and R. Swedberg (Eds), Princeton, NJ: Princeton University Press, pp. 451-577.
2. Ansoff, I.H. (1968) Corporate Strategy, Penguin Books: London.
3. Baker, T., Gedajlovic, E. and Lubatkin, M. (2005) A Framework for Comparing Entrepreneurship Processes Across Nations. Journal of International Business Studies, Vol. 36, pp. 492-504.
4. Harms, R., Schulz, A. and Kraus, S. (2009) The Conceptualization of 'Opportunity' in Strategic Management Research. International Journal of Entrepreneurial Venturing, Vol. 1, No. 1, pp. 57-71.
5. Hills, G.E. and Shrader, R.C. (1998) Successful Entrepreneurs Insights into Opportunity Recognition.



**SEMESTER – IV**  
**STRENGTH AND CONDITIONING**  
**CODE-E050406T**

<b>Course Code</b>	<b>Course Name</b>	<b>Credit</b>	<b>Learning Hours</b>	<b>Internal Marks</b>	<b>External Marks</b>	<b>Total Marks</b>
<b>E050406T</b>	Strength and Conditioning	2	64	30	70	100

Course Learning Outcome:

After completing this course, the students will be able to

- Understand the components of physical fitness
- To design, implement, and plan appropriate individual specific workouts
- Understand Functional Equipment and Exercises
- Understand Strength and Conditioning Training for Different Sports

**UNIT I**

**Introduction to Strength and Conditioning**

- 1.1 Meaning, Nature and importance of strength and conditioning exercises Baseline fitness testing before activity
- 1.2 Concentrate on proper techniques, body mechanics, and safety in strength and conditioning exercises.
- 1.3 Strengthening exercises for different major muscles and Joints
- 1.4 Personal fitness portfolio and a personal fitness plan, Understand the role of baseline testing.

**UNIT II**

**Introduction to Functional training Equipment and functional Exercises**

- 2.1. Introduction to resistance training variables: set, repetition, intensity, tempo, rest, and interval, Concepts of Free weights Vs Machine to develop load structure of the movement
- 2.2. Free hand exercise, Calisthenics exercise and Swiss ball exercise
- 2.3 sports specific Core strengthening exercises, introduce pyramid sets and supersets system
- 2.4. Concept of designing different strength and conditioning programme for different age groups

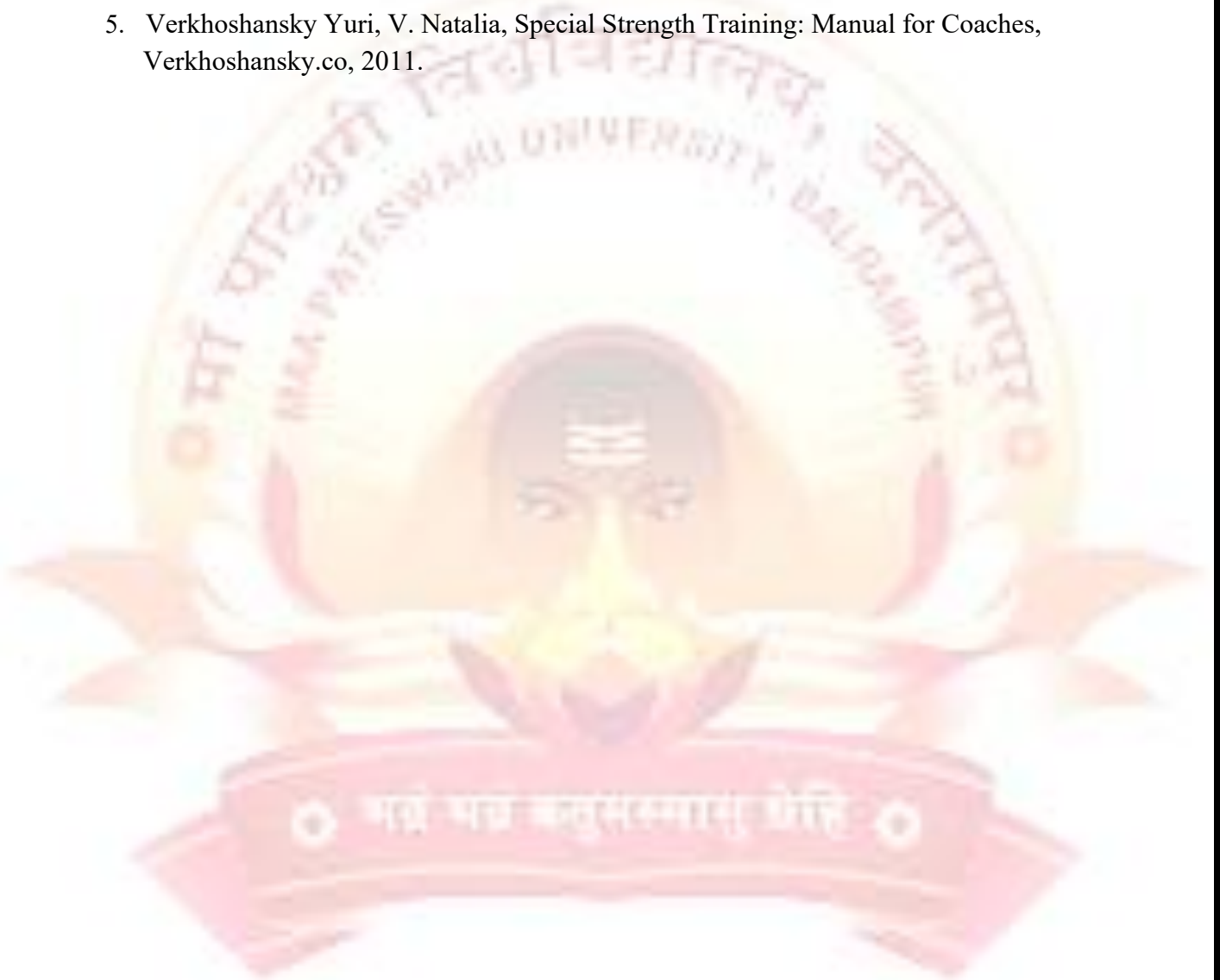
**UNIT III**

**Strength and Conditioning Training for Different Sports**

- 3.1 Introduction to Flexibility Training and Concepts
- 3.2 Strength and conditioning exercises for sport specific programs.
- 3.3 Speed and agility exercises for sport specific programs.
- 3.4. Introduction to Circuit Training and its Principles plyometric training principles and workouts

### **Suggested Readings:**

1. Aurelien Broussal Dervd, s. Ganneace, The Modern Art of High Intensity Training, Human kinetics, 2017.
2. Boyle Michael, New Functional Training for Sports, 2nd edition humankinetics, 2018
3. Half g.Gregiv, Triplett N. Travis, Essentials of Strength Training and Conditioning Fourth Edition,by NSCA -National Strength & Conditioning Association (Editor),2021
4. Jeff. T Chandler, Lee E. Brown, Conditioning for Strength and Human Performance: Third Edition 3rd Edition, Human Kinetics, 2021.
5. Verkhoshansky Yuri, V. Natalia, Special Strength Training: Manual for Coaches, Verkhoshansky.co, 2011.



**SEMESTER IV**  
**SPORTS PSYCHOLOGY AND SOCIOLOGY**  
**COURSE CODE: E050407T**

Course Code	Course Name	Credit	Learning Hours	Internal Marks	External Marks	Total Marks
E050407T	Sports Psychology and Sociology	2	32	30	70	100

**Course Learning Outcome:**

After completing this course, the students will be able to

- Understanding the concept of psychology
- Describe the concept of personality and motivation and sports performance
- Meaning and importance of sociology
- Discuss the sociological issues for optimizing behavior and performance

**UNIT – I**

**Introduction to Psychology**

- 1.1 Definition, Meaning and Branches of Psychology
- 1.2 Scope of psychology in physical education and sports
- 1.3 Importance of Psychology in physical education and Sports
- 1.4 Methods of Psychology in physical education and Sports

**UNIT II**

**Learning Processes, Personality and Motivation**

- 2.1. Theories of Learning (Trial and Error Learning, Learning by Insight, Classical & Operant Conditioning)
- 2.2. Laws of Learning (Law of readiness, Law of exercise, and Law of effect), Transfer of Learning (Positive, Negative, Zero, Bilateral)
- 2.3. Learning Curve (Positive, Negative, S-Curve) Memory (Sensory, Short-term, Long-Term) and Forgetting in Learning.
- 2.4. Personality, Motivation, anxiety and Emotion in physical education and Sports

**UNIT-III**

**Sports and Society:**

- 3.1. Meaning definition and scope of sociology in physical education and sports
- 3.2. Social acceptance of physical education and sports. Sports as an element of Society, Development of an athletic identity in the society
- 3.3. Socialization through games and Sports, Social Factors and Socio-metric techniques in Sport
- 3.4. Role of Family, Institution and peer group in sports Socialization, Team cohesiveness and Leadership in Sports, aggression and violence in sport, Effect of crowd behavior in Sports

**SUGGESTED READING**

1. Ball, D. W. & Loy, J. W. (1975). *Sport and social order; Contribution to the sociology of sport*. London: Addison Wesley Publishing Co., Inc.
2. Blair, J. & Simpson, R. (1962). *Educational psychology*, New York: McMillan Co. Cratty, B. J. (1968). *Psychology and physical activity*. Eaglewood Cliffs. Prentice Hall.
3. Kamlesh, M. L. (1998). *Psychology in physical education and sport*. New Delhi: Metropolitan Book Co.
4. Loy, J. W., Kenyon, G. S. & McPherson, B. D. (1978). *Sports and social system*. London: Addison Wesley Publishing Company Inc.

5. Loy, J. W., Kenyon, G. S. & McPherson, B. D. (1981). *Sports culture and society*. Philadelphia: Lea &Febiger.
6. Mathur, S.S., (1962). *Educational psychology*. Agra. Vinod Pustak Mandir. Skinner, C. E., (1984.). *Education psychology*. New Delhi: Prentice Hall of India.
7. William, F. O. & Meyer, F. N. (1979). *A handbook of sociology*. New Delhi: Eurasia Publishing House Pvt Ltd.
8. Ball, Donald, W. and Lay John W. *Sport and Social order Contribution to the Sociology of Sport*. Lea & Febiger, 1981).
9. Loy John W., Mepherson, Barry D., and Kenyon Gerall, *Sport and Social System*(London: Addition Wesley Publishing Co. Inc., 1978).
10. Loy, Jhon W., Kenyon, GERAL S. and Mopherson, Barry D., *Sports Culture and society* (Philadelphia: London: Addition Wesley Publishing Co. Inc., 1975).



**SEMETER-V**

Course Code	Course/ Paper Name	Credit	Learning Hours	Internal Marks	External Marks	Total Marks
<b>PART-A THEOREY COURSE</b>						
E050501T	Research method and Statistics	4	48	30	70	100
E050502T	Exercise and Sports Training	4	48	30	70	100
E050503T	Sports Nutrition	4	32	30	70	100
<b>PART-B PRACTICAL COURSE</b>						
E050504P	Sports Specialization (Students will choose any one Game which they have studied up to 4 <sup>th</sup> sem.)	4	128	30	70	100
E050505P	Mass Exercises (Indian club, lazium, Dumb bell, Wands Aerobic, and Rhythmic)	4	128	30	70	100
E050506P	Community Coaching	2	64	30	70	100

**SEMESTER V**  
**RESEARCH METHOD AND STATISTICS**  
**COURSE CODE: E050501T**

Course Code	Course Name	Credit	Teaching Hours	Internal Marks	External Marks	Total Marks
E050501T	Research method and Statistics	4	48	30	70	100

**Course Learning Outcome:**

After completing this course, the students will be able to

- Understand the basic framework of research process
- Understand different types of methods in research
- Identify various sources of information for literature review and data collection.
- Understand importance of statistics, measure of central tendency and dispersion

**UNIT-I**

**Introduction to Research**

- 1.1 Meaning, definition and types of Research.
- 1.2 Characteristics of Good Research, Nature and Scope of Research in Sports.
- 1.3 Classification of Research, Location and identifying of research Problem, Criteria for Selecting a research Problem
- 1.4 Understand Research Format, chapters and writing synopsis

**UNIT-II**

**Methods of Research**

- 2.1 Descriptive Methods of Research: Survey and Case study, interview and questionnaire
- 2.2 Historical Research: Steps in Historical Research, Sources of Primary and Secondary Data, Internal and External Criticism.
- 2.3 Experimental Research – Meaning, Nature and Importance, Meaning of Variable, Types of Variables, Research Design.
- 2.4 Purpose of literature review, presenting the research hypothesis, Limitation, delimitation and significance of studies

**UNIT-III**

**Statistical techniques used in interpretation of data**

- 3.1 Meaning, Definition and Importance of Statistics in sports.
- 3.2 Quantitative and qualitative Data, tools and techniques of data collecting, population and sample
- 3.3 Class interval, Raw data, group and ungroup data, Construction of Table, Introduction to Graphic Techniques (Histogram, Bar chart and pie diagram)
- 3.4 Measure of Central tendency, Calculation of Mean, Median & Mode, Normal Curve, skewness and kurtosis

## UNIT-IV

### Statistical techniques used interpret data

- 5.1 Measure of Dispersion (Standard Deviation, Mean Deviation, Quartile Deviation)
- 5.2 Method of Calculation of Correlation
- 5.3 Types of t-test, interpreting t, relationship of t and r.
- 5.4 Introducing ICT and Statistical software

### SUGGESTED READINGS

1. Ahlawat, R. P. (2016). Research Process in Physical Education & Sports Sciences. Friends Publication.
2. Flick, U. (2017). Introducing Research Methodology. Sage Publications.
3. Flick, U. (2019). An Introduction to Qualitative Research. Sage Publications.
4. Kahn, J. V. (2016). Research in Education (Vol. 10). Pearson Education Inc.
5. Kamlesh, D. M. (2019). Methodology of Research in Physical Education and Sports. Sports Publication.
6. Kothari, C. (2019). Research Methodology: Methods and Techniques. New Age International Publishers.
7. Mishra, P. D. (2018). Research and Statistics in Physical Education. Sports Publication.
8. Thomas, J. R. (2016). Research Method in Physical Activity. US: Human Kinetics.

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**SEMESTER V**  
**EXERCISE AND SPORTS TRAINING**  
**COURSE CODE: E050502T**

<b>Course Code</b>	<b>Course Name</b>	<b>Credit</b>	<b>Teaching Hours</b>	<b>Internal Marks</b>	<b>External Marks</b>	<b>Total Marks</b>
<b>E050502T</b>	Exercise and Sports Training	4	48	30	70	100

**Course Learning Outcome:**

After completing this course, the students will be able to

- To understand concept, characteristics and importance of sports Training;
- To understand concept and characteristics of Training load
- To gain knowledge about resistance training and its use
- To understand concept of Overload

**UNIT-I**

**Introduction to Sports Training**

- 1.1 Aim, Objectives, Importance and characteristics of Sports Training
- 1.2 Structure and Principles of Sports Training
- 1.3 Types and Importance of Warming up and Cool down, its Advantage and Disadvantage
- 1.4 Importance and Types of Motor Components

**UNIT-II**

**Components of Load**

- 2.1 Concept of Training load; Types of Training load – External and Internal
- 2.2 Training load and Adaptation process
- 2.3 Factors of training load: Physical exercise, Movement quality, Load Intensity, Load volumes, Density, Duration, Repetition etc.
- 2.4 Principles of progression of load – recovery – adaptation – symptoms of over load

**UNIT-III**

**Means and Methods of Development of Motor Qualities**

- 3.1 means and method developing strength
- 3.2 means and methods of developing speed –form of speed
- 3.3 means and methods of developing Endurance
- 3.4 means and methods of developing Flexibility and coordinative abilities

**UNIT-IV**

**Technique and Tactical Preparation, Planning and Periodization**

- 4.1 Technique and phases of technical training
- 4.2 Tactics and tactical ability
- 4.3 Planning: Micro, Meso, Macro Training Session
- 4.4 Periodization: Types of Periodization and Top Form

### **SUGGESTED READINGS**

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



**SEMESTER V**  
**SPORTS NUTRITION**  
**COURSE CODE: E050504T**

<b>Course Code</b>	<b>Course Name</b>	<b>Credit</b>	<b>Teaching Hours</b>	<b>Internal Marks</b>	<b>External Marks</b>	<b>Total Marks</b>
<b>E050503T</b>	Sports Nutrition	2	32	30	70	100

**Course Learning Outcome:**

After completing this course, the students will be able to

- Student will learn about sports nutrition and their application in physical education and sports.
- Student will learn how to plan the diet chart for sports person (before after and during competition) and diet for obesity management.
- Understand the knowledge of sports supplements and its needs before, during and after the competition.
- Concept of fluid and electrolyte replacement, values of vitamins and minerals, carbohydrate loading according to the requirement of sports.

**COURSE CONTENTS**

**UNIT – I**

**Introduction to Nutrition**

- 1.1 Aims and Objectives of Sports Nutrition
- 1.2 Essentials of Nutrition: Macro and Micro Nutrients
- 1.3 Balance Diet and Nutritive values of food
- 1.4 Malnutrition, Imbalance of nutrition

**UNIT – II**

**Nutritional Requirement for Sports Person**

- 2.1 Dietary requirements of Sports persons.
- 2.2 Planning of sport diets for different categories of sports
- 2.3 Pre, post and during game Meal
- 2.4 Weight management, Crash dieting and eating disorders

**UNIT – III**

**Carbohydrate Loading and Metabolism**

- 3.1 Metabolism in sports
- 3.2 Food Safety –Factors Affecting Nutrition, Energy – BMR, RDA, Weight and Body Composition of Athletes
- 3.3 Carbohydrate loading, sports supplement
- 3.4 Hydration in Athlete, Fluids and electrolyte replacement

## SUGGESTED READING

1. Benardot Dan, Advanced sports Nutrition, Human Kinetics, 2020.
2. Fink Heather Hedrick, JSports Nutrition, A Practical approach, Jones and Bartlett Learning, 2020.
3. Jeukendrup Asker, Sports Nutrition, Human Kinetics, 2018.
4. Karpinski Christina and A. Rosenbloom Christine, Sports Nutrition: Ahand book of Professionals, Academy of Nutrition and Dietetics, 2017.
5. Mizera Justyna and Krzysztof mizera, Sports Nutrition: Eat smart, Be healthy Get on top of your game, Velo press, 2019.
6. Stull, G. A. and Cureton, T.K. Encyclopedia of Physical Education , Fitness and Sports- Training Environment , Nutrition and Fitness, Brighton Publishing Co. Saltlake City, 1980.
7. Wolliam D Mcardle, Sports, Exercise and Nutrition, LWW, 2019.



**SPORTS PRACTICAL  
CODE: E050504P**

**SPORTS SPECIALIZATION**

<b>Course Code</b>	<b>Course Name</b>	<b>Credit</b>	<b>Teaching Hours</b>	<b>Internal Marks</b>	<b>External Marks</b>	<b>Total Marks</b>
E050504P	Sports Specialization (Students will choose any one Game which they have studied up to 4 <sup>th</sup> sem.)	4	128	30	70	100

**Course Learning Outcome:**

After completing this course, the students will be able to

- Students will able to learn rules and regulation of specialization sports
- Enhance the playing ability of the sports
- Enhance the teaching ability of the techniques and skills
- Enhance the officiating ability of the sports
- Enhancing coaching ability of the specialization sports

**UNIT-I**

- 1.1. Introduction and historical review of the specialization Game
- 1.2. Rules and Regulation of the specialization Games
- 1.3. Specification of sports equipment
- 1.4. National and International tournaments and Records of specialization sports

**UNIT-II**

- 2.1. Playing ability of the Game
- 2.2 Demonstration and explanation of various skills of specialization sports
- 2.3. Kinesiological and Mechanical analysis of the Skill
- 2.4. Technical and Tactical ability of the specialization sports

**UNIT-III**

- 3.1 General and Specific warming up
  - 3.1. Skill teaching ability of specialization
  - 3.2. Coaching Ability of the Specialization sports (beginners, intermediate and advanced players)
  - 3.3. Designing coaching meso and micro plan

#### UNIT-IV

- 1.1 Officiating ability of the specialization sports in different position
- 1.2 Organization and Administration ability of the specialization Sports
- 1.3 Maintaining score sheet of specialization sports
- 1.4 Record book Keeping

#### Guidelines of Specialization Record Book

1. Introduction with historical analysis
2. Rules and regulations
3. Skill, techniques and tactics of the games with mechanical principle involved
4. Coaching Modalities for beginners, intermediate and advance players
5. National and International reputed players
6. Important tournaments, National and International records of the Sports
7. Conclusion

Students will appear the examination and evaluated by both external and internal examiner.

Evaluation Procedure:

Area of Evaluation	Internal Examiner	External Examiner
Officiating Proficiency	10 marks	20 marks
Coaching ability	10 marks	10 marks
Playing ability	10 marks	10 marks
Viva		30 marks
Specialization sports record book	10 marks	
Total	30 marks	70 marks

**External Assessment – 70 Marks**

**Internal Assessment – 30 Marks**

**MASS EXERCISES, MARCHING, INDIAN CLUB, LAZIUM, DUMB BELL, WAND,  
AEROBIC, AND RHYTHMIC  
CODE: E050505P**

<b>Course Code</b>	<b>Course Name</b>	<b>Credit</b>	<b>Teaching Hours</b>	<b>Internal Marks</b>	<b>External Marks</b>	<b>Total Marks</b>
<b>E050505P</b>	Mass Exercises (Indian club, Lazium, Dumb Bell, Wands Aerobic, and Rhythmic)	4	128	30	70	100

**Course Learning Outcome:**

After completing this course, the students will be able to

- Acquire, analyze and interpret rhythmic movements with apparatus
- Learn free hand exercises with counts and drum bits
- Learn drill and marching
- Learn aerobic and step exercises
- Learn Lezuim activities

**COURSE CONTENTS**

**UNIT-I**

- 1.1. Mass Exercises-Two count, four count and eight count exercises with demonstration and explanation
- 1.2. Mass exercises (seating position) with whistle and drum bits
- 1.3. Exercises with verbal command, drum, whistle and music – Two count, four count, eight count Standing Exercise, Jumping Exercise, Moving Exercise and Combination of all
- 1.4. Drill and Marching

**UNIT-II**

- 2.1. Indian club exercise: Attention with Indian club, Stand– at – ease with Indian Club
- 2.2. Indian Club Exercise with verbal command, drum, whistle and music – Two count, Four count, Eight count, Standing Exercise, Jumping Exercise, Moving Exercise and Combination of above all
- 2.3. Dumbbells, Attention with Dumbbells, Stand– at – ease with Dumbbells
- 2.4. Dumbbells Exercises with verbal command, drum, whistle and music – Two count, four count, eight count, Standing Exercise, Jumping Exercise, Moving Exercise and Combination of above all

**UNIT-III**

- 3.1. Wand exercise, Attention with wand, Stand– at – ease with Wands
- 3.2. Exercises with verbal command, drum, whistle and music – Two count, four count, eight count Standing Exercise, Jumping Exercise, Moving Exercise and Combination of all
- 3.3. Organization of Mass demonstration exercise

3.4. Command, demonstration, explanation and rectification parts

#### UNIT-IV

4.1. Ghati Lezuim– Aath awaaz, Bethak awaaz, Aage Paon, Aage Kadam, Do pher awaaz.

4.2. Hindustani Lezuim-Char Awaaz, EkJagah, AantiLagaav, Pavitra, Do Rukh, Chau Rukh,Chau rukhbethak, Momiya.

4.3. Aerobics

4.4. Rhythmic

#### TEACHING LEARNING STRATEGIES

The class will be taught by using demonstration, explanation, videos, learning by doing and Whole part whole method.

**Total Marks: 100(Internal Assessment 30 and External Assessment 70)**

Area of Evaluation	Internal Examiner	External Examiner
Class formation and reporting to examiner		20 marks
Command and demonstration	15 marks	15 marks
Proper Explanation	15 marks	15 marks
Rectification, Class control and Dismissal		20 marks
<b>Total</b>	<b>30 marks</b>	<b>70 marks</b>

## **COMMUNITY COACHING**

### **E050506P**

The students will visit community centers near to university campus. They will share their knowledge, skill to different age groups. The students will get field expose and opportunity to share people about various theory and practical activities. They will be involved community coaching in different theory and practical subjects. At least they will take two theory lesson and two practical lessons for different age group.

#### **UNIT - I**

##### **Theory Subject area:**

- 1.1. Fitness, Health and Wellness
- 1.2. Diet and Nutrition
- 1.3. Rules and regulations of games
- 1.4. Childhood obesity Practical Classes

#### **UNIT - II**

- 2.1 Teaching game skill
- 2.2 Organizing minor games
- 2.3 Officiating in their community hall
- 2.4 Conducting exercise program for various age groups

#### **Evaluation:**

Both internal and external examiners evaluate the students.

Total marks = 100 Marks

Internal Assessment: 30 marks

External Assessment: 70 marks

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**SEMESTER -VI**

<b>Course Code</b>	<b>Course/ Paper Name</b>	<b>Credit</b>	<b>Learning Hours</b>	<b>Internal Marks</b>	<b>External Marks</b>	<b>Total Marks</b>
<b>PART-A THEOREY COURSE</b>						
<b>E050601T</b>	<b>Test and Measurement in Sports and Physical Education</b>	<b>3</b>	<b>48</b>	<b>30</b>	<b>70</b>	<b>100</b>
<b>E050602T</b>	<b>Sports Medicine and Physiotherapy</b>	<b>3</b>	<b>48</b>	<b>30</b>	<b>70</b>	<b>100</b>
<b>E050603T</b>	<b>Sports Technology and Innovation</b>	<b>2</b>	<b>32</b>	<b>30</b>	<b>70</b>	<b>100</b>
<b>PART- B PRACTICAL COURSE</b>						
<b>E050604R</b>	<b>Project</b>	<b>4</b>	<b>128</b>	<b>30</b>	<b>70</b>	<b>100</b>
<b>E050604R</b>	<b>Internship</b>	<b>8</b>	<b>256</b>	<b>50</b>	<b>150</b>	<b>200</b>
		<b>20</b>				<b>600</b>

**SEMESTER VI**  
**TEST AND MEASUREMENT IN SPORTS AND PHYSICAL EDUCATION**  
**COURSE CODE: E050601T**

<b>Course Code</b>	<b>Course Name</b>	<b>Credit</b>	<b>Learning Hours</b>	<b>Internal Marks</b>	<b>External Marks</b>	<b>Total Marks</b>
<b>E050601T</b>	Test and Measurement in Sports and Physical Education	3	48	30	70	100

**Course Learning Outcome:**

After completing this course, the students will be able to

- Understand the need & importance of test, measurement and evaluation in physical education.
- Describe the criteria, classification and administration of test.
- Develop concepts related to test, measurement & evaluation.
- Construct a strong basis in the evaluation techniques through the various test and measurements method used in physical education.
- Explain different physical fitness and skilltests.

**UNIT-I**

**Introduction of Test, Measurement and Evaluation**

- 7.1 Meaning and Definition of Test, Measurement and Evaluation
- 7.2 Need & Importance of Test, Measurement in Physical Education and Sports
- 7.3 Administration of Testing Programme, Duties Pre, During and After Testing Programme
- 7.4 Criteria of Test Selection- Scientific Authenticity, Administrative Feasibilities and Educational application

**UNIT-II**

**Selection and Construction of Test**

- 2.1 Scientific Authenticity (Reliability, Objectivity, Validity and Availability of Norms)
- 2.2 Principles of Construction of Test
- 2.3 Classification of Test-Standardized and Teacher made Test
- 2.4 Objective and Subjective Test

**UNIT-III**

**Fitness Test**

- 3.1 Roger's Physical Fitness, AAPERD Youth Fitness
- 3.2 Indiana Motor Fitness, National Physical Fitness Programme (NFPF)
- 3.3 JCR test, Harward Step Test, Cooper 12 Min Run and Walk Test, Beep Test
- 3.4 Kraus Weber Minimum Muscular Test

**UNIT-IV**

**Sports Skill Test**

- 4.1. Importance of Skill Test, SAI Football Test

4.2. Lockhart and McPherson Badminton Test

4.3. Johnson Basketball Test, McDonald Soccer Test, Rustle Lange Volleyball Test

4.4. Harban Singh Hockey Test, Henry Friedal Field Hockey

### **SUGGESTED READINGS**

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

**SEMESTER VI**  
**SPORTS MEDICINE AND PHYSIOTHERAPY**  
**COURSE CODE: E050602T**

<b>Course Code</b>	<b>Course Name</b>	<b>Credit</b>	<b>Learning Hours</b>	<b>Internal Marks</b>	<b>External Marks</b>	<b>Total Marks</b>
<b>E050602T</b>	Sports Medicine and Physiotherapy	3	48	30	70	100

**Course Learning Outcome:**

After completing this course, the students will be able to

- Students will understand nature, scope need and importance of sports medicine.
- Students will be able to identify the various kinds of common injuries, preventive measures and their first aid procedure.
- Practical and theoretical knowledge and application of sports physiotherapy and rehabilitative exercises.
- Understand about different therapeutic modalities and its safety measures.
- Concept of ergogenic aids in sports, ill effect of different drugs and doping.

**UNIT – I**

**Introduction to Sports Medicine**

- 1.1 Definition, aims and objectives of Sports Medicine
- 1.2 Scope of Sports Medicine
- 1.3 Need and Importance of Sports Medicine
- 1.4 History of Sports Medicine in India and Abroad

**UNIT – II**

**Injuries in Sports**

- 2.1 Classification of Injuries, causes and prevention of sports injuries.
- 2.2 Skin and Muscles Injuries (blisters, corns, abrasions, bruises, burns, cuts and lacerations, muscles strain and ruptures)
- 2.3 Tendons Ligaments, Cartilage, bursa and bone Injuries
- 2.4 Common site-specific injuries in sports Common regional injuries and their management (Head & Neck, Face, Thorax, Abdomen, Pelvis, Upper Limbs and Lower Limbs (shoulder, elbow, Wrist, hip, knee and Ankle joints).

**UNIT-III**

**Introduction to Physiotherapy and Therapeutic Exercises and Modalities**

- 3.1 Importance of Physiotherapy; Types of Massage
- 3.2 Definition and meaning of therapeutic exercise, Classification, Effects and uses of therapeutic Exercises
- 3.3 Hydrotherapy (Hot and Cold Packs, Whirlpool, Contrast bath), Thermotherapy
- 3.4 Electrotherapy (Infrared rays – Ultraviolet rays –short wave diathermy – ultrasonic therapy, IFT)

## UNIT-IV

### Doping in Sports

- 4.1 Ergogenic aids in Sports
- 4.2 National and International Anti-doping organization and their role
- 4.3 Classification and types of drugs banned by WADA and NADA, Side effects of drugs
- 4.4 Blood doping, Types of Blood Doping

### REFERENCES

1. Armstrong and Tucker, Injuries in sports (London: Staples press, 1964).
2. Christine, M. D., (1999). Physiology of sports and exercise. USA: Human Kinetics.
3. 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.
4. David, R. M. (2005). Drugs in sports, (4th Ed). Routledge Taylor and Francis Group.
5. Hunter, M. D. (1979). A dictionary for physical educators. In H. M. Borrow & R. McGee, (Eds.), A Practical approach to measurement in Physical Education (pp. 573-74). Philadelphia: Lea &Febiger.
6. Jeyaprakash, C. S., Sports Medicine, J.P. Brothers Pub., New Delhi, 2003.
7. Khanna, G. L., (1990). Exercise physiology & sports medicine. Delhi: Lucky Enterprises.
8. Mathew, D. K. & Fox, E. L, (1971). Physiological basis of physical education and athletics. Philadelphia: W.B. Saunders Co.
9. Philadelphia: W.B. Saunders Co.
10. Pandey, P. K., (1987). Outline of sports medicine, New Delhi: J.P. Brothers Pub.
11. Ray, Steven and Irvin Richard, Sports Medicine. (New Jersey: Englewood cliffa, Prentice Hall, 1983).
12. Williams, J. G. P. (1962). Sports medicine. London: Edward Arnold Ltd.te

**SEMESTER VI**  
**SPORTS TECHNOLOGY AND INNOVATION**  
**COURSE CODE: E050603T**

<b>Course Code</b>	<b>Course Name</b>	<b>Credit</b>	<b>Learning Hours</b>	<b>Internal Marks</b>	<b>External Marks</b>	<b>Total Marks</b>
<b>E050603T</b>	Sports Technology and Innovation	2	32	30	70	100

**Course Learning Outcome:**

After completing this course, the students will be able to

- Understand the meaning and definition and importance of technology in sports and science of sports material-nano molding technology, nano turf.
- Understand the different type of foot wear production factor application in sports, constraints.
- Understand the surface of play field and the type of material: synthetic, wood, polyurethane artificial turf
- Understand the different modern playing equipment and material types and advantages clothing and shoes. Also understand the use of computer and software in matter and analysis and coaching

**UNIT - I**

**Sports Technology**

- 1.1 Meaning and definition
- 1.2 Importance of technology in Sports
- 1.3 General Principles and purpose of instrumentation in sports
- 1.4 Technological impacts on sports.

**UNIT - II**

**Science of Sports Materials**

- 2.1 Adhesives- Nano glue; Nano moulding technology, Nano turf.
- 2.2 Foot wear production
- 2.3 Factors and applications in sports, constraints.
- 2.4 Foams- Polyurethane, Polystyrene, Styrofoam, closed cell and open-cell foams, Neoprene, Foam; Smart Materials: Shape Memory Alloy (SMA), Thermo chromic film, High-density modeling foam.

**UNIT - III**

**Surfaces of Playfields**

- 3.1 Modern surfaces for playfields, construction and installation of sports surfaces.
- 3.2 Types of materials: synthetic, wood, polyurethane. Artificial turf.
- 3.3 Modern technology in the construction of indoor and outdoor facilities.
- 3.4 Use of computer and software in Match Analysis and Coaching.

## UNIT - IV

### Modern Sports Equipment

- 4.1 Playing Equipment: Balls: Types, Materials and Advantages, Bat/Stick/ Racquets: Types, Materials and Advantages.
- 4.2 Clothing and shoes: Types, Materials and Advantages; Sports equipment with nano technology, Advantages.
- 4.3 Measuring equipment: Running, Throwing and Jumping Events.
- 4.4 Protective equipment: Types, Materials and Advantages.

### Reference Books:

1. Charles J.A. Crane, F.A.A. and Furness, J.A.G. (1987) "Selection of Engineering Materials" UK: Butterworth Heiremann.
2. Finn, R.A. and Trojan P.K. (1999) "Engineering Materials and their Applications" UK: Jaico Publisher.
3. John Mongilo, (2001), "Nano Technology 101 "New York: Green wood publishing group.
4. Kochar, S.K. Methods and Techniques of Teaching (New Delhi, Jalandhar, Sterling Publishers Pvt. Ltd.), 1982
5. Kozman, Cassidy and Jackson. (1952)Methods in Physical Education (W.B. Saunders Company, Philadelphia and London),

ॐ नमो भगवते वासुदेवाय ॐ

## **SPORTS PRACTICAL**

**CODE: E050604RP**

### **PROJECT**

#### **Guidelines for Writing a Project**

This document, herein after referred to as the **Project Guide**, lists the general and specific requirements governing Project and Project preparation including guidelines for structuring the contents. For style, structure and presentation of the Project, students may refer to additional style manuals or reference guides (though some guidelines are provided) and to the published literature in their respective field of study.

#### **Preparation of Manuscript and Copies**

The Project needs to be prepared using a standard text processing software and must be printed in black text (color for images, if necessary) using a laser printer or letter quality printer in standard type face (Times New Roman/ Arial).

The Project must be printed or photocopied on both sides of white paper. All copies of Project pages must be clear, sharp and even, with uniform size and uniformly spaced characters, lines and margins on every page of good quality white bond paper of 75 gsm or more. **(How so ever the students are advised to prepare in the format given and submit in PDF Format to their respective Guide and to the Department duly signed by them, the hard copies as per the specification provided has to be submitted for record.)**

Project and project should be free from typographical errors.

#### **Binding**

The student should submit the copies of the Project in fully bound form (soft cover) or a partially bound form (coiled wire binding, clamping, or filing). Once the Projects accepted, it is the student's responsibility to get it properly bound before depositing the required number of copies with the Department concerned. **The front cover of the bound copy should be the same as the title page of the project.** The front cover should have printing on the side to include the author's name, abbreviated Project title (optional), degree, department, and the year.

**Note: The students will follow the guidelines for their project**

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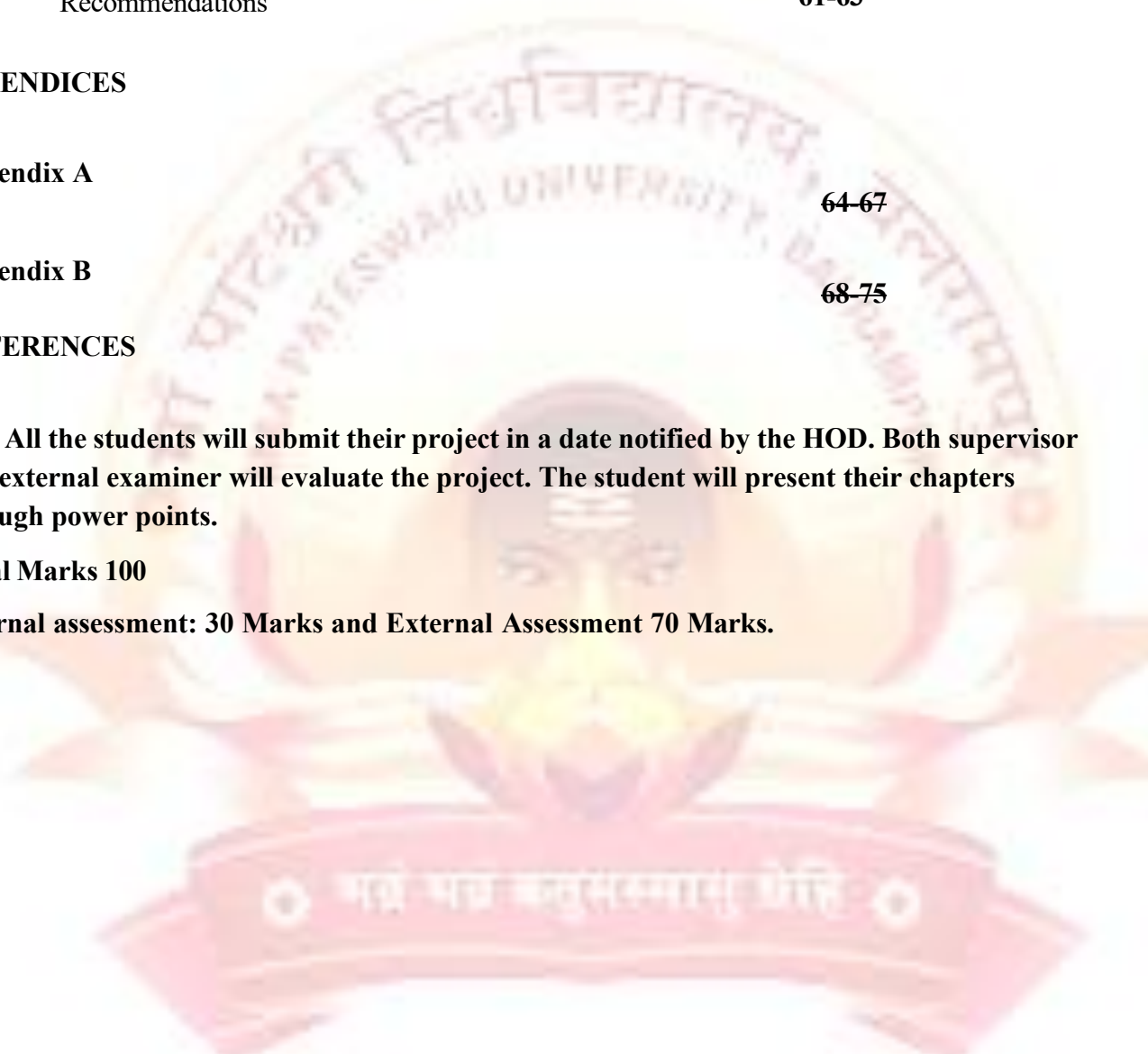
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## **REFERENCES**

**N.B. All the students will submit their project in a date notified by the HOD. Both supervisor and external examiner will evaluate the project. The student will present their chapters through power points.**

**Total Marks 100**

**Internal assessment: 30 Marks and External Assessment 70 Marks.**



**SPORTS PRACTICAL**  
**CODE: E050605IR**  
**INTERNSHIP**

Education is a scientific discipline where knowledge is created about the processes through which the human being is formed and about the changes in social, cultural and historical circumstances in which these processes are embedded. The pedagogical field deals with, for example, different aspects of upbringing, education, learning, teaching and other processes. In sport pedagogy these processes are studied within a sport framework. Questions, for example, can be raised regarding how and why certain values, knowledge and skill arise, how and why they are maintained, and how they vary within and between generations, groups and individuals.

During the internship and coaching pedagogy practice programme, the teaching- and coaching process are problematized within sports. Theoretical knowledge about different leadership styles, coaching philosophies and other factors affecting individual and group performances will be taken into practice and analyzed within the sports practice.

After the completion of the Internship Programme the Trainees will be acquainted with:

**Knowledge and understanding**

- demonstrate knowledge about teaching and coaching within various sports practices
- be acquainted with and demonstrate understanding of factors affecting individual and group performance

**Skills and ability**

- apply different leadership/coaching methods depending on various demands on individuals and groups
- transform theoretical knowledge into practice and use the theoretical content to analyse practice
- perform and analyze different coaching skills through various leadership experiences

**Values and attitudes**

- reflect on their own leadership style in relation to coaching methods in various sport practices
- reflect on their own leadership style in relation to teaching and learning theories in various sport practices

**The Internship would be examined through the following ways:**

- Individual coaching philosophy assignments given to them and group reflections (In field / web seminar) about coaching philosophy.
- Individual feedback and communication assignment (written assignment, In field work and web seminar).
- Individual applied coaching assignment (written assignment based on practical assignments).

**ASSESSMENT CRITERIA FOR INTERNSHIP SUPERVISOR:**

<b>Sr. No.</b>	<b>Please evaluate this student intern on the following items:</b>	<b>Max. Marks</b>
1.	Arrived to work on-time (Punctuality, sincerity, dedication and devotion towards work)	15
2.	Behaved in a professional manner	15
3.	Effectively performed Assignments given by PE teacher concerned School.	15
4.	Theory lesson: Observation of their subject knowledge and Communication skill(Physical education and Sports related topic)	15
5.	Teaching lesson Ability of sport skills (5 lesson)	15
6.	Coaching lesson Ability (5 lesson)	15
7.	Fitness and exercise class taken Ability	15
8.	Officiating ability	15
9.	Observation of records and register of the PE department and report writing on records and registers	15
10.	Observation and report writing on Maintenance of Equipment and Play fields	15
<b>Total</b>		<b>150</b>

**ASSESSMENT CRITERIA FOR INTERNAL EXAMINER:**

<b>Sr. No.</b>	<b>Component</b>	<b>Max. Marks</b>
1.	Internship Report	25
2.	Internship Record book and Viva-Voce	25
<b>Total</b>		<b>50</b>