

**DAV UNIVERSITY, JALANDHAR**

**Department of Physical Education**



**Scheme and Syllabi For  
Masters of Physical Education  
(Program ID – 244)**

**Applicable for Batch-2024 & onwards**

# DAV UNIVERSITY, JALANDHAR

## Introductory Note of the programme

M.P.Ed. is a Post graduate program of two-year duration, that focuses on to prepare the students for research, and innovations in the field of physical education, sports and as a higher education professional, with a strong foundation of health, fitness, Physical education and allied sciences. The program offers a perfect combination of theoretical and practical learning to make them equipped with requisite skill-set in order to achieve their goals during their professional life.

## Program Educational Objectives (PEOs)

**PEO1.** To equip (the future physical education teachers) with the knowledge, attitude, behaviour, approaches, methodologies and skills that require to perform in classrooms, school and wider community.

**PEO2.** To develop a capacity (in the future teacher) to perform, observe, infer and to generalize.

**PEO3.** To develop potential for planning and organizing physical education programme and activities.

**PEO4.** To develop personal, Professional and social competencies required in teaching profession.

**PEO5.** To provide an exposure to the students to various organizational tasks both infield and classroom during their tenure of study and thus, imbibe leadership qualities in them.

## Programme Outcomes (POs)

**PO1.Critical Thinking:** Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.

**PO2.Effective Communication:** Speak, read, write, and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the world by connecting people, ideas, books, media and technology.

**PO3. Social Interaction:** Elicit views of others, mediate disagreements and help reach conclusions in group settings.

**PO4. Effective Citizenship:** Demonstrate empathetic social concern and equity centred national development, and the ability to act with an informed awareness of issues and

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participate in civic life through volunteering.

**PO5. Ethics:** Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.

**PO6. Environment and Sustainability:** Understand the issues of environmental contexts and sustainable development.

**PO7. Self-directed and Life-long Learning:** Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes.

### Program Specific Objectives (PSOs)

**PSO1-** The student will be able to conduct research in the field of physical education and sports by using statistical tools and computer software and will be able to implement the knowledge of the internal function and locomotion of human body and bio-mechanical principles to develop the human performance.

**PSO2-** The student will be able to provide his/ her services as a professional to manage health, fitness and injuries of sports community using psychological principles and Yogic practices to enhance the performance of children and especially abled children.

**PSO3-** The student will be able to develop good sports person, sports equipment & infrastructure by implementing the scientific knowledge of sports training, educational technology and sports engineering, students will be able to develop the managerial skills, designing of curriculum and professional preparation, in the field of physical education and sports.

**PSO4-** The student will be aware and sensible towards the human values, environment and society. The student will be able to grab career opportunity in sports journalism, sports industry and marketing, by implementing their learning.

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## Mapping of POs with PEOs

PEOs→ POs↓	PEO 1	PEO 2	PEO 3	PEO 4	PEO 5
PO1	Yes	Yes	Yes	Yes	Yes
PO2	Yes	Yes	Yes	Yes	Yes
PO3	Yes		Yes	Yes	Yes
PO4	Yes	Yes	Yes	Yes	Yes
PO5	Yes		Yes	Yes	Yes
PO6	Yes	Yes	Yes		Yes
PO7	Yes	Yes		Yes	Yes

## Mapping of PSO with PEO

PEOs→ PSO↓	PEO 1	PEO 2	PEO 3	PEO 4	PEO 5
PSO1	Yes	Yes		Yes	
PSO2	Yes	Yes	Yes	Yes	Yes
PSO3	Yes		Yes	Yes	
PSO4	Yes		Yes	Yes	Yes

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**Scheme of Post Graduate Course:**  
**M.P.Ed (Program ID- 244 )CBCS**  
**SEMESTER- I**

S.No.	Paper Code	Course Title	In Hours				Weightage								
			L	T	P	Cr	W Q	S A P	ATT.	LP/ CA	MTE	MTP	ETE	ETP	TOTAL
Core Courses															
1	PHE701	Research Process in physical education and sports sciences	4	0	0	4	10	10	05	0	25	0	50	0	100
2	PHE740	Exercise and Sports Physiology.	4	0	0	4	10	10	05	0	25	0	50	0	100
3	PHE705	Yogic Sciences	3	0	2	4	10	0	05	0	25	0	35	25	100
Core (Practical) Course															
4	PHE706	Track and Field – I 1. Running Events	0	0	6	4	0	0	0	20	0	30	0	50	100
5	PHE721	Game Specialization – I(Any 2)	0	0	6	4	0	0	0	20	0	30	0	50	100
Elective Course (Any One)															
6	PHE725	Test, Measurement and Evaluation in Physical Education	3	0	2	4	10	0	05	0	25	0	35	25	100
7	PHE	Sports Technology	4	0	0	4	10	10	05	0	25	0	50	0	100
			14	0	16	24									

All Practical Courses will be evaluated on the basis of 30% Internal Evaluation and 70% External Evaluation

**L: Lectures**

**T: Tutorial**

**P: Practical**

**Cr: Credits**

**Evaluation:**

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

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<u>One Test</u>	<u>10 Marks</u>
<u>Assignments / Lab Practical</u>	<u>10 Marks</u>
<u>Attendance</u>	<u>5 Marks</u>
<u>Total</u>	<u>25 Marks</u>

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Scheme of Post Graduate Course: M.P.Ed (Program ID- 244 )CBCS

## SEMESTER - II

S.No.	Paper Code	Course Title	In Hours				Weightage								
			L	T	P	Cr	W Q	S A P	ATT.	LP/ CA	MTE	MTP	ETE	ETP	TOTAL
Core Courses															
1	PHE710	Applied Statistics in Physical Education & Sports	4	0	0	4	10	10	05	0	25	0	50	0	100
2	PHE711	Sports Biomechanics & Kinesiology	4	0	0	4	10	10	05	0	25	0	50	0	100
3	PHE709	Sports Medicine, Athletic Care and Rehabilitation	3	0	2	4	10	0	05	0	25	0	35	25	100
Core (Practical) Course															
4	PHE715	Track and Field II: Jumping events + Hurdles	0	0	6	4	0	0	0	20	30	0	50	0	100
5	PHE749	Games Specialization- II (Any 2)	0	0	6	4	0	0	0	20	30	0	50	0	100
Elective Course(Any One)															
6.	PHE713	Sports Journalism and Mass Media	4	0	0	4	10	10	05	0	25	0	50	0	100
7.	PHE	Sports Management & Curriculum Design in Physical Education	4	0	0	4	10	10	05	0	25	0	50	0	100
			15	0	14	24									

All Practical Courses will be evaluated on the basis of 30% Internal Evaluation and 70% External Evaluation

**L: Lectures T: Tutorial P: Practical Cr: Credits**

### Evaluation:

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

<u>One Test</u>	<u>10 Marks</u>
<u>Assignments / Lab Practical</u>	<u>10 Marks</u>
<u>Attendance</u>	<u>5 Marks</u>
<u>Total</u>	<u>25 Marks</u>

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Scheme of Post Graduate Course: M.P.Ed (Program ID- 244 )CBCS

## SEMESTER –III

S.No.	Paper Code	Course Title	In Hours				Weightage								
			L	T	P	Cr	W Q	S A P	ATT.	LP/ CA	MTE	MTP	ETE	ETP	TOTAL
Core Courses															
1	PHE800	Science of Sports Training	4	0	0	4	10	10	05	0	25	0	50	0	100
2	PHE831	Sports Industry and Marketing	4	0	0	4	10	10	05	0	25	0	50	0	100
3	PHE803	Health Education and Sports Nutrition	4	0	0	4	10	0	05	0	25	0	50	0	100
Core (Practical) Course															
4	PHE806	Track and Field III: Throwing Events	0	0	6	4	0	0	0	20	0	30	0	50	100
5	PHE807	Game Specialization - III	0	0	6	4	0	0	0	20	0	30	0	50	100
6.	PHE812	Internship *	0	0	0	4	0	0	0	20	0	0	0	80	100
7.	PHE830	Community Service	0	0	4	2	0	0	0	20	0	30	0	50	50
Elective Course (Any One)															
8	PHE	Sports Engineering	4	0	0	4	10	10	05	0	25	0	50	0	100
9	PHE805	Physical Fitness and Wellness	4	0	0	4	10	10	05	0	25	0	50	0	100
			15	0	16	30									

All Practical Courses will be evaluated on the basis of 30% Internal Evaluation and 70% External Evaluation

**L: Lectures T: Tutorial P: Practical Cr: Credits**

**\*Internship evaluation will be done 50% Internally and 50% Externally.**

### Evaluation:

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

<u>One Test</u>	<u>10 Marks</u>
<u>Assignments / Lab Practical</u>	<u>10 Marks</u>
<u>Attendance</u>	<u>5 Marks</u>
<u>Total</u>	<u>25 Marks</u>



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## SEMESTER –IV

S.No.	Paper Code	Course Title	In Hours				Weightage								
			L	T	P	Cr	W Q	S A P	ATT.	LP/ CA	MTE	MTP	ETE	ETP	TOTAL
Core Courses															
1	CSA695	Information & Communication Technology (ICT) in Physical Education	1	0	2	2	10	10	05	0	25	0	50	0	50
2	PHE828	Sports Psychology and Sociology	4	0	0	4	10	10	05	0	25	0	50	0	100
3	PHE832	Professional Preparation In Physical Education	2	0	0	2	10	0	05	0	25	0	50	0	50
4	PHE833	Dissertation **	0	0	0	4	0	0	0	20	0	0	0	80	100
Core (Practical) Course															
5	PHE821	Track and Field- IV Introduction of Heptathlon & Decathlon event	0	0	6	4	0	0	0	20	0	30	0	50	100
6	PHE826	Game Specialization	0	0	6	4	0	0	0	20	0	30	0	50	100
Elective Course(Any One)															
7	PHE	Education Technology in Physical Education	4	0	0	4	10	10	05	0	25	0	50	0	100
8	PHE820	Human Value And Environmental Education	4	0	0	4	10	10	05	0	25	0	50	0	100
9	PHE	Adapted Physical Education	4	0	0	4	10	10	05	0	25	0	50	0	100
			15	0	16	30									

All Practical Courses will be evaluated on the basis of 30% Internal Evaluation and 70% External Evaluation

**L: Lectures T: Tutorial P: Practical Cr: Credits**

**\*\* Students will submit the Synopsis in the End of third semester.**

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## **Evaluation:**

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

<u>One Test</u>	<u>15 Marks</u>
<u>Assignments / Lab Practical</u>	<u>10 Marks</u>
<u>Attendance</u>	<u>5 Marks</u>
<u>Total</u>	<u>30 Marks</u>

## **NOTE: Provision of Bonus Credits Maximum 06 Credits in each Semester**

Sr. No.	Special Credits forte Extra Co-curricular Activities	Credit
<b>1</b>	Sports Achievement at State level Competition (Medal Winner)	<b>1</b>
	Sports Achievement National level Competition (Medal Winner)	<b>2</b>
	Sports participation International level Competition	<b>4</b>
<b>2</b>	Inter Uni. Medal winners (Any one game)	<b>2</b>
<b>3</b>	Inter Uni. Participation (Any one game)	<b>1</b>
<b>4</b>	National Cadet Corps / National Service Scheme NCC/NSS Certificate C -3, NCC/NSS Certificate B -2, NCC/NSS Certificate A - 1	<b>1-3</b>
<b>5</b>	Blood donation / Cleanliness drive / Community services /	<b>2</b>
<b>6</b>	Mountaineering – Basic Camp, Advance Camp / Adventure Activities	<b>2</b>
<b>8</b>	News Reporting / Article Writing / book writing / progress report writing	<b>1</b>

Students can earn maximum 06 Bonus credits in each semester by his/her participation in the above mentioned activities duly certified by the Head of the institution / Department. This Bonus credit can be used instead of any academic course of same credit.

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## SEMESTER- I

**COURSE TITLE: RESEARCH PROCESS IN PHYSICAL  
EDUCATION & SPORTS SCIENCES**

**PAPER CODE: PHE701**

L	T	P	Credits	Marks
4	0	0	4	100

### **Course Objectives:-**

**CO1:-** Explain the meaning of research, classify different types of research.

**CO2:-** Analyze different methods of research.

**CO3:-** Discuss types of sampling.

**CO4:-** Use of different tools for data collection.

## **UNIT I**

### **1.1 INTRODUCTION**

- 1.1.1 Definition of Research.
- 1.1.2 Characteristics of Research.
- 1.1.3 Need and Importance of Research in Physical Education and Sports.
- 1.1.4 Scope of Research in Physical Education.
- 1.1.5 Classification of Research – Basic, Applied and Action Research.
- 1.1.6 Types of Research - Analytical, Descriptive, Experimental and Qualitative.

### **1.2. REVIEW OF RELATED LITERATURE**

- 1.2.1 Need for surveying related literature.
- 1.2.2 Kinds of related literature.
- 1.2.3 Literature Sources – Primary & Secondary.
- 1.2.4 Library Reading.
- 1.2.5 Preparation an abstract.
- 1.2.6 Method of Writing Research proposal, Thesis / Dissertation;
- 1.2.7 Method of writing abstract, full paper for presenting in a conference/ publish in journals

## **UNIT II**

### **2.1 PROPOSAL AND PROBLEM OF RESEARCH**

- 2.1.1 Meaning of Research Problem.
- 2.1.2 Formulation of Research Problem.
- 2.1.3 Location and Criteria of Selection of Research Problem.

### **2.2. HYPOTHESIS**

- 2.2.1 Meaning and Importance of Hypothesis.
- 2.2.2 Types of Hypothesis.
- 2.2.3 Formulation of Hypothesis.
- 2.2.4 Testing of Hypothesis

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## **2.3 TYPES OF RESEARCH (HISTORICAL AND PHILOSOPHICAL) & RESEARCH DESIGN**

- 2.3.1 Meaning and Definitions of Historical Research.
- 2.3.2 Scope of Historical Research in Physical Education.
- 2.3.3 Sources of Historical Data.
- 2.3.4 Historical evidences and Validity of Historical data.
- 2.3.5 Evaluation of Historical Data.
- 2.3.6 Pit Falls in Historical Research.
- 2.3.7 Meaning of Philosophical Research.
- 2.3.8 Tools of Philosophical Research.
- 2.3.9 Steps in Critical Thinking.

## **UNIT III**

### **3.1 RESEARCH DESIGN**

- 3.1.1 Meaning and need of research design
- 3.1.2 Feature of a good research design
- 3.1.3 Important concepts relating to research design
- 3.1.4 Historical design
- 3.1.5 Descriptive design
- 3.1.6 Experimental design
  - 1. Single Group Design,
  - 2. Reverse Group Design,
  - 3. Repeated Measure Design,
  - 4. Static Group Comparison Design,
  - 5. Equated Group Design,
  - 6. Factorial Design

## **UNIT – IV**

### **4.1. SAMPLING**

- 4.1.1 Meaning and definition of sampling.
- 4.1.2 Types of sampling.
- 4.1.3 Advantages of Sampling
- 4.1.4 Probable Error

### **4.2 RESEARCH REPORT**

- 4.1.1 Characterization of Thesis / Dissertation,
- 4.1.2 Front Materials,
- 4.1.3 Body of Thesis
- 4.1.4 Back materials.
- 4.1.5 Research Report, Footnote and Bibliography writing.

### **4.3. RESEARCH AND PUBLICATION ETHICS**

- 4.1.1 Research ethics
- 4.1.2 Publication ethics
- 4.1.3 Copyrights
- 4.1.4 Journals
- 4.1 Writing- Paper writing ,Article,Abstract, Report
- 4.1.1 Seminar, conference, workshop, symposium, group discussion

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## REFERENCES:

- Best J. W (1971) Research in Education, New Jersey; Prentice Hall, Inc
- Clarke David. H & Clarke H, Harrison (1984) Research processes in Physical Education, New Jersey; Prentice Hall Inc.
- Craig Williams and Chris Wragg (2006) Data Analysis and Research for Sport and Exercise Science, London; Routledge Press
- Jerry R Thomas & Jack K Nelson (2000) Research Methods in Physical Activities; Illinois; Human Kinetics;

# DAV UNIVERSITY, JALANDHAR

**Course Title: EXERCISE AND SPORTS PHYSIOLOGY**  
**PAPER CODE: PHE740**

L	T	P	Credits	Marks
4	0	0	4	100

## **Course Objectives:-**

**CO1:-** Students will be able to understand the concept of exercise & sports physiology and understand the phenomena of the muscle contraction.

**CO2:-** To enable the students, to know about the concept of bioenergetics.

**CO3:-** To make students familiar with the concept of neuro muscular junction and its parts.

**CO4:-** To enable the students about process of composition of blood, cardiovascular system, circulatory system and respiratory system and exercises.

**CO5:-** To enable the students about the basic knowledge of nutrition and various aspects of doping and its cons.

## **UNIT – I**

### **1.1 INTRODUCTION**

1.1.1 Definition of Physiology and Exercise Physiology.

1.1.2 Importance and Role of Exercise Physiology in the field of Physical Education and Sports

### **1.2. MUSCLE**

1.2.1 Structure and Function.

1.2.2 Comparative Study of different types of muscles i.e. Voluntary, Involuntary and Cardiac.

1.2.3 Theories of muscular contraction

1.2.4 Sliding Filament Theory.

1.2.5 Molecular mechanism of muscular contraction.

1.2.6 Chemical composition of skeletal muscle.

1.2.7 Muscle fiber type (Red and White Muscle).

## **UNIT II**

### **2.1 BIOENERGETICS**

2.1.1 Fuel for muscular Work (ATP).

2.1.2 Energy of muscular contraction.

2.1.3 Various changes during muscular contraction.

2.1.4 Heat production and thermodynamics of muscle contraction.

2.1.5 Aerobic and anaerobic muscular activity.

### **2.2 NEURO-MUSCULAR JUNCTION AND CO-ORDINATION OF MUSCULAR ACTIVITY**

2.2.1. Neurons and motor Unit

2.2.2 Transmission of nerve impulse.

2.2.3 Bio-electric potentials.

2.2.4 Neuro- Muscular junction and transmission of nerve impulse across it.

2.2.5 Proprioception and Kinesthesia- tone, posture and equilibrium.

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## UNIT – III

### **3.1. CARDIOVASCULAR SYSTEM AND EXERCISE**

- 3.1.1 Heart Valves and Direction of the Blood Flow
- 3.1.2 Conduction System of the Heart
- 3.1.3 Blood Supply to the Heart: Cardiac Cycle, Stroke Volume, Cardiac Output, exchange of gases in lungs & tissues, oxygen debt, second wind.
- 3.1.4 Factors Affecting Heart Rate – Cardiac Hypertrophy
- 3.1.5 Effect of Exercise on Cardiovascular system

### **3.2 BLOOD COMPOSITION**

- 3.2.1 Components and functions
- 3.2.2 blood clotting
- 3.2.3 Blood groups.

### **3.3 CIRCULATORY SYSTEM**

- 3.3.1 Components, structure, function.
- 3.3.2 Types of blood circulation.
- 3.3.3 Heart Rate, cardiac hypertrophy, systolic and diastolic blood pressure
- 3.3.4 Effect of Exercise on Circulatory system

### **3.4 RESPIRATORY SYSTEM**

- 3.4.1 Anatomy and physiology of respiration.
- 3.4.2 Neural control of respiration.
- 3.4.3 Non-respiratory movements.
- 3.4.4 Effects of exercise on respiratory system.

## UNIT IV

### **4.1 SPORTS AND NUTRITION**

- 4.1.1 Basic concept of balanced diet.
- 4.1.2 Appropriate diet before, during and after athletic performance.
- 4.1.3 Effects of Alcohol, Drugs, and Smoking on Athletic Performance

### **4.2 ENERGY COST OF VARIOUS SPORTS ACTIVITY**

- 4.2.1 Definition of Energy cost.
- 4.2.2 Energy cost of various sports activities and its assessment.
- 4.2.3 Various Direct and Indirect Methods to assess Energy Cost.

### **4.3 WORK AND ENVIRONMENT**

- 4.3.1 Work capacity under different environment. Conditions (Hot, Humid, cold & high attitude)

### **4.4 ERGOGENIC AIDS & DOPING IN SPORTS**

- 4.4.1 Meaning, definition, classification benefits of ergogenic
- 4.4.2 Nutrition and sports Performance and its benefits
- 4.4.3 Definition, classes, method of doping
- 4.4.4 Side effects and sanction against doping
- 4.4.5 Methods of detecting Doping
- 4.4.6 IOC, FIMS, WADA, NADA, RADO

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## REFERENCES:

- Bourne, Geoffery H. "The Structure and Function of Muscles" (London Academic Press) - 1973.
- Astrand, P.O. and Rodahl; Karre. "Text Book of work Physiology" (Tokyo Mc Graw. Hill Xogakusha, Ltd. 1979)
- Mathew. D.K. and Fox, E.L. "Physiological Basis of Physical Education and Athletics" (Philadelphia W.B. Saunder Company 1976)
- Wilmore H. Jack and Costill L.Pavid, "Physiology of Sports and Exercise" (Human Kinetics, 2004).
- Roberys A. Robert and Robert O. Scott. "Fundamental Principles of Exercise Physiology" (Mc. Grew Hill Companies, Inc. 2000).
- Adams M. Gene Exercise Physiology: Laboratory Manual, (WCB Mc Grew-Hill Companies, Inc, 1988).
- Katch L. Victor, Katch I. Frank and Mcardle D. William, "Exercise Physiology" (Williams & Wilkins, A Waverty Company, 1966).
- Mooren C. Frank and Volker Kalaus "Molecular and celluler exercise Physiology" (Human Kintics, Devidion of sports distributor Nz Ltd, 2005).



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**COURSE TITLE: YOGIC SCIENCES**  
**PAPER CODE: PHE705**

L	T	P	Credits	Marks
3	0	2	4	100

## **Course Objectives:-**

**CO1:-** Students will be able to understand basic concept of Yoga & different yogic practices like Astanga Yoga & Hath Yoga.

**CO2:-** Students will be understand about the different Asanas, Kriyas, Bandhas & Mudras.

**CO3:-** To understand the concept of Pranayama & Meditation. Also manage stress & develop resilience through meditation.

**CO4:-** To enable the students about the Effects of Yoga on physiological systems & the role of Yoga in sports.

## **UNIT- I**

### **1.1 INTRODUCTION**

- 1.1.1 Meaning, Definition, Scope and importance of Yoga
- 1.1.2 Concept of Panchkosha, Panchprana, Tri-sharir, Tri-Doshas, mind and Aura in Yoga
- 1.1.3 Essentials for Yoga Practices; Age, Diet, Stomach Emptying bowels, bathing, Clothes, Sun Bathing, No Straining, Place, Time, Awareness, Sequence. Contra indication, Counter Pose, Inverted Asana, Breathing, and Relaxation.

### **1.2 BASIC SYSTEMS OF YOGA WITH IMPORTANCE**

- 1.2.1 Astanga Yoga: Yama, Niyama, Asana, Pranayama, Prathyahara, Dharana, Dhyana, Samadhi.

### **1.3 STREAMS OF YOGA**

- 1.3.1 Hatha Yoga
- 1.3.2 Raja Yoga
- 1.3.3 Karma Yoga
- 1.3.4 Bhakti Yoga
- 1.3.5 Gnana Yoga

## **UNIT- II**

### **2.1 ASANAS**

- 2.1.1 Asana: Definition, Classification, Sitting, Standing, Lying, & Inverted Asanas.
- 2.1.2 Benefits of Asanas,
- 2.1.3 Asanas and Loosening Exercises,
- 2.1.4 Surya Namaskara- Description and Benefits.

### **2.2 KRIYAS**

- 2.2.1 Meaning of Neti, Nauli, Dhauti, Kapalabhati, Trataka, Bhastrika,

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## 2.2.2 Benefits of Kriyas

### 2.3 BANDHAS

#### 2.3.1 Jalandhara, , Udyana, Moola and Mahabandha

#### 2.3.2 Importance of Bandhas

### 2.4 MUDRAS

#### 2.4.1 Definition, Purpose and Benefits of Mudras,

#### 2.4.2 Types of Mudras. Hastha Mudras, Hath-Yogic Mudras.

## UNIT - III

### 3.1 PRANAYAMA

#### 3.1.1 Definition and Types of Pranayama

#### 3.1.2 Importance & Impact of Pranayama on nadis.

#### 3.1.3 Chakras: Definition and types,

#### 3.1.4 Effects of Pranayama on major chakras.

### 3.2 MEDITATION

#### 3.2.1 Meaning, Definition and Benefits of Meditation

#### 3.2.2 Types of Meditation: Passive, active, Saguna and Nirguna Meditation.

#### 3.2.3 Meditation and Health,

#### 3.2.4 Meditation and stress Management.

#### 3.2.5 Meta physical and Therapeutic perspective

## UNIT - IV

### 4.1 YOGA AND SPORTS

#### 4.1.1 Effects of Yoga on Physiological Systems: Respiratory, Circulatory, Digestive, Nervous and Excretory Systems.

#### 4.1.2 Place of Yoga as Supplementary, Compensatory, Regenerative and Yogic Power.

#### 4.1.3 Role of Yoga in Sports: Promotion of Mental Wellbeing, Self-Actualization, Concentration, Suppression of Anxiety and depression.

#### 4.1.4 Role of Yoga in preparation of a sportsperson: Attitude change through yogic practice, mental relaxation through prayer.

### PRACTICALS:

#### 2.1.1 Asana Performance: Sitting, Standing, Lying, & Inverted Asanas.

#### 2.1.2 Performing Surya Namaskar

#### 2.2.2 Performing Kriyas: Neti, Nauli, Dhauti, Kapalabhati, Trataka, Bhastrika

#### 2.3.1 Performing Jalandhara, , Udyana, Moola and Mahabandha.

#### 2.4.1 Performing of Khechari, Vipareet Karani, Sambhavi, Plavani , Mahamudra and Adharamudra.

#### 3.1.1 Performing Pranayama, surbhabhedhi, Ujjai, Sheetali, Sheetkari, Bhramari, Bhastrika, Nadi Sodhana, Anulom-Vilom, Chandrabhedhi.

#### 3.2.1 Performing Meditation. Ohm Meditation and Savita Meditation.

#### 4.1 Mental relaxation through Prayer

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### REFERENCES:

- George Feuerstein, (1975). Text Book of Yoga. London: MotilalBansaridass Publishers (P)Ltd.
- Gore, (1990), Anatomy and Physiology of Yogic Practices. Lonavata: KanchanPrkashan.
- Helen Purperhart (2004), The Yoga Adventure for Children. Netherlands: A Hunter Housebook.
- Iyengar, B.K.S. (2000), Light on Yoga. New Delhi: Harper Collins Publishers.
- Karbelkar N.V.(1993) PatanjaliYogasutraBhashya (Marathi Edition) Amravati: HanumanVyayamPrasarakMandal.
- Kenghe. C.T. (1976). Yoga as Depth-Psychology and para-Psychology (Vol-I): HistoricalBackground, Varanasi: BharataManishai.
- Kuvalyananada Swami & S.L. Vinekar, (1963), Yogic Therapy – Basic Principles andMethods. New Delhi: Govt. of India, Central Health Education and Bureau.
- Moorthy A.M. & Alagesan. S. (2004) Yoga Therapy. Coimbatore: Teachers Publication

# DAV UNIVERSITY, JALANDHAR

**COURSE TITLE: TRACK AND FIELD I: RUNNING EVENTS**

**PAPER CODE: PHE706**

L	T	P	Credits	Marks
0	0	6	4	100

## **Course Objectives:-**

**CO1:-**The pass out student will be aware of historical development and important tournaments at National and International level.

**CO2:-** The student will be able to demonstrate fundamental skills of the events.

**CO3:-** The student will be able to apply gained knowledge for technical preparation for Throwing & running events.

**CO4:-** The student will be aware about rule & regulation of the event & officiating in track and field events.

## **UNIT – I**

### **1. 1 INTRODUCTION TO RUNNING ING EVENTS**

1.1.1 Classification of Running Events in Track & Field

1.1.2 Basic equipment required & their Measurement for Running Events

1.1.3 Marking of Running Events.

1.1.4 Rules, Officials Required & Officiating and Scoring in Running Events

## **UNIT - II**

### **2.1 FUNDAMENTAL SKILLS.**

2.1.1 Track event-

2.1.1.1 Starting techniques - Standing start, Crouch start and its variations.

2.1.1.2 Proper use of Blocks.

2.1.1.3 Finishing techniques - Run through, Forward Lungin, Shoulder Shrug.

2.1.1.4 Relays -Various patterns of Batton Exchange and understanding of Relay Zones.

2.1.1.5 Hurdling: Specification of the hurdle height depends on the event distance, gender and age.

a) Phases: The Start and Approach, Hurdle Clearance, Leg Action & Arm Action, Running Between Hurdles b) Style: The Take Off – (Attacking the Hurdle), Transition – (Over the Hurdle), Touchdown – (Back to Running)

## **REFERENCES:**

- Doherty, J., Track and Field, Engle wood Cliffs: Prientice Hall Inc.
- Dyoon and Geoffray, G.H., (1962) The Mechanics of Athletics London: University of London Press Ltd.
- Ken O Bosen, Track and Field Fundamental Techniques, Patiala: MS Publications. Handbook, AAFI, New Delhi.

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- Rogres, L. Joseph., Track & Field Coaching Manual, USA: Herman Kinetics.

# DAV UNIVERSITY, JALANDHAR

**COURSE TITLE: GAMES SPECIALIZATION - I**  
**PAPER CODE: PHE721**

L	T	P	Credits	Marks
0	0	6	4	100

## Course Objectives:-

**CO1:-** The pass out student will be aware of historical development and Important tournaments at National and International level.

**CO2:-** The student will be able to demonstrate fundamental skills of the game.

**CO3:-** The pass out student will be able to apply gained knowledge for tactical and Technical preparation for sports competition.

**CO4:-** The student will be able to deliver his/her duties as an official to conduct a match.

## UNIT-I

### 1.1 HISTORICAL DEVELOPMENT

1.1.1 Historical Development of the sports at National and International level.

1.1.2 Important Tournament/Competition held at National and International level

## UNIT-II

### 2.1 FUNDAMENTAL SKILLS

2.1.1 Fundamental Skills of the sport.

2.1.2 Warming Up—General, Specific, Cooling Down,

2.1.3 Physiological basis of warming up and cooling down.

## UNIT-III

### 3.1 TECHNIQUE & TACTICAL PREPARATION

3.1.1 Tactical Preparation for sports.

3.1.2 Strategies and their Applications.

3.1.3 Importance of Psychological preparation and its methods.

## UNIT-IV

### 4.1 SPORTS SPECIFIC SKILL TEST

4.1.1 Sports Specific Skill Test.

4.1.2 Knowledge of rules and regulations.

4.1.3 Duties of official & conduct of official match.

## PRACTICAL:

1. Draft preparation, supplementary to improve fundamental skills.

2. Sport Specific skill test.

3. Test for Motor components.

4. Filling up score sheets.

5. Officiating in competition (rules and signals)

# DAV UNIVERSITY, JALANDHAR

**COURSE TITLE: TEST, MEASUREMENT AND EVALUATION  
IN PHYSICAL EDUCATION**  
**PAPER CODE: PHE725**

L	T	P	Credits	Marks
3	0	2	4	100

## **Course Objectives:-**

- CO1:-** Explain need and importance of evaluation in the field of Physical Education & construct Knowledge and skill test.
- CO2:-** Analyze various test used in physical education & apply various skill tests in physical education.
- CO3:-** Explain Anthropometric measurements.
- CO4:-** Apply various psychological and sociological test in Physical Education.

## **UNIT- I**

### **1.1 INTRODUCTION**

- 1.1.1 Meaning of Test, Measurement and Evaluation.
- 1.1.2 Nature and scope of evaluation Program.
- 1.1.3 Need and importance of evaluation in the field of Physical Education

### **1.2 SELECTION AND CONSTRUCTION OF TESTS**

- 1.1.2 Criteria of Test Selection.
- 1.1.2 Factors affecting Scientific Authenticity. (Reliability, Validity, Objectivity, and Norms)
- 1.1.3 Procedure to establish Scientific Authenticity.
- 1.1.4 Classification of tests- Standardized and teacher made test (Objective and Subjective).
- 1.1.5 Construction of Test-knowledge test and skills Tests.
- 1.1.6 Suggestions for Administering test
- 1.1.7 Test Evaluation (Skill test and Knowledge test)

## **UNIT-II**

### **2.1 .MEASUREMENT OF PHYSICAL PEFORMANCE**

#### **2.1.1 Organic Functions Test:**

- 2.1.1.1 Cardiovascular and respiratory function.
- 2.1.1.2 Cooper's 12 minutes' continuous run-walk test and modifications.
- 2.1.1.3 Tuttle's pulse Ratio Test.
- 2.1.1.4 Harvard step test and its modifications (High School and College level (Men and Women).
- 2.1.1.5 Hymen's Cardio pulmonary Index Test (CPI).
- 2.1.1.6** Margaria-Kalamen Anaerobic test, Wingate Anaerobic Test

#### **2.1.2 : Motor Fitness**

- 2.1.2.1 Oregon Motor Fitness Test.
- 2.1.2.2 JCR Test.
- 2.1.2.3 Canadian Fitness Test.
- 2.1.2.4 AAPPER Youth Fitness Test.
- 2.1.2.5 Indiana Motor Fitness Test.

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## **2.1.3 General Motor Ability**

- 2.1.3.1 Mc Cloy's General Motor Ability.
- 2.1.3.2 Methany Johnson Test.
- 2.1.3.3 Barrow motor ability test
- 2.1.3.4 Scott motor ability test
- 2.1.3.5 Newton Motor Ability Test

## **UNIT – III**

### **3.1 MEASUREMENT OF STRENGTH AND SKILL**

- 3.1.1 Kraus-Weber Muscular fitness.
- 3.1.2 Instrument for measuring strength.
- 3.1.3 Roger's Physical Fitness Index and suggested changes in the PFI Test.

### **3.2 SKILL TEST**

- 3.2.1 Volleyball: - Brady Volleyball, Russell and Lange test.
- 3.2.2 Basketball: - Johnson test, Knox test.
- 3.2.3 Soccer: - McDonald test, and Johnson test.
- 3.2.4 Badminton: - Miller Volley Test, Lockhart McPherson Test.
- 3.2.5 Hockey: - Harbans Singh Field Hockey Test, Friendel Field Hockey Test.
- 3.2.6 Tennis: - Borer Miller Test, Dyer's Tennis Test.
- 3.2.7 Cricket: Sutcliff Cricket test, YoYo test

## **UNIT - IV**

### **4.1 MEASUREMENT OF POSTURE AND ANTHROPOMETRY**

- 4.1.1 Measures of Posture- IOWA Posture Test (Cureton's)
- 4.1.2 Anthropometric Measurement.
  - 4.1.2.1 Girth Measurement- upper arms, fore arm, Calf chest.
  - 4.1.2.2 Width Measurement- Biacromial, Chest, Illiocreastal, Epicondyle of Femur and Humerus.
  - 4.1.2.3 Height Measurement- Standing and sitting height.
  - 4.1.2.4 Somatotype Sheldon's Technique of body classification.

### **4.2 PSYCHOLOGICAL & SOCIOLOGICAL TESTING:**

- 4.2.1 Competition anxiety
- 4.2.2 Aggression
- 4.2.3 Team cohesion (group cohesion)
- 4.2.4 Motivation
- 4.2.5 Self concept
- 4.2.6 Neilson Sports Leadership Scale.



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## PRACTICAL:

The students will perform all the test studied in theory practically and prepare a file accordingly.

### 1.1 MEASUREMENT OF PHYSICAL PERFORMANCE

#### 1.1.1 Organic Functions Test:

1.1.1.1 Cardiovascular and respiratory function.

1.1.1.2 Cooper's 12 minutes' continuous run-walk test and modifications.

1.1.1.3 Tuttle's pulse Ratio Test.

1.1.1.4 Harvard step test and its modifications (High School and College level (Men and Women).

1.1.1.5 Hymen's Cardio pulmonary Index Test (CPI).

#### 1.1.2 Motor Fitness:

1.1.2.1 Oregon Motor Fitness Test.

1.1.2.2 JCR Test.

1.1.2.3 Canadian Fitness Test.

1.1.2.4 AAPPER Youth Fitness Test.

1.1.2.5 Indiana Motor Fitness Test.

#### 1.1.3 General Motor Ability

1.1.3.1 Mc Cloy's General Motor Ability.

1.1.3.2 Methany Johnson Test.

#### 1.1.4 Measurement of Health Related Fitness.

### 2.1. MEASUREMENT OF STRENGTH AND SKILL

2.1.1 Kraus-Weber Muscular fitness.

2.1.2 Instrument for measuring strength.

2.1.3 Roger's Physical Fitness Index and suggested changes in the PFI Test.

### 2.2 SKILL TEST

2.2.1 Volleyball: - Brady Volleyball, Russell and Lange test.

2.2.2 Basketball: - Johnson test, Knox test.

2.2.3 Soccer: - McDonald test, and Johnson test.

2.2.4 Badminton: - Miller Volley Test, Lockhart McPherson Test.

2.2.5 Hockey: - Harbans Singh Field Hockey Test.

2.2.6 Tennis: - Borer Miller Test, Dyer's Tennis Test.

2.2.7 Cricket :- Sutcliff Cricket test, YoYo test

## REFERENCES:

- Barrow M: Hareld and Mc Ghee, "Rosmary A Practical Approach to Measurement in Physical Education". (Philadelphia Lea and Febhiger, 1979). Edn. 3rd.
- Bosco S. James and Gustafson F. William, "Measurement and Evaluation in Physical Fitness and Sports". (New Jersey: Englewood Cliffs, Prentice Hall 1983).
- Clarks, H. David and Clarke Hanson. H. "Application of Measurement to Physical Education". (Englewood Cliffs, Prentice Hall 1987) Edn.6
- Hubbard W. Alfred (D.) "Research Method in Health, Physical Education and Recreation" 3rd

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- Larson L.A. “Encyclopedia of Sport of Sports Science and Medicine Education and Recreation” 3rd Revised Edn. (Washington: D.C. American, Association of Health Physical Education and Recreation, 1973).
- Mathews, Donald K. “Measurement in Physical Education” (London W.B. Saunders Co. 1973) Edn. 5
- Phillips D. Allen and Honark E. James “Measurement and Evalution in Physical Education”, New York: Wiley and Sons, 1973.

# DAV UNIVERSITY, JALANDHAR

**COURSE TITLE: SPORTS AND TECHNOLOGY**

**PAPER CODE: PHE**

L	T	P	Credits	Marks
4	0	0	4	100

## **Course Objectives:-**

**CO1:-** Student will know about the general principles and purpose of instrumentation in sports and analyze different types of sports field material.

**CO2:-** Student will know the technology in manufacture of modern play equipment.

**CO3:-** Student will know about the use of computer and software in Match Analysis and Coaching.

**CO4:-** Students will able to use different modern instrument and Gadgets in sports.

## **UNIT – I**

### **1.1 SPORTS TECHNOLOGY**

- 1.1.1** Meaning, definition, purpose, advantages and applications,
- 1.1.2** General Principles and purpose of instrumentation in sports,
- 1.1.3** Workflow of instrumentation and business aspects,
- 1.1.4** Technological impacts on sports.

### **1.2 SCIENCE OF SPORTS MATERIALS**

- 1.2.1** Adhesives- Nano glue, nano moulding technology, Nano turf. Foot wear production.
- 1.2.2** Factors and application in sports, constraints.
- 1.2.3** Foams- Polyurethane, Polystyrene, Styrofoam, closed cell and open-cell foams, Neoprene, Foam.
- 1.2.4** Smart Materials – Shape Memory Alloy (SMA), Thermo chromic film, High-density modelling foam.

## **UNIT – II**

### **2.1 SURFACES OF PLAYFIELDS**

- 2.1.1** Modern surfaces for playfields, construction and installation of sports surfaces.
- 2.1.2** Types of materials – synthetic, wood, polyurethane. Artificial turf.
- 2.1.3** Modern technology in the construction of indoor and outdoor facilities.
- 2.1.4** Technology in manufacture of modern play equipment.
- 2.1.5** Use of computer and software in Match Analysis and Coaching.

## **UNIT – III**

### **3.1 MODERN EQUIPMENT**

- 3.1.1** Playing Equipments: Balls: Types, Materials and Advantages, Bat/Stick/ Racquets: Types, Materials and Advantages.
- 3.1.2** Clothing and shoes: Types, Materials and Advantages.
- 3.1.3** Measuring equipments: Throwing and Jumping Events.
- 3.1.4** Protective equipments: Types, Materials and Advantages.
- 3.1.5** Sports equipment with nano technology, Advantages.

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## UNIT – IV

### 4.1 TRAINING GADGETS

- 4.1.1 Basketball: Ball Feeder, Mechanism and Advantages.
- 4.1.2 Cricket: Bowling Machine, Mechanism and Advantages,
- 4.1.3 Tennis: Serving Machine, Mechanism and Advantages,
- 4.1.4 Volleyball: Serving Machine Mechanism and Advantages.
- 4.1.5 Lighting Facilities: Method of erecting Flood Light and measuring luminous.
- 4.1.6 Video Coverage: Types, Size, Capacity, Place and Position of Cameras in Live coverage of sporting events.

### REFERENCES:

- Charles J.A. Crane, F.A.A. and Furness, J.A.G. (1987) “Selection of Engineering Materials” UK: Butterworth Heiremann.
- Finn, R.A. and Trojan P.K. (1999) “Engineering Materials and their Applications” UK: Jaico Publisher.
- John Mongilo, (2001), “Nano Technology 101 “New York: Green wood publishing group.
- Walia, J.S. Principles and Methods of Education (Paul Publishers, Jullandhar), 1999.
- Kochar, S.K. Methods and Techniques of Teaching (New Delhi, Jullandhar, Sterling Publishers Pvt. Ltd.), 1982

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## SEMESTER – II

**Course Title APPLIED STATISTICS IN PHYSICAL  
EDUCATION AND SPORTS  
PAPER CODE: PHE710**

L	T	P	Credits	Marks
4	0	0	4	100

### **Course Objectives:-**

**CO1:-** Understand the Need and Importance of Statistics in Physical Education

**CO2:-** Types of Statistical Process.

**CO3:-** Comparison of various scales.

**CO4:-** Use of different statistical techniques in different research studies, interpret the analyzed data.

### **UNIT-I**

#### **1.1 INTRODUCTION TO STATISTICS**

- 1.1.1 Meaning, Definition, Need, Importance and uses of Statistics in Physical Education
- 1.1.2 Organization of data: meaning, methods, statistical tables, class rank orders, frequency distribution and grouping errors
- 1.1.1 Population and sample, Discrete and continuous class intervals
- 1.1.2 Graphical representation- Need, importance, principal, uses and advantages

### **UNIT-II**

#### **2.1 MEASURE OF CENTRAL TENDENCY AND MEASURES OF VARIABILITY**

- 2.1.1 Measure of Central Tendency (MCT) - Mean, Median, Mode
- 2.1.2 Definition, Meaning, characteristics, uses and computation of Mean, Median, Mode.
- 2.1.3 Significance of mean and other statistics-concept of standard error
- 2.1.4 Measure of Variability (Range, Quartile Deviation, Mean Deviation, Standard Deviation:
- 2.1.5 Definition, Meaning, characteristics, uses and computation

### **UNIT-III**

#### **3.1 NORMAL CURVE, NON-PARAMETRIC STATISTIC**

- 3.1.1 Normal Curve : Meaning and definition of normal curve
- 3.1.2 Properties of Normal Curve
- 3.1.3 Skewness and Kurtosis
- 3.1.4 Comparison of various scales Non-Parametric Statistic
- 3.1.5 Uses and application of non-parametric statistic
- 3.1.6 Computation of chi-square, rank order correlation and tetrachoric correlation

### **UNIT-IV**

#### **4.1 RELATIONSHIP AND COMPARATIVE STATISTICS**

- 4.1.1 Principles of relationship
- 4.1.2 Coefficient of correlation
- 4.1.3 Co-relation- partial and multiple
- 4.1.4 Product moment correlation

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4.1.5 t-ratio – independent and paired

4.1.6 ANOVA – one way and two way

## REFERENCES:

- Best J. W (1971) Research in Education, New Jersey; Prentice Hall, Inc
- Clark D.H. (1999) Research Problem in Physical Education 2<sup>nd</sup> edition, Eaglewood Cliffs, Prentice Hall, Inc.
- Jerry R Thomas & Jack K Nelson (2000) Research Methods in Physical Activities; Illonosis; Human Kinetics;
- Kamlesh, M. L. (1999) Reserach Methodology in Physical Education and Sports, New Delhi Rothstain
- A (1985) Research Design and Statistics for Physical Education, Englewood Cliff.

# DAV UNIVERSITY, JALANDHAR

**COURSE TITLE: SPORTS BIOMECHANICS AND KINESIOLOGY**

**PAPER CODE: PHE711**

L	T	P	Credits	Marks
4	0	0	4	100

## **Course Objectives:-**

**CO1:-** Recognize the importance and contribution of Kinesiology and Sports Biomechanics in Physical Education and sports.

**CO2:-** Understand the concepts of Linear and Angular Kinematics or Kinetics on Human movement.

**CO3:-** Recognize Factors affecting human's performance.

**CO4:-** Understand Mechanical Analysis of Fundamental Motor Skills.

## **UNIT- I**

### **1.1 INTRODUCTION**

- 1.1.1 Meaning, Definition and scope of kinesiology, Biomechanics & Sports Biomechanics
- 1.1.2 Contribution of kinesiology in Physical Education and sports
- 1.1.3 Importance of sports biomechanics in Physical Education and sports
- 1.1.4 Structural kinesiology
- 1.1.5 Fundamental concepts of plane and axes and their relationship
- 1.1.6 Kinesiological terminologies of different Body movements
- 1.1.7 Classification and characteristics of skeleton muscles
- 1.1.8 Types of muscular contraction, all and none law, reciprocal innervations, angle of pull

## **UNIT - II**

### **2.1 MUSCLES ACTION AND CONCEPT OF ANALYSIS**

- 2.1.1 origin
- 2.1.2 interaction and action
- 2.1.3 pictorial major and minor
- 2.1.4 bicep, triceps
- 2.1.5 trapezius, serratus, Sartorius, rectus femoris, abdomen and quadriceps

### **2.2 CONCEPT OF DIFFERENT ANALYSIS:**

- 2.2.1 Mechanical analysis
- 2.2.2 Biomechanical analysis (Qualitative and Quantitative analysis)
- 2.2.3 Kinesiological analysis

### **2.3 MECHANICAL ANALYSIS OF FUNDAMENTAL MOTOR SKILLS**

- 2.3.1 Walking
- 2.3.2 Running
- 2.3.3 Jumping
- 2.3.4 Throwing
- 2.3.5 Catching

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## UNIT - III

### 3.1 LINEAR KINEMATICS OF HUMAN MOVEMENT:

- 3.1.1 Linear Kinematics (Meaning, Explanation and Calculation of terms)  
Quantities: Distance and Displacement, speed and velocity, Acceleration, Vectors and scalars, units in Linear Kinematics
- 3.1.2 Projectiles: Horizontal and vertical components, parabolic path and Factors influencing projectile trajectory
- 3.1.3 Inertia
- 3.1.4 Mass and Weight
- 3.1.5 Force (Internal and External)
- 3.1.6 Momentum
- 3.1.7 Friction: Law of Friction, Types of Friction and Factors Affecting Friction.
- 3.1.8 Work, Power & Mechanical Energy (Kinetic Energy, Potential Energy and Stain Energy).
- 3.1.9 Newton's Laws of linear motion

### 3.2 ANGULAR KINEMATICS OF HUMAN MOVEMENT:

- 3.2.1 Meaning, Explanation and Calculation of terms
- 3.2.2 Angular Distance and Displacement
- 3.2.3 Angular Speed and Velocity
- 3.2.4 Units in angular kinematics (Radian and Degree)
- 3.2.5 Relationship between linear and angular motion: Linear and Angular Displacement, Linear and Angular Velocity and Linear and Angular Acceleration.
- 3.1.10 Torque, Couple, Moment of Inertia, Centripetal and Centrifugal Force
- 3.1.11 Newton's laws of angular motion
- 3.1.12 Equilibrium: Static and Dynamic Equilibrium, Factor Affecting Static and Dynamic Equilibrium and Role of Equilibrium in Sports
- 3.1.13 Levers: classes of Lever, Mechanical Advantage, Anatomical Lever and its role in sports
- 3.1.14 Center of gravity

## UNIT – IV

### 4.1 FACTORS AFFECTING HUMAN'S PERFORMANCE

- 4.1.1 Water Resistance: Flotation, Buoyancy force, Laws of flotation, Factors affecting water resistance.
- 4.1.2 Air Resistance: Surface Drag and Lift, Magnus force (Lift force) and Magnus effect
- 4.1.3 Spin : meaning, effect of spin in the air and after the bounce.
- 4.1.4 GAIT: meaning, kinetic analysis and measures
- 4.1.5 Posture
- 4.1.6 Atmosphere
- 4.1.7

### REFERENCES:

- Deshpande S.H.(2002). ManavKriyaVigyan – Kinesiology (Hindi Edition)
- Hoffman S.J. Introduction to Kinesiology (Human Kinesiology publication In.2005.
- Steven Roy, & Richard Irvin. (1983). Sports Medicine. New Jersery: Prentice hall.



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- Thomas. (2001). Manual of structural Kinesiology, New York: Me Graw Hill.
- Uppal A.K. Lawrence Mamta MP Kinesiology(Friends Publication India 2004.

# DAV UNIVERSITY, JALANDHAR

**COURSE TITLE: SPORTS MEDICINE, ATHLETIC CARE AND REHABILITATION**  
**PAPER CODE: PHE709**

L	T	P	Credits	Marks
3	0	2	4	100

## Course Objectives:-

**CO1:-** Students will be able to Explain the Role of Sports Physician, Athletic Trainer in Sports Medicine & able to know about various categories of Athletic Injuries.

**CO2:-** Students will be able to usage of different therapeutic modalities.

**CO3:-** To understand the role of Massage in the treatment and rehabilitation of sports injuries

**CO4:-** To understand about the Contribute in controlling the dope problems in Competitions.

## UNIT - I

### 1.1 INTRODUCTION:

1.1.1 Meaning, definition and importance of sports medicine

1.1.2 Definition and principals of therapeutic exercise

1.1.3 Exercises: balance training , coordination , strengthening and mobilization, gait training and gym ball.

1.1.4 Injuries: acute, sub acute and chronic, traumatic and overuse

1.1.5 Therapy: PRICE and Aquatic

1.1.6 Introduction to Athletic Rehabilitation

1.1.7 Introduction to Athletic Rehabilitation, Role of Therapeutic Exercises in Rehabilitation of musculo-skeletal athletic injuries.

## UNIT-II

### 2.1 INJURIES

2.1.1 Head injury

2.1.2 Neck injury

2.1.3 Spine injury

2.1.4 Upper limbs: shoulder injury- sprain, strain, dislocation and strapping

2.1.5 Elbow, wrist and fingers- sprain, strain, dislocation and strapping

2.1.6 Thorax injury

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2.1.7 Lower limbs, and Abdomen injury: Hip, adductor, knee, ankle and abdomen - sprain, strain, dislocation and strapping

## 2.2 THERAPEUTIC MODALITIES:

2.2.1 Introduction, therapeutic effects and uses, and contraindications of following therapeutic modalities,

2.2.2 Exercises related to Head, neck, thorax, upper and lower limbs

2.2.3 Stages of Healing, Signs of Inflammation

2.2.4 Role of Sports Physician and Athletic Trainer in Sports Medicine.

2.2.5 Cryotherapy (Ice Therapy), Short wave Diathermy, Ultra sound Therapy, Transcutaneous Nerve Stimulation, LASER Therapy

## 2.3 SPORTS MASSAGE:

2.3.1 Role of Massage in the treatment and rehabilitation of sports injuries.

2.3.2 Massage and Sports Performance, Pre-Competition and Post-Competition phase.

2.3.3 Psychological Aspect of Sports Massage.

2.3.4 Massage and Prevention of sports injuries.

## UNIT-III

### 3.1 REHABILITATION:

3.1.1 Basic rehabilitation: strapping, tapping: definition, principals, precautions, contraindications

3.1.2 Proprioceptive neuro muscular facilitation

3.1.3 Stretching: type advantage and dangers

3.1.4 Isometric, isotonic and isokinetics stretching

3.1.5 Advantages of Exercises before, during and after pregnancy

## UNIT-IV

### 4.1 DOPING

4.1.1 Dope history, definition, classification, sign and symptoms.

4.1.2 Effect and Side effects of different substances.

4.1.3 Procedure of sampling at National and International level uses and abuses of drugs.

4.1.4 Role of Manager and Coaches in controlling the dope problems.

4.1.5 Introduction about WADA and NADA.

4.1.6 Aims, Objectives, and functioning of WADA.

### Practical:

1. Visit to Physiotherapy Section of the Institute and Orientation of most commonly used Therapeutic

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Modalities (Ultrasound, Short wave Diathermy, TNS, LASER Therapy).

2. Orientation of most commonly used Massage Techniques in the treatment of sports injuries.

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- Naro, C. L. (1967) Manual of Massage and, Movement, London: Febra and Febra Ltd.
- Rathbone, J.I. (1965) Corrective Physical education, London: W.B. Saunders & Co.
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# DAV UNIVERSITY, JALANDHAR

**COURSE TITLE: TRACK AND FIELD II: JUMPING EVENTS**

**PAPER CODE: PHE715**

L	T	P	Credits	Marks
0	0	6	4	100

## **Course Objectives:-**

**CO1:-**The pass out student will be aware of historical development and important tournaments at National and International level.

**CO2:-** The student will be able to demonstrate fundamental skills of the events.

**CO3:-** The student will be able to apply gained knowledge for technical preparation for track & field events.

**CO4:-** The student will be aware about rule & regulation of the event & officiating in track and field events.

## **UNIT – I**

### **1.1 INTRODUCTION TO JUMPING EVENTS**

- 1.1.1 Classification of Jumping Events in Track & Field
- 1.1.2 Basic equipment required & their Measurement for Jumping Events
- 1.1.3 Marking Area of Jumping Events and its Measurements
- 1.1.4 Rules, Officials Required & Officiating and Scoring in Jumping Events

## **UNIT – II**

### **2.1 BASIC SKILLS JUMPING EVENTS (HIGH JUMP), (LONG JUMP) & (TRIPLE JUMP)**

- 2.1.1 **High Jump:** Candidates are assessed on the following techniques and heights:
  - a) Phases: Approach Run, Take-off, Flight (bar clearance) and, Landing
  - b) Style: Scissors, Straddle, Fosbury flop or Any other conventional styles
- 2.1.2 **Long Jump:** Candidates are assessed on the following techniques and distances:
  - a) Phases: Approach Run, Take-off, flight, Landing.
  - b) Style: Hang, Sail, Hitch-Kick or Any other conventional styles
- 2.1.3 **Triple Jump:** Candidates are assessed on the following techniques and distances:
  - a) Phases: Approach Run, Sequence (Hop/Step/Jump), Flight, Landing
  - b) Style: Hop, Step, Jump
- 2.1.4 **Hurdling:** Specification of the hurdle height as per event distance, gender & age.
  - a) Phases: The Start and Approach, Hurdle Clearance, Leg Action & Arm Action, Running Between Hurdles
  - b) Style: The Take Off – (Attacking the Hurdle), Transition – (Over the Hurdle), Touchdown – (Back to Running)

## **REFERENCES:**

- Doherty, J., Track and Field, Engle wood Cliffs: Prentice Hall Inc.
- Dyoon and Geoffray, G.H., (1962) The Mechanics of Athletics London: University of London Press Ltd.
- Ken O Bosen, Track and Field Fundamental Techniques, Patiala: MS Publications.Handbook, AAFI, New Delhi.
- Rogres, L. Joseph., Track & Field Coaching Manual, USA: Herman Kinetics.

# DAV UNIVERSITY, JALANDHAR

**COURSE TITLE: GAMES SPECIALIZATION- II**  
**PAPER CODE: PHE749**

L	T	P	Credits	Marks
0	0	6	4	100

## Course Objectives:-

**CO1:-** The pass out student will be aware of historical development and important tournaments at National and International level.

**CO2:-** The student will be able to demonstrate fundamental skills of the game

**CO3:-** The pass out student will be able to apply gained knowledge for tactical and technical preparation for sports competition.

**CO4:-** The student will be able to deliver his/her duties as an official to conduct a match.

## UNIT-I

### 1.1 HISTORICAL DEVELOPMENT

**1.1.1** Historical Development of the sports at National and International level.

**1.1.2** Important Tournament/Competition held at National and International level

## UNIT-II

### 2.1 FUNDAMENTAL SKILLS

**2.1.1** Fundamental Skills of the sport.

**2.1.2** Warming Up—General, Specific, Cooling Down,

**2.1.3** Physiological basis of warming up and cooling down.

## UNIT-III

### 3.1 TECHNIQUE & TACTICAL PREPARATION

**3.1.1** Tactical Preparation for sports.

**3.1.2** Strategies and their Applications.

**3.1.3** Importance of Psychological preparation and its methods.

## UNIT-IV

### 4.1 SPORTS SPECIFIC SKILL

**4.1.1** Sports Specific Skill Test.

**4.1.2** Knowledge of rules and regulations.

**4.1.3** Duties of official & conduct of official match.

## Practical:

**1.** Draft preparation, supplementary to improve fundamental skills.

**2.** Sport Specific skill test.

**3.** Test for Motor components.

**4.** Filling up score sheets.

**5.** Officiating in competition.(rules and signals)

# DAV UNIVERSITY, JALANDHAR

**COURSE TITLE: SPORTS JOURNALISM AND MASS MEDIA**  
**PAPER CODE: PHE713**

L	T	P	Credits	Marks
4	0	0	4	100

## Course Objectives:-

**CO1:-** Student will analyze the Ethics & Canons in sports.

**CO2:-** They discuss the concepts of Print Journalism.

**CO3:-** Have knowledge of Sports bulletin.

**CO4:-** Analyze the role of mass media on sports & prepare report on sports.

## UNIT - I

### 1.1 INTRODUCTION TO JOURNALISM

- 1.1.1 Ethics of Journalism
- 1.1.2 Canons of journalism
- 1.1.3 Definition & Function of Mass Communication.
- 1.1.4 Difference between Communication & Mass Communication.
- 1.1.5 Effect & Scope of Mass Communication
- 1.1.6 Sports Ethics and Sportsmanship
- 1.1.7 Reporting Sports Events.

### 1.2 National and International Sports News Agencies.

### 1.3 PRINT JOURNALISM

- 1.3.1 Definition of news values, news writing, 5Ws and 1H,
- 1.3.2 Inverted pyramids and hourglass structure of news
- 1.3.3 Radio and TV journalism: Language of camera, camera movements, basic shots, transitions, camera perspective and camera compositions
- 1.3.4 Basic script writing skills
- 1.3.5 Changing concepts of news in contemporary scenario

## UNIT - II

### 2.1 SPORTS BULLETIN

- 2.1.1 Concept of Sports Bulletin
- 2.1.2 Structure of sports bulletin
- 2.1.3 Compiling a bulletin
- 2.1.4 Types of bulletin
- 2.1.5 Role of Journalism in the Field of Physical Education
- 2.1.6 Sports organization and sports journalism
- 2.1.7 General news reporting and sports reporting.

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## UNIT - III

### 3.1 WRITING SKILL FOR MEDIA

- 3.1.1 Print: Fundamentals of sports story, advance story, follow up, analysis, columns, interpretive writing, box items, features and interviews
- 3.1.2 Broadcast: Curtain raiser, commentators, hosts, anchors, panel discussions and interviews, talk shows and sports features
- 3.1.3 Production of sports programs: Pre- Production, Production and Post- Production

### 3.2 ORGANISATION

- 3.2.1 Organisational structure of a newspaper and functions of various departments
- 3.2.2 Organisational structure of radio and TV organisation and functions of various departments
- 3.2.3 Importance of design/ makeup. Significance of pictures and illustrations in sports news
- 3.2.4 Writing captions and photo features

## UNIT- IV

### 4.1 EXTENDED RELEVANT DIMENSIONS

- 4.1.1 Role of Public Relations,
- 4.1.2 Promotion and Advertising Press Release,
- 4.1.3 Press Conference, Exhibitions, Event Management
- 4.1.4 Sports coverage of special events: Olympics, World Cups, Asian Games etc
- 4.1.5 Relevance of research in sports: computer assisted reporting,
- 4.1.6 Importance of statistics and records
- 4.1.7 Methods of editing a Sports report.
- 4.1.8 Evaluation of Reported News.
- 4.1.9 Interview with and elite Player and Coach.
- 4.1.10 Recent trends & tools

### REFERENCES:

- Ahuja, B.N., Theory and Practice of Journalism, Delhi : Surjeet, 1988.
- Aster, J.J., Art of Modern Journalism, Focal Press, 1988.
- Bromley, M., Journalism, Hodder to ughton, 1994.
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- Ahiya B.N. Chobra S.S.A. (1990) Concise Course in Reporting. New Delhi: Surjeet Publication
- Bhatt S.C. (1993) Broadcast Journalism Basic Principles. New Delhi. Haranand Publication
- Dhananjay Joshi (2010) Value Education in Global Perspective. New Delhi: Lotus Press.
- Kannan K (2009) Soft Skills, Madurai: Madurai: Yadava College Publication
- Mohit Chakrabarti (2008): Value Education: Changing Perspective, New Delhi: Kanishka Publication,.
- Padmanabhan. A & Perumal A (2009), Science and Art of Living, Madurai: Pakavathi Publication



# DAV UNIVERSITY, JALANDHAR

**COURSE TITLE: SPORTS MANAGEMENT & CURRICULUM  
DESIGN IN PHYSICAL EDUCATION  
PAPER CODE: PHE**

L	T	P	Credits	Marks
4	0	0	4	100

## Course Objectives:-

**CO1:-** Students will aware about the basic principles and importance of Sports Management and planning a school or college sports Programme.

**CO2:-** Student will able to Planning and organizing public relations programme and elaborate the steps in Budget making.

**CO3:-** Steps to acquire Sponsorship and list the steps in program development in sports.

**CO4:-** Analyze the guidelines for purchase and supplies of equipment.

**CO5:-** Student will able to prepare curriculum for physical education.

## UNIT- I

### 1.1 INTRODUCTION TO SPORT MANAGEMENT

- 1.1.1 Introduction to Sports Management Definition & Importance.
- 1.1.2 Basic Principles and Procedures of Sports Management.
- 1.1.3 Functions of Sports Management.
- 1.1.4 Personal Management: Objectives of Personal Management, Personal Policies,
- 1.1.5 Role of Personal Manager in an organization, Personnel recruitment and selection

### 1.2 SPORT ORGANIZATION AND LEADERSHIP

- 1.2.1 Structure and Design of sport organization
- 1.2.2 Influences on the structure of the sport organization
- 1.2.3 Management- Management functions, Identification of managerial roles
- 1.2.4 Unique characteristics of human resource management in sport

### 1.3 SPORTS MANAGEMENT IN SCHOOLS, COLLEGES AND UNIVERSITIES:

- 1.3.1 Planning a school or college sports Programme.
- 1.3.2 Directing of school or college sports Programme.
- 1.3.3 Controlling a school, college and University Sports programme.
- 1.3.4 Developing performance standard.
- 1.3.5 Establishing a reporting system.
- 1.3.6 Evaluation.
- 1.3.7 The reward/punishment system.

### 1.4 PUBLIC RELATIONS

- 1.4.1 Meaning, Definitions, Principles,
- 1.4.2 Planning and organizing public relations programme

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## UNIT - II

### 2.1 FINANCIAL MANAGEMENT

- 2.1.1 Education & Sports in Schools Colleges and Universities.
- 2.1.2 Strategic Management.
- 2.1.3 Fiscal Management.
- 2.1.4 Accounting-Cost accounting, control
- 2.1.5 Auditing.
- 2.1.6 Funds Discretionary funds.
- 2.1.7 Criteria of good Budget, Steps in Budget making
- 2.1.8 Concept of Sponsorship. Factors that stimulate Sponsorship.

### 2.2 Steps to acquire Sponsorship

### 2.3 CLASS MANAGEMENT

- 2.3.1 Class management: Meaning, Steps in class management: Strength of class, Place and time, Uniform, Class formation, Safety measures and Discipline
- 2.3.2 Principles of class management

### 2.4 FACILITIES MANAGEMENT

- 2.4.1 Types of facility/infrastructure-indoor, outdoor.
- 2.4.2 Playfield: Area, Location, Layout and Care

### 2.5 EQUIPMENT'S MANAGEMENT:

- 2.5.1 Need, Importance, Purchase, Care and Maintenance

## UNIT – III

### 3.1 ORGANISATION OF TOURNAMENTS

- 3.1.1 Tournament organization: Types of Tournament-Knock out or Elimination, League or Round Robin, Combination, Consolation, Challenge Tournaments

### 3.2 INTRAMURAL/ EXTRAMURAL COMPETITIONS:

- 3.2.1 Meaning and Importance of Intramural/Extramural
- 3.2.2 Objectives of Intramural/Extramural,
- 3.2.3 Conduct of Intramural /Extramural

### 3.3. PROCESS OF ORGANIZING SPORTS EVENTS,

- 3.3.1 Notifications, Invitations, Selection of officials, Monitoring, Writing reports, maintaining records.
- 3.3.2 Facility and Event management in sport

## UNIT- IV

### 4.1 MEANING AND DEFINITION OF CURRICULUM.

- 4.1.1 Principles of Curriculum Construction: Students centred, Activity centred, Community centred, forward looking principle, Principles of integration, Theories of curriculum development, Conservative (Preservation of Culture), Relevance, flexibility, quality, contextually and plurality.
- 4.1.2 Approaches to Curriculum; Subject centred, Learner centred and Community centred, Curriculum Framework.
- 4.1.3 Curriculum Sources: Factors that affecting curriculum: Sources of Curriculum materials – text books – Journals – Dictionaries, Encyclopaedias, Magazines, Internet. Integration of Physical Education with other Sports Sciences – Curriculum research, Objectives of Curriculum research – Importance of Curriculum research. Evaluation of Curriculum, Methods of evaluation.

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## REFERENCES:

- Bonnie L, Park House: The Management of Sports (1991) Mosby Year Book, Inc. 11830 Westline Industrial Drive, Saint Luis, MO 63146. Publisher:” Edward F. Murphy.
- Charles A. Bucher, Management of Physical education and Athletic Programmes (1987), Louis C.B.Mosby. Co.
- Aggarwal, J.C (1990). Curriculum Reform in India – World overviews, Doaba World Education Series – 3 Delhi: Doaba House, Book seller and Publisher.
- Arora, G.L. (1984): Reflections on Curriculum, New Delhi: NCERT.
- Bonnie, L. (1991). The Management of Sports. St. Louis: Mosby Publishing Company, Park House.
- Bucher A. Charles, (1993) Management of Physical Education and Sports (10<sup>th</sup> ed.,) St. Louis: Mobsy Publishing Company.
- Carl, E, Willgoose. (1982. Curriculum in Physical Education, London: Prentice Hall.
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# DAV UNIVERSITY, JALANDHAR

## SEMESTER - III

**COURSE TITLE: SCIENCE OF SPORTS TRAINING**  
**PAPER CODE: PHE800**

L	T	P	Credits	Marks
4	0	0	4	100

### **Course Objectives:-**

**CO1:-** Students will be able to understand the meaning, objective, aim and principles of sports training.

**CO2:-** Students will be able to understand the process of training load and their principles.

**CO3:-** To make students familiar with the concept of components of physical fitness types and their method of development.

**CO4:-** To make students aware about the concept of techniques, phases of skills, tactics, strategy and its methods.

**CO5:-** To enable the students to know about periodization in training, concept of planning and fundamental of competition in sports training.

### **UNIT - I**

#### **1.1 INTRODUCTION TO SPORTS TRAINING**

- 1.1.1 Meaning, definition and Nature of Sports Training and Coaching.
- 1.1.2 Aims and Tasks of Sports Training.
- 1.1.3 Characteristics of Sports Training.
- 1.1.4 Principles of Sports Training.
- 1.1.5 Training means.
- 1.1.6 Definition of terms: - Conditioning, Training, and Coaching

#### **1.2 TRAINING LOAD, ADAPTATION & RECOVERY**

- 1.2.1 Features of training load.
- 1.2.2 Importance features of training load: - Intensity, Density, Duration, and Frequency.
- 1.2.3 Principles of training Load.
- 1.2.4 Over Load, Meaning, Causes, Symptoms and Talking of over Load.
- 1.2.5 Adaptation process and condition of Adaptation.
- 1.2.6 Remedial Measures – Super Compensation – Altitude Training – Cross Training
- 1.2.7 Relationship of load and recovery, physiotherapeutic and psychological means of Recovery

### **UNIT – II**

#### **2.1 BIO-MOTOR ABILITIES AND THEIR DEVELOPMENT**

- 2.1.1 Strength: - Forms of strength, characteristics of strength, Principles of strength, strength training means and methods, strength training for children and women.
- 2.1.2 Endurance: - Forms of endurance, characteristics of endurance, Principles of endurance, endurance training means and methods.
- 2.1.3 Speed: - Forms of speed, characteristics of speed, Principles of speed, basics of speed, speed training means and methods.

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- 2.1.4 Flexibility: - Forms of flexibility, characteristics of flexibility, Principles of flexibility, basics of flexibility, flexibility training means and methods.
- 2.1.5 Coordination Abilities: - characteristics of Coordination, Principles of Coordination, basics of Coordination, Coordination training means and methods.

## UNIT - III

### 3.1 TECHNIQUE, TACTICS AND STRATEGY

- 3.1.1 Technique
- 3.1.2 Definition of Skill and Style.
- 3.1.3 Characteristics of Technique.
- 3.1.4 Factor affecting Technique.
- 3.1.5 Phases of skill acquisition.
- 3.1.6 Methods of Technical Training.
- 3.1.7 Causes and correction of faults.

### 3.2 TACTICS AND STRATEGY

- 3.2.1 Definition of tactics and strategy.
- 3.2.2 Basic tactical concept-offensive, Defensive and high performance.
- 3.2.3 Methods of tactical Training.
- 3.2.4 Control of tactical Training.

## UNIT - IV

### 4.1 PERIODISATION, PLANNING, COMPETITIONS AND TALENT IDENTIFICATION.

- 4.1.1 Periodization-Meaning & Types of Periodization,
- 4.1.2 Contents of training for different period.
- 4.1.3 Importance and Principles of Planning.
- 4.1.4 Systems of Planning.
- 4.1.5 Importance of competitions
- 4.1.6 Competition Frequency
- 4.1.7 Direct Preparation for a competition
- 4.1.8 Talent Identification: Methods, Criteria, Factors and Phases of Talent Identification
- 4.1.9 Definition of competition.
- 4.1.10 Long term Psychological Preparation-Psychological skills training.
- 4.1.11 Short term Psychological training.
- 4.1.12 Psycho-regulative techniques
  - 4.1.12.1 Relaxation techniques: - Autogenic, Progressive, relaxation and Mediation.
  - 4.1.12.2 Activation techniques: - Mental Imagery, Pep talk and Self Verbalization.

## REFERENCES :

- BeotraAlka, (2000), Drug Education Handbook on Drug Abuse in Sports. Delhi: SportsAuthority of India.
- Bunn, J.N. (1998) Scientific Principles of Coaching, New Jersey Engle Wood Cliffs, PrenticeHall Inc.
- Cart, E. Klafs&Daniel, D. Arnheim (1999) Modern Principles of Athletic Training St. LouisC. V. Mosphy Company
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- Jensen, C.R. & Fisher A.G. (2000) Scientific Basic of Athletic Conditioning, Philadelphia
- Ronald, P. Pfeiffer (1998) Concepts of Athletics Training 2<sup>nd</sup> Edition, London: Jones andBartle

# DAV UNIVERSITY, JALANDHAR

**COURSE TITLE: SPORTS INDUSTRY AND MARKETING**  
**PAPER CODE: PHE831**

L	T	P	Credits	Marks
4	0	0	4	100

## **Course Objectives:-**

- CO1:-** Analyze the basic marketing principles.
- CO2:-** Illustrate the theory of demand and supply in sports industry.
- CO3:-** Use of research processes in sports marketing.
- CO4:-** Understand production and Marketing concepts.

## **UNIT-I**

### **1.1 INTRODUCTION OF SPORTS INDUSTRY AND MARKETING**

- 1.1.1 Evolution, growth and scope of sports industry and sports marketing
- 1.1.2 Structure of sports industry
- 1.1.3 Framework of sports marketing

## **UNIT-II**

### **2.1 ECONOMICS OF SPORTS INDUSTRY**

- 2.1.1 Definition, meaning and scope of economics in sports
- 2.1.2 Theory of demand and supply in sports industry
- 2.1.3 Fiscal problems in sports management
- 2.1.4 Major components of sports industry

## **UNIT-III**

### **3.1 RESEARCH PROCESSES IN SPORTS MARKETING**

- 3.1.1 Selection of problem or opportunity
- 3.1.2 Research tools for selecting potential market
- 3.1.3 Research design type and data collection techniques
- 3.1.4 Data analysis and final report.

## **UNIT-IV**

### **4.1 PRODUCTION AND MARKETING**

- 4.1.1 Concept of sports product; new product; life cycle of product
- 4.1.2 Pricing concepts and strategies
- 4.1.3 Distribution concepts and sponsorship programmes
- 4.1.4 Promotion planning; advertising and personal selling

### **4.2 LEGAL IMPLICATIONS**

- 4.2.1 Constitution and registration of firms
- 4.2.2 Consumer rights – guarantee, warranty, after-sales service and insurance
- 4.2.3 Patent, royalty and approval.
- 4.2.4 Laws pertaining to sports industry and marketing



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## REFERENCES :

- Allen, L.A. Management & Organization. Kogakusha Co. Tokyo, 1988.
- Hert, Renis, New Patterns of Management, McGraw Hill, 1961.
- Sivia, G.S. Sports Management in Universities, New Delhi: A.I.U. Deen Dayal Upadhyaya Marg, 1991.
- Sandhu, K. Sports Dynamics: Psychology, Sociology and Management

# DAV UNIVERSITY, JALANDHAR

**COURSE TITLE: HEALTH EDUCATION AND SPORTS  
NUTRITION**  
**PAPER CODE: PHE803**

L	T	P	Credits	Marks
4	0	0	4	100

## Course Objectives:-

**CO1:-** Students will be able to understand concept of health & health education, aim, Objectives, principles & approaches of Health education. Able to know about medical care in rural & urban area & also the three tier system of health.

**CO2:-** Students will be able to know role of heredity & genetics in achieving positive health & use of audiovisual aids.

**CO3:-** Enable the students, to know about the School Health services, programmers, hygiene, community & Environmental pollution & different population policy.

**CO4:-** To understand the Nutrition & nutritional disease & different communicable disease & non-communicable disease.

## UNIT – I

### 1.1 HEALTH

- 1.1.1 Concept of Health.
- 1.1.2 History of Health in India.
- 1.1.3 Various levels of Health Care in India.
- 1.1.4 Role of heredity and genetics in achieving positive health.
- 1.1.5 Medical Care in Rural and Urban areas. Primary Health Centre Concept, Three tier system of Health Care.
- 1.1.6 Health for All by 2010 A.D.

### 1.2 HEALTH EDUCATION

- 1.2.1 Meaning of Health Education.
- 1.2.2 Aim and contents of Health Education.
- 1.2.3 Principles of Health Education.
- 1.2.4 Approaches of Health Education.
- 1.2.5 Latest trends in Health Education.
- 1.2.6 Communication in Health Education.
- 1.2.7 Use of Audiovisual Aids, methods of single, Group approaches of Health Education.
- 1.2.8 Interrelationship between different component of Health and spiritual Health.
- 1.2.9 Role and Responsibility of individual, and Community.
- 1.2.10 State of Health and Spectrum of Health.
- 1.2.11 Role of heredity and Genetics in Achieving Positive Health.

## UNIT – II

### 2.1 SCHOOL HEALTH SERVICES AND SCHOOL HEALTH PROGRAMME IN RELATION TO THE FOLLOWING:

- 2.1.1 Meaning and objectives of school Health Services and School Health Program me.
- 2.1.2 Aspects of School Health Services- - Health Appraisal (Meaning, Aims and Objectives) - Medical Examination. - Common Childhood diseases and their control. - First-aid and accident Prevention. - Nutritional Services. - Mental health, Dental health and Eye

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health. - School Health records.

## 2.1.3 Healthful School Environment

2.1.3.1 Meaning of Healthful School Environment.

2.1.3.2 Points to be kept in mind for Healthful School Environment.

## 2.1.4 Role of Physical Education Teacher.

2.1.5 Role of Physical Education Teacher in relation to school health services and healthful school environment.

## 2.2 HYGIENE, COMMUNITY AND ENVIRONMENTAL SANITATION

2.2.1 Meaning of Hygiene, Types of Hygiene

2.2.2 Housing and its problems and Health Aspect: Water Pollution, Air Pollution, Noise and Temperature.

2.2.3 Population policy, Population Dynamics and Population explosion.

2.2.3.1 National Family Welfare Programme.

2.2.3.2 Sex Education.

2.2.3.3 Drugs and Alcoholism.

## UNIT- III

### 3.1 NUTRITION AND NUTRITIONAL DISEASE

3.1.1 Meaning of food, nutrient and nutrition.

3.1.2 Brief description of different nutrients and their role.

3.1.3 Balanced diet.

3.1.4 Nutritional disease.

3.1.5 Food Hygiene.

3.1.6 Malnutrition, adulteration and food additives.

3.1.7 Athletic Nutrition factors affecting the athlete's dietary requirement. Planning and justification of athletic diet for different categories of Sports.

3.1.8 Role of water and vitamin B for the athletes.

## UNIT – IV

### 4.1 COMMUNICABLE AND NON COMMUNICABLE DISEASES

4.1.1 Meaning and epidemiological approach of communicable diseases.

4.1.2 Brief description of following **communicable diseases** and their prevention.

4.1.2.1 Tuberculosis.

4.1.2.2 Chicken Pox, Measles and Mumps,

4.1.2.3 Malaria and Filaria.

4.1.2.4 Rabies.

4.1.2.5 STD and AIDS.

4.1.2.6 Hepatitis (Jaundice)

4.1.3 **Non-communicable diseases.**

4.1.3.1 Meaning of Non-communication diseases.

4.1.3.2 Brief description of following non-communicable diseases and their prevention.

4.1.3.3 Heart Disease.

4.1.3.4 Cancer.

4.1.3.5 Diabetes.

## REFERENCES:

- Bucher, Charles A. "Administration of Health and Physical Education Programme".

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- Ghosh, B.N. "Treaties of Hygiene and Public Health".
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# DAV UNIVERSITY, JALANDHAR

**COURSE TITLE: TRACK AND FIELD III:  
THROWING EVENTS/  
GYMNASTICS/SWIMMING  
PAPER CODE: PHE806**

L	T	P	Credits	Marks
0	0	6	4	100

## Course Objectives:-

**CO1:-**The pass out student will be aware of historical development and important tournaments at National and International level.

**CO2:-** The student will be able to demonstrate fundamental skills of the events.

**CO3:-** The student will be able to apply gained knowledge for technical preparation for track & field events.

**CO4:-** The student will be aware about rule & regulation of the event & officiating in track and field events.

## UNIT – I

### 1.1 INTRODUCTION TO THROWING EVENTS

- 1.1.1 Classification of Throwing Events in Track & Field
- 1.1.2 Basic equipment required & their Measurement for Throwing Events
- 1.1.3 Marking Area of Throwing Events and its Measurements
- 1.1.4 Rules, Officials Required & Officiating and Scoring in Throwing Events

## UNIT - II

- 2.1 **Shot put (O'Brien technique)** – Grip, Stance Glide, Release and Reserve.  
(Disco-put technique) – Grip, Stance Glide, Release and Reserve.
- 2.2 **Discus throw** – Grip, Stance, Release and Reserve.
- 2.3 **Javelin Throw** - Grip, carrying the Javelin, Approach, Delivery, Release and Reserve.
- 2.4 **Hammer Throw** – Grip, carrying the Javelin, Approach, Delivery, Release and Reserve.

## REFERENCES:

- Doherty, J., Track and Field, Engle wood Cliffs: Prentice Hall Inc.
- Dyoon and Geoffray, G.H., (1962) The Mechanics of Athletics London: University of London Press Ltd.
- Ken O Bosen, Track and Field Fundamental Techniques, Patiala: MS Publications. Handbook, AAFI, New Delhi.
- Rogres, L. Joseph., Track & Field Coaching Manual, USA: Herman Kinetics.

# DAV UNIVERSITY, JALANDHAR

**COURSE TITLE: GAMES SPECIALIZATION- III**

**PAPER CODE: PHE807**

L	T	P	Credits	Marks
0	0	6	4	100

## **Course Objectives:-**

**CO1:-** The pass out student will be aware of historical development and important tournaments at National and International level.

**CO2:-** The student will be able to demonstrate fundamental skills of the game

**CO3:-** The pass out student will be able to apply gained knowledge for tactical and technical preparation for sports competition.

**CO4:-** The student will be able to deliver his/her duties as an official to conduct a match.

## **UNIT-I**

### **1.1 HISTORICAL DEVELOPMENT**

**1.1.3** Historical Development of the sports at National and International level.

**1.1.4** Important Tournament/Competition held at National and International level

## **UNIT-II**

### **2.2 FUNDAMENTAL SKILLS**

**2.2.1** Fundamental Skills of the sport.

**2.2.2** Warming Up–General, Specific, Cooling Down,

**2.2.3** Physiological basis of warming up and cooling down.

## **UNIT-III**

### **3.2 TECHNIQUE & TACTICAL PREPARATION**

**3.1.1** Tactical Preparation for sports.

**3.1.4** Strategies and their Applications.

**3.1.5** Importance of Psychological preparation and its methods.

## **UNIT-IV**

### **4.2 SPORTS SPECIFIC SKILL**

**4.2.1** Sports Specific Skill Test.

**4.2.2** Knowledge of rules and regulations.

**4.2.3** Duties of official & conduct of official match.

## **Practical:**

**1.** Draft preparation, supplementary to improve fundamental skills.

**2.** Sport Specific skill test.

**3.** Test for Motor components.

**4.** Filling up score sheets.

**5.** Officiating in competition.(rules and signals)

# DAV UNIVERSITY, JALANDHAR

**COURSE TITLE: INTERNSHIP**

**PAPER CODE: PHE812**

L	T	P	Credits	Marks
0	0	0	4	100

## **Course Objectives:-**

**CO1:-** Have practical learning experience of teaching indigenous activities and sports and also theory lessons.

### **TEACHING LESSONS OF INDIGENIOUS ACTIVITIES AND SPORTS**

The students of M.P.Ed – III Semester need to develop proficiency in taking teaching classes in indigenous activities and sport under school situation. In view of this, the students shall be provided with teaching experience. The duration of the lesson to be conducted by these students shall be in the range of 30 to 40 minutes depending on the class they are going to handle at school and college level.

Each student teacher is expected to take at least five lessons during the course of the third semester. The lessons will be supervised by the faculty members and experts who would discuss the merits and demerits of the concerned lesson and guide them for the future. In these lessons, the duration should slowly increase and all the parts of the lesson covered progressively.

### **(LESSONS ON THEORY OF DIFFERENT SPORTS & GAMES)**

The students of M.P.Ed – III Semester need to develop proficiency in taking teaching lessons as per selected games and sport or game specialization. In view of this, the students shall be provided with selected or specialized game teaching experience. The duration of the lesson to be conducted by these students shall be in the range of 30 to 40 minutes depending on the class time they are going to handle at school and college level.

Each student teacher is expected to take at least five lessons during the course of the third semester. The lessons will be supervised by the faculty members and experts who would discuss the merits and demerits of the concerned lesson and guide them for the future. In these teaching lessons, the duration should slowly increase and all the parts of the lesson covered progressively.

## DAV UNIVERSITY, JALANDHAR

L	T	P	Credits	Marks
0	0	4	2	50

**Course Title: Community Service**

**Paper Code: PHE830**

### **Course Objectives:-**

**CO1:-** Develop sense of responsibility towards the community.

**CO2:-** Understand and application to sustainable development.

Cleanliness of the Campus

Cleanliness of the surrounding of the campus.

Maintenance of the Play fields

Swaach Bharat Mission

Fit India Movement

Green India movement

Training and Coaching of different games to the children/aspirants of the nearby place.

Preparation of project report and submission of the work.



# DAV UNIVERSITY, JALANDHAR

**COURSE TITLE: SPORTS ENGINEERING**  
**PAPER CODE: PHE**

L	T	P	Credits	Marks
4	0	0	4	100

## Course Objectives:-

**CO1:-** Elaborate human motion detection and recording in Physical Education

**CO2:-** Understand the concepts of biomechanics of daily and common activities

**CO3:-** Know about building and maintenance of various sports infrastructures

**CO4:-** Illustrate the sports infrastructure building process & Have knowledge about maintenance of infrastructure.

## UNIT – I

### 1.1 INTRODUCTION

- 1.1.1 Meaning of sports engineering,
- 1.1.2 Human motion detection and recording,
- 1.1.3 Human performance, assessment, equipment and facility designing
- 1.1.4 Sports related instrumentation and measurement.
- 1.1.5 Concept of internal force, axial force, shear force, bending movement, torsion,
- 1.1.6 Energy method to find displacement of structure,
- 1.1.7 Strain energy.

## UNIT – II

### 2.1 BIOMECHANICS OF COMMON ACTIVITIES

- 2.1.1 Biomechanics of daily and common activities –Gait, Posture, Body levers, ergonomics,
- 2.1.2 Mechanical principles in movements such as lifting, walking, running, throwing, jumping, pulling, pushing etc.
- 2.1.3 Introduction to Dynamics, Kinematics to particles – rectilinear and plane curvilinear motion coordinate system.
- 2.1.4 Kinetics of particles – Newton's laws of Motion, Work, Energy, Impulse and momentum.

## UNIT- III

### 3.1 CONCEPTS IN SPORTS INFRASTRUCTURE

- 3.1.1 Sports Infrastructure- Gymnasium, Pavilion, Swimming Pool, Indoor Stadium, Outdoor Stadium, Play Park, Academic Block, Administrative Block, Research Block, Library, Sports Hostels, etc.
- 3.1.2 Requirements: Air ventilation, Day light, Lighting arrangement, Galleries, Store rooms, Office, Toilet Blocks (M/F), Drinking Water, Sewage and Waste Water disposal system, Changing Rooms ( M/F), Sound System (echo-free),
- 3.1.3. Internal arrangement according to need and nature of activity to be performed, Corridors and Gates for free movement of people,
- 3.1.4 Emergency provisions of lighting, fire and exits,
- 3.1.5 Eco-friendly outer surrounding.
- 3.1.6 Maintenance staff and financial consideration.

# DAV UNIVERSITY, JALANDHAR

## UNIT- IV

### 4.1 INFRASTRUCTURE BUILDING PROCESS & MAINTENANCE POLICY

4.1.1 Building process: - design phase (including brief documentation), construction phase functional (occupational) life, Re-evaluation, refurbish, demolish.

4.1.2 Maintenance policy, preventive maintenance, corrective maintenance, record and register for Maintenance

4.1.3 Basics of theoretical analysis of cost, total life cost concepts, maintenance costs, energy cost, capital cost and taxation

### REFERENCE

- Franz K. F. et. al., Editor, Routledge Handbook of Sports Technology and Engineering (Routledge, 2013).
- Steve Hake, Editor, The Engineering of Sport (CRC Press, 1996)
- Franz K. F. et. al., Editor The Impact of Technology on Sports II (CRC Press, 2007)
- Helge N., Sports Aerodynamics (Springer Science & Business Media, 2009)
- Youlin Hong, Editor Routledge Handbook of Ergonomics in Sport and Exercise (Routledge, 2013)
- Jenkins M., Editor Materials in Sports Equipment, Volume I (Elsevier, 2003)
- Colin White, Projectile Dynamics in Sport: Principles and Applications Eric C. et al., Editor Sports Facility Operations Management (Routledge, 2010)

# DAV UNIVERSITY, JALANDHAR

**COURSE TITLE: PHYSICAL FITNESS AND WELLNESS**  
**PAPER CODE: PHE805**

L	T	P	Credits	Marks
4	0	0	4	100

## Course Objectives:-

**CO1:-** Explain the concepts, technique and components of Physical fitness

**CO2:-** Elaborate the various Fitness programs (Aerobic and Anaerobic)

**CO3:-** Understand various health hazards, stress and injury management

**CO4:-** Explain the meaning definition, various types of obesity and analyze the utility of exercise in maintaining good health and managing weight.

## UNIT- I

### 1.1 INTRODUCTION

- 1.1.1 Meaning and concept of fitness and wellness
- 1.1.2 Components of Physical fitness
- 1.1.3 Health Related
- 1.1.4 Motor Skill Related Components of wellness
- 1.1.5 Factors affecting Physical Fitness and Wellness
- 1.1.6 Principles of Physical Fitness and Wellness
- 1.1.7 Importance of fitness and wellness in present scenario

## UNIT - II

### 2.1 FITNESS PROGRAMME

- 2.1.1 Means of Fitness Development: Aerobic Activities (walking, bicycling, jogging and running, swimming, indoor fitness, home gym, stretching, strengthening, circuit training, participation in games and sports)
- 2.1.2 Benefits of fitness programme
- 2.1.3 Exercise Prescription: Mode of exercise, exercise frequency, exercise duration, exercise intensity.
- 2.1.4 Exercise Programme: warm-up and stretching activities, training work, cool-down and stretching activities, recreational part.

### 2.2 AEROBIC AND ANAEROBIC EXERCISE

- 2.2.1 Difference between aerobic and anaerobic fitness,
- 2.2.2 aerobic and anaerobic metabolic threshold,
- 2.2.3 Health benefits of aerobic and anaerobic exercise,
- 2.2.4 calculation to aerobic and anaerobic training zone,
- 2.2.5 Monitoring of heart rates during activity.
- 2.2.6 Assessment of aerobic and anaerobic fitness,
- 2.2.7 aerobic and anaerobic training methods,
- 2.2.8 goal setting to maintain or improve aerobic and anaerobic fitness levels.

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## UNIT- III

### 3.1 HEALTH HAZARDS, STRESS AND INJURY MANAGEMENT

- 3.1.1 Hazards of substance abuse: smoking, alcohol & tobacco
- 3.1.2 Valuable use of leisure time
- 3.1.3 Emphasis on proper rest, sleep and dreams
- 3.1.4 Healthy Living and positive lifestyle
- 3.1.5 Wellness of mind, body and soul
- 3.1.6 Stress: meaning, causes and management
- 3.1.7 Staying safe & preventing injuries

## UNIT- IV

### 4.1 OBESITY AND WEIGHT MANAGEMENT

- 4.1.1 Obesity
- 4.1.2 Meaning, definition and types of obesity – causes, prevention and general treatment
- 4.1.3 Health problems associated with obesity and excessive weight
- 4.1.4 Body Mass Index

### 4.2 WEIGHT MANAGEMENT

- 4.2.1 Concept of BMI (Body mass index),
- 4.2.2 Obesity and its hazard,
- 4.2.3 Dieting versus exercise for weight control,
- 4.2.4 Maintaining a Healthy Lifestyle,
- 4.2.5 Weight management program for sporty child,
- 4.2.6 Role of diet and exercise in weight management,
- 4.2.7 Design diet plan and exercise schedule for weight gain and loss.

## REFERENCES:

- David K. Miller & T. Earl Allen, Fitness, A life time commitment, Surjeet Publication Delhi 1989.
- Difcore Judy, the complete guide to the postnatal fitness, A & C Black Publishers Ltd. 35 Bedford row, London 1998
- Dr. A.K. Uppal, Physical Fitness, Friends Publications (India), 1992.
- Warner W.K. Oeger & Sharon A. Hoeger, Fitness and Wellness, Morton Publishing Company, 1990.
- Elizabeth & Ken day, Sports fitness for women, B.T. Batsford Ltd, London, 1986.
- Emily R. Foster, Karyn Hartiger & Katherine A. Smith, Fitness Fun, Human Kinetics Publishers 2002.

# DAV UNIVERSITY, JALANDHAR

## SEMESTER –IV

**COURSE TITLE: INFORMATION & COMMUNICATION  
TECHNOLOGY (ICT) IN PHYSICAL EDUCATION  
PAPER CODE: CSA695**

L	T	P	Credits	Marks
1	0	2	2	50

### **Course Objectives:-**

**CO1:-** Understand concepts of communication, its types and barriers in communication.

**CO2:-** Types & Applications of Computers Hardware of Computer

**CO3:-** MS Office Applications, E-Learning & Web Based Learning for effective classroom teaching.

**CO4:-** Use SPSS in Research for data analyzing.

## **UNIT - I**

### **1.1 INTRODUCTION TO COMMUNICATION**

- 1.1.1 Communication & Classroom Interaction Concept, Elements,
- 1.1.2 Process & Types of Communication
- 1.1.3 Communication Barriers & Facilitators of communication
- 1.1.4 Communicative skills of English - Listening, Speaking, Reading & Writing
- 1.1.5 Concept & Importance of ICT
- 1.1.6 Need of ICT in Education
- 1.1.7 Scope of ICT: Teaching Learning Process, Publication Evaluation, Research and Administration
- 1.1.8 Challenges in Integrating ICT in Physical Education

## **UNIT - II**

### **2.1 FUNDAMENTALS OF COMPUTERS**

- 2.1.1 Fundamentals of Computers Characteristics,
- 2.1.2 Types & Applications of Computers Hardware of Computer: Input, Output & Storage Devices
- 2.1.3 Software of Computer:
- 2.1.4 Concept & Types Computer Memory:
- 2.1.5 Concept & Types Viruses & its Management Concept,
- 2.1.6 Types & Functions of Computer Networks
- 2.1.7 Internet and its Applications
- 2.1.8 Web Browsers & Search Engines Legal & Ethical Issues

## **UNIT – III**

### **3.1 APPLICATION OF MS OFFICE**

- 3.1.1 MS Word: Main Features & its Uses in Physical Education
- 3.1.2 MS Excel: Main Features & its Applications in Physical Education

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3.1.3 MS Access: Creating a Database, Creating a Table, Queries, Forms & Reports on Tables and its Uses in Physical Education

3.1.4 MS Power Point: Preparation of Slides with Multimedia Effects

3.1.5 MS Publisher: Newsletter & Brochure

3.1.6 ICT Integration in Teaching Learning Process

3.1.7 Approaches to Integrating ICT in Teaching Learning Process Project Based Learning (PBL)

3.1.8 Co-Operative Learning Collaborative Learning ICT and Constructivism: A Pedagogical Dimension

### **UNIT - IV**

#### **4.1 E-Learning & Web Based Learning**

#### **4.2 SPSS PACKAGE IN PHYSICAL EDUCATION**

4.1.1 Introduction of SPSS

4.1.2 Application of SPSS in physical education and sports

4.1.3 Creating and saving a SPSS data file

4.1.4 Data entry and analysis

4.1.5 Descriptive Statistics

4.1.6 Dependent and independent t –test

4.1.7 One way and two Way ANOVA

4.1.8 Correlation

#### **Practical :**

1.1.1 Applications of MS word in Physical Education

1.1.2 MS Access: Creating a Database, Creating a Table, Queries, Forms & Reports on Tables and its Uses in Physical Education

1.1.3 MS Power Point: Preparation of Slides with Multimedia Effects

1.1.4 Application of SPSS in physical education and sports

1.1.5 Creating and saving a SPSS data file

1.1.6 Data entry and analysis

1.1.7 Dependent and independent t –test calculation

1.1.8 One way and two Way ANOVA calculation

1.1.9 Correlation calculation

#### **REFERENCES:**

- Elliott, A.C. Statistical Analysis : Quick Reference Guide book with SPSS examples, Sage Publication, London, 2007.
- Argyrous, G. Statistics for social and Heath Research with a Guide to SPSS, Sage Publication, London, 2000.
- Barrett, R. et al. Administrator's Guide to Microsoft Office 2007 servers. 2007
- Boyce, Jim et al. Microsoft Office System Inside Out. 2007

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- Eric, L. Einspruch, AN Introductory Guide to SPSS for Windows, Sage. 2005.
- Kilman, Shin. *SPSS GUIDE* Mc Graw – Hill Higher Education, 1995.
- Mark, B. Andersen James R Morrow, Allen W. Jackson James G. Disch Dale P. Mood, Measurement and Evaluation in Physical Education, USA: Human Kinetics 2005.
- Murray, Katherine. “Faster smarter Microsoft office XP: Take charge of your Microsoft office programme”.2007
- Sunil, Chauhan, Akash Saxena, Kratika Gupta, Fundamentals of Computer,
- Wempen, Faithe et al. “Microsoft office 2007 bible”. 2007

# DAV UNIVERSITY, JALANDHAR

**COURSE TITLE: SPORTS PSYCHOLOGY AND SOCIOLOGY**

**PAPER CODE: PHE828**

L	T	P	Credits	Marks
4	0	0	4	100

## **Course Objectives:-**

**CO1:-** Student will be able to understand the Importance of Sports Psychology as an applied science.

**CO2:-** Student will understand the role of motivation, emotion and Personality in sports.

**CO3:-** Understand the concepts of Anxiety, Aggression, motor Learning & sports performance.

**CO4:-** Analyze Socio - psychological aspects of sports, group cohesion & spectators.

## **UNIT - I**

### **1.1 INTRODUCTION:**

- 1.1.1 Meaning, Nature & Importance of Sports Psychology as an applied science.
- 1.1.2 Historical development of Sports Psychology.
- 1.1.3 Relationship of Sports Psychology to other sports science.
- 1.1.4 Role of Sports Psychologist.
- 1.1.5 Importance of Sports Psychology for coaches, physical educator, sports administrators and sports persons.
- 1.1.6 Physiological and Psychological limits

### **1.2 COGNITIVE PROCESS IN PHYSICAL ACTIVITY:**

- 1.2.1 Meaning of cognition.
- 1.2.2 Characteristics of cognitive process in sports.
- 1.2.3 Role of sensation and perception, thinking, imagination, and memory in Physical Activity.
- 1.2.4 Mental activity of Athletes, Mental activity and sports related goals.
- 1.2.5 Meaning of Attention. Dimensions of Attention, Strategies of Developing Attention.

## **UNIT – II**

### **2.1 MOTIVATION, EMOTIONS AND PERSONALITY**

#### **2.1.1. MOTIVATION**

- 2.1.1.1 Meaning of motive, need, drive, role of motives, attitudes and interest in Physical Activity.
- 2.1.1.2 Meaning & theories of motivation.
- 2.1.1.3 Concept of Achievement motivation.
- 2.1.1.4 Techniques of motivation.
- 2.1.1.5 Importance of relationship between intrinsic and motivation.

#### **2.1.2 EMOTIONS**

- 2.1.2.1 Meaning and types of emotion influence of emotions (success and failure) on level of aspiration and achievement.
- 2.1.2.2 Anxiety, fear, frustration, conflict and its effect on sports performance

#### **2.1.3 PERSONALITY ISSUES IN SPORTS.**

- 2.1.3.1 Meaning and theories of Personality. - Psycho dynamic. - Social



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learning. - Trait theories.

2.1.3.2 Causes of personality difference among sports groups.

2.1.3.3 Personality and Sports performance.

2.1.3.4 Measurement of Personality: Eysenck – EPQ (R), Cattle- R.B. Cattle

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## 2.2 PSYCHOLOGICAL TESTS USED IN RESEARCH

2.2.1 Anxiety Scale SCAT (Martens and others)

2.2.2 Personality Questionnaire Sybil berger competition Anxiety Scale.

2.2.3 Self-Motivation Inventory (SMF). Need Achievement Motivation test

## UNIT – III

### 3.1 ANXIETY AROUSAL AND SPORT PERFORMANCE

3.1.1 Definition of anxiety, arousal and stress.

3.1.2 Trait and state anxiety and their relationship.

3.1.3 Arousal anxiety relationship-hypothesis and theories.

3.1.4 Anxiety arousal and peak performance.

### 3.2 AGGRESSION IN SPORT

3.2.1 Concept of aggression.

3.2.2 Causes of aggression.

3.3.3 Theories of aggression.

3.3.4 Aggression and sport performance.

3.3.5 Methods of controlling aggression.

### 3.3 MOTOR LEARNING

3.3.1 Meaning of Motor Learning.

3.3.2 Factor affecting Motor Learning.

3.3.3 Motor development in various periods of childhood and adolescence.

## UNIT – IV

### 4.1 SOCIO PSYCHOLOGICAL ASPECTS OF SPORTS

4.1.1 Leadership in Sport: Meaning of leadership.

4.1.2 Theories of leadership.

4.1.3 Leadership effectiveness.

4.1.4 How to increase the influence/power of the leader.

### 4.2 GROUP COHESION IN SPORT

4.2.1 Defining group cohesion.

4.2.2 Development of group cohesion.

4.2.3 Factor affecting group cohesion.

### 4.3 SPECTATORS AND SPORT PERFORMANCE

4.3.1 Types of spectators.

4.3.2 Causes of spectator's influence on performance.

4.3.3 Management of spectator's negative effect.

4.3.4 Socioeconomic Techniques.

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## **REFERENCES:**

- Authors Guide (2013) National Library of Educational and Psychological Test (NLEPT)
- Catalogue of Tests, New Delhi: National Council of Educational Research and Training Publication.
- Authors Guide (2013) National Library of Educational and Psychological Test (NLEPT)
- Catalogue of Test, New Delhi: National Council of Educational Research and Training Publication.

# DAV UNIVERSITY, JALANDHAR

**COURSE TITLE: PROFESSIONAL PREPARATION IN  
PHYSICAL EDUCATION  
PAPER CODE: PHE832**

L	T	P	Credits	Marks
2	0	0	2	50

## Course Objectives:-

**CO1:-** Organize all sports event successfully.

**CO2:-** Understand the concepts of profession, professional and professionalism.

## UNIT - I

### 1.1 INTRODUCTION

- 1.1.1 History of flag hosting at Olympic level and Athletics Meet.
- 1.1.2 Things to be kept in mind while hoisting a flag,
- 1.1.3 National Flag (Measurement, Tri-Colour)
- 1.1.4 March pass commands (Right turn, Left turn, About turn, Salute, Eyes right, Halt),
- 1.1.5 Honour of flag and its use,
- 1.1.6 Penalty of misusing or dishonouring the flag,
- 1.1.7 Flag code of India,
- 1.1.8 Dimension of the Indian Flag,
- 1.1.9 Dimension of wheel,
- 1.1.10 Colour Brightness of flag,
- 1.1.11 Code of Hosting
- 1.1.12 Protocols of March Pass.

## UNIT - II

### 2.1 CEREMONIES AND SCHEDULE

2.1.1 Opening, Flame, March Pass, Salutation, Oath, Declaration the meet open, Addresses the Players and audience, Victory ceremony, Prize Distribution, Certificates, Announcements and Closing at Olympic Games, Asian Games, Commonwealth Games, A.I.U and Athletics meet of Educational Institutes.

2.1.2 Meaning, History and Advantages of Minor Games, Recreational Games,

Lead-Up Games, Social party Games, Relay Games.

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

### REFERENCES:

- 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

# **DAV UNIVERSITY, JALANDHAR**

Readers.

# DAV UNIVERSITY, JALANDHAR

**COURSE TITLE: DISSERTATION**  
**PAPER CODE: PHE**

L	T	P	Credits	Marks
0	0	0	4	100

## Course Objectives:-

**CO1:-** Have practical learning experience of selecting Research problem.

**CO2:-** Understand various statistical tools as per the requirement of the study.

1. A candidate shall have dissertation for M.P.Ed. – IV Semester and must submit his/her Synopsis and get it approved by the Head of Department on the recommendation of D.R.C. (Departmental Research Committee).
2. A candidate selecting dissertation must submit his/her dissertation not less than one week before the beginning of the IV<sup>th</sup> Semester Examination.
3. The candidate has to face the Viva-Voce conducted by DRC.

**The student will submit the thesis as per the format below:**

## 1.1 PRELIMINARY SECTION

- a) Title page
- b) Declaration
- c) Certificate by Supervisor
- d) Acknowledgement
- e) Vita
- f) Table of contents and figures

## 1.2 MAIN PART

### 1.2.1 Introduction

- a) Statement of the Problem
- b) Significance of the problem
- c) Definition of important terms, assumptions, limitations and delimitations.
- d) Hypothesis

### 1.2.2 Review of Related Literature

### 1.2.3 Design of the Study

- a) Procedure used
- b) Subjects and sampling technique followed
- c) Method of Data collection
- d) Description of tools or instruments

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## **1.2.4 Presentation, analysis and Interpretation of data**

- a) Data
- b) Tables
- c) Figures

## **1.2.5 Summary and Conclusion**

- a) Summary of the procedure followed
- b) The main findings and conclusion
- c) Recommendations for further study

## **1.3 SUPPLEMENTARY MATERIAL**

- a) Bibliography
- b) Appendix
- c) Index
- d) Footnotes

## **REFERENCES:**

- Best J. W (1971) Research in Education, New Jersey; Prentice Hall, Inc
- Clarke David. H & Clarke H, Harrison (1984) Research processes in Physical Education, New Jersey; Prentice Hall Inc.
- Craig Williams and Chris Wragg (2006) Data Analysis and Research for Sport and Exercise Science, London; Routledge Press
- Jerry R Thomas & Jack K Nelson (2000) Research Methods in Physical Activities; Illinois; Human Kinetics;

# DAV UNIVERSITY, JALANDHAR

**COURSE TITLE: TRACK AND FIELD/ HEPTATHLON & DECATHLON**

**PAPER CODE: PHE821**

L	T	P	Credits	Marks
0	0	6	4	100

## **Course Objectives:-**

**CO1:-**The pass out student will be aware of historical development and important tournaments at National and International level.

**CO2:-** The student will be able to demonstrate fundamental skills of the events.

**CO3:-** The student will be able to apply gained knowledge for technical preparation for throwing & running events.

**CO4:-** The student will be aware about rule & regulation of the event & officiating in track and field events.

## **UNIT - I**

### **1.1 TRACK AND FIELD – COMBINED EVENTS**

#### **1.1.1 Combined Events**

1.1.1.1 Pentathlon – Order of events, Heptathlon – Order of events and Decathlon – Order of events.

1.1.1.2 Rules regarding Track and Field. Officiating in Track and Field.

1.1.1.3 Training Methods – Design Circuit, Interval, Fartlek, Plyometric and Resistance training with load dynamics. Training Schedules.

### **Practical:**

1. Draft preparation, supplementary to improve fundamental skills.
2. Sport Specific skill test.
3. Test for Motor components.
4. Filling up score sheets.
5. Officiating in competition. (rules and signals)

# DAV UNIVERSITY, JALANDHAR

**COURSE TITLE: GAME SPECIALIZATION**  
**PAPER CODE: PHE826**

L	T	P	Credits	Marks
0	0	6	4	100

## Course Objectives:-

- CO1:-** The pass out student will be aware of historical development and important tournaments at National and International level.
- CO2:-** The student will be able to demonstrate fundamental skills of the game.
- CO3:-** The pass out student will be able to apply gained knowledge for tactical and technical preparation for sports competition.
- CO4:-** The student will be able to deliver his/her duties as an official to conduct a match.

## UNIT-I

### 1.1 HISTORICAL DEVELOPMENT

- 1.1.1 Historical Development of the sports at National and International level.
- 1.1.2 Important Tournament/Competition held at National and International level

## UNIT-II

### 2.1 FUNDAMENTAL SKILLS

- 2.1.1 Fundamental Skills of the sport.
- 2.1.2 Warming Up—General, Specific, Cooling Down,
- 2.1.3 Physiological basis of warming up and cooling down.

## UNIT-III

### 3.1 TECHNIQUE & TACTICAL PREPARATION

- 3.1.1 Tactical Preparation for sports.
- 3.1.2 Strategies and their Applications.
- 3.1.3 Importance of Psychological preparation and its methods.

## UNIT-IV

### 4.1 SPORTS SPECIFIC SKILL (COACHING ASPECT)

- 4.1.1 Sports Specific Skill Test.
- 4.1.2 Knowledge of rules and regulations.
- 4.1.3 Duties of official & conduct of official match.

### Practical:

1. Draft preparation, supplementary to improve fundamental skills.
2. Sport Specific skill test.
3. Test for Motor components.
4. Filling up score sheets.
5. Officiating in competition. (rules and signals)



# DAV UNIVERSITY, JALANDHAR

## COURSE TITLE: EDUCATIONAL TECHNOLOGY IN PHYSICAL EDUCATION AND SPORTS

PAPER CODE: PHE

L	T	P	Credits	Marks
4	0	0	4	100

### Course Objectives:-

**CO1:-** Develop understanding on the use of technology in physical education & know various technological devices used in Physical activity and sports.

**CO2:-** Demonstrate about lesson plans.

**CO3:-** Develop skills of applying technology in physical education.

**CO4:-** Use Innovative teaching learning techniques.

### UNIT - I

#### 1.1 CONCEPT, NATURE AND SCOPE

- 1.1.1 Educational technology-Concept, Definition, Nature and Scope.
- 1.1.2 Objectives of Education Technology
- 1.1.3 Significance of using Technology in Education System (In terms of Pupil and Student)
- 1.1.4 Forms of educational technology: teaching technology, instructional technology, and behavior technology
- 1.5 Traditional Teaching and Modern Teaching in Education System (Concepts and difference)

### UNIT – II

#### 2.1 INSTRUCTIONAL TEACHING AIDS (INTRODUCTION, CHARACTERISTICS, MERITS, DEMERITS AND USES)

- 2.1.1 Chock Board / Marker and White Board.
- 2.2.2 Models
- 2.2.3 Overhead Projector
- 2.2.4 Still & Movie Projection
- 2.2.5 Radio, Television, Computer
- 2.2.6 Use of Audio/Video technology
- 2.2.7 Image analysis

#### 2.2 TECHNOLOGICAL DEVICES USED IN PHYSICAL ACTIVITY AND SPORTS

(underwater camera, various measuring tools, wind gauges, foul indicators, electronic gadgets, adobe Photoshop, Microsoft animation, laser beam technology, LCD display)

### UNIT - III

#### 3.1 PLANNING LESSON

- 3.1.1 Lesson plan: meaning, importance of lesson plan
- 3.1.2 Principles of lesson plan, Types of lesson plan
- 3.1.3 Structure of lesson plan •
- 3.1.4 Various parts of a lesson plan
- 3.1.5 Feedback: student feedback on lesson content and lesson effectiveness
- 3.1.6 Teacher's self-evaluation.

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## 3.1.7 Techniques of presentation and class management skills

### UNIT – IV

#### 4.1 INNOVATIVE TEACHING LEARNING TECHNIQUES

- 4.1.1 Action Research (concepts, objective, significance and step of action research)
- 4.1.2 Team Teaching (concept, objective, principles, types of team teaching)
- 4.1.3 Micro Teaching (concept, objective, advantage and disadvantage of micro teaching)
- 4.1.4 E-learning (concept, role, advantage and disadvantage and component of E-learning)
- 4.1.5 Methods of Teacher evaluation
- 4.1.6 Use of pupil rating
- 4.1.7 Peer rating
- 4.1.8 Supervisor rating
- 4.1.9 Community rating.

#### REFERENCES:

- Amita Bhardwaj, New Media of Educational Planning”.Sarup of Sons, New Delhi-2003
- Bhatia and Bhatia. The Principles and Methods of Teaching (New Delhi :Doaba House), 1959.
- Communication and Education, D. N. Dasgupta, Pointer Publishers
- Education and Communication for development, O. P. Dahama, O. P. Bhatnagar, OxfordPage 68 of 71 IBH Publishing company, New Delhi
- Essentials of Educational Technology, MadanLal, Anmol Publications
- K. Sampath, A. Pannirselvam and S. Santhanam. Introduction to Educational Technology (New Delhi: Sterling Publishers Pvt. Ltd.): 1981.

# DAV UNIVERSITY, JALANDHAR

**COURSE TITLE: HUMAN VALUE AND ENVIRONMENTAL EDUCATION**

**PAPER CODE: PHE820**

L	T	P	Credits	Marks
4	0	0	4	100

## **Course Objectives:-**

**CO1:-** Analyze the relationship between value and environment education & Understand the importance of environmental studies.

**CO2:-** Develop skills of protecting the environment.

**CO3:-** Critically analyze the rural and urban health and sanitation related problems.

**CO4:-** Understand the controlling measures of various environmental pollution.

## **UNIT - I**

### **1.1 INTRODUCTION TO VALUE EDUCATION.**

- 1.1.1 Values: Meaning, Definition, Concepts of Values.
- 1.1.2 Value Education: Need, Importance and Objectives.
- 1.1.3 Moral Values: Need and Theories of Values.
- 1.1.4 Classification of Values.

### **1.2 VALUE SYSTEMS**

- 1.2.1 Meaning and Definition, Personal and Communal Values, Consistency, internally consistent, internally inconsistent, Judging Value System, Commitment, Commitment to values.

## **UNIT- II**

### **2.1 ENVIRONMENTAL EDUCATION**

- 2.1.1 Definition, Scope, Need and Importance of environmental studies.,
- 2.1.2 Concept of environmental education,
- 2.1.3 Historical background of environmental education,
- 2.1.4 Celebration of various days in relation with environment,
- 2.1.5 Plastic recycling & prohibition of plastic bag / cover
- 2.1.6 Role of school in environmental conservation and sustainable development
- 2.1.7 Pollution free eco-system.

## **UNIT- III**

### **3.1 RURAL SANITATION AND URBAN HEALTH**

- 3.1.1 Rural Health Problems
- 3.1.2 Causes of Rural Health Problems,
- 3.1.3 Points to be kept in Mind for improvement of Rural Sanitation, Urban Health Problems
- 3.1.4 Process of Urban Health, Services of Urban Area, Suggested Education Activity
- 3.1.5 Services on Urban Slum Area
- 3.1.6 Sanitation at Fairs & Festivals
- 3.1.7 Mass Education.

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## UNIT - IV

### 4.1 NATURAL RESOURCES AND RELATED ENVIRONMENTAL ISSUES:

4.1.1 Water resources, food resources and Land resources,

4.1.2 Definition, effects and control measures of: Air Pollution, Water Pollution, Soil Pollution, Noise Pollution, Thermal Pollution

4.1.3 Management of environment and Govt. policies

4.1.4 Role of pollution control board.

### REFERENCES:

- Miller T.G. Jr., Environmental Science (Wadsworth Publishing Co.)
- Odum, E.P. Fundamentals of Ecology (U.S.A.: W.B. Saunders Co.) 1971.
- Rao, M.N. & Datta, A.K. Waste Water Treatment (Oxford & IBH Publication Co. Pvt. Ltd.) 1987
- Heywood, V.H. and Watson V.M., Global biodiversity Assessment (U.K.: Cambridge University Press), 1995.
- Jadhav, H. and Bhosale, V.M. Environmental Protection and Laws (Delhi: Himalaya Pub. House), 1995.
- Mc Kinney, M.L. and Schoel, R.M. Environmental Science System and Solution (Webenhanced Ed.) 1996.
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# DAV UNIVERSITY, JALANDHAR

**COURSE TITLE: ADAPTED PHYSICAL EDUCATION**

**PAPER CODE: PHE**

L	T	P	Credits	Marks
4	0	0	4	100

## **Course Objectives:-**

**CO1:-** Deal with people with disabilities.

**CO2:-** Understand classification of Disabilities.

**CO3:-** Physical education programme for disabled.

**CO4:-** Different activities for disabled.

## **UNIT- I**

### **1.1 INTRODUCTION TO ADAPTED PHYSICAL EDUCATION**

- 1.1.1 Meaning and definitions
- 1.1.2 Aims and objectives
- 1.1.3 Need and importance
- 1.1.4 Role of physical education in adapted physical education
- 1.1.5 Brief historical review of adapted physical education

## **UNIT-II**

### **2.1 CLASSIFICATION OF DISABILITY**

- 2.1.1 Changing concept of disability handicaps, retardation, physically and mentally challenged
- 2.1.2 Physical disability, Characteristics, Category
- 2.1.3 Functional limitation, General causes
- 2.1.4 Mental retardation and learning disability, Characteristics, Category, Functional limitation, General causes
- 2.1.5 Hearing and speech impairment Characteristics, Category Functional limitation, General causes
- 2.1.6 Visual impairment, Characteristics, Category, Functional limitation, General causes
- 2.1.7 Other disabled conditions
- 2.1.8 Identification and causes of specific diseases
  - 2.1.8.1 Attention deficit hyperactivity disorder : Meaning, Symptoms, Causes and Treatment
  - 2.1.8.2 Meaning of Autism and its Signs Symptoms & Causes
  - 2.1.8.3 Emotional disturbance : Characteristics, Causes and Treatment
  - 2.1.8.4 Specific learning disabilities: Common types of learning disabilities their causes, treatment and intervention.
  - 2.1.8.5 Amputations & its types and dwarfism: types, causes, diagnosis and treatment

### **2.2 Discrimination**

### **2.3 Social rejection**

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## UNIT-III

### 3.1 ADAPTED PHYSICAL EDUCATION PROGRAMMES

- 3.1.1 Guiding principles for adapted physical education programme (AAHPER Principle)
- 3.1.2 Physical education programme for disabled of :  
Elementary school, Middle school, High school
- 3.1.3 Special adapted programme for various types and categories of physical disability
- 3.1.4 Regular physical activity
- 3.1.5 Informal games and special activity
- 3.1.6 Informal and formal competitions
- 3.1.7 Special adapted programme for hearing and speech impairment, visual impairment,
- 3.1.8 mental retardation and learning impairment
- 3.1.9 Regular physical activity
- 3.1.10 Informal games and special activity
- 3.1.11 Informal and formal competitions

## UNIT-IV

### 4.2 ACTIVITIES FOR DISABLED

- 4.1.1 Co-curricular activities for disabled
- 4.1.2 Outdoor programmes for disabled
- 4.1.3 Adventure based outdoor programme
- 4.1.4 Creative development and hobby & culture development programme
- 4.1.5 Aquatic activity programme for disabled
- 4.1.6 Importance of activity for disabled

### 4.2 GOVERNMENTAL WELFARE PROGRAMMES

- 4.2.1 Provisions of special rights and privilege for disabled through legislations
- 4.2.2 Social welfare programmes for disabled

### 4.3 PARALYMPIC SPORTS

- 4.3.1 History of Paralympics.
- 4.3.2 Paralympics events : list of IPC summer and winter sports.
- 4.3.3 Rules and regulations.
- 4.3.4 Eligibility criteria: medical classification & functional classification

## REFERENCES:

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- Arthur G. Miller & James, “Teaching Physical Activities to Impaired Youth” John Wilag & Sons Inc. Canada.
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