

**CURRICULUM**

**OF**

**BACHELOR OF SCIENCE (BS)**  
**HEALTH & PHYSICAL EDUCATION**

**(5<sup>th</sup> to 8<sup>th</sup> Semester)**  
**Replacement of MSc**

## **2 – YEAR BS PROGRAM (5<sup>th</sup> Semester)**

### **1. Mission**

“We believe that the program to which we have been and are committed has significant beneficial effects on our sports organizations in our society”.

### **3 Program Introduction**

In the era of educational revolution main objective of the BS (5<sup>th</sup> Semester) 2-Years program in Health & Physical Education is to prepare graduates having a deep knowledge of the subjects as well as ability to analyze in a given situation and draw out conclusion. The primary aim of the program is to produce broad base graduates able to face the challenges of the modern world.

A 2 years degree program having Total 68 credit hour course with segregation of 62 theory and 06 practical credit hours education is required for BS (5<sup>th</sup> Semester) Degree Program in Sports Sciences and Physical Education Degree which will be carried out during 4 semesters of 18 weeks each. This is important to point out that there must not be any repetition of courses in any degree of every candidate.

### **4 Program Objectives**

- The program in Health & Physical Education is designed to produce the graduates having a sound knowledge of the theoretical and practical subject matter.
- Along with the knowledge of the subject they would also have a broader view of other disciplines of social as well as physical sciences. It will enable the students to interact with other branches of knowledge and strengthen their understanding of the society.
- The graduates are equipped with essential tools and techniques of research. It will enable them to analyze any given situation / issue and suggest its possible solutions.
- The graduates are to be empowered to establish and develop a viable and forceful line between theory / concepts and practice in the field of Health and Physical Education.
- The collective efforts behind this course are to create cohesiveness among the institutions and personnel of sports and physical education.

- The similarity among the outlines has been developed to interrelate the discipline in the global perspective creating an environment of healthy competition and equal opportunities for all at national and international level.

## **5 Market Need/Rationale of the Program**

### **a) Potential students for the program**

The program aimed to stimulate critical and analytical thinking for the people who want to do work in public and private institutes specifically in sports sciences and physical education departments as well as in all sports organizations. The program is comprised on the courses in sports administration and management, fitness and wellness in sports, nutrition, talent identification in sports, Sports biomechanics, different sports, track and field events. The program focuses on the latest innovative theories and practices in sports.

### **b) Potential employers**

Through this program people will equipped with different set of valuable skills that will help them in their future career.

Some of the skills that could be developed include:

- Interpersonal skills
- Athletic Performance analysis and Evaluating
- Physical fitness
- Coaching
- Research

This program leads itself to a wide range of careers in sports coaching, administration, and fitness as well as other industries in the market such as:

- Sports Science and Physical Education Teaching
- Professional Sportsperson/Consultant
- Developing Sports policy at Local and National level
- Sports Nutritionist
- Director Sports in Sports Organization/Institutes

### **c) Academic projections**

A number of National and International universities are offering professional degrees related to sport science and Physical Education. There are several reasons that showed its significance in Sports such as helping people to learn skills physically and emotionally. Further, it

is also providing the life lessons like confidence, emotional Intelligence, motivation, human behaviors, stress handling and coping strategies. The world universities are offering sports as a degree program because of the following salient features:

- Sports is not just playing in the fields. It teaches us the importance of a healthy diet the essential vitamins and minerals we need on daily basis.
- It teaches us the sportsman spirit. Whether we win or lose, it helps in promoting our character.
- Physical activity can prevent heart diseases and risks of cancers. Also, it can reduce the life risks by many folds.

## **6 Admission and Eligibility Criteria**

- **Years of study completed**
  - 14 Years of education or equivalent is required for admission in the BS (5<sup>th</sup> Semester) Degree Program in Sports Sciences and Physical Education.
- **Study Program**
  - Bachelor of Science in Sports Sciences and Physical Education.
- **Percentage /CGPA**
  - Candidates must have minimum 2.00 or high CGPA out of 4.00 for award of degree.

## **7 Duration of the Program**

As per HEC Rules:

- For award of BS (5<sup>th</sup> Semester) Degree Program in Sports Sciences and Physical Education, candidates will either need to complete a total 68 credit hours with the segregation of 62 credit hours of course work and 06 credit hours of practical work.

**Categorization of Courses as per HEC recommendation and difference**

Category (Credit hour)							
Semester	Course	Core Courses	Basic Courses	Major Electives	Minor Electives	Any Other	Semester Load
V	Science of Sports Training		03				
V	Physical Education for Special population				03		
V	Sports Nutrition		03				
V	Application of Statistics in Physical Education		03				
V	Biochemistry		03				
V	Teaching Practice (Practical)				02		
VI	Specialization in one group of track and field			03			
VI	Research Methodology in Physical Education		03				
VI	Planning Sports Facilities			03			
VI	Test Measurement & Evaluation in Phy. Edu. & Sports			03			
VI	Sports Psychology			03			
VI	Environmental Sciences				03		
VII	Common Sports Injuries, Treatment & Rehabilitation			03			
VII	Exercise Physiology			03			
VII	Role of Media in Sports			03			
VII	Scientific Sports Coaching			03			
VII	Research Project			01			
VII	Specialization in one game			03			
VIII	Sports Medicine			03			
VIII	Curriculum Development in Physical Education			03			
VIII	Adapted Physical Education			03			
VIII	Research Thesis	06					
PU	Same as HEC						
HEC Guidelines	Followed 100%						
Differences (HEC & PU)	Nil						

**1 Cr.hr of Lab. / Practical = 3 Academics / Contact Hours**

**SCHEME OF STUDIES / SYLLABI / SEMESTER-WISE WORKLOAD BS (5th Semester)**  
**Physical Education Program**

<b>Semester V</b>	<b>Code</b>	<b>Course Title</b>	<b>Course Type</b>	<b>Prerequisite</b>	<b>Credit Hours (Theory+Practical)</b>
1	HPE-301	Science of Sports Training	Basic Course	Nil	3+0
2	HPE-302	Physical Education for Special population	Minor Elective	Nil	3+0
3	HPE-303	Sports Nutrition	Basic Course	Nil	3+0
4	HPE-304	Application of Statistics in Physical Education	Basic Course	Nil	3+0
5	HPE-305	Biochemistry	Basic Course	Nil	3+0
6	HPE-306	Teaching Practice (Practical)	Minor Elective	Nil	0+2
7	HQ-005	Translation of Holy Quran		Nil	0
				<b>Total Cr. Hr.</b>	<b>17</b>

<b>Semester VI</b>	<b>Code</b>	<b>Course Title</b>	<b>Course Type</b>	<b>Prerequisite</b>	<b>Credit Hours (Theory+Practical)</b>
1	HPE-311	Specialization in one group of track and field (Theory)	Major Elective	Nil	1
2	HPE-317	Specialization in one group of track and field (Practical)	Major Elective	Nil	2
3	HPE-312	Research Methodology in Physical Education	Basic Course	Nil	3+0
4	HPE-313	Planning Sports Facilities	Major Elective	Nil	3+0
5	HPE-314	Test Measurement & Evaluation in Phy. Edu. & Sports	Major Elective	Nil	3+0
6	HPE-315	Sports Psychology	Major Elective	Nil	3+0
7	HPE-316	Environmental Sciences	Minor Elective	Nil	3+0
8	HQ-006	Translation of Holy Quran		Nil	1+0
				<b>Total Cr. Hr.</b>	<b>19</b>

Semester VII	Code	Course Title	Course Type	Prerequisite	Credit Hours (Theory+Practical)
1	HPE-401	Common Sports Injuries, Treatment & Rehabilitation	Major Elective	Nil	3+0
2	HPE-402	Exercise Physiology	Major Elective	Nil	3+0
3	HPE-403	Role of Media in Sports	Major Elective	Nil	3+0
4	HPE-404	Scientific Sports Coaching	Major Elective	Nil	3+0
5	HPE-405	Research Project	Major Elective	Nil	1+0
6	HPE-406	Specialization in one game (Theory)	Major Elective	Nil	1
	HPE-407	Specialization in one game (Practical)	Major Elective	Nil	2
7	HQ-007	Translation of Holy Quran		Nil	0
				<b>Total Cr. Hr.</b>	<b>16</b>

Semester VIII	Code	Course Title	Course Type	Prerequisite	Credit Hours (Theory+Practical)
1	HPE-411	Sports Medicine	Major Elective	Nil	03
2	HPE-412	Curriculum Development in Physical Education	Major Elective	Nil	03
3	HPE-413	Adapted Physical Education	Major Elective	Nil	03
4	HPE-414	Research Thesis	Core Course	Nil	06
5	HQ-008	Translation of Holy Quran		Nil	1+0
				<b>Total Cr. Hr.</b>	<b>16</b>

## 10 Award of Degree

### Degree awarding criteria for Bachelor of Science Degree in Sports Sciences and Physical Education for hearing impaired students

- Total 66 credit hours of course with the segregation of 60 Credit Hours of Course Work and 06 Credit Hours of Practical work needed to be completed as per CGPA criteria defined by HEC for award of degree.

## 11 NOC from Professional councils (If applicable)

N/A

**12 Faculty Strength**

As this program is going to be launched in affiliated Colleges of University and Main Campus of the University of the Punjab so students-teachers ratio is not applicable in this situation however A minimum three lecturers (BPS-17) having master degree in Sports Sciences and Physical Education can launch this program in College side and Lecturers (BPS-18) can launch in University side.

**13 Present Student Teacher Ratio in the College**

As this program is going to be launched in affiliated Colleges of University of the Punjab so students-teachers ratio is not applicable in this situation.



**Course Title:** Science of Sports Training  
**Code Number:** HPE-301  
**Credit Hours:** 03 hrs  
**Pre-Requisites course Requirement/Skills:** Nil

### **Objectives of Course**

At the successful completion of this course students will be able:

- 1) The course is basically designed to create awareness in the perspective physical education for understanding the sports training and to develop a professional coach who can impart training under the scientific principles and in a systematic order.
- 2) The course will enable the future coach to place the training processes in proper and thoughtful manner.

### **Course Contents**

#### **Unit-I Sports Training**

- 1.1 Introduction, Understanding of sports training, Coach in different capacities, relationship between coach and organization, athlete and link personals, Coaching style, Qualities of a good Coach

#### **Unit-II Training Principles**

- 2.1 Gradualness, Age Dependence, Utility, Loading/Over-Loading, Reversibility and specificity

#### **Unit-III Components of Fitness**

- 3.1 Introduction, Components their need and importance in sports

#### **Unit-IV Fundamental Aspects and Training of Strength Abilities**

- 4.1 Introduction
- 4.2 Classification of Strength:
  - 4.2.1 Maximum Strength
  - 4.2.2 Speed Strength-Elastic Strength
  - 4.2.3 Strength Endurance
  - 4.2.4 Organization of Strength Training

#### **Unit-V Fundamental Aspects and Training of Endurance**

- 5.1 Introduction, Local & general endurance types, Endurance training methods

5.2 Aerobic and anaerobic endurance short, middle and long-distance endurance

## **Unit-VI Fundamental Aspects and Speed Training**

6.1 Introduction, Speed of movement

6.2 Phases of running action

## **Unit-VII Warm-Up & Cool Down**

7.1 Introduction, Kinds (General, Specific)

7.2 Need and Importance

7.3 Effects of warm-up and Cool down

## **Unit-VIII Load (Outer and Inner Load)**

8.1 Introduction

8.2 Loading factors

8.3 Training methods, forms of organization and load structure

8.4 Load and adaptation

8.5 On selected principles for the arrangement of load (increasing load, continuous load).

### **Teaching Learning strategies**

- a) Inquiry based learning
- b) Cooperative Learning
- c) Multimedia usage
- d) Concrete examples
- e) Think -Pair-Share

### **Assessment and Examination**

#	Elements	Weightage	Details
1	Theory Examination based Assessment	40%	It takes Place at the mid-point of the semester. It is mostly in the form of a test but owing to the nature of the course. The teacher may assess their students based on term paper, research proposal development, field work and report writing etc.
2	Formative Assessment	60%	It is continuous assessment. It includes classroom Participation, attendance, assignments and Presentations, homework, attitude, and behavior, hands on activities, short test, quizzes etc.

### **Recommended Books**

1. Hodgson, D. R., McKeever, K. H., & McGowan, C. M. (2014). *The athletic horse: principles and practice of equine sports medicine*. Elsevier Health Sciences.

2. Haff, G. G., & Triplett, N. T. (Eds.). (2015). *Essentials of strength training and conditioning 4th edition*. Human kinetics.
3. Bompa, T., & Buzzichelli, C. (2015). *Periodization Training for Sports, 3E*. Human kinetics.
4. Baker, J., & Farrow, D. (2015). *Routledge handbook of sport expertise*. Routledge.
5. Viru, A. (2017). *Adaptation in sports training*. Routledge.

**Course Title:** Physical Education for Special Population  
**Code Number:** SSPE-302  
**Credit Hours:** 03 hrs  
**Pre-Requisites course Requirement/Skills:** Nil

### **Objectives of Course**

At the successful completion of this course students will be able:

- 1) This course is designed to provide knowledge to the students about the rehabilitation of special persons through physical activities, teaching methods useful to special people to adjust in the society.

### **Course Contents**

#### **Unit-I Historical Background of Special Populations**

- 1.1 Key Terms
- 1.2 Individual Differences
- 1.3 History of Special Education
- 1.4 Special Education: Professional Preparation Standards

#### **Unit-II Students with Communication Disorders**

- 2.1 Definitions
- 2.2 Differences of Speech & Language
- 2.3 Characteristics & Etiology
- 2.4 Identification Process
- 2.5 Issues of Importance

#### **Unit-III Students with Mental Disorders**

- 3.1 Definitions
- 3.2 Characteristics
- 3.3 Etiology
- 3.4 Identification Process
- 3.5 Issues of Importance

#### **Unit-IV Students with Learning Disorders**

- 4.1 Definitions
- 4.2 Characteristics
- 4.3 Etiology
- 4.4 Identification Process

4.5 Issue of Importance

**Unit-V**

**Students with Emotional and Behavioral Disorders**

5.1 Definitions

5.2 Characteristics

5.3 Etiology

5.4 Identification Process

5.5 Issue of Importance

**Unit-VI**

**Students with Hearing Impairments**

6.1 Definitions

6.2 Characteristics

6.3 Etiology

6.4 Identification Process

6.5 Issue of Importance

**Unit-VII**

**Students with Visual Impairments**

7.1 Definitions

7.2 Characteristics

7.3 Etiology

7.4 Identification Process

7.5 Issue of Importance

**Unit-VIII**

**Teaching Students with Special Needs In Secondary Schools**

8.1 Definitions

8.2 Characteristics

8.3 Etiology

8.4 Identification Process

8.5 Issue of Importance

**Teaching Learning strategies**

- a) Inquiry based learning
- b) Cooperative Learning
- c) Multimedia usage
- d) Concrete examples
- e) Think -Pair-Share

### Assessment and Examination

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2	Formative Assessment	60%	It is continuous assessment. It includes classroom Participation, attendance, assignments and Presentations, homework, attitude, and behavior, hands on activities, short test, quizzes etc.

### Recommended Books

1. Kauffman, J. M., Hallahan, D. P., & Pullen, P. C. (2017). *Handbook of special education*. Routledge.
2. Ashman, A. F., & Conway, R. N. (2017). *Cognitive strategies for special education: Process-based instruction*. Routledge.
3. Winnick, J., & Porretta, D. (Eds.). (2016). *Adapted Physical Education and Sport, 6E*. Human Kinetics.
4. Evans, J. (2017). *Equality, education, and physical education*. Routledge.
5. Capel, S., & Whitehead, M. (2015). *Learning to Teach Physical Education in the Secondary School: A companion to school experience*. Routledge.

**Course Title:** Sports Nutrition  
**Code Number:** HPE-303  
**Credit Hours:** 03 hrs  
**Pre-Requisites course Requirement/Skills:** Nil

### **Objectives of Course**

At the successful completion of this course students will be able:

- 1) Health of the athlete is of paramount importance and needs due considerations.
- 2) The knowledge regarding different components of nutrition and their implications upon human body in general and loss or gain of weight, appetite, use of different components of foods to remove the deficiencies of sodium and calcium or any other basic ingredients will prove helpful to the Physical Educators.

### **Course Contents**

#### **Unit-I Introduction**

- 1.1 Definition, Importance of Food and Nutrients obtained from food
- 1.2 Sports nutrition for maintaining health and improving sports performance

#### **Unit-II Concept of Human Energy**

- 2.1 Definition and types of energy
- 2.2 Human Energy systems

#### **Unit-III Carbohydrates**

- 3.1 Types and Sources
- 3.2 Metabolism and functions of carbohydrates
- 3.3 Carbohydrate loading
- 3.1 Glycemic Index

#### **Unit-IV Lipids**

- 4.1 Role of lipid in the body
- 4.2 Lipid as energy source and reserve
- 4.3 Use of lipid during exercise

#### **Unit-V Proteins**

- 5.1 Functions, sources, recommended intake
- 5.2 Metabolism
- 5.3 Protein and exercise

- 5.4 BMI
- a. BMR

**Unit-VI Vitamins**

- 6.1 Introduction, sources
- 6.2 Types, importance
- 6.3 Supplements its uses and importance

**Unit-VII Minerals**

- 7.1 Introduction, sources
- 7.2 Types, Importance
- 7.3 Mineral intake, supplements

**Unit-VIII Water**

- 8.1 Recommended water intake
- 8.2 Functions, Regulation of Body Temperature
- 8.3 Fuel & Electrolyte losses and replacements
- 8.1 Body regulation during exercise

**Unit-IX Weight Management**

- 9.1 Concepts of dieting
- 9.2 Physiological factors of weight management
- 9.3 Obesity

**Unit-X Nutrition for Optimal Health & Physical Performance**

- 10.1 Balanced diet
- 10.2 Pre, during and post contest meal
- 10.3 Dietary recommendations for health & physical performance
- 10.4 Food supplements

**Unit-XI Eating Disorders**

- 11.1 Eating disorders of depressed athlete
- 11.2 Caffeine's effects on metabolism

**Teaching Learning strategies**

- a) Inquiry based learning
- b) Cooperative Learning



- c) Multimedia usage
- d) Concrete examples
- e) Think -Pair-Share

### Assessment and Examination

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2	Formative Assessment	60%	It is continuous assessment. It includes classroom Participation, attendance, assignments and Presentations, homework, attitude, and behavior, hands on activities, short test, quizzes etc.

### Recommended Books

1. Fink, H. H., & Mikesky, A. E. (2017). *Practical applications in sports nutrition*. Jones & Bartlett Learning.
2. Bean, A. (2017). *The complete guide to sports nutrition*. Bloomsbury Publishing.
3. Harris, S. S., Anderson, S. J., & American Academy of Orthopaedic Surgeons. (2018). *Care of the young athlete*.
4. Thompson, J. J., & Manore, M. (2015). *Nutrition for Life: Books a la Carte Edition*. Benjamin-Cummings.
5. Nutrition for All: Hamid I B & Zafar Iqbal Butt

**Course Title:**           **Application of Statistics in Physical Education**

**Code Number:**       HPE- 304

**Credit Hours:**       03 hrs

**Pre-Requisites course Requirement/Skills:**    Nil

### **Objectives of Course**

At the successful completion of this course students will be able:

- 1) Elucidate the concept of variation and identify and pose statistical questions requiring investigation
- 2) Plan a statistical data investigation including identifying variables and measures and proposing a method of data collection that will answer the question posed.
- 3) Collect, manage and store statistical data ready for analysis.
- 4) Apply fundamental statistical methods to explore, analyse and visualise data and test statistical hypotheses
- 5) Interpret statistical analysis and draw conclusions in context and in the presence of uncertainty

### **Course Contents**

#### **Unit-I**

#### **Introduction of Statistics in Sports**

- 1.1 Definition and importance of Statistics in Sports
- 1.2 Data Different types of data and variables
  - 1.2.1 Classification and Tabulation of data, Frequency distribution, stem-and-Leaf diagram, Graphical representation of data Histogram, frequency polygon, frequency curve.
  - 1.2.2 Measure of Central tendency, Definition and calculation of Arithmetic mean, Geometric mean, Harmonic mean, Median quantiles and Mode in grouped and un-grouped data.
  - 1.2.3 Measure of Dispersion, Definition and Calculation of Range, quartile deviation, Mean deviation, Standard deviation and variance, coefficient of variation.

#### **Unit-II**

#### **Sampling and Estimation**

- 2.1 Sampling Probability and non-Probability Sampling, Simple random sampling stratified random sampling Systematic sampling error, Sampling distribution of mean and difference between two means.
- 2.2 Interference Theory: Estimation and testing of hypothesis, Type—I and type-II error, Testing of hypothesis about mean and difference between two means using Z-test and t-test, Paired t-test, Test of association of attributes using  $\chi^2$  (chi-square) Testing hypothesis about variance.

### Teaching Learning strategies

- a) Inquiry based learning
- b) Cooperative Learning
- c) Multimedia usage
- d) Concrete examples
- e) Think -Pair-Share

### Assessment and Examination

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2	Formative Assessment	60%	It is continuous assessment. It includes classroom Participation, attendance, assignments and Presentations, homework, attitude, and behavior, hands on activities, short test, quizzes etc.

### Recommended Books

1. Harris, M., Taylor, G., Harris, M., & Taylor, G. (2014). *Medical statistics made easy*. Banbury, England: Scion.
2. Chatfield, C. (2018). *Statistics for technology: a course in applied statistics*. Routledge.
3. Green, S. B., & Salkind, N. J. (2016). *Using SPSS for Windows and Macintosh, Books a la Carte*. Pearson.
4. Searle, S. R., & Khuri, A. I. (2017). *Matrix algebra useful for statistics*. John Wiley & Sons.
5. Severini, T. A. (2014). *Analytic methods in sports: Using mathematics and statistics to understand data from baseball, football, basketball, and other sports*. Chapman and Hall/CRC.
6. Kissell, R., & Poserina, J. (2017). *Optimal Sports Math, Statistics, and Fantasy*. Academic Press.

**Course Title:** Biochemistry  
**Code Number:** HPE-305  
**Credit Hours:** 03 hrs  
**Pre-Requisites course Requirement/Skills:** Nil

### **Objectives of Course**

At the successful completion of this course students will be able:

- 1) To prepare the students for better understanding of biochemical approach regarding basic nutritional components enabling to apply this knowledge in major disciplines of Sports Nutrition and other sciences.

### **Course Contents**

#### **Unit-I Biochemistry of Carbohydrates**

- 1.1 Biochemical structure of Mono, di, Oligo and Polysaccharides
- 1.2 Biochemical Importance of Mono, di, Oligo and Polysaccharides

#### **Unit-II Biochemistry of Fats**

- 2.1 Biochemical structure of Solid and Liquid Fats
- 2.2 Biochemical significance of Solid and Liquid Fats

#### **Unit-III Biochemistry of Proteins**

- 3.1 Biochemical structure of Amino Acids
- 3.2 Biochemical significance of Essential and Non-essential amino acids

#### **Unit-IV Metabolic Pathways**

- 4.1 Kreb's cycle
- 4.2 Glycolysis
- 4.3 Electron Transport Chain

### **Teaching Learning strategies**

- a) Inquiry based learning
- b) Cooperative Learning
- c) Multimedia usage
- d) Concrete examples
- e) Think -Pair-Share

### Assessment and Examination

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1	Theory Examination based Assessment	40%	It takes Place at the mid-point of the semester. It is mostly in the form of a test but owing to the nature of the course. The teacher may assess their students based on term paper, research proposal development, field work and report writing etc.
2	Formative Assessment	60%	It is continuous assessment. It includes classroom Participation, attendance, assignments and Presentations, homework, attitude, and behavior, hands on activities, short test, quizzes etc.

### Recommended Books

1. Harborne, J. B. (2014). *Introduction to ecological biochemistry*. Academic press.
2. Muller, F. (2018). *Chemistry and Biochemistry of Flavoenzymes: Volume II*. CRC Press.
3. Lundblad, R. L., & Macdonald, F. (Eds.). (2018). *Handbook of biochemistry and molecular biology*. CRC Press.
4. Clines, G. A. (2014). *Cell, Biochemistry, and Molecular Biology of Bone*.
5. Kenney, W. L., Wilmore, J., & Costill, D. (2015). *Physiology of sport and exercise 6th edition*. Human kinetics.

**Course Title:** Teaching Practice (Practical)  
**Code Number:** HPE-306  
**Credit Hours:** 02 hrs  
**Pre-Requisites course Requirement/Skills:** Nil

### **Objectives of Course**

At the successful completion of this course students will be able:

- 1) All teaching practices focus on the student at the center of learning.
- 2) Teachers make deliberate choices with regard to students' interests and needs and the relevance of what is to be studied.
- 3) The aim of these teaching practices is for students to develop independent knowledge and skills.

### **Course Contents**

#### **Unit-I Preparing to teach**

- 1.1 Course and syllabus design
- 1.2 Teaching the first day of class
- 1.3 Teaching different types of classes
- 1.4 Faculty and TA collaboration

#### **Unit-II Engaging students in learning**

- 2.1 Flipping the classroom
- 2.2 Active learning
- 2.3 Student writing
- 2.4 Discussion
- 2.5 Large lecture instruction
- 2.6 Teaching with technology
- 2.7 Service learning

#### **Unit-III Assessing and improving teaching**

- 3.1 Self-reflection on teaching
- 3.2 Gathering student feedback
- 3.3 Collaborating with colleagues
- 3.4 Assessing student learning

#### **Unit-IV Role of Teacher**

- 4.1 Teacher as Coach

- 4.2 Teacher as Moderator
- 4.3 Teacher as Trainer
- 4.4 Teacher as facilitator

**Teaching Learning strategies**

- a) Inquiry based learning
- b) Cooperative Learning
- c) Multimedia usage
- d) Concrete examples
- e) Think -Pair-Share

**Assessment and Examination**

#	Elements	Weightage	Details
1	Theory Examination based Assessment	40%	It takes Place at the mid-point of the semester. It is mostly in the form of a test but owing to the nature of the course. The teacher may assess their students based on term paper, research proposal development, field work and report writing etc.
2	Formative Assessment	60%	It is continuous assessment. It includes classroom Participation, attendance, assignments and Presentations, homework, attitude, and behavior, hands on activities, short test, quizzes etc.

**Recommended Books**

1. Costa, A., & Lowery, L. F. (2016). *Techniques for teaching thinking*. Routledge.
2. Glisan, E. W., & Donato, R. (2017). *Enacting the Work of Language Instruction: High-Leverage Teaching Practices*. American Council on the Teaching of Foreign Languages. 700 South Washington Street Suite 210, Alexandria, VA 22314.
3. Larson, J., & Marsh, J. (2014). *Making literacy real: Theories and practices for learning and teaching*. Sage.
4. Meltzer, L. (Ed.). (2018). *Executive function in education: From theory to practice*. Guilford Publications.
5. Wlodkowski, R. J., & Ginsberg, M. B. (2017). *Enhancing adult motivation to learn: A comprehensive guide for teaching all adults*. John Wiley & Sons.

**Course Title:** Specialization In One Group Of Track & Field (Theory)  
**Code Number:** HPE-311  
**Credit Hours:** 01 hrs  
**Pre-Requisites course Requirement/Skills:** Nil

### **Objectives of Course**

At the successful completion of this course students will be able:

- 1) This course is aimed at developing the knowledge of students about rules of the Athletics sport along with its coaching and organizational skills among the students.
- 2) The course will enhance the organizational skills in the students and knowledge regarding organization and conduct of tournament at school, college, university and National levels.
- 3) It will also help the students to develop and polish their leadership qualities and sports-man spirit.

### **Course Contents**

#### **Unit-I Introduction**

- 1.1 Definition of Athletics Sport
- 1.2 Value of Track and Field Events at National and International Events

#### **Unit-II Systems of Jumps and Throws Events Organization**

- 2.1 Equipment for Jump and Throws Events
- 2.2 Technical Officials for Jump and Throws Events
- 2.3 Area Dimensions and protocols for Jump and Throws Events

#### **Unit-III Complete Science of Jump and Throw Events in Athletics**

- 3.1 Complete Sports Science of High Jump
- 3.2 Complete Sports Science of Triple Jump
- 3.3 Complete Sports Science of Pole Vault
- 3.4 Complete Sports Science of Discus Throw
- 3.5 Complete Sports Science of Hammer Throw
- 3.6 Complete Sports Science of Shotput
- 3.7 Complete Sports Science of Javelin Throw

#### **Teaching Learning strategies**

- a) Inquiry based learning
- b) Cooperative Learning
- c) Multimedia usage
- d) Concrete examples
- e) Think -Pair-Share



### Assessment and Examination

#	Elements	Weightage	Details
1	Theory Examination based Assessment	40%	It takes Place at the mid-point of the semester. It is mostly in the form of a test but owing to the nature of the course. The teacher may assess their students based on term paper, research proposal development, field work and report writing etc.
2	Formative Assessment	60%	It is continuous assessment. It includes classroom Participation, attendance, assignments and Presentations, homework, attitude, and behavior, hands on activities, short test, quizzes etc.

### Recommended Books

1. Hadden, R. (2018). *Women in Athletics*.
2. Margenau, E. (2014). *Sports Without Pressure: A Guide for Parents and Coaches of Young Athletes*. Routledge.
3. Müller, M., & Pickles, J. (2015). *Global games, local rules: Mega-events in the post-socialist world*.
4. Jones, M. E. (2016). *Rules of the game: Sports Law*. Rowman & Littlefield.
5. Gardiner, S., O'Leary, J., Welch, R., Boyes, S., & Naidoo, U. (2012). *Sports law*. Routledge.

**Course Title:** Specialization In One Group Of Track & Field (Practical)  
**Code Number:** HPE-317  
**Credit Hours:** 02 hrs  
**Pre-Requisites course Requirement/Skills:** Nil

**Objectives of Course**

At the successful completion of this course students will be able:

- 4) This course is aimed at developing the knowledge of students about rules of the Athletics sport along with its coaching and organizational skills among the students.
- 5) The course will enhance the organizational skills in the students and knowledge regarding organization and conduct of tournament at school, college, university and National levels.
- 6) It will also help the students to develop and polish their leadership qualities and sports-man spirit.

**Course Contents**

**Unit-I Systems of Jumps and Throws Events Organization**

- 1.1 Equipment for Jump and Throws Events
- 1.2 Technical Officials for Jump and Throws Events
- 1.3 Area Dimensions and protocols for Jump and Throws Events

**Unit-II Complete Practical Science of Jump and Throw Events in Athletics**

- 2.1 Complete Practical Science of High Jump
- 2.2 Complete Practical Science of Triple Jump
- 2.3 Complete Practical Science of Pole Vault
- 2.4 Complete Practical Science of Discus Throw
- 2.5 Complete Practical Science of Hammer Throw
- 2.6 Complete Practical Science of Shotput
- 2.7 Complete Practical Science of Javelin Throw

**Teaching Learning strategies**

- f) Inquiry based learning
- g) Cooperative Learning
- h) Multimedia usage
- i) Concrete examples
- j) Think -Pair-Share

**Assessment and Examination**

#	Elements	Weightage	Details
1	Theory Examination based Assessment	40%	It takes Place at the mid-point of the semester.

			It is mostly in the form of a test but owing to the nature of the course. The teacher may assess their students based on term paper, research proposal development, field work and report writing etc.
2	Formative Assessment	60%	It is continuous assessment. It includes classroom Participation, attendance, assignments and Presentations, homework, attitude, and behavior, hands on activities, short test, quizzes etc.

### Recommended Books

6. Hadden, R. (2018). *Women in Athletics*.
7. Margenau, E. (2014). *Sports Without Pressure: A Guide for Parents and Coaches of Young Athletes*. Routledge.
8. Müller, M., & Pickles, J. (2015). *Global games, local rules: Mega-events in the post-socialist world*.
9. Jones, M. E. (2016). *Rules of the game: Sports Law*. Rowman & Littlefield.
10. Gardiner, S., O'Leary, J., Welch, R., Boyes, S., & Naidoo, U. (2012). *Sports law*. Routledge.

**Course Title:** Research Methodology In Physical Education

**Code Number:** HPE-312

**Credit Hours:** 03 hrs

**Pre-Requisites course Requirement/Skills:** Nil

### Objectives of Course

At the successful completion of this course students will be able:

- 1) Without any doubt research is the basic requirement for the academic promotion and development of a discipline.
- 2) This basic informative course of research methods will help the students of Health, Physical Education and Sports to understand the definitions and meanings of research, use of the tools for data collection, procedures of sampling and various terminologies used in the research process.
- 3) After going through the course, the students will be in a better position to pursue research projects in their respective field.

### Course Contents

#### Unit-I

#### Introduction to Research

- 1.1 Definition and meaning of Research
- 1.2 Characteristics of Research
- 1.3 Type of Research
- 1.4 Purposes of Research
- 1.5 Need and importance of Research in Physical Education.

**Unit-II** **Nature of Inquiry**

- 2.1 The search for truth
- 2.2 Non-Scientific Methods of acquiring knowledge
- 2.3 Scientific Method of acquiring Knowledge
- 2.4 Introduction to components of Research Onion

**Unit-III** **Methods of Research**

- 3.1 Historical research
- 3.2 Descriptive research
- 3.3 Experimental research

**Unit-IV** **The Research Problem**

- 4.1 Identification of the problems
- 4.2 Criteria of selecting the problems
- 4.3 Sources for locating the problems
- 4.4 Problems evaluation
- 4.5 Limitations, Delimitation, Assumption

**Unit-V** **Research Question and Hypotheses**

- a. Introduction to Research Question
- b. Types of Hypotheses
- c. Type I & Type II Error

**Unit-VI** **Literature Review**

- 6.1 Introduction to Literature Review
- 6.2 Method of developing Literature Review
- 6.3 Literature Review Pitfalls

**Unit-VII** **Variables and Research Frameworks**

- 7.1 Introduction to Variables in Research
- 7.2 Types of Variables
- 7.3 Relationships of Variables
- 7.4 Introduction and method of development of Conceptual & Theoretical framework in Research

**Unit-VIII** **Research Proposal**

- 8.1 Developing the research proposal
  - 8.1.1 Statement of the problems

- 8.1.2 Significance of the problems
- 8.1.3 Objectives of the study
- 8.1.4 Hypotheses
- 8.1.5 Procedure of the study
- 8.1.6 Time Frame
- 8.1.7 Limitation/delimitation and scope of study

**Unit-IX** **Sampling**

- 9.1 Sampling
- 9.2 Classification of sampling
- 9.3 Sampling procedure

**Unit-X** **Tools for Data Collections**

- 10.1 Questionnaire
- 10.2 Interviews
- 10.3 Tests
- 10.4 Observation
- 10.5 Use of relevant and reference materials, Note taking
- 10.6 Other different tools

**Unit-XI** **Writing the Research Thesis**

- 11.1 Pattern or style of research Thesis
- 11.2 The structure components of research Thesis
- 11.3 Term report, Dissertation, Thesis, Foot notes, References Bibliography
- 11.4 Impact Factor Calculation

**Teaching Learning strategies**

- a) Inquiry based learning
- b) Cooperative Learning
- c) Multimedia usage
- d) Concrete examples
- e) Think -Pair-Share

**Assessment and Examination**

#	Elements	Weightage	Details
1	Theory Examination based Assessment	40%	It takes Place at the mid-point of the semester. It is mostly in the form of a test but owing to the nature of the course. The teacher may assess their students based on term paper, research proposal development, field work and report writing etc.
2	Formative Assessment	60%	It is continuous assessment. It includes classroom Participation, attendance, assignments and Presentations,

			homework, attitude, and behavior, hands on activities, short test, quizzes etc.
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### **Recommended Books**

2. Veal, A. J. (2017). *Research methods for leisure and tourism*. Pearson UK.
3. Thomas, J. R., Silverman, S., & Nelson, J. (2015). *Research methods in physical activity*, 7E. Human kinetics.
4. Jones, I. (2014). *Research methods for sports studies*. Routledge.
5. Veal, A. J., & Darcy, S. (2014). *Research methods in sport studies and sport management: A practical guide*. Routledge.
6. Walliman, N. (2017). *Research methods: The basics*. Routledge.

**Course Title:** Planning Sports Facilities  
**Code Number:** HPE-313  
**Credit Hours:** 03 hrs  
**Pre-Requisites course Requirement/Skills:** Nil

### **Objectives of Course**

At the successful completion of this course students will be able:

- 1) The course will be helpful in developing the knowledge of students about planning for sports facilities.
- 2) The course will also create awareness among the students to plan, locate, and know the size of Field House, Gymnasium, Stadium, and Swimming Pool facilities and other Laboratories.

### **Course Contents**

#### **Unit-I Planning Process**

- 1.1 Basic Consideration
- 1.2 Need for Area and Facilities
  - 1.2.1 Need for Planning
  - 1.2.2 Planning Factors
  - 1.2.3 Planning Units – Types and Function

#### **Unit-II Planning for Sports & Physical Education Facilities**

- 2.1 Major Concepts
- 2.2 Steps in Planning Process
- 2.3 Responsibilities of Physical Educator

#### **Unit-III Sports Facilities for Research**

- 3.1 General Consideration
- 3.2 Teaching and Research Laboratories
- 3.3 Specific Laboratories Facilities
  - 3.3.1 Measurement and Evaluation
  - 3.3.2 Biomechanics
  - 3.3.3 Exercise Physiology
  - 3.3.4 Motor Learning and Psychology Learning

#### **Unit-IV Planning, Location and Size of the Following Facilities**

- 4.1 Field House
- 4.2 Stadium

- 4.3 Gymnasium
- 4.4 Swimming Pool
- 4.5 Artificial Surfaces (Indoor and outdoor)

**Unit-V**

**Facilities for Faculty and Staff**

- 5.1 Administrative Units
- 5.2 Essential administrative facilities
  - 5.2.1 Administrative Office
  - 5.2.2 Faculty Offices
  - 5.2.3 Audiovisual Room
  - 5.2.4 Conference Rooms
  - 5.2.5 Locker Shower Room
  - 5.2.6 Toilet and Lavatory Facilities

**Teaching Learning strategies**

- a) Inquiry based learning
- b) Cooperative Learning
- c) Multimedia usage
- d) Concrete examples
- e) Think -Pair-Share

**Assessment and Examination**

#	Elements	Weightage	Details
1	Theory Examination based Assessment	40%	It takes Place at the mid-point of the semester. It is mostly in the form of a test but owing to the nature of the course. The teacher may assess their students based on term paper, research proposal development, field work and report writing etc.
2	Formative Assessment	60%	It is continuous assessment. It includes classroom Participation, attendance, assignments and Presentations, homework, attitude, and behavior, hands on activities, short test, quizzes etc.

**Recommended Books**

1. Van Den Berg, L., & Braun, E. (2017). *Sports and city marketing in European cities*. Routledge.
2. Gold, J. R., & Gold, M. M. (Eds.). (2016). *Olympic cities: City agendas, planning, and the world’s games, 1896–2020*. Routledge.
3. Shank, M. D., & Lyberger, M. R. (2014). *Sports marketing: A strategic perspective*. Routledge.
4. Field, B. (2018). *Forecasting techniques for urban and regional planning*. Routledge.
5. Sheard, R. (2014). *Sports architecture*. Taylor & Francis.



**Course Title:** Test Measurement & Evaluation in Physical Education and Sports  
**Code Number:** HPE-314  
**Credit Hours:** 03 hrs  
**Pre-Requisites course Requirement/Skills:** Nil

### **Objectives of Course**

At the successful completion of this course students will be able:

- 1) The course is designed to make the students understand and use the statistical means for the research purposes.
- 2) They will learn about inferential statistics using it in everyday life for the uplift of the discipline and bringing positive reforms in order to achieve the objective.

### **Course Contents**

#### **Unit-I Introduction**

- 1.1 Definitions of Test, Measurement and Evaluation
- 1.2 Importance of Measurement and Evaluation in Physical Education
- 1.3 Basic Principles of Evaluation

#### **Unit-II Evaluation and Administration of Tests**

- 2.1 Criteria for Selecting Appropriate Test
- 2.2 Pre-test Responsibilities
- 2.3 Duties and Responsibilities during Testing
- 2.8 Post-test Responsibilities

#### **Unit-III Basic Statistics**

- 3.1 Standard Deviation
- 3.2 Normal Probability Curve
- 3.3 Standard Scores (Z. Scores-T. Scores)
- 3.4 Correlation
- 3.5 ANOVA Test and its variations
- 3.6 Regression and its types
- 3.7 T-Test and its variations

#### **Unit-IV Physical Fitness Testing**

- 4.1 Definition of Physical Fitness
- 4.2 Components of Physical Fitness
- 4.3 Physical Fitness Test Index

**Unit-V** **General Motor Ability Testing**

- 5.1 Definition of Motor Ability
- 5.2 Components of Motor Ability
- 5.3 Measurement of Motor Ability

**Unit-VI** **Cardiovascular Fitness Testing**

- 6.1 Definition
- 6.2 Measurement of Cardiovascular Fitness

**Unit-VII** **Rating Scales in Physical Education**

- 7.1 Construction of Rating Scales
- 7.2 Rules for the use of Rating Scales
- 7.4 Types of Rating Devices

**Unit-VIII** **Measurement of Specific Sport Skills**

- 8.1 Hockey
- 8.2 Football
- 8.3 Cricket
- 8.4 Badminton
- 8.5 Volleyball
- 8.6 Tennis
- 8.7 Track & Field (One event from each group)

**Teaching Learning strategies**

- a) Inquiry based learning
- b) Cooperative Learning
- c) Multimedia usage
- d) Concrete examples
- e) Think -Pair-Share

**Assessment and Examination**

#	Elements	Weightage	Details
1	Theory Examination based Assessment	40%	It takes Place at the mid-point of the semester. It is mostly in the form of a test but owing to the nature of the course. The teacher may assess their students based on term paper, research proposal development, field work and report writing etc.
2	Formative Assessment	60%	It is continuous assessment. It includes classroom Participation, attendance, assignments and Presentations,

			homework, attitude, and behavior, hands on activities, short test, quizzes etc.
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### **Recommended Books**

1. Morrow Jr, J. R., Mood, D., Disch, J., & Kang, M. (2015). *Measurement and Evaluation in Human Performance, 5E*. Human Kinetics.
2. Norkin, C. C., & White, D. J. (2016). *Measurement of joint motion: a guide to goniometry*. FA Davis.
3. Baker, J., & Farrow, D. (2015). *Routledge handbook of sport expertise*. Routledge.
4. Lacy, A. C., & Williams, S. M. (2018). *Measurement and evaluation in physical education and exercise science*. Routledge.
5. Palange, P., Laveneziana, P., Neder, J. A., & Ward, S. A. (Eds.). (2018). *Clinical exercise testing* (Vol. 80). European Respiratory Society.

**Course Title:** Sports Psychology  
**Code Number:** HPE-315  
**Credit Hours:** 03 hrs  
**Pre-Requisites course Requirement/Skills:** Nil

### **Objectives of Course**

At the successful completion of this course students will be able:

- 1) The course will provide an overview of the field of sports psychology and exercise, which involves applying psychology topics to exercise, sports, competition and health.
- 2) Topics will cover how sports psychologists work at any level with athletes and teams in motivation, concentration, resilient personalities, attention, decision making based on neurobehavioral, cognitive and other important approaches in sports psychology.
- 3) Topics will include theoretical foundations of behavior, procedures for solving problems, adherence and motivation, etc.
- 4) One major area of study is health psychology as a very important complement to training. Well-being and performance are compatible.

### **Course Contents**

#### **Unit-I Sports Psychology**

- 1.1 Definition of Sports Psychology
- 1.2 Branches of Psychology with Special Reference to Exercise and Sports
- 1.3 Applications of Psychology in Sports
- 1.4 Role of Sports Psychology

#### **Unit-II Stress, Anxiety and Arousal Relationship in Sports**

- 2.1 Differentiating Among Stress, Anxiety and Arousal
- 2.2 Concept of Stress
- 2.3 Concept of Anxiety
- 2.4 Concept of Arousal
- 2.5 Differentiating among Stress, Anxiety and Arousal
- 2.6 Relationship between anxiety and performance Anxiety reduction Techniques
- 2.7 Relationship between Arousal and Performance

#### **Unit-III Aggression, Motivation and Self Confidence in Sports**

- 3.1 Bandura's Theory (Model) Of Self-Efficacy
- 3.2 Developing Self-Confidence through Self Talk
- 3.3 Guide to Promoting Positive Self Thoughts and Smart Talk
- 3.4 Commitment
- 3.5 Types and Theories of Aggression

- 3.6 Motivation and its theories and application in Sports
- 3.7 Understanding the causes of Aggression
- 2.9 Examining Aggression in Sports:
  - 2.9.1 Spectators and aggression
  - 2.9.2 Games Reasoning and aggression
  - 2.9.3 Athletic injuries and aggression
  - 2.9.4 Performance and aggression
  - 2.9.5 Team moral atmosphere and aggression

**Unit-IV** **Goal Setting, Attention and Concentration in Sports**

- 4.1 Reasons for Goal Setting
- 4.2 Principles for Effective Goal Setting
- 4.3 Attention and Types of Attentional Focus
- 4.4 Attention and Maximizing Performance

**Unit-V** **Imagery and Sports Performance**

- 5.1 Definitions of Imagery
- 5.2 Benefits of Imagery
- 5.3 Steps for Becoming Proficient in Imagery
- 5.4 Imagery before and during Competition

**Unit-VI** **Cognitive and Behavioural Interventions of Sports Performance**

- 6.1 Relaxation Strategies in Sports
- 6.2 Coping Strategies
- 6.3 Arousal Energizing Strategies
- 6.4 Hypnosis

**Unit-VII** **Team Cohesions in Sports**

- 7.1 Introduction and types of cohesion
- 7.2 Measurement of cohesion
- 7.3 Factors effecting cohesion
- 7.4 Interventions to enhance sports cohesion
- 7.5 Introduction of conflicts
- 7.6 Types of conflicts
- 7.7 Strategies of conflict management

**Teaching Learning strategies**

- a) Inquiry based learning
- b) Cooperative Learning

- c) Multimedia usage
- d) Concrete examples
- e) Think -Pair-Share

### Assessment and Examination

#	Elements	Weightage	Details
1	Theory Examination based Assessment	40%	It takes Place at the mid-point of the semester. It is mostly in the form of a test but owing to the nature of the course. The teacher may assess their students based on term paper, research proposal development, field work and report writing etc.
2	Formative Assessment	60%	It is continuous assessment. It includes classroom Participation, attendance, assignments and Presentations, homework, attitude, and behavior, hands on activities, short test, quizzes etc.

### Recommended Books

1. Schinke, R. J., & Hackfort, D. (Eds.). (2016). *Psychology in professional sports and the performing arts: challenges and strategies*. Routledge.
2. Nicholls, A. R. (2017). *Psychology in sports coaching: theory and practice*. Routledge.
3. Shaw, J. (2017). *Dream Jobs in Sports Psychology*. The Rosen Publishing Group, Inc.
4. Schinke, R. J., & McGannon, K. R. (Eds.). (2014). *The psychology of sub-culture in sport and physical activity: Critical perspectives*. Routledge.
5. Moran, A. P. (2016). *The psychology of concentration in sport performers: A cognitive analysis*. Psychology Press.

**Course Title: ENVIRONMENTAL SCIENCES**

**Code Number: HPE-316**

**Credit Hours: 03 hrs**

**Pre-Requisites course Requirement/Skills: Nil**

### **Objective of Course**

At the successful completion of this course students will be able:

- 1) To learn that the environmental science major prepares you for career success in natural resources and conservation, public health, environmental monitoring and remediation, industrial environmental management, or research or education of environmental science.

### **Course Contents**

#### **Unit-I Introduction**

- 1.1 Basic Concept of Environment and Environmental sciences
- 1.2 Concept of biodiversity
- 1.3 Components of Environment
- 1.4 Physical, Biological, Social, Chemical and other effects on environment
- 1.5 Sports and Environment

#### **Unit-II Segments of Environment**

- 2.1 Atmosphere
- 2.2 Hydrosphere
- 2.3 Lithosphere
- 2.4 Biosphere
- 2.5 Mesosphere

#### **Unit-III Ecosystem**

- 3.1 Fundamental concept and characteristics of Ecosystem
- 3.2 Abiotic and Biotic components of Ecosystem
- 3.3 Trophic levels of ecosystem
- 3.4 Natural resources
- 3.5 Renewable and nonrenewable resources
- 3.6 Finite nature of natural resource

#### **Unit-IV Food and Food Sources**

- 4.1 Global food conditions
- 4.2 Agricultural, animal husbandry and fishery
- 4.3 Food resources in Pakistan
- 4.4 Food chains and energy system
- 4.5 Energy Pyramids
- 4.6 Concept of food chain and food web

## **Unit-V Biodiversity**

- 5.1 Concept of Biodiversity
- 5.2 Importance of uneven distribution of biological wealth
- 5.3 Biological diversity and future changes in climate
- 5.4 Land and Landscape

## **Unit-VI Pollution and Environment**

- 6.1 Basic concept of Pollution and Pollutants
- 6.2 Types of Pollution and Pollutants
- 6.3 Sources, causes, protective measures and solutions of Water, Soil, Air, Noise and other types of pollutants.

## **Unit-VII Environmental Ethics and Valued Education, Sustainable Development in Environment**

- 7.1 Environmental issues and ethics
- 7.2 Human health and Environment
- 7.3 Sustainable development and Environment
- 7.4 Eliminating threat to the global food security
- 7.5 Controlling the degeneration of biodiversity

## **Unit-VIII Environmental Sciences and Sports**

- 8.1 Sports and segment of Environment
- 8.2 Renewable and nonrenewable resources used in sports
- 8.3 Finite nature of natural resource and its effects on sports
- 8.4 Effects of sports on biodiversity
- 8.5 Importance of uneven distribution of biological wealth and sports
- 8.6 Biological diversity and future changes for sports
- 8.7 Effects of sports on water, soil and air pollution
- 8.8 Ethics and environmental issues regarding sports

### **Teaching Learning strategies**

- a) Inquiry based learning
- b) Cooperative Learning
- c) Multimedia usage
- d) Concrete examples
- e) Think -Pair-Share

### **Assessment and Examination**

#	Elements	Weightage	Details
1	Theory Examination based Assessment	40%	It takes Place at the mid-point of the semester. It is mostly in the form of a test but owing to the nature of the course. The teacher may assess their students based on



			term paper, research proposal development, field work and report writing etc.
2	Formative Assessment	60%	It is continuous assessment. It includes classroom Participation, attendance, assignments and Presentations, homework, attitude, and behavior, hands on activities, short test, quizzes etc.

### Recommended Books

1. Nieuwenhuijsen, M. J. (Ed.). (2015). *Exposure assessment in environmental epidemiology*. Oxford University Press, USA.
2. Lehmann, J., & Joseph, S. (Eds.). (2015). *Biochar for environmental management: science, technology and implementation*. Routledge.
3. Ong, C. K., Black, C., & Wilson, J. (Eds.). (2015). *Tree-crop interactions: agroforestry in a changing climate*. CABI.
4. Hudson, N. (2015). *Soil conservation: fully revised and updated*(No. Ed. 3). New India Publishing Agency.
5. Houlihan, B., & Malcolm, D. (Eds.). (2015). *Sport and society: a student introduction*. Sage.

**Course Title:** Common Sports Injuries, Treatment & Rehabilitation  
**Code Number:** HPE-401  
**Credit Hours:** 03 hrs  
**Pre-Requisites course Requirement/Skills:** Nil

### **Objectives of Course**

At the successful completion of this course students will be able:

- 1) This course is designed to acquaint the students with the injuries, its management and rehabilitation elaborating central nervous system, knee, Tennis Elbow ankle injuries and explaining safety rules and basic physiotherapist treatment to manage in case of emergency.

### **Course Contents**

#### **Unit-I Introduction to Sports Injuries**

- 1.1 Classification of Sports Injuries:
  - 1.1.1 Cramps
  - 1.1.2 Ruptures
  - 1.1.3 Fractures
  - 1.1.4 Pulled Muscles/Muscle Stiffness
  - 1.1.5 Strains
  - 1.1.6 Soreness
  - 1.1.7 Identification of Injuries:
    - 1.1.7.1 Upper Limb
    - 1.1.7.2 Lower Limb

#### **Unit-II Prevention of Injuries During Sports Activities**

- 2.1 Warm up
- 2.2 Skill performance
- 2.3 Play
- 2.4 Use of equipment
- 2.5 Proper cool down

#### **Unit-III Treatment of Injuries**

- 3.1 Through Exercise
- 3.2 Through Medication
- 3.3 Hydrotherapy / Steam Therapy/Ice Therapy
- 3.4 Pressure Therapy
- 3.5 Laser Therapy

**Unit-IV****Tendon Injuries**

- 4.1 Definition
- 4.2 Types of tendon injuries & their treatment.
- 4.3 Different types of Bursitis its causes signs , Symptoms & Treatment.

**Unit-V****Over Use Injuries**

- 5.1 Definition
- 5.2 Causes
- 5.3 Overuse injuries in sports men
- 5.4 Supraspinatus Syndrome, Injury to meniscus, Tennis elbow, Golf Elbow, Patellofemoral, Groin injuries and Hamstring Injuries.

**Unit-VI****Fractures and Dislocation of Joints**

- 6.1 Definitions
- 6.2 Types
- 6.3 Treatment / Rehabilitation

**Unit-VII****Massage**

- 7.1 Definition of Massage
- 7.2 Importance of Massage
- 7.3 Methods of Massage

**Teaching Learning strategies**

- a) Inquiry based learning
- b) Cooperative Learning
- c) Multimedia usage
- d) Concrete examples
- e) Think -Pair-Share

**Assessment and Examination**

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1	Theory Examination based Assessment	40%	It takes Place at the mid-point of the semester. It is mostly in the form of a test but owing to the nature of the course. The teacher may assess their students based on term paper, research proposal development, field work and report writing etc.
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### **Recommended Books**

1. Harris, S. S., Anderson, S. J., & American Academy of Orthopaedic Surgeons. (2018). *Care of the young athlete*.
2. Whyte, G., Loosemore, M., & Williams, C. (Eds.). (2015). *ABC of sports and exercise medicine*. John Wiley & Sons.
3. Solomon, R., Solomon, J., & Micheli, L. J. (Eds.). (2017). *Prevention of injuries in the young dancer*. Springer.
4. Kanosue, K., Ogawa, T., Fukano, M., & Fukubayashi, T. (Eds.). (2015). *Sports injuries and prevention*. Springer Japan.
5. Miller, M. D. (Ed.). (2016). *Orthopaedic knowledge update: sports medicine*. American Academy of Orthopaedic Surgeons.

**Course Title:** Exercise Physiology  
**Code Number:** HPE-402  
**Credit Hours:** 03 hrs  
**Pre-Requisites course Requirement/Skills:** Nil

### **Objectives of Course**

At the successful completion of this course students will be able:

- 1) The course has been developed with the objective to provide knowledge of exercise physiology, exercise responses, methods to improve performance, fitness, age and exercise, gender differences, weight control, obesity and exercise environment.

### **Course Contents**

#### **Unit-I Introduction**

- 1.1 Definition and nature of exercise physiology.
- 1.2 Importance of exercise physiology in Physical Education

#### **Unit-II Muscular System and Exercise**

- 2.1 Muscle: Structure and function
- 2.2 Fiber types and biochemistry
- 2.3 Mechanism of Transmission of Nerve Impulse in Muscles
- 2.4 Metabolic fuels for exercise and recovery

#### **Unit-III Cardiovascular System and Exercise**

- 3.1 Muscle blood flow and blood pressure
- 3.2 Work out put, Oxygen consumption and cardiac output.
- 3.3 Training effects on heart, stroke volume and heart rate
- 3.4 Effects of heart disease and old age on athletic performance.

#### **Unit-IV Environment and Exercise**

- 4.1 Acclimatization to heat, cold, altitude
- 4.2 Environmental Hazards in training
- 4.3 Temperature regulations
- 4.4 Exercise and temperature regulation in hot climate
- 4.5 Humid climate (Hyponatrimia)
- 4.6 Hot and dry climate (General Heat Disorders)
- 4.7 Cold climate (Hypothermia, Frostbite and Frostnip etc.)
- 4.8 Air pollution
- 4.9 Environment and Exercise
- 4.10 High altitude effects on exercise

**Unit-V** **Nervous System and Exercise**

- 5.1 Effects of nervous system during exercise
- 5.2 Neuromuscular coordination

**Unit-VI** **Glandular System and Exercise**

- 6.1 General metabolic and endocrine changes
- 6.2 Effects of therapeutic medication
- 6.3 Hormonal changes

**Unit-VII** **Gender Differences**

- 7.1 Exercise and sex differences
- 7.2 Male and Female athletes
- 7.3 Effect on performances and control

**Unit-VIII** **Obesity**

- 8.1 Definition and types
- 8.2 Hazards
- 8.3 Diabetes
- 8.4 Coronary Heart Diseases (CHD)

**Unit-IX** **Respiratory System**

- 9.1 Gaseous exchange
- 9.2 Respiratory volumes
- 9.3 Effects of exercise on respiratory system
- 9.4 Hemoglobin Dissociation Curve

**Teaching Learning strategies**

- a) Inquiry based learning
- b) Cooperative Learning
- c) Multimedia usage
- d) Concrete examples
- e) Think -Pair-Share

**Assessment and Examination**

#	Elements	Weightage	Details
1	Theory Examination based Assessment	40%	It takes Place at the mid-point of the semester. It is mostly in the form of a test but owing to the nature of the course. The teacher may assess their students based on term paper, research proposal development, field work and report writing etc.

2	Formative Assessment	60%	It is continuous assessment. It includes classroom Participation, attendance, assignments and Presentations, homework, attitude, and behavior, hands on activities, short test, quizzes etc.
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#### **Recommended Books**

1. Kenney, W. L., Wilmore, J., & Costill, D. (2015). *Physiology of sport and exercise 6th edition*. Human kinetics.
2. Ehrman, J., Gordon, P., Visich, P., & Keteyian, S. (Eds.). (2018). *Clinical Exercise Physiology, 4E*. Human Kinetics.
3. Housh, T. J., & Housh, D. J. (2017). *Applied Exercise and Sport Physiology, With Labs*. Routledge.
4. Sharma, J. (2015). *EXERCISE PHYSIOLOGY HEALTH FITNESS AND PERFORMANCE*. Horizon Books (A Division of Ignited Minds Edutech P Ltd).
5. Boone, T. (2014). *Introduction to exercise physiology*. Burlington, MA: Jones & Bartlett Learning.





- 4.4 Banners
- 4.5 Pamphlets

**Unit-V Sports and Journalism**

- 5.1 Introduction
- 5.2 Images and Messages in Media Sports
- 5.3 Sports and Government
- 5.4 Media as a Source of Propagation in Sports
- 5.5 Media and the Development of Sports.

**Teaching Learning strategies**

- a) Inquiry based learning
- b) Cooperative Learning
- c) Multimedia usage
- d) Concrete examples
- e) Think -Pair-Share

**Assessment and Examination**

#	Elements	Weightage	Details
1	Theory Examination based Assessment	40%	It takes Place at the mid-point of the semester. It is mostly in the form of a test but owing to the nature of the course. The teacher may assess their students based on term paper, research proposal development, field work and report writing etc.
2	Formative Assessment	60%	It is continuous assessment. It includes classroom Participation, attendance, assignments and Presentations, homework, attitude, and behavior, hands on activities, short test, quizzes etc.

**Recommended Books**

1. Newman, T., Peck, J., & Wilhide, B. (2017). *Social media in sport marketing*. Routledge.
2. Farrington, N., Hall, L., Kilvington, D., Price, J., & Saeed, A. (2017). *Sport, racism and social media*. Routledge.
3. Houlihan, B., & Malcolm, D. (Eds.). (2015). *Sport and society: a student introduction*. Sage.
4. Van Den Berg, L., & Braun, E. (2017). *Sports and city marketing in European cities*. Routledge.
5. Donders, K., Pauwels, C., & Loisen, J. (Eds.). (2014). *The Palgrave handbook of European media policy*. Springer.

**Course Title:** Scientific Sports Coaching  
**Code Number:** HPE-404  
**Credit Hours:** 03 hrs  
**Pre-Requisites course Requirement/Skills:** Nil

### **Objectives of Course**

At the successful completion of this course students will be able:

- 1) The purpose of this course is to provide knowledge about scientific coaching to maintain professionalism, fulfill the responsibilities, to manage the sports training stages, organize the training designed and mature application of teaching the well manners.

### **Course Contents**

#### **Unit-I Introduction to sports coaching**

- 1.1 Introduction and nature of coaching profession
- 1.2 Qualities of a good coach

#### **Unit-II Teaching Methodology for a Coach**

- 2.1 Skill, Technique and Ability
- 2.2 Methods of Transfer of Learning in Sports
- 2.3 Skill Development

#### **Unit-III Role of a Coach**

- 3.1 Coaching Philosophy
- 3.2 Coaching Style
- 3.3 Coaching Ethics

#### **Unit-IV Development of Skill Analysis and Strategies**

- 4.1 Physical Training
- 4.2 Mental Training
- 4.3 Technical Training
- 4.4 Tactical Training

#### **Unit-V Periodization of Training**

- 5.1 Off season Training
- 5.2 Pre-season Training
- 5.3 Peak/in-season Training
- 5.4 Micro cycle
- 5.5 Macro cycle
- 5.6 Warming up
- 5.7 Cooling down

## Unit-VI

## Components of Fitness

- 6.1 Health related Fitness (Need, Importance & Improvement)
- 6.2 Skill related Fitness (Need, Importance & Improvement)
- 6.3 Training Principles (Need, Importance & Improvement)

## Unit-VII

## Caching & Training Plans of major Games

- 7.1 Athletics
- 7.2 Cricket
- 7.3 Hockey
- 7.4 Football
- 7.5 Volleyball
- 7.6 Badminton
- 7.7 Basketball

### Teaching Learning strategies

- a) Inquiry based learning
- b) Cooperative Learning
- c) Multimedia usage
- d) Concrete examples
- e) Think -Pair-Share

### Assessment and Examination

#	Elements	Weightage	Details
1	Theory Examination based Assessment	40%	It takes Place at the mid-point of the semester. It is mostly in the form of a test but owing to the nature of the course. The teacher may assess their students based on term paper, research proposal development, field work and report writing etc.
2	Formative Assessment	60%	It is continuous assessment. It includes classroom Participation, attendance, assignments and Presentations, homework, attitude, and behavior, hands on activities, short test, quizzes etc.

### Recommended Books

1. Baker, J., & Farrow, D. (2015). *Routledge handbook of sport expertise*. Routledge.
2. Lyle, J., & Cushion, C. (2016). *Sport coaching concepts: A framework for coaching practice*. Routledge.
3. Beauchamp, M. R., & Eys, M. A. (Eds.). (2014). *Group dynamics in exercise and sport psychology*. Routledge.
4. Berry, M., Lomax, J., & Hodgson, C. (Eds.). (2015). *Adventure sports coaching*. Routledge.
5. Nicholls, A. R. (2017). *Psychology in sports coaching: theory and practice*. Routledge.

6. Nelson, L., Groom, R., & Potrac, P. (Eds.). (2016). *Learning in sports coaching: Theory and application*. Routledge.

**Course Title:** Research Project  
**Code Number:** HPE-405  
**Credit Hours:** 01 hrs  
**Pre-Requisites course Requirement/Skills:** Nil

**Objectives of Course**

At the successful completion of this course students will be able:

- Carry out a substantial research-based project
- Demonstrate capacity to lead and manage change through collaboration with others
- Demonstrate an understanding of the ethical issues associated with practitioner research
- Analyse data and synthesize research findings
- Report research findings in written and verbal forms
- Use research findings to advance education theory and practice.

**Course Contents**

- Unit-I** Introduction to doctoral research
- Unit-II** Funding your study
- Unit-III** Defining the problem and writing a research question
- Unit-IV** Writing a literature review
- Unit-V** Research design and methodology
- Unit-VI** How to construct your project

**Teaching Learning strategies**

- a) Inquiry based learning
- b) Cooperative Learning
- c) Multimedia usage
- d) Concrete examples
- e) Think -Pair-Share

**Assessment and Examination**

#	Elements	Weightage	Details
1	Theory Examination based Assessment	40%	It takes Place at the mid-point of the semester. It is mostly in the form of a test but owing to the nature of the course. The teacher may assess their students based on term paper, research proposal development, field work and report writing etc.
2	Formative Assessment	60%	It is continuous assessment. It includes classroom Participation, attendance, assignments and Presentations,

			homework, attitude, and behavior, hands on activities, short test, quizzes etc.
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### **Recommended Books**

1. Walliman, N. (2017). *Research methods: The basics*. Routledge.
2. Orcher, L. T. (2016). *Conducting research: Social and behavioral science methods*. Routledge.
3. Patten, M. L. (2016). *Proposing empirical research: A guide to the fundamentals*. Routledge.
4. Salazar, L. F., Crosby, R. A., & DiClemente, R. J. (2015). *Research methods in health promotion*. John Wiley & Sons.
5. Marshall, C., & Rossman, G. B. (2014). *Designing qualitative research*. Sage publications.

**Course Title:** Specialization in One Game (Theory)  
**Code Number:** HPE-406  
**Credit Hours:** 01 hrs  
**Pre-Requisites course Requirement/Skills:** Nil

**Objectives of Course**

At the successful completion of this course students will be able:

- 1) The purpose of this course is to provide the comprehensive expert level knowledge about one sport / game to attain professional level for playing, organization, coaching and conduction of that specific sport.

**Course Contents**

**Unit-I Complete Introduction of One Selected Game, its rules and regulations etc.**

**Unit-II Theoretical approach of Coaching of all components of one selected Game.**

**Teaching Learning strategies**

- a) Inquiry based learning
- b) Cooperative Learning
- c) Multimedia usage
- d) Concrete examples
- e) Think -Pair-Share

**Assessment and Examination**

#	Elements	Weightage	Details
1	Theory Examination based Assessment	40%	It takes Place at the mid-point of the semester. It is mostly in the form of a test but owing to the nature of the course. The teacher may assess their students based on term paper, research proposal development, field work and report writing etc.
2	Formative Assessment	60%	It is continuous assessment. It includes classroom Participation, attendance, assignments and Presentations, homework, attitude, and behavior, hands on activities, short test, quizzes etc.

**Recommended Books**

1. All authentic sources from Books and Internet regarding that one selected sport.

**Course Title: Specialization in One Game (Practical)**

Code Number: HPE- 407

Credit Hours: 02 hrs

Pre-Requisites course Requirement/Skills: Nil

### Objectives of Course

At the successful completion of this course students will be able:

- 2) The purpose of this course is to provide the comprehensive expert level knowledge about one sport / game to attain professional level for playing, organization, coaching and conduction of that specific sport.

### Course Contents

**Unit-I Practical Approach of Coaching of all components of one selected Game.**

**Unit-II Organization of One Selected Game, Games field / arena preparation, Refreeship of that selected game.**

**Unit-III Practical related to preparation of Organizing, Playing, Coaching, Managing one selected game.**

### Teaching Learning strategies

- f) Inquiry based learning
- g) Cooperative Learning
- h) Multimedia usage
- i) Concrete examples
- j) Think -Pair-Share

### Assessment and Examination

#	Elements	Weightage	Details
1	Theory Examination based Assessment	40%	It takes Place at the mid-point of the semester. It is mostly in the form of a test but owing to the nature of the course. The teacher may assess their students based on term paper, research proposal development, field work and report writing etc.
2	Formative Assessment	60%	It is continuous assessment. It includes classroom Participation, attendance, assignments and Presentations, homework, attitude, and behavior, hands on activities, short test, quizzes etc.

### Recommended Books

1. All authentic sources from Books and Internet regarding that one selected sport.



**Course Title:** Sports Medicine  
**Code Number:** HPE-411  
**Credit Hours:** 03 hrs  
**Pre-Requisites course Requirement/Skills:** Nil

### **Objectives of Course**

At the successful completion of this course students will be able:

- 1) This course has been designed to make the students aware regarding the sports medicine subject and to give the knowledge of training and conditioning in sports.
- 2) The course of sports medicine will also help in the development of the skills/knowledge regarding the sports injuries, their prevention, treatment, and rehabilitation.
- 3) One of the main and very important objectives of this course is designed to aware the students regarding the use of doping in sports, their effects and legal position of the doping in sports.

### **Course Contents**

#### **Unit-I Introduction**

- 1.1 Definition of Sports Medicine
- 1.2 History of Sports Medicine

#### **Unit-II Injuries in Sports**

- 2.1 Terminologies and Classification of Common Soft Tissue Sports Injuries
- 2.2 General Effects of Injuries
- 2.3 Regional injuries and their management
  - 2.3.1 Injuries of Head
  - 2.3.2 Injuries of Ears
  - 2.3.3 Injuries of Eyes
  - 2.3.4 Injuries of Nose
  - 2.3.5 Injuries of Back
  - 2.3.6 Injuries of Shoulders
  - 2.3.7 Injuries of Elbows
  - 2.3.8 Injuries of Hand
  - 2.3.9 Injuries of Abdomen
  - 2.3.10 Injuries of Thighs
  - 2.3.11 Injuries of Knee
  - 2.3.12 Injuries of Leg
  - 2.3.13 Injuries of Ankle

#### **Unit-III Prevention of Injuries**

- 3.1 Role of Physical Educators and Coaches in the prevention of sports injuries
- 3.2 Pre-conditioning injury prevention exercises
- 3.3 Therapeutic exercises for prevention of Sports Injuries and their classification
- 3.4 Principles of rehabilitation of injuries

- 3.4 Therapeutic modalities in
  - 3.4.1 Cryotherapy
  - 3.4.2 Hydrotherapy
  - 3.4.3 Electrotherapy
  - 3.4.4 Laser therapy
  - 3.4.5 Massage therapy
- 3.5 Warm up and Cooling Down

**Unit-IV** **Exercise and Fatigue**

- 4.1 Definitions
- 4.2 Effects of exercise on sports performance
- 4.3 Effects of fatigue on sports performance
- 4.4 Heart role and exercise
  - 4.4.1 Threshold for training effects on heart
  - 4.4.2 Cardiac reserve capacity
  - 4.4.3 Blood pressure and exercise.
- 4.5 Lungs Role and Exercise
  - 4.5.1 Lungs ventilation during rest and exercise
  - 4.5.2 Change in lungs diffusions during muscular activities

**Unit-V** **Rehabilitation in Sports**

- 5.1 Principles of Rehabilitation
- 5.2 Local Problems (Pain, Swelling, Restricted Movement)
- 5.3 Non-Acute Cases

**Unit-VI** **Emergency Therapeutic Medicines to Manage Sports Injuries**

- 6.1 First Aid clinical management for Lung disorders due to sports activities
- 6.2 First Aid clinical management for Cardiac disorders due to sports activities
- 6.3 First Aid clinical management for gastrointestinal disorders due to sports activities
- 6.4 First Aid clinical management for Skin disorders / accidents due to sports activities
- 6.5 First Aid clinical management for Urogenital disorders due to sports activities

**Unit-VII** **Doping in Sports**

- 7.1 Definition
- 7.2 Use of Doping in Sports
- 7.3 Effect of Doping on Athletes
- 7.4 Doping Control
- 7.5 Types of Doping

**Teaching Learning strategies**

- a) Inquiry based learning

- b) Cooperative Learning
- c) Multimedia usage
- d) Concrete examples
- e) Think -Pair-Share

### Assessment and Examination

#	Elements	Weightage	Details
1	Theory Examination based Assessment	40%	It takes Place at the mid-point of the semester. It is mostly in the form of a test but owing to the nature of the course. The teacher may assess their students based on term paper, research proposal development, field work and report writing etc.
2	Formative Assessment	60%	It is continuous assessment. It includes classroom Participation, attendance, assignments and Presentations, homework, attitude, and behavior, hands on activities, short test, quizzes etc.

### Recommended Books

1. Reeser, J. C., & Bahr, R. (Eds.). (2017). *Handbook of sports medicine and science, Volleyball*. John Wiley & Sons.
2. Harris, S. S., Anderson, S. J., & American Academy of Orthopaedic Surgeons. (2018). *Care of the young athlete*.
3. Whyte, G., Loosemore, M., & Williams, C. (Eds.). (2015). *ABC of sports and exercise medicine*. John Wiley & Sons.
4. Miller, M. D. (Ed.). (2016). *Orthopaedic knowledge update: sports medicine*. American Academy of Orthopaedic Surgeons.
5. Magee, D. J., Zachazewski, J. E., Quillen, W. S., & Manske, R. C. (2015). *Pathology and intervention in musculoskeletal rehabilitation* (Vol. 3). Elsevier Health Sciences.

**Course Title:** Curriculum Development in Physical Education  
**Code Number:** HPE-412  
**Credit Hours:** 03 hrs  
**Pre-Requisites course Requirement/Skills:** Nil

### **Objectives of Course**

At the successful completion of this course students will be able:

- 1) This course is designed with the purpose to acquaint students with basic concepts, theories and types of Health & Physical Education Curriculum related to development process and strategies adopted for evaluation and changes in curriculum as required.

### **Course Contents**

#### **Unit-I Introduction**

- 1.1 Definition, Objective of Physical Education Curriculum
- 1.2 Types of Curriculum
- 1.3 Factors effecting Physical Education Curriculum

#### **Unit-II Planning the Physical Education Curriculum**

- 2.1 Curriculum Development, Tasks in curriculum planning

#### **Unit-III Curriculum Research and Change**

- 3.1 Curriculum Reform, Experimentation in Physical Education
- 3.2 Contemporary social problems & Physical Education Curriculum

#### **Unit-IV Organization for Instruction**

- 4.1 Determining Scope, Sequence and scheduling the curriculum
- 4.2 The need for multiple teaching stations
- 4.3 Time Allotment for program Elements, Correlation and Integration
- 4.4 Organizational Design of the curriculum.

#### **Unit-V The Curriculum Guide**

- 5.1 Curriculum Design, preliminary consideration
- 5.2 The curriculum coordinating committee, collecting materials and constructing the guide

#### **Unit-VI The Physical Education Program**

- 6.1 The physical education curriculum for Kindergarten, primary, Middle Grade, Secondary & Higher Secondary levels

## Unit-VII

## Evaluating the Curriculum

- 7.1 The intent of Measurement and Evaluation
- 7.2 Measuring progress in Elementary School
- 7.3 Secondary School Evaluation,
- 7.4 Appraising the Total Curriculum

### Teaching Learning strategies

- a) Inquiry based learning
- b) Cooperative Learning
- c) Multimedia usage
- d) Concrete examples
- e) Think -Pair-Share

### Assessment and Examination

#	Elements	Weightage	Details
1	Theory Examination based Assessment	40%	It takes Place at the mid-point of the semester. It is mostly in the form of a test but owing to the nature of the course. The teacher may assess their students based on term paper, research proposal development, field work and report writing etc.
2	Formative Assessment	60%	It is continuous assessment. It includes classroom Participation, attendance, assignments and Presentations, homework, attitude, and behavior, hands on activities, short test, quizzes etc.

### Recommended Books

- 1 Kirk, D. (2014). *Physical Education and Curriculum Study (Routledge Revivals): A Critical Introduction*. Routledge.
- 2 Blyth, W. A. L. (2017). *Development, Experience and Curriculum in Primary Education (1984)*. Routledge.
- 3 Metzler, M. (2017). *Instructional models in physical education*. Routledge.
- 4 Capel, S., & Whitehead, M. (2015). *Learning to Teach Physical Education in the Secondary School: A companion to school experience*. Routledge.
- 5 Mawer, M. (2014). *Effective teaching of physical education*. Routledge.
- 6 Almond, L. (2014). *Physical education in schools*. Routledge.

**Course Title:** Adapted Physical Education  
**Code Number:** HPE-413  
**Credit Hours:** 03 hrs  
**Pre-Requisites course Requirement/Skills:** Nil

### **Objectives of Course**

At the successful completion of this course students will be able:

- 1) This course is designed to provide knowledge to the students about the rehabilitation of special persons through physical activities, teaching methods useful to special people to adjust in the society.

### **Course Contents**

#### **Unit-I Historical Background of Special Populations**

- 1.1 Concepts of Specials Populations:
  - 1.1.1 Dark Age
  - 1.1.2 Modern Age
- 1.2 Concept for Special Populations in our Society

#### **Unit-II Understanding of Special Population**

- 2.1 W.H.O.'s Definition and Classification of Special Population
- 2.2 Basic Terms
- 2.3 Public Law
- 2.4 Posture and its Importance

#### **Unit-III Types of Special Population**

- 3.1 Mental Retardation:
  - 3.1.1 Mild
  - 3.1.2 Moderate
  - 3.1.3 Severe
  - 3.1.4 Profound
- 3.2 Deaf and Defective:
  - 3.2.1 Mild
  - 3.2.2 Moderate
  - 3.2.3 Severe
  - 3.2.4 Profound
- 3.3 Visually Impaired:
  - 3.3.1 Blind
  - 3.3.2 Partially Sighted

- 3.3.3 Partially Blind
- 3.3.4 Low Vision
- 3.4 Physically Disabled:
  - 3.4.1 Mild
  - 3.4.2 Moderate
  - 3.4.3 Severe
  - 3.4.4 Profound

**Unit-IV Teaching Programs for Special Population**

- 4.1 Individual Programs
- 4.2 Developmental Programs
- 4.3 Remedial Programs
- 4.5 Therapeutic Programs

**Unit-V Adjustment of Special Population**

- 5.1 Factors Affecting Adjustment
- 5.2 The Effects of Environment
- 5.3 Ways of Making Adjustment
- 5.4 Adjustment of Special Populations in Society through Teachers and Parents

**Unit-VI Physical Activities for Special Population**

- 6.1 Games and Sports activities for Special Population
- 6.2 Fitness Exercises for Special Population
- 6.3 Understanding the Nature of Motor Learning
- 6.4 Movement Mechanical Principles for Special Population

**Unit-VII Physical Education Teacher for Special Population**

- 7.1 Attributes of Physical Education Teacher
- 7.2 Qualifications of Physical Education Teacher

**Unit-VIII Paralympics and Physical Education**

- 8.1 Preparation and Protocols for Paralympics
- 8.2 Education for Special Players

**Teaching Learning strategies**

- a) Inquiry based learning
- b) Cooperative Learning

- c) Multimedia usage
- d) Concrete examples
- e) Think -Pair-Share

### Assessment and Examination

#	Elements	Weightage	Details
1	Theory Examination based Assessment	40%	It takes Place at the mid-point of the semester. It is mostly in the form of a test but owing to the nature of the course. The teacher may assess their students based on term paper, research proposal development, field work and report writing etc.
2	Formative Assessment	60%	It is continuous assessment. It includes classroom Participation, attendance, assignments and Presentations, homework, attitude, and behavior, hands on activities, short test, quizzes etc.

### Recommended Books

1. Winnick, J., & Porretta, D. (Eds.). (2016). *Adapted Physical Education and Sport, 6E*. Human Kinetics.
2. Hodge, S., Lieberman, L., & Murata, N. (2017). *Essentials of teaching adapted physical education: Diversity, culture, and inclusion*. Routledge.
3. Metzler, M. (2017). *Instructional models in physical education*. Routledge.
4. Kauffman, J. M., Hallahan, D. P., & Pullen, P. C. (2017). *Handbook of special education*. Routledge.
5. Capel, S., & Whitehead, M. (2015). *Learning to Teach Physical Education in the Secondary School: A companion to school experience*. Routledge.



**Course Title:** Research Thesis  
**Code Number:** HPE-414  
**Credit Hours:** 03 hrs  
**Pre-Requisites course Requirement/Skills:** Nil

### **Objectives of Course**

At the successful completion of this course students will be able:

- 1) The student will get to know the theoretical bases for statistical analyses of results from empirical studies: the logical and philosophical bases of empirical research; probability; operationalization of psychological variables.
- 2) The main objectives of this course are to develop in students the ability to define and formulate research problems and questions and, where appropriate, formulate hypotheses that can be tested; and to enable students to understand the use of a range of methods and to be able to decide on appropriate research designs and methods to investigate their chosen research problems.

### **Course Contents**

#### **Unit-I Theory program**

- 1.1 The research problem, introduction, the objectives of the research, research questions and hypothesis.
- 1.2 Research methods.
- 1.3 Results and discussions.
- 1.4 Conclusions and recommendations.
- 1.5 literature, title and abstract.

#### **Unit-II Practical program**

- 2.1 Research problem, motivation, expertise, research topic and objectives.
- 2.2 Identification of the research method and approach applied in the research.
- 2.3 Tables, charts and figures to show research results.
- 2.4 Writing of conclusions for a research paper.
- 2.5 Writing of title and abstract for a research topic

### **Teaching Learning strategies**

- a) Inquiry based learning
- b) Cooperative Learning
- c) Multimedia usage
- d) Concrete examples
- e) Think -Pair-Share

### **Recommended Books**

1. Belcher, W.L. (2009). *Writing your journal article in twelve weeks: A guide to academic publishing success*. Thousand Oaks, California: Sage Publications, Inc.
2. Galvan, J. S. (2009). *Writing literature reviews: A guide for students of the social and behavioral sciences* (4th ed.). Glendale, CA: Pyczak Publishing. ISBN: 1-884585-86-8
3. Creswell, J. W. (2007). *Qualitative inquiry & research design: Choosing among five approaches* (2nd ed.). Thousand Oaks, California: Sage Publications, Inc. ISBN: 978-1-4129-1607-3.
4. Creswell, J.W. (2006). *Research design: Qualitative & quantitative approaches*. Thousand Oaks, CA: Sage.
5. Tabachnick, B.G., & Fidell, L.S. (2007). *Using multivariate statistics*. Boston: Allyn and Bacon. (o