

**राजा महेंद्र प्रताप सिंह विश्वविद्यालय, अलीगढ़**  
**RAJA MAHENDRA PRATAP SINGH**  
**UNIVERSITY, ALIGARH**  
**BACHELOR OF PHYSICAL EDUCATION &**  
**SPORTS (B.P.E.S)**  
**SYLLABUS**



**UGC NEP 2020 REGULATION**  
**(Revised UG - Syllabus –Based on UGC-LOCF)**  
**B.P.E.S (03 Years) Degree Programme**  
**Choice Based Credit System (CBCS)**  
**2025-26 onwards**

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## **Preamble**

Physical Education is a form of one of the most effective means of education imparted through physical exercises, recreational activities and sports. It is an integral part of education. This by mere participation in it gives the outcomes. These outcomes are both instant as well as have strong carry over values in the life. The children as well as the adults and the old enjoy physical activities & sports and gets benefit in the form of stronger muscles and bones, increased energy, coordination level and most importantly the decreased risk of developing chronic diseases.

The UNESCO in its General Conference in 1978 was convinced that, everyone should be free to develop and preserve his or her physical, intellectual and moral powers. Physical Education and Sport should consequently be assured and guaranteed for all human beings. Physical Education is now a regular feature in the primary and secondary schools as well as it is gaining popularity in the higher education. The course opted for this is elective as well as the core at the college and the university level in India.

The graduate level course in Physical Education and Sports contains subjects varying from foundation of Physical Education to Anatomy, Physiology, Kinesiology, Officiating & coaching, Test & Measurement, Nutrition, Rehabilitation, Psychology, Sports Training, Sports Biomechanics, Methods of Teachings etc. which are aimed to give thorough knowledge and skills to the students. Students perusing physical education courses are fit to join the jobs as physical trainers, coaches, game officials, referees, umpires, curators, gym trainers, life guards, personal trainers etc. During their course of education, the students also develop the expertise to establish their own business as entrepreneurs in the field of sports, fitness, recreation, adventure sports, camping, event management etc.

# **Learning Outcomes-Based Curriculum Framework for B.P.E.S (Physical, Health and Sports Education).**

## **1. Introduction**

The learning outcomes-based curriculum framework for a B.P.E.S. (Bachelor of Physical Education) degree in Physical Education is intended to provide a broad framework within which Physical Education programme responds to the needs of students and requirements. The framework is expected to assist in the maintenance of standard and uniformity of Physical Education degrees across the country. This will also help in periodic programme review within a broad framework of agreed expected graduate attributes, qualification descriptors, programme learning outcomes and course-level learning outcomes. The framework, does seek to bring about uniformity in syllabi for a programme of study in Physical Education, teaching-learning process as well as learning assessment procedures. However, the framework is also intended to allow flexibility and innovation in programme design.

## **2. Nature and extent of the B.P.E.S. degree programme**

Physical Education is normally referred to as the science that aims to develop all-inclusive aspects of human personality through physical and sports activities. Physical education is a multidisciplinary subject that cannot be studied in seclusion under the scope of one or two subjects. The scope of Physical Education as a subject is very broad. It caters to the need for developing capability of the students on physical, mental and social aspects. Physical education also aims to develop activity as an alternate and prophylactic medicine. The key areas of study within the Physical Education are *'Exercise Physiology, Sports Psychology, Sports Sociology, Sports Management, Sports Journalism, Kinesiology- Biomechanics, Sports Training, Sports Medicine, Kinanthropometry* etc.

Degree program in Physical Education covers topics that overlap with the areas outlined above and that address the interfaces of Physical Education with other subjects such as Physiology, Bio-Chemistry, Physics, Physiotherapy, Psychology, Management, Sociology along with training pedagogy employed for enhancing the functional status of individuals with varied needs. As a part of the effort, to enhance the employability of graduates of Physical Education,

programs include learning experiences that offer opportunities in various spheres of human existence.

### **3. Aims of the Bachelor's degree programme in Physical Education**

Physical education is not only concerned with the physical outcome that accrue from participation in physical activities but also the development of knowledge and attitude conducive to lifelong learning and participation in motor activities. The overall aim of bachelor's degree programme in Physical Education is:

- The acquisition and refinement of motor skills,
- To equip the students with the scientific knowledge of body response to various types of exercise.
- Maintenance of fitness for optimal health and wellbeing,
- Attainment of knowledge and the growth of positive attitude towards physical activity and sports.
- Attain wholesome development through physical education and sports
- Attain knowledge of the rules, regulation and their interpretation for “officiating” in sports and games
- Inculcate the ability to organize sports and games in a professional manner
- Enhance knowledge on scientific principles from allied subjects in Physical Education & Sports
- Understand the concepts and role of different methods of sports training.
- Develop desirable health habits and social integration of sportspersons.

### **4. Program learning outcomes of B.P.E.S degree programme in Physical Education are listed below.**

This would lead the students to understand historical concept of physical education and relationship between Philosophy, Education and Physical Education. The student would further understand the theoretical implications of philosophies of physical education with modern development and social aspects of Physical Education.

1. The curriculum would enable the pass out to select the inherited talented children for

various sports activities.

2. The pass out shall be able to orient children in schools with the fundamental skills of selected sports as per their inherited potential.
3. The pass out shall be able to devise training program for athletes engaged in different sports Activities.
4. The curriculum shall enable them to officiate, supervise various sports tournaments and orient them in organizing sports events at all levels.
5. The curriculum would enable the pass out students to be entrepreneur (to start their own fitness center, gym, spa etc) and device appropriate fitness program for different genders and age groups of people.
6. The curriculum would enable the pass out to devise training program for physically challenged peoples.

## **5. Teaching-learning processes**

The program of study in Physical Education is designed to encourage the acquisition of subject knowledge, orientation in fundamentals skills of different sports and professional skills required for Physical Education-based professions and jobs. Learning experiences are designed and implemented to foster active/participative learning. Development of practical skills will constitute an important aspect of the teaching-learning process. A variety of approaches to teaching-learning process, including lectures, seminars, tutorials, workshops, peer teaching and learning, practicum and project-based learning, field-based learning, substantial laboratory-based practical component and experiments, open-ended project work, games, technology-enabled learning, internship in industry and research establishments etc. will be adopted to achieve this. Problem-solving skills and higher-order skills of reasoning and analysis will be encouraged through teaching strategies.

## **6. Eligibility:**

- Candidate must have passed the Higher Secondary Examination (+2) or any other examination recognized as equivalent.
- The reservation in seats for SC/ST/OBC/PWD/EWS and other categories shall be as per the rules of the Central Government/State Government, whichever is applicable.

- The candidate also shall be physically and medically fit.
- Minimum eligibility the applicant must have represented the District/School in any game/Sports.
- Sports weightage marks will be added in the total percentage of +2 marks for overall merit of the student.

## 7. Six Semester Ordinance:

- Degree Title: BPES
- Name of the Faculty: Faculty of Physical Education and Sports
- Duration: The BPES Programme shall be of duration of 3 (Three) academic years, that is, 6 (Six) semesters.
- If the Students left the course after 1st, 2nd & 3rd year as per NEP-2020 the degree/certificate title as follows:

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<b>1 Year (Two Semesters)</b>	<b>Certificate in Physical Education &amp; Sports (CPES)</b>
<b>2 Years (Four Semesters)</b>	<b>Diploma in Physical Education (DPES)</b>
<b>3 Years (Six Semesters)</b>	<b>Bachelor's Degree in Physical Education (BPES)</b>

## 8. Assessment methods

The assessment of students' achievement in Physical Education will be aligned with the learning outcomes of course /program and the academic/professional skills that the programme is designed to develop. A variety of assessment methods that are appropriate within the subject area of Physical Education will be used. Learning outcomes will be assessed using the written and practical exams, project work, assignments, and presentations. Each theory subject (Core) will be of **four credits** and practical (1 game + 1 athletic/sports event of 2 credits each) would equal to **four credits**, thus total credits for each semester shall be **thirty**. This however may be adjusted

according to the examination pattern of the concerned universities. **Thirty percent** of the evaluation for each theory and practical paper will be undertaken by the internal examiner through **sessional tests** and **seventy percent** of the evaluation will be done through **end semester examination**.

## **9. Evaluation Criteria:**

### **Theory Exams Total Marks: 100**

All Credit courses are evaluated for 100 marks. Internal Assessment component is for 25 marks and the End Semester University exam is for 75 marks.

### **Break up of Internal Assessment summer marks:**

Total Internal Assessment mark for a theory subject is 25 marks. The breakup is:

1	Mid Semester Exam (one) -	20 Marks
2	Percentage of Attendance -	5 Marks
<b>Total - 25 Marks</b>		

### **Practical/Research Projects Exams Total Marks: 100**

All Practical/Research Projects are evaluated for 100 marks. Internal Assessment component is for 50 marks and the End Semester University exam is for 50 marks.

### **Break up of Internal Assessment marks for Practical's /Project work/ Internships subjects:**

Faculty member in-charge of practical shall evaluate the practical subjects for 50 marks. The break up is as follows:

i) Skill Demonstration/Knowledge/ Discipline	15
ii) Practical Record/ Report	30
iii) Percentage of Attendance	05
<b>Total</b>	<b>50</b>



The End Semester University exam is for 50 marks (EXTERNAL).

**Marks for Attendance for both theory & practical are as follows:**

Below 75%	0
75% - 80%	1
80% - 85%	2
85% - 90%	3
90% - 95%	4
95% - 100%	5

## Course Structure Semester Wise

### SEMESTER I

Code No.	Nature of Course	Title of the Course	Credits
BPCC-101	Core Course	History and Foundation of Physical Education	04
BPCC-102	Core courses	Basic and Systemic Anatomy & Physiology	04
BPEC-101	Elective Course	Computer Application	04
BPCC-103	Core Courses	Officiating & Coaching- I	04
BPPC-101	Practical Course	Major Ball Game (Football, Volleyball, Handball, Basketball)	02
BPPC-102	Practical Course	Track & Field: Running, Team and Combined Events	02
		<b>Total Credits</b>	<b>20</b>

### SEMESTER II

Code No.	Nature of Course	Title of the Course	Credits
BPCC-201	Core Course	Exercise Physiology	04
BPEC-201	Elective Course	English	04
BPEC-202	Elective Course	Environmental Sciences	04
BPCC-202	Core Course	Officiating & Coaching- II	04
BPPC-201	Practical Course	Major Ball Game (Football, Volleyball, Handball, Basketball)	02
BPPC-202	Minor Disciplinary Course (Practical)	Track & Field: Running, Jumping, and Throwing Events	02
		<b>Total Credits</b>	<b>20</b>

### SEMESTER III

Code No.	Nature of Course	Title of the Course	Credits
BPCC-301	Core Course	Kinesiology & Sports Biomechanics	04
BPCC-302	Core Course	Sports Psychology	04
BPCC-303	Core Course	Sports Training	04
BPCC-304	Core Course	Officiating & Coaching- III	04
BPPC-301	Practical	Racket Games (Badminton, Tennis, Table tennis, Squash)	02
BPPC-302	Practical	Indigenous Activities (OR) Yoga	02
		<b>Total Credits</b>	<b>20</b>

### SEMESTER IV

Code No.	Nature of Course	Title of the Course	Credits
BPCC-401	Core Course	Health Education	04
BPEC-401	Skill Enhancement	Test and Measurement	04
BPEC-402	Specific Elective Course	Adapted Physical Education	04
BPCC-402	Core Course	Officiating & Coaching- IV	04
BPPC-401	Practical	Combative Sports: Boxing/Wresting/Judo/ Karate (Any One)	02
BPPC-402	Practical	Gymnastics (OR) Swimming	02
		<b>Total Credits</b>	<b>20</b>

## SEMESTER V

Code No.	Nature of Course	Title of the Course	Credits
BPCC-501	Core Course	Sports Management	04
BPEC-501	Specific Elective Course	Sports Journalism	04
BPCC-502	Core Course	Fitness Training and Nutrition	04
BPCC-503	Core Course	Athletic Care and Rehabilitation	04
BPPC-501	Practical	Game of Specializations - I	02
BPCC-502	Practical	Aerobics (OR) Weight Lifting	02
		<b>Total Credits</b>	<b>20</b>

## SEMESTER VI

Code No.	Nature of Course	Title of the Course	Credits
BPEC-601	Elective Courses	Counseling in Sports	04
BPEC-602	Skill Enhancement	Exercise Prescription / Therapeutic Exercise	04
BPEC-603	Specific Elective Course	Talent Identification	04
BPEC-604	Specific Elective Course	Sports Entrepreneurship	04
BPPC-601	Practical	Game of Specialization - II	02
BPPC-602	Practical	Power Lifting (OR) Physique Training	02
BPST-601	Ability Enhancement	State Level Study Tour	04
		<b>Total Credits</b>	<b>24</b>

## List of all Courses under different categories for B.P.E.S Programme

Course Type	Course Code	Title of Course
Core Course	BPCC-101	History and Foundation of Physical Education
	BPCC-102	Basic and Systemic Anatomy & Physiology
	BPCC-103	Officiating & Coaching - I
	BPCC-201	Exercises Physiology
	BPCC-202	Officiating & Coaching - II
	BPCC-301	Kinesiology & Sports Biomechanics
	BPCC-302	Sports Psychology
	BPCC-303	Sports Training
	BPCC-304	Officiating and Coaching-III
	BPCC-401	Health Education
	BPCC-402	Officiating & Coaching- IV
	BPCC-501	Sports Management
	BPCC-502	Fitness Training and Nutrition
	BPCC-503	Athletic Care and Rehabilitation
Elective Course	BPEC-101	Computer Application
Elective Course	BPEC-201	English
	BPEC-202	Environmental Science (EVS)
	BPEC-401	Test and Measurement
	BPEC-402	Adapted Physical Education
	BPEC-501	Sports Journalism
	BPEC-601	Counseling in Sports
	BPEC-602	Exercise Prescription / Therapeutic Exercise
	BPEC-603	Talent Identification
	BPEC-604	Sports Entrepreneurship
Practical Course	BPPC-101	Major Ball Game: Football/Volleyball/Basketball/Handball/Softball/Netball/Baseball (Any One)

	BPPC-102	Track & Field: Running, Team and Combined Events
	BPPC-201	Major Ball Game: Football/Volleyball/Basketball/Handball/Softball/Netball/Baseball (Any One)
	BPPC-202	Track & Field: Running, Jumping and Throwing Events
	BPPC-301	Racket Games (Badminton, Tennis, Table tennis, Squash)
	BPPC-302	Indigenous Activities (OR) Yoga
	BPPC-401	Combative Sports: Boxing/Wresting/Judo/ Karate (Any One)
	BPPC-402	Gymnastics (OR) Swimming
	BPPC-501	Game of Specializations - I
	BPPC-502	Aerobics (OR) Weight Lifting
	BPPC-601	Game of Specialization - II
	BPPC-602	Power Lifting (OR) Physique Training
Ability Enhancement	BPST-601	State Level Study Tour

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

## **Semester-I**

### **Paper-I**

**Title: History and Foundation of Physical Education**

**Credit: 04**

**Max. Marks: 100**

**Sessional Marks: 30**

**End semester exam marks: 70**

#### **Learning outcomes:**

1. The pass out would be able to compare the relationship between general education and physical education.
2. He would be able to identify and relate with the History of Physical Education.
3. He would be able to comprehend the relationship between Philosophy, Education and Physical Education.
4. He would able to identify the works of Philosophers of Education and Physical Education.
5. He would know recent developments and academic foundation of Physical Education.

#### **Unit-I**

##### **Introduction to Physical Education**

- 1.1 Meaning, Definition and Scope of Physical Education
- 1.2 Aims and Objective of Physical Education
- 1.3 Importance of Physical Education in present era.
- 1.4 Misconceptions about Physical Education.
- 1.5 Relationship of Physical Education with General Education.

## 1.6 Physical Education as an Art and Science.

### **Unit-II**

#### **Historical Development of Physical Education in India**

2.1 Vedic Period (2500 BC – 600 BC), Early Hindu Period (600 BC – 320 AD) and Later Hindu Period (320 AD – 1000 AD), Medieval period

2.2 Post Mughal British Period (Before 1947) Y.M.C.A. and its contributions.

2.3 Physical Education in India (After 1947)

2.4 The early history and significant stages in the revival and development of the modern Olympic movement

2.5 Educational and cultural values of Olympic movement

### **Unit-III**

#### **Philosophical Foundation of Physical Education**

3.1 Philosophical foundation: Idealism, Pragmatism, Naturalism, Realism.

3.2 Philosophy and Culture.

3.3 Fitness and wellness movement in the contemporary perspectives

3.4 Sports for all and its role in the maintenance and promotion of fitness.

### **Unit-IV**

#### **Foundation of Physical Education**

4.1 Biological

4.1.1 Growth and development

4.1.2 Age and gender characteristics

4.1.3 Body Types

4.2 Psychological

4.2.1 Attitude, interest.

4.2.2 Cognition, emotions and sentiments.

4.2.3 Practical suggestion from psychology.

4.3 Sociological

4.3.1 Society and culture



4.3.2 Social acceptance and recognition

4.3.3 Leadership in physical education

**References:**

1. Bucher, C. A. (n.d.) - Foundation of physical education. St. Louis: The C.V. Mosby Co.
2. Deshpande, S. H. (2014) - Physical Education in Ancient India. Amravati: Degree college of Physical education.
3. Dash, B.N. (2003.) –Principles of Education, Neelkamal publication, Hyderabad.
4. Kamlesh, M.L. (2002) –Sociological Foundation of Physical Education, Metropolitan Book co. Pvt. Ltd., Delhi.
5. Pandey, R.S. (1991) Philosophical & Sociological Foundation of Education, Vinod Pustak Mandir, Agra.
6. Bhatia, K.K. & Narang, C.L. (1984.)– Philosophical & Sociological Bases of Education, Prakash Bros., Ludhiana.
7. Adams, William.C (1991.) – Foundation of Physical Education Exercises and Sports Sciences, Lea and Febigor, Philadelphia.
8. Dr. Kamlesh M.L. (2004) - Principles and History of Physical Education and Sports, Friends Publication (India) New Delhi.
9. Dr. B.C. Kapri, Fundamentals of Physical Education, Friends Publication, Dariya Ganj, Delhi (India).

# **BACHELOR OF PHYSICAL EDUCATION AND SPORTS (B.P.E.S.) IN PHYSICAL, HEALTH AND SPORTS EDUCATION**

## **Semester-I**

### **Paper-II**

**Title: Basic and Systemic Anatomy & Physiology**

**Credit: 04**

**Max. Marks: 100**

**Sessional Marks: 30**

**End semester exam marks: 70**

### **Learning Outcomes:**

1. The student will be oriented with the basic structure and function of human body by identifying, comparing and relating different systems, organs and their functional and structural units.
2. He would be able to Relate and interpret the role of exercise on body systems and its relation to well-being, through literature reviews and physical conditioning exercises.
3. Adapt the art to apply the knowledge of anatomy and physiology in physical activity classes at school level.
4. Construct anatomy and physiology related pedagogical materials exploring their creative imaginations while working in group and using technology.

### **Unit-I**

- 1.1. Introduction of Anatomy and Physiology in the field of Physical Education
- 1.2. Structural and functional demonstration of human cell
- 1.3. Skeletal System- classification and functions
- 1.4. Anatomical terms related to body movements
- 1.5. Structure and types of bones, joints in human body.

## **Unit-II**

- 2.1. Structure and function of Muscle
- 2.2. Major classifications of Muscles
- 2.3. Types of muscle fiber and Sliding Filament Theory of Muscular Contraction.
- 2.4. Types of muscular contractions (Isotonic, Isometric, Isokinetic) and their roles in physical activity
- 2.5. Concept of agonist and antagonist muscles and muscle imbalance.

## **Unit-III**

- 3.1. Structural and functional introduction to circulatory system
- 3.2. Concept of stroke volume, cardiac output and cardiac index
- 3.4. Respiratory System (structural and organizational overview); Functional mechanism of respiration (External and Internal Respiration)
- 3.4 Concept of recovery oxygen and second wind
- 3.5 Cardio-respiratory adaptations to long term exercise

## **Unit-IV**

- 4.1 Structural units and functional mechanism of digestive system and excretory system
- 4.2 Effect of exercise on Digestive System and Excretory System
- 4.3 Classification of Nervous System on the basis of its structure and functions
- 4.4 Structural and Functional interpretation of neuro-muscular junction with all or none law
- 4.5 Effect of exercise on nervous system

### **Suggested Readings:**

- 1. Appuseries (2012) *How the Human Body Works - Kids Animation Learn Series*. [Online]  
Available from:  
[https://www.youtube.com/results?search\\_query=APPUSERIES+human+body+](https://www.youtube.com/results?search_query=APPUSERIES+human+body+) [Accessed 20th July 2016].
- 2. Bannister, L. H. & et. al. (2000) *Gray's Anatomy*. Churchill Living Stone.
- 3. Boone, T. (2014) *Exercise physiology*. Jones& Bartlett Learning.

4. Davidson, D.S. & Morgan, B. (2002) *Human body revealed*. Great Britain, Dorling Kindersley.
5. E Learning for kids- Founding Dreams (Date not Available) *Science- Body Parts*. [Online] Available from: <http://www.e-learningforkids.org/science/lesson/body-parts/> [Accessed 20<sup>th</sup> July 2016].
6. Foss, M. L., Keteyian, S. J. & Fox, E. L., (1998). *Fox's physiological basis for exercise and sport*. Boston, Mass, WCB/McGraw-Hill.
7. Get Body Smart (2016) *An online examination of human anatomy and physiology-Animated Text Narrations and Quizzes to Explain the Structures and Functions of the Human Body Systems*. [Online] Available from: <http://www.getbodysmart.com/> [Accessed 20<sup>th</sup> July 2016].
8. Hall, J. E. & Guyton, A. C. (2011). *Guyton and Hall textbook of medical physiology*. Philadelphia, PA, Saunders Elsevier.
9. Jam Campus (2018) *THE PARTS OF A CELL SONG*. [online video] Available at: <https://www.youtube.com/watch?v=NkC9AiJf7gI> [Accessed 03 July 2018].
10. JCCCvideo (2010) *The Plasma Membrane*. [online video] Available at: <https://www.youtube.com/watch?v=moPJkCbKjBs> [Accessed 03 July 2018].
11. Manocchia. P. (2007) *Anatomy of Exercise-A trainer's inside guide to your workout*. New York, A & C Black.
12. Mc Ardle, W.D.; Katch, F.I. & Katch, V.L. (2010) *Exercise physiology- Nutrition, Energy, and human performance*. 7<sup>th</sup> edition. Philadelphia, Wolters Kluwer and Lippincott Williams & Wilkins.
13. Musical Cells (2013) Power Pack - *The Mitochondria Rock Song*. [online video] Available at: <https://www.youtube.com/watch?v=418U15YPVAI&index=1&list=RD418U15YPVAI> [Accessed 03 July 2018].
14. Nucleus Medical Media (2015) *Biology: Cell Structure I Nucleus Medical Media*. [online video] Available at: <https://www.youtube.com/watch?v=URUJD5NEXC8> [Accessed 03 July 2018].
15. Plowman, S.A. & Smith, D.L. (2001) *Exercise physiology for health, fitness and performance*. 2<sup>nd</sup> edition. San Francisco, Benjamin Cummings.
16. Robergs, R.A. & Roberts, S. O. (2000) *Fundamental principles of exercise physiology for*

*fitness, performance and health*. Boston, McGraw Hill.

17. Sciencemusicvideos (2011) *The Cell Song*. [online video] Available at: [https://www.youtube.com/results?search\\_query=cell+song](https://www.youtube.com/results?search_query=cell+song) [Accessed 02 July 2018].
18. shenoyboy747 (2012) *Call Me Golgi (Carly Rae Jepsen Call Me Maybe PARODY)*. [online video] Available at: [https://www.youtube.com/watch?v=y6PUs4Xy\\_nw](https://www.youtube.com/watch?v=y6PUs4Xy_nw) [Accessed 02 July 2018].
19. St. John Ambulance Australia (2004) *The complete home medical reference*. Gordon Cheers, OM book services.
20. Whiting, W. C., &Rugg, S. (2006). *Dynatomy: dynamic human anatomy*. Champaign, IL, Human Kinetics.
21. xglamgirl43454345x (2012) *Lysosomes and Cell Membrane Song*. [online video] Available at: <https://www.youtube.com/watch?v=hrgXW0PtTjc> [Accessed 03 July 2018].
22. zebras206 (2010) *Rough Endoplasmic Reticulum Song*. [online video] Available at: <https://www.youtube.com/watch?v=PASnAaulK-Y> [Accessed 03 July 2018].
23. Spongelab a global STEM community (no date) *BULD-A-BODY*. [Online]. [Accessed 15 July 2018]. Available from: [http://www.spongelab.com/game\\_pages/bab.cfm](http://www.spongelab.com/game_pages/bab.cfm)

# **BACHELOR OF PHYSICAL EDUCATION AND SPORTS (B.P.E.S.) IN PHYSICAL, HEALTH AND SPORTS EDUCATION**

## **Semester-I**

### **Paper-III**

**Title: Computer Applications**

**Credit: 04**

**Max. Marks: 100**

**Sessional Marks: 30**

**End semester exam marks: 70**

#### **Learning Outcomes**

1. The student will be oriented with the basic knowledge of computer applications.
2. The student will be able to apply the knowledge in the framing of training programs.
3. The outcome of this course will help him in gathering, storage and processing of huge information in relation to inputs, outputs and feedback of sports training programs.

#### **Unit-I**

##### **Introduction to Computer**

- 1.1 Information and communication technology (ICT).
- 1.2 Application of Computers in Physical Education
- 1.3 Components of computer, input and output device
- 1.4 Application software used in Physical Education and sports

#### **Unit-II**

##### **Word Processing**

- 2.1 Getting started with Microsoft Word
- 2.2 Creating, saving and opening a document
- 2.3 Formatting Editing features Drawing table.

2.4 Page Setup, Paragraph Alignment, Spelling and Grammar Check, Printing Option, Inserting Page Number, Graph and Footnote.

### **Unit-III**

#### **Spreadsheet Program**

- 3.1 Getting started with Microsoft Excel
- 3.2 Creating, saving and opening spreadsheet
- 3.3 Creating formulas
- 3.4 Format and editing features for charting data.

### **Unit-IV**

#### **Presentation Software**

- 4.1 Getting started with Microsoft Power Point
- 4.2 Creating, saving and opening a ppt. file
- 4.3 Format and editing features slide show, design, inserting slide number
- 4.4 Enhancing of Picture, Graph, Table
- 4.5 Finalizing of a presentations

#### **References:**

- 1. Irtegov, D. (2004). Operating system fundamentals. Firewall Media.
- 2. Frye, C. & Lambert, J. (2015). Microsoft Office 2016 Step by Step, Microsoft Press.
- 3. Milke, M. (2007). Absolute beginner's guide to computer basics. Pearson Education Asia.
- 4. Sinha, P. K. & Sinha, P. (2004). Computer fundamentals. 4<sup>th</sup> edition, BPB Publication.

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

**Semester-I**

**Paper-IV**

**Title: Officiating and Coaching-I**

**Credit: 04**

**Max. Marks: 100**

**Sessional Marks: 30**

**End semester exam marks: 70**

**Learning outcomes**

1. The pass out would be oriented with the rule's regulations of the chosen game.
2. The pass out would be able to lay-out and mark the dimensions of the play court.
3. Students would be able to organize the concerned sports event and officiate in it.
4. Students would be oriented in the art of coaching the sports team.
5. Students shall also be able to organize and officiate in yogic events.

**Unit-I**

**Introduction of Officiating and coaching**

- 1.1 Concept of officiating and coaching
- 1.2 Principles of officiating & Coaching
- 1.3 Importance of officiating and coaching.
- 1.4 Qualifications for Officials conducting various tournaments.

**Unit-II**

**Rules and Layout:**

- 2.1 Dimensions, layouts and marking of fields of chosen Ball Game –I
- 2.2 Rules and their interpretations of chosen Ball Game –I



2.3 Qualification and number of officials in the chosen Ball Game –I

2.4 Coaching in the chosen Ball Game –I

### **Unit-III:**

#### **Duties of Official:**

3.1 Dimensions, layouts and marking of fields of chosen Ball Game –II

3.2 Rules and their interpretations of chosen Ball Game –II

3.3 Qualification and number of officials in the chosen Ball Game –II

3.4 Coaching in the chosen Ball Game –II

### **Unit-IV**

#### **Qualities and Qualifications of Coach and Official:**

4.1 Layout, dimensions and markings of Track

4.2 Rules and their interpretations of running events in Track.

4.3 Yoga and its rules

4.4 Coaching in Athletics and Yoga

#### **Reference Books:**

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

## **Practical**

### **1. Major Ball Game which should be from the list of SGFI/AIU/IOA)**

**Credit: 02**

**Max. Marks: 100**

**Sessional Marks: 30**

**End semester exam marks: 70**

1. History and Development of the game at International and National level.
2. Dimensions and marking of playing area.
3. Basic requirements of the playing area.
4. Fundamental skills of the game.
5. Skill tests, scoring and arrangement of the skill tests.
6. National and international organizations / federations of the game.
7. Rules of the game with their interpretations.
8. Team selection and coaching in that game.
9. Officiating & Referee / Umpire /scorer /curatorship for self-employment.

## **Practical**

### **2. Track &Field: Running, Team Event & Combined events**

**Credit: 02**

**Max. Marks: 100**

**Sessional Marks: 30**

**End semester exam marks: 70**

1. History and Development of the Track and field at International and National level.
2. Basics of Athletic Track (200 & 400 Mt Track).
3. Preparation of Track arena.
4. Marking of Track, various zones, starting points etc.
5. Running Events, Team events & combined events their process, timing and scorings.
6. Fundamental skills related to running in track.
7. Running tests (for speed and endurance) and their administration.
8. National and international organizations / federations of the Athletics.
9. Rules and their interpretations in relation to Running, Team (Relay Races) & Combined events (Decathlons & Heptathlons).
10. Team selection, and coaching in running events.
11. Officiating & Referee / Umpire /scorer /curatorship for self-employment.

# **BACHELOR OF PHYSICAL EDUCATION AND SPORTS (B.P.E.S.) IN PHYSICAL, HEALTH AND SPORTS EDUCATION**

## **Semester-II**

### **Paper I**

**Title: Exercises Physiology**

**Credit: 04**

**Max. Marks: 100**

**Sessional Marks: 30**

**End semester exam marks: 70**

#### **Learning Outcomes:**

1. The student would be empowered with the applicable knowledge of physiology in physical activity and sports.
2. The learner would be able to incorporate this knowledge in the training and coaching programme for the betterment of his trainee's performance.

#### **Unit-I**

##### **Functional Adaptations to Exercise**

- 1.1 Hormonal control during exercise
- 1.2 Exercise and neuromuscular system
- 1.3 Metabolic adaptations to exercise
- 1.4 Cardio-respiratory changes
- 1.5 Effects of exercise and training on health and fitness

#### **Unit-II**

##### **Energy Continuum and Recovery Process**

- 2.1 Metabolism and exercise
- 2.2 Recovery from exercise
- 2.3 Replenishment of energy stores during recovery process
- 2.4 Removal of excess lactic acid produced during exercise
- 2.5 Restoration of myoglobin oxygen stores

### **Unit-III**

#### **Exercise in hot and cold environment**

- 3.1 Body temperature regulations
- 3.2 Physiological responses to exercise in the heat
- 3.3 Acclimatization to exercise in heat
- 3.4 Physiological responses to exercise in cold
- 3.5 Health risks during exercise in the cold

### **Unit-IV**

#### **Altitude and physiology**

- 4.1 Exercise performance at altitude
- 4.2 Physiological responses to acute altitude exposure
- 4.3 Chronic altitude exposure and acclimatization

#### **Aging process and Ergogenic**

- 4.4 Age related changes and exercise
- 4.5 Ergogenic aids and physical activity

#### **References:**

1. W. Larry Kenney, Jack H. Wilmore, David L. Costill, 2012, Physiology of Sports and Exercises.
2. Robert A. Robergs, Scott O. Roberts, 2000, Fundamental Principles of Exercise Physiology for Fitness, Performance, and Health.
3. Larry G. Shaver, 1982, Essentials of Exercise Physiology.
4. Dr. Sandhya Tiwari, 2006, Exercise Physiology.
5. M. Dena Gardiner, 1985, The Principles of Exercise Therapy.
6. Edward L. Fox, Richard W. Bowers, Merle L. Foss, 1981, The Physiological Basis of Physical Education and Athletics.
7. Michael S. Bahrke, Charles E. Yesalis, 2002, Performance – Enhancing Substances in Sport and Exercises.

# **BACHELOR OF PHYSICAL EDUCATION AND SPORTS (B.P.E.S.) IN PHYSICAL, HEALTH AND SPORTS EDUCATION**

## **Semester-II Paper-II**

**Title: English**

**Credit: 04**

**Max. Marks: 100**

**Sessional Marks: 30**

**End semester exam marks: 70**

### **Learning outcomes:**

1. The course will develop fundamental knowledge of English Language.
2. The literary texts shall enable students to inculcate creative & aesthetic sensitivity and critically comprehend, appreciate and analyze it.
3. The students will be familiarized with the basics of language and its structure.

### **Unit-I**

Vocabulary

Use of Dictionary, Use of Words: Diminutives, Homonyms & Homophones

### **Unit-II**

Essentials of Grammar – I

1. Articles
2. Parts of Speech
3. Tenses

### **Unit-III**

#### **Essentials of Grammar – II**

1. Sentence Structure
2. Subject -Verb agreement
3. Punctuation

### **Unit-IV**

#### **Spoken English Communication, Short Stories**

1. Speech Drills
2. Pronunciation and Accent
3. Stress and Intonation
4. The Necklace, by Guy de Maupassant,
5. A Shadow, by R.K. Narayan,
6. The Luncheon, by Somerset Maugham

#### **Reference:**

1. Guffey, Ellen Mary, Business Communication, Thomson (South Western)
2. Dale Carnegie: Quick and Easy way of Public Speaking.

#### **Additional Reading:**

Newspapers and Journals

# **BACHELOR OF PHYSICAL EDUCATION AND SPORTS (B.P.E.S.) IN PHYSICAL, HEALTH AND SPORTS EDUCATION**

## **Semester-II**

### **Paper-III**

**Title: Environmental Science (EVS)**

**Credit: 04**

**Max. Marks: 100**

**Sessional Marks: 30**

**End semester exam marks: 70**

#### **Learning outcomes:**

1. The course shall develop in student the scientific background needed to understand how the earth works and how we, as human beings, fit into that.
2. At the end of the course, it is expected that students will be able to identify and analyze environmental problems as well as the risks associated with these problems.

#### **UNIT-I**

##### **Multidisciplinary Nature of Environmental studies**

##### **Descriptors/Topics**

1. Introduction to environmental studies with their importance.
2. Need for public awareness.
3. Sensitization and participation.
4. Swatch Bharat Abhiyan.

#### **Unit-II**

##### **Natural Resources**

##### **Descriptors/Topics**

1. Types of natural resources and their importance.
2. Food resources: World food problems and related aspects.



3. Land resources, Water resources, Forest resources- use and overuse
4. Minerals and Energy resources- importance of renewable and sustainable energy.
5. Equitable use of resources for sustainable lifestyles
6. Role of an individual in conservation of natural resources

### **Unit-III**

#### **Ecosystems**

##### **Descriptors/Topics**

1. Concept of an ecosystem,
2. Types of ecosystems,
3. Structure and function of an ecosystem, Producers, consumers and decomposers.
4. Energy flow in the ecosystem, Food chains, food webs and ecological pyramids.
5. Ecological succession.
6. Introduction, types, characteristic features, structure and function of Forest ecosystem, Grassland ecosystem and Desert ecosystem, Aquatic ecosystems (ponds, streams, lakes, rivers, ocean estuaries)

### **Unit-IV**

#### **Biodiversity**

##### **Descriptors/Topics**

1. Introduction - Definition: genetic, species and ecosystem diversity
2. Bio-geographical classification of India
3. Value of biodiversity: consumptive use, productive use, social, ethical aesthetic and option values
4. Bio-diversity at global, national and local levels, India as a mega diversity nation
5. Hot-spots of biodiversity,
6. Threats to biodiversity: habitat loss, poaching of wildlife, man wildlife conflicts
7. Endangered and endemic species of India
8. Conservation of biodiversity: In-situ and Ex-situ conservation of biodiversity

**Text & References:**

1. Khaushik & Khaushik, “Fundamentals of Environmental Studies”
2. Somvanshi & Dhupper “Fundamentals of Environmental Studies”
3. Gauba & Bisht “Environmental Studies, Challenges & Solutions A quick Compendium
4. Asthana & Asthana “A textbook of Environmental Studies”

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

**Semester-II**

**Paper-IV**

**Title: Officiating and Coaching-II**

**Credit: 04**

**Max. Marks: 100**

**Sessional Marks: 30**

**End semester exam marks: 70**

**Learning outcomes**

1. The pass out would be oriented with the rule's regulations of the chosen game.
2. The pass out would be able to lay-out and mark the dimensions of the court.
3. Students would be able to organize the concerned sports event and officiate in it.
4. Students would be oriented in the art of coaching the sports team.
5. Students shall also be able to organize and officiate in yogic events.

**Unit-I**

**Officiating and coaching in Chosen ball game -III**

- 1.1 Dimensions, layouts and marking of fields of chosen Ball Game –III
- 1.2 Rules and their interpretations of chosen Ball Game –III
- 1.3 Qualification and number of officials in the chosen Ball Game –III
- 1.4 Coaching in the chosen Ball Game –III

**Unit-II**

**Officiating and coaching in Chosen ball game -IV**

- 2.1 Dimensions, layouts and marking of fields of chosen Ball Game –IV
- 2.2 Rules and their interpretations of chosen Ball Game –IV
- 2.3 Qualification and number of officials in the chosen Ball Game –IV
- 2.4 Coaching in the chosen Ball Game –IV

### **Unit- III**

#### **Officiating and coaching in Athletics & Yoga**

- 3.1 Layout, dimensions and marking in Field Events of Athletics.
- 3.2 Rules and their interpretations in Field Events of Athletics.
- 3.3 Yoga- Pranayama and Meditation.
- 3.4 Coaching in Field events of Athletics and Practice of- Pranayama & Meditation

### **Unit-IV**

#### **Major tournaments of Athletics:**

- 4.1 Major tournaments / Trophies of chosen Ball Game –III
- 4.2 Major tournaments / Trophies of chosen Ball Game –IV
- 4.3 Major tournaments / Competitions of Athletics
- 4.4 Yoga and its tournament.

#### **Reference Books:**

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

## **Practical**

### **1. Major Ball Game which should be from the list of SGFI/AIU/IOA)**

**Credit: 02**

**Max. Marks: 100**

**Sessional Marks: 30**

**End semester exam marks: 70**

1. History and Development of the game at International and National level.
2. Dimensions and marking of playing area.
3. Basic requirements of the playing area.
4. Fundamental skills of the game.
5. Skill tests, scoring and arrangement of the skill tests.
6. National and international organizations / federations of the game.
7. Rules and their interpretations of the game.
8. Team selection and coaching in that game.
9. Officiating & Referee / Umpire /scorer /curatorship for self-employment.

## **Practical**

### **2. Track & Field: Running, Jumping and Throwing**

**Credit: 02**

**Max. Marks: 100**

**Sessional Marks: 30**

**End semester exam marks: 70**

1. Long jump- Basics, jumping pit, take of board, approach run and skills.
2. Triple jump- Basics, jumping pit, take of board, approach run and skills.
3. High jump -Basics of high jump, jumping pit, approach run and skills /styles.
4. Pole vault -Basics, jumping pit, equipment, approach run and skills.
5. Shot put – Basics, Throwing arena, equipment & skills.
6. Discuss Throw- Basics, Throwing arena, equipment & skills.
7. Hammer Throw- Basics, Throwing arena, equipment & skills.
8. Javelin Throw - Basics, Throwing arena, equipment & skills.
9. Marking of jumping arena and throwing arena.
10. Jumping tests and their arrangements.
11. Officiating & Referee / Umpire /scorer /curatorship for self-employment.

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

**Semester-III**

**Paper-I**

**Title: Kinesiology & Sports Biomechanics**

**Credit: 04**

**Max. Marks: 100**

**Sessional Marks: 30**

**End semester exam marks: 70**

**Learning outcomes**

1. The student would be Oriented with the skeletal structure of human body by identifying the origin and insertion of various muscles.
2. Orient the students in basic structure and functions of primary joints of the body.
3. Relate and interpret the role of various mechanical principles in human movement.

**Unit-I**

**Introduction to Kinesiology and Sports Biomechanics**

- 1.1 Meaning and Definition of Kinesiology and Sports Biomechanics
- 1.2 Importance of Kinesiology and Biomechanics in sports and physical activities
- 1.3 Origin and Insertion on bones and Action of major Muscles
- 1.4 Types of joints with their structure and functions

**Unit-II**

**Mechanical Concepts**

- 2.1 Speed/ Velocity/ Acceleration
  - 2.1.1 Velocity as a Vector Quantity
  - 2.1.2 Determining the Direction of the Velocity Vector
  - 2.1.3 Calculating Average Speed, Average Velocity and average Acceleration

2.1.4 Average Speed versus Instantaneous Speed

2.2 Distance, Displacement (Calculating average distance and displacement)

1. Fundamental concepts of following terms –

2.3.1 Fluid resistance

2.3.2 Buoyancy

2.4 Newton's Laws of Motion – and their application to sports activities.

### **Unit-III**

#### **Kinetic/Kinematics Concept for Analysis Human Motion**

3.1 Fundamental concepts of following terms –

3.2 Axes and Planes

1. Centre of Gravity

2. Equilibrium

3. Line of Gravity

3.3 Basic Concept related to kinetics

3.3.1 Inertia

3.3.2 Mass

3.3.3 Force

3.3.4 Centre of Gravity

3.3.5 Pressure

3.3.6 Density

3.3.7 Torque

3.3.8 Impulse

3.3 The Biomechanics of the Human Upper Extremity.

3.4 The Biomechanics of the Human Lower Extremity.

### **Unit-IV**

#### **Qualitative/ Quantitative Analysis**

4.1 Angular Kinematics of Human Movement.

4.2 Linear Kinetics of Human Movement



**References:**

1. Anthony J. Blazeovich (2017). Sports Biomechanics: The Basics: Optimising Human Performance: bloomsburry
2. By Peter M. (2013), Biomechanics of Sport and Exercise: Human Kinetics
3. Amrit Kumar, R, Moses. (1995). Introduction to Exercise Physiology. Madras: Poompugar Pathipagam.
4. BeotraAlka, (2000) Drug Education Handbook on Drug Abuse in Sports: SportsAuthority of India Delhi.
5. Clarke, D.H. (1975). Exercise Physiology. New Jersey: Prentice Hall Inc., Englewood Cliffs.
6. David, L Costill. (2004). Physiology of Sports and Exercise. Human Kinetics.
7. Fox, E.L., and Mathews, D.K. (1981). The Physiological Basis of Physical Education and Athletics. Philadelphia: Sanders College Publishing.
8. Guyton, A.C. (1976). Textbook of Medical Physiology. Philadelphia: W.B. Sanders co.
9. Richard, W. Bowers. (1989). Sports Physiology. WMC: Brown Publishers.
10. Sandhya Tiwaji. (1999). Exercise Physiology. Sports Publishers.
11. Shaver, L. (1981). Essentials of Exercise Physiology. New Delhi: Subject Publications.
12. Vincent, T. Murche. (2007). Elementary Physiology. Hyderabad: Sports Publication.
13. William, D. McAradle. (1996). Exercise Physiology, Energy, Nutrition and Human
14. Performance. Philadelphia: Lippincott Williams and Wilkins Company.

# **BACHELOR OF PHYSICAL EDUCATION AND SPORTS (B.P.E.S.) IN PHYSICAL, HEALTH AND SPORTS EDUCATION**

## **Semester-III**

### **Paper-II**

**Title: Sports Psychology**

**Credit: 04**

**Max. Marks: 100**

**Sessional Marks: 30**

**End semester exam marks: 70**

#### **Learning outcomes:**

1. The study would orient the student in basic concepts of psychology.
2. The student would be oriented in identifying factors determining one's overall personality.
3. He would understand various laws of learning and their relevance in teaching learning process.
4. The study would orient him in getting through with the psychology of sports person.

#### **Unit-I**

##### **Introduction of Sports Psychology:**

- 1.1 Meaning and nature of Sports Psychology.
- 1.2 Historical Evolution of Sports Psychology
- 1.3 Relevance of Sports Psychology in Physical Education and coaching.
- 1.4 Psychological factors affecting sports performance.

#### **Unit-II**

##### **Personality and Sports:**

- 2.1 Meaning and nature of Personality.
- 2.2 Theories of personality in sports
- 2.3 Dimensions of personality and development of personality

## **Motivation**

2.4 Types of motivation and condition of developing achievement motivation.

## **Unit-III**

### **Learning**

2.1 Meaning nature and principles of Learning, Types of Learning.

2.2 Laws of learning, Transfer of learning

2.3 Factors affecting learning

2.4 Learning curve, Plateau

## **Unit-IV**

### **Sports Sociology and Leadership:**

4.1 Nature of Sports Sociology.

4.2 Importance of Sports Sociology in Physical Education.

4.3 Socialization and value education through Physical Education.

4.4 Impact of society on sports and vice versa

### **References:**

1. Alison and Robinson. (2018), Excelling in Sport Psychology: Planning, Preparing, and Executing Applied Work, Sean Fitzpatrick
2. Taylor, Jim, (2018), Assessment in Applied Sport Psychology, Human kinetics
3. Coumbe-Lilley, (2018), Complex Cases in Sport Psychology, Routledge
4. Ball, D. W. & Loy, J. W. (1975). Sport and social order; Contribution to the sociology of sport. London: Addison Wesley Publishing Co., Inc.
5. Kamlesh, M.L. (1998). Psychology in physical education and sport. New Delhi: Metropolitan Book Co.
6. Loy, J. W., Kenyon, G. S. & McPherson, B. D. (1978). Sport and social system. London: Addison Wesley Publishing Company Inc.
7. Loy, J. W., Kenyon, G. S. & McPherson, B. D. (1981). Sports culture and society. Philadelphia: Lea &Febiger.
8. Skinner, C. E., (1984.). Education psychology. New Delhi: Prentice Hall of India.

# **BACHELOR OF PHYSICAL EDUCATION AND SPORTS (B.P.E.S.) IN PHYSICAL, HEALTH AND SPORTS EDUCATION**

## **Semester-III**

### **Paper-III**

**Title: Sports Training**

**Credit: 04**

**Max. Marks: 100**

**Sessional Marks: 30**

**End semester exam marks: 70**

#### **Learning Outcomes:**

1. The learners will be able to identify the fundamental concepts, theories and principles of human body training related to sports performance.
2. The learners will be able to demonstrate the skills to train different fitness components and related planning.
3. The learners will be able to understand the organization to achieve high performance in sports.

#### **Unit-I**

##### **Introduction to Sports Training**

- 1.1 Meaning and nature of Sports Training
- 1.2 Aim and Objective of Sports Training
- 1.3 Principles of Sports Training
- 1.4 Characteristics of Sports Training

#### **Unit-II**

##### **Training Components**

- 2.1 Strength: its type and means methods employed for developing them
- 2.2 Speed: its type and means methods employed for developing them
- 2.3 Endurance: its type and means methods employed for developing them

2.4 Flexibility: its type and means methods employed for developing them

2.5 Coordinative abilities: means methods employed for developing them

### **Unit-III**

#### **Load**

3.1 Principles of load and its components

3.2 Determination of Optimum load,

3.3 Overload its causes and identification

3.4 Tackling Over Load.

### **Unit-IV**

#### **Training programming and planning**

4.1 Periodization and its types of Periodization.

4.2 Aim and Content of Periods–Preparatory, Competition, Transitional period.

4.3 Planning: Meaning and types.

4.4 Principles of Planning.

#### **Reference:**

1. Dick, W. F. (1980). Sports training principles. London: Lepus
2. Books. Harre, D. (1982). Principles of sports training. Berlin: Speculated.
3. Jensen, R. C.& Fisher, A.G. (1979). Scientific basis of athletic conditioning. Philadelphia: Lea and Fibiger, 2<sup>nd</sup>Edn.
4. Mathyew, L.P. (1981). Fundamental of sports training. Moscow: Progress Publishers.
5. Singh, H. (1984). Sports training, general theory and methods. Patiala: NSNIS.
6. Uppal, A.K., (1999). Science of Sports Training. New Delhi: Friends Publication.
7. Schlich Monfred (2003), Circuit Training for all sports, sports book publisher Toronto.
8. Dr. Sharad Chandra Mishra 92006), Sports Training, Sports Publication.

# **BACHELOR OF PHYSICAL EDUCATION AND SPORTS (B.P.E.S.) IN PHYSICAL, HEALTH AND SPORTS EDUCATION**

## **Semester-III**

### **Paper-IV**

**Title: Officiating and Coaching-III**

**Credit: 04**

**Max. Marks: 100**

**Sessional Marks: 30**

**End semester exam marks: 70**

#### **Unit-I**

##### **Officiating and coaching in chosen Racket game- I**

- 1.1 Dimensions, layouts and marking of fields of chosen Racket Game –I
- 1.2 Rules and their interpretations of chosen Racket Game –I
- 1.3 Qualification and number of officials in the chosen Racket Game –I
- 1.4 Coaching in the chosen Racket Game –I

#### **Unit-II**

##### **Officiating and coaching in chosen Racket game- II**

- 2.1 Dimensions, layouts and marking of fields of chosen Racket Game –II
- 2.2 Rules and their interpretations of chosen Racket Game –II
- 2.3 Qualification and number of officials in the chosen Racket Game –II
- 2.4 Coaching in the chosen Racket Game –II

#### **Unit-III**

##### **Indigenous Activities:**

- 3.1 Concept of Indigenous activities.
- 3.2 History of Indigenous activities.
- 3.3 Principles and Importance of indigenous activities.

3.4 Various types of activities with different equipment.

## **Unit-IV**

### **Swimming Activities:**

- 4.1 Swimming activities and its outcome.
- 4.2 Swimming pools, their dimensions and rules of swimming.
- 4.3 Maintenance of swimming pools.
- 4.4 Coaching and training in swimming.

### **Reference Books:**

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

## **Practical**

### **1. Racket Game which should be from the list of SGFI/AIU/IOA)**

**Credit: 02**

**Max. Marks: 100**

**Sessional Marks: 30**

**End semester exam marks: 70**

1. History and Development of the game at International and National level.
2. Dimensions and marking of playing area.
3. Basic requirements of the playing area.
4. Fundamental skills of the game.
5. Skill tests, scoring and arrangement of the skill tests.
6. National and international organizations / federations of the game.
7. Rules and their interpretations of the game.
8. Team selection and coaching in that game.
9. Officiating & Referee / Umpire /scorer /curatorship for self-employment.



## **Practical**

### **2. Indigenous Activities (OR) Yoga**

**Credit: 02**

**Max. Marks: 100**

**Sessional Marks: 30**

**End semester exam marks: 70**

1. History and Development of the indigenous activities in the country.
2. Aim, Objectives and Principles of Indigenous activities.
3. Individual, group and team indigenous activities.
4. Marking in Indigenous activities.
5. Indigenous activities with equipment.
6. National organizations / federations of the Indigenous games.
7. Rules and their interpretations of the activities.
8. Team selection and coaching for indigenous activities.
9. Officiating & Referee / Umpire /scorer /curatorship for self-employment.
10. Indigenous activities for Mass Demonstrations.
11. Indigenous activities for National Events- Republic Day, Independence Day etc.
12. Indigenous activities for developing coordination and movements in young.
13. Preparing Cheer leaders through Indigenous activities.
14. Inculcating improvisations in Indigenous activities/mass demonstrations.
15. Rules and their interpretations of the activities.
16. Team/group selection and coaching for indigenous activities.
17. Officiating & Referee / Umpire /scorer /team leaders for self-employment.

**(OR)**

## **Yoga**

- 1. Meaning and concept of Yoga**
- 2. History and Development of the Yoga in India and abroad**
- 3. Various Asanas in sitting position and their advantages**
- 4. Various Asanas in standing position and their advantages**
- 5. Various Asanas in lying position and their advantages**
- 6. Surya namaskar and its benefits.**
- 7. Yog asana for treating various body ailments.**
- 8. Surya namaskar- Practice and advantages.**
- 9. Meaning and concept of Pranayama.**
- 10. Various types of Pranayama, their principles and practice. Effect of Pranayama on body and their role in correcting health disorders.**
- 11. Meditation – Types and techniques.**
- 12. Officiating and scoring in Yoga competitions.**
- 13. Coaching and career opportunities in Yoga.**

# **BACHELOR OF PHYSICAL EDUCATION AND SPORTS (B.P.E.S.) IN PHYSICAL, HEALTH AND SPORTS EDUCATION**

## **Semester-IV**

### **Paper-I**

**Title: Health Education**

**Credits: 04**

**Max. Marks: 100**

**Sessional Marks: 30**

**End semester exam marks: 70**

#### **Learning Outcome:**

1. The student will be able to identify and synthesize the factors that influence health
2. The student will be able to recognize the health-related challenges in current time and able to apply the preventive measures.
3. The student will be able to identify the role of peers, community and media in health promotion and protection.
4. The student will be able to demonstrate the expertise in above stated domains in a school setup.
5. The student will be able to value the knowledge and skills required to preserve community health and well-being.

#### **Unit – I**

##### **Health Education and Services**

- 1.1 Concept, Dimensions, Spectrum and determinants of Health
- 1.2 Health Education and Principles of Health Education
- 1.3 Nature and Scope of Health Education in Physical Education
- 1.4 Health Services in India

## **Unit – II**

### **Global Health Issues**

- 2.1 Communicable, Non-Communicable disease and their prevention
- 2.2 Malnutrition, Food Adulteration, Environmental Pollution and Sanitation, Population and their management.
- 2.3 Physical Activity and Nutrition, Overweight and Obesity, Mental Health
- 2.4 Prime causes of death: cardiovascular disease, chronic respiratory disease, Diabetes, Mental Disorders, Nutritional Deficiencies and their prevention through physical activity

## **Unit – III**

### **Health Education in Schools**

- 3.1 Need and scope of health education in schools
- 3.2 Preventing alcohol, tobacco and other drugs abuses in schools
- 3.3 Personal Health and Wellness: Healthy eating, Mental and Emotional health, and Violence prevention
- 3.4 Physical activity, Safety, First Aid and Emergency procedures.

## **Unit – IV**

### **Health Supervision and Evaluation in Schools**

- 4.1 Health Instruction and Health Supervision
- 4.2 Assessing personal and peers' health risk taking
- 4.3 Analyzing the influence of family, peers, culture and media on health behavior
- 4.4 Consumer Health and Comprehensive Health Education.

### **References:**

- 1. Agrawal, K.C. (2001). Environmental biology. Bikaner: Nidhi publishers Ltd.
- 2. Bensley, R. J. and Fisher, J. B (2009). Community Health Education Methods. Massachusetts: Jones and Bartlett Publishers.
- 3. Edward, J. T. (2006). Health and Disease, New Delhi: Sports Publication.
- 4. Anspaugh, D. J. and Ezell, G. (2003). Teaching today's Health. USA: Allyn& Bacon.
- 5. McKenzie, J. F. and Smeltzer, J. L (2001). Planning, Implementing, and Evaluating Health Promotion Programs: A Primer, USA: Allyn& Bacon.

# **BACHELOR OF PHYSICAL EDUCATION AND SPORTS (B.P.E.S.) IN PHYSICAL, HEALTH AND SPORTS EDUCATION**

## **Semester-IV**

### **Paper-II**

**Title: Test & Measurement**

**Credit: 04**

**Max. Marks: 100**

**Sessional Marks: 30**

**End semester exam marks: 70**

#### **Learning outcomes:**

1. The students will be able to recognize and relate the concept of test, measurement and evaluation in the context of Physical Education.
2. The students will be able to construct and conduct the physical fitness and sports skill test.
3. The students will be able to implement the criteria of test selection.

The syllabus would orient the students in the art of applications of test, measurement and evaluation in physical and sports activities with simultaneous development of practical competency in conducting physical fitness and sports skill tests.

#### **Unit-I**

##### **Introduction to Test & Measurement & Evaluation**

- 1.1 Meaning of Test, Measurement & Evaluation in Physical Education.
- 1.2 Importance of Test, Measurement & Evaluation in Physical Education.
- 1.3 Criteria of selecting an appropriate test.
- 1.4 Type and classification of test

#### **Unit-III**

##### **Physical Fitness Tests**

- 3.1 Youth Physical Fitness Test.
- 3.2 Tuttle Pulse Ratio Test
- 3.3 Newton Motor Ability Test

### 3.4 Phillips JCR Test

## Unit-IV

### Sports Skill Tests

4.1 Lockhart and McPherson Badminton test

4.2 Johnson Basketball test

4.3 McDonald soccer test

4.4 S.A.I Hockey test

### References:

1. Bangsbo, J. (1994). *Fitness training in football: A scientific approach*. Bagsvaerd, Denmark:Ho+Storm.
2. Barron, H. M., &Mcchee, R. (1997). *A practical approach to measurement in physical education*.Philadelphia: Lea and Febiger.
3. Barron, H.M. &Mcchee, R. (1997). *A Practical approach to measurement in physical education*.Philadelphia: Lea and Febiger.
4. Kansal, D.K. (1996). *Test and measurement in sports and physical education*. New Delhi:D.V.S. Publications.

# **BACHELOR OF PHYSICAL EDUCATION AND SPORTS (B.P.E.S.) IN PHYSICAL, HEALTH AND SPORTS EDUCATION**

## **Semester-IV**

### **Paper-III**

**Title: Adapted Physical Education**

**Credit: 04**

**Max. Marks: 100**

**Sessional Marks: 30**

**End semester exam marks: 70**

#### **Learning outcomes:**

1. The knowledge would enable the students to understand the activity requirements of various levels of physically challenged persons.
2. The knowledge would thus enable the students to prepare and organize worthwhile activity programs for various levels of physically challenged persons.

### **Unit-I**

#### **Introduction**

1. Meaning, Definition and Importance of Adapted Physical Education and Sports
2. Purpose, Aims and Objectives of Adapted Physical Education and Sports
3. Program organization of Adapted Physical Education and Sports
4. Organizations addressing and giving opportunities to people with disabilities.
5. Adapted Sports- Para Olympics and other Opportunities

### **Unit-II**

#### **Development of Individual Education Program (IEP)**

- 2.1 The student with a disability
- 2.2 Components and Development of IEP.

2.3 Principles of Adapted Physical Education and Sports

2.4 Role of Physical Education teacher

### **Unit-III**

#### **Developmental Considerations of an Individual**

3.1 Motor development

3.2 Perceptual Motor development

3.3 Early childhood and Adapted Physical Education

3.4 Teaching style, method and approach in teaching Adapted Physical Education.

### **Unit-IV**

#### **Individual with unique need and activities**

4.1 Behavioral and Special learning disability

4.2 Visual Impaired and Deafness

4.3 Health Impaired students and Physical Education

4.4 HRPF and its development for Individual with unique need

4.5 Role of games and sports in Adapted Physical Education

#### **Reference**

1. Beverly, N. (1986). Moving and Learning. Times Mirror/Mosby College Publishing.
2. Cratty, B.J. Adapted Physical Education in the Mainstream. (4th Edition) Love Publishing Company.
3. Houner, L.D. Integrated Physical Education- A guide for the elementary classroom teacher.
4. Winnick, J. P. (2005). Adapted Physical Education and Sports. Human Kinetics (4th Edition).
5. Pangrazi, R.P. and Dauer, V. P. Dynamics Physical.



# **BACHELOR OF PHYSICAL EDUCATION AND SPORTS (B.P.E.S.) IN PHYSICAL, HEALTH AND SPORTS EDUCATION**

## **Semester-IV**

### **Paper IV**

**Title: Officiating and Coaching-IV**

**Credit: 04**

**Max. Marks: 100**

**Sessional Marks: 30**

**End semester exam marks: 70**

#### **Learning outcomes**

1. The pass out would be oriented with the rule's regulations of the indigenous game and Gymnastics.
2. The pass out would be able to lay out and mark the dimensions of the court.
3. He would be able to organize the concerned sports event and officiate in it.
4. He would be oriented in the art of coaching the sports team.

#### **Unit-I**

##### **Officiating and coaching in Chosen Combative Sports- I**

- 1.1 Dimensions, layouts and marking of fields of Chosen Combative Sports- I
- 1.2 Rules and their interpretations of Chosen Combative Sports- I
- 1.3 Qualification and number of officials in the Chosen Combative Sports- I
- 1.4 Coaching in the Chosen Combative Sports- I.

#### **Unit-II**

##### **Officiating and coaching in Chosen Combative Sports- II**

- 2.1 Dimensions, layouts and marking of fields of Chosen Combative Sports –II

2.2 Rules and their interpretations of Chosen Combative Sports –II

2.3 Qualification and number of officials in the Chosen Combative Sports-II

2.4 Coaching in the chosen Combative Sports –II.

### **Unit- III**

#### **Indigenous Activities:**

3.1 Indigenous activities for developing motor abilities.

3.2 Markings of Indigenous activities.

3.3 Indigenous activities for special occasions.

3.4 Outcomes and benefits of indigenous activities.

### **Unit-IV**

#### **Gymnastics Activities:**

4.1 Introduction to Gymnastics.

4.2 Various Gymnastic activities and their Equipment.

4.3 Qualification, duties of officials and scoring in gymnastics.

4.4 Coaching and training in Gymnastics.

#### **Reference Books:**

1. Bunn, J. W. (1968). *The art of officiating sports*. Englewood cliffs N.J. Prentice

2. Hall. Bunn, J. W. (1972). *Scientific principles of coaching*.

3. Englewood cliffs N. J. Prentice Hall. Dyson, G. H. (1963). *The mechanics of athletics*.

London: University of London Press Ltd.

4. Dyson, G. H. (1963). *The mechanics of Athletics*. London: University of London Press Ltd.

Lawther, J.D. (1965).

5. *Psychology of coaching*. New York: Pre. Hall.

6. Singer, R. N. (1972). *Coaching, athletic & psychology*. New York: M.C. Graw Hill.

7. Official Rule Book / Handbook of the concerned federation of sports.

## **Practical**

### **1. Combative Game which should be from the list of SGFI/AIU/IOA)**

**Credit: 02**

**Max. Marks: 100**

**Sessional Marks: 30**

**End semester exam marks: 70**

1. History and Development of the game at International and National level.
2. Dimensions and marking of playing area.
3. Basic requirements/ equipment of the game.
4. Fundamental skills of the game.
5. Skill tests, scoring and arrangement of the skill tests.
6. National and international organizations / federations of the game.
7. Rules and their interpretations of the game.
8. Team selection and coaching in that game.
9. Officiating & Referee / Umpire /scorer for self-employment.

## **Practical**

### **2. Gymnastics (OR) Swimming**

**Credit: 02**

**Max. Marks: 100**

**Sessional Marks: 30**

**End semester exam marks: 70**

#### **Gymnastics**

1. History and Development of the Gymnastics at International and National level.
2. Various forms / types of gymnastic activities.
3. Basic requirements/ equipment for the gymnastics.
4. Fundamental skills/movements in the gymnastics.
5. National and international organizations / federations of gymnastics.
6. Rules, scoring and their interpretations in gymnastic competitions.
7. Team selection and coaching in gymnastics.
8. Officiating & Referee / Umpire /scorer for self-employment.

## **OR**

#### **Swimming**

1. History and Development of the swimming at International and National level.
2. Dimensions and other aspects of swimming pools.
3. Basic swimming skills/ styles.
4. Swimming tests, scoring and arrangement of the skill tests.
5. National and international organizations / federations of swimming.
6. Rules and their interpretations of the swimming events and competitions.
7. Team selection and coaching in swimming.
8. Officiating & Referee / Umpire /scorer / life guards training for self-employment.

# **BACHELOR OF PHYSICAL EDUCATION AND SPORTS (B.P.E.S.) IN PHYSICAL, HEALTH AND SPORTS EDUCATION**

## **Semester-V**

### **Paper-I**

**Title: Sports Management**

**Credit: 04**

**Max. Marks: 100**

**Sessional Marks: 30**

**End semester exam marks: 70**

#### **Learning outcomes:**

1. The student would understand the importance of management of Physical Education.
2. He shall gain knowledge regarding management of Physical Education and Sports at different level.
3. He will be able to organize various Physical Education program.
4. He would know about various schemes and policies of State & Central Government.
5. He would know about planning of facility and financial management.

#### **Unit-I**

##### **The Management Process:**

1. Definition, Principles, Nature and Concept of Sports Management.
2. Progressive concept of Sports management.
3. The purpose and scope of Sports Management.
4. Essential skills of Sports Management.
5. Qualities and competencies required for the Sports Manager.
6. Event Management in physical education and sports.

## **Unit-II**

### **Leadership in Sports Management Process:**

- 2.1 Meaning and Definition of leadership.
- 2.2 Leadership style and method.
- 2.3 Elements of leadership.
- 2.4 Forms of Leadership.
  - 2.4.1 Autocratic
  - 2.4.2 Laissez-faire
  - 2.4.3 Democratic
  - 2.4.4 Benevolent Dictator
- 2.5 Qualities of administrative leader.
- 2.6 Preparation of administrative leader.
- 2.7 Leadership and Organizational performance

## **Unit-III**

### **Planning and Management of sports at Institutional level:**

- 3.1 Sports Management in Schools, colleges and Universities.
- 3.2 Factors affecting planning
- 3.3 Planning a school or college sports programme.
- 3.4 Directing of school or college sports programme.
- 3.5 Controlling a school, college and university sports programme.
  - 3.5.1 Developing performance standard
  - 3.5.2 Establishing a reporting system
  - 3.5.3 Evaluation
  - 3.5.4 The reward/punishment system

## **Unit-IV**

### **Financial Management in Sports:**

- 4.1 Financial management in Physical Education & sports in schools, Colleges and Universities.
- 4.2 Objectives and scope of financial planning.
- 4.3 Management of Infrastructure, finance and personal

#### 4.4 Mechanics of purchase and audit.

#### **References:**

1. Bucher, C.A. (2002). Management of Physical Educational and Sports. (12th Ed.). USA :McGarw Hill Co.
2. Chakraborti, S. (2007). Sports Management. New Delhi: Friends Publication.
3. Frosdick, S., & Walley, L. (2003). Sports and Safety Management. USA: A division of Reed Education and Professional Publishing Ltd.
4. Govindrajulu, .N. (2005). Management of Physical Education and Sports Programme. New Delhi: Friends Publication.
5. Kamlesh, M. L. (2000). Management Concepts in Physical Education and Sports. New Delhi: B.V. Gupta Publication.
6. Mastoralexis, L.P., & Barr, C.A. (1998). Principles and Practice of Sports Management. Maryland: Aspen Publication.
7. Roy, S. S. (2002). Sports Management. New Delhi: Friends publication.
8. Horine., Larry. (1985). Administration of Physical Education and Sports Programmes. New York: Saundress college publication.

# **BACHELOR OF PHYSICAL EDUCATION AND SPORTS (B.P.E.S.) IN PHYSICAL, HEALTH AND SPORTS EDUCATION**

## **Semester-V**

### **Paper-II**

**Title: Sports Journalism**

**Credit: 04**

**Max. Marks: 100**

**Sessional Marks: 30**

**End semester exam marks: 70**

#### **Learning outcomes: -**

1. The students will be oriented in basic art of mass communication and reporting of sports events through various mediums.

#### **Unit-I**

##### **Introduction**

1. Meaning and Definition of Journalism
2. Ethics of Journalism
3. Sports Ethics and Sportsmanship
4. Reporting Sports Events
5. National and International Sports News Agencies.

#### **Unit-II**

##### **Sports Bulletin**

- 2.1 Concept of Sports Bulletin
- 2.2 Types of bulletins
- 2.3 Journalism and sports education
- 2.4 Structure of sports bulletin – Compiling a bulletin



2.5 General news reporting and sports reporting.

### **Unit-III**

#### **Mass Media**

3.1 Mass Media in Journalism: Radio and T.V.

3.2 Commentary – Running commentary on the radio – Sports expert's comments.

3.3 Role of Advertisement in Journalism.

3.4 Sports Photography

3.5 Editing and Publishing.

### **Unit-IV**

#### **Report Writing on Sports**

4.1 Brief review of Olympic Games, Asian Games, Common Wealth Games World Cup, National Games and Indian Traditional Games.

4.2 Preparing report of an Annual Sports Meet for Publication in Newspaper.

4.3 Organization of Press Meet.

4.4 Practical assignments to observe the matches and prepare report and news of the same.

4.5 Visit to News Paper office and TV Centre to know various departments and their working

#### **Reference:**

1. Ahiya B.N. (1988) Theory and Practice of Journalism: Set to Indian context Ed3. Delhi: Surjeet Publications
2. Ahiya B.N. Chobra S.S.A. (1990) Concise Course in Reporting. New Delhi: Surjeet Publication
3. Bhatt S.C. (1993) Broadcast Journalism Basic Principles. New Delhi. Haranand Publication
4. Dhananjay Joshi (2010) Value Education in Global Perspective. New Delhi: Lotus Press.
5. Kannan K (2009) Soft Skills, Madurai: Madurai: Yadava College Publication
6. MohitChakrabarti (2008): Value Education: Changing Perspective, New Delhi: KanishkaPublication.
7. Padmanabhan. A &Perumal A (2009), Science and Art of Living, Madurai: Pakavathi

## Publication

8. Shiv Khera (2002), You Can Win, New Delhi: Macmillan India Limited.
9. Varma A.K. (1993) Journalism in India from Earliest Times to the Present Period. Sterling publication Pvt. Ltd.
10. Venkataiah. N (2009) Value Education- New Delhi: APH Publishing Corporation.

# **BACHELOR OF PHYSICAL EDUCATION AND SPORTS (B.P.E.S.) IN PHYSICAL, HEALTH AND SPORTS EDUCATION**

**Semester-V**

**Paper-III**

**Title: Fitness Training and Nutrition**

**Credit: 04**

**Max. Marks: 100**

**Sessional Marks: 30**

**End semester exam marks: 70**

## **Learning outcomes:**

1. Will develop skills to establish daily caloric requirement and to design the diet plan.
2. Will acquaint student with principles of sports nutrition.
3. Will orient the student to the role of food on Physical performance.
4. Would make the student understand and prepare weight management plans.

## **Unit-I**

### **Introduction to Sports Nutrition**

- 1.1 Meaning and Definition of Sports Nutrition
- 1.2 Basic components of Nutrition
- 1.3 Factor to consider for developing nutrition plan
- 1.4 Balance diet and its components, Nutritional deficiencies.
- 1.5 Understanding of malnutrition and nutritional supplements.

## **Unit-II**

### **Nutrients: Ingestion to energy metabolism**

- 2.1 Carbohydrates, Protein, Fat – Meaning, classification and its function
- 2.2 Role of carbohydrates, Fat and protein during exercise

2.3 Vitamins, Minerals, Water – Meaning, classification and its function

2.4 Role of hydration during exercise

2.5 Establishing daily caloric requirement and expenditure

### **Unit-III**

#### **Nutrition and Weight Management**

3.1 Obesity – Definition, meaning, types and causes of obesity; Health risks associated with Obesity and Solutions for Overcoming Obesity

3.2 Concept of BMI (Body mass index), Dieting versus exercise for weight control,

3.3 Common Myths about Weight Loss

3.4 Concept of weight management in modern era, Factor affecting weight management

### **Unit-IV**

#### **Steps of planning of Weight Management**

4.1 Determination of desirable body weight

4.2 Daily calorie intake and expenditure in weight management

4.3 Role of diet and exercise in weight management

4.4 Designing diet plan and exercise schedule for weight gain and loss

4.5 Balanced diet for Indian School Children.

#### **References:**

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

- therapy for type 2 diabetes: a randomized controlled trial. *JAMA*. 299(3), 316-323.
6. Bates M. (2008). Health Fitness Management (2nd Ed.) USA: Human Kinetics.
- Fink, H.H., Burgoon, L.A., & Mikesky, A.E. (2006). Practical Applications in Sports Nutrition. Canada : Jones and Bartlett Publishers.
8. Lancaster S. & Teodororessu, R. (2008). Athletic Fitness for Kids. USA: Human Kinetics.
9. Michael J. Gibney (2002) – Human Nutrition, Atlantic publication, New Delhi.
10. Martin Estwood (2005) – Principle of human nutrition, Atlantic publication, New Delhi.

# **BACHELOR OF PHYSICAL EDUCATION AND SPORTS (B.P.E.S.) IN PHYSICAL, HEALTH AND SPORTS EDUCATION**

## **Semester-V**

### **Paper-IV**

**Title: Athletic Care and Rehabilitation**

**Credit: 04**

**Max. Marks: 100**

**Sessional Marks: 30**

**End semester exam marks: 70**

#### **Learning outcomes:**

1. He would understand the Prevention, Treatment and Rehabilitation of Athletic Injuries.

#### **Unit-I**

##### **Corrective Physical Education:**

- 1.1 Definition and Objectives of Corrective Physical Education.
- 1.2 Posture and Body Mechanics, Standards of Standing Posture.
- 1.3 Value of Good Posture, Drawbacks and Causes of Bad Posture.
- 1.4 Posture Test – Examination of the Spine.

#### **Unit-II**

##### **Posture and Rehabilitation Exercises:**

- 2.1 Normal Curve of the Spine and its Utility.
- 2.2 Deviations in Posture- Kyphosis, Lordosis, Flat Back, Scoliosis, Round Shoulders, Knock Knee, Bow Leg, Flat Foot.
- 2.3 Causes for Deviations and Treatment Including Exercises.
- 2.4 Passive, Active, Assisted, Resisted Exercise for Rehabilitation.

### **Unit-III**

#### **Massage:**

- 3.1 Brief History of Massage, Massage as an Aid for Relaxation, Points to be Considered in giving Massage
- 3.2 Physiological, Chemical, Psychological Effects of Massage, Indication /Contra Indication of Massage
- 3.3 Classification of the Manipulation used Massage and their Specific Uses in the Human Body.
- 3.4 Stroking Manipulation, Effleurage, Pressure Manipulation, Percussion Manipulation, Cupping, Poking, Shaking Manipulation, Deep Massage.

### **Unit-IV**

#### **Sports Injuries Care, Treatment and Support:**

- 4.1 Principles Pertaining to the Prevention of Sports Injuries.
- 4.2 Care and Treatment of Exposed and Unexposed Injuries in Sports.
- 4.3 Principles of apply Cold and Heat, Infrared Rays, Ultrasonic Therapy, Short-wave Diathermy Therapy.
- 4.4 Principles and Techniques of Strapping and Bandages.

***Note:** Each student shall submit Physiotherapy record of attending the Clinic and observing the cases of athletic injuries and their treatment procedure. (To be assessed internally)*

#### **References:**

- 1. Doherty. J. Meno. Wetb, Moder D (2000) Track & Field, Englewood Cliffs, Prentice Hal Inc.
- 2. Lace, M. V. (1951) Massage and Medical Gymnastics, London: J & A Churchill Ltd.
- 3. Mc Ooyand Young (1954) Tests and Measurement, New York: Appleton Century.
- 4. Naro, C. L. (1967) Manual of Massage and, Movement, London: Febra and Febra Ltd.
- 5. Rathbome, J.I. (1965) Corrective Physical education, London: W.B. Saunders & Co.
- 6. Stafford and Kelly, (1968) Preventive and Corrective Physical Education, New York.

## **Practical**

### **1. Game of Specialization which should be from the list of SGFI/AIU/IOA)**

**Credit: 02**

**Max. Marks: 100**

**Sessional Marks: 30**

**End semester exam marks: 70**

1. Basic skills of the game.
2. Dimensions and preparation of playing area.
3. Drills for skill development.
4. Skill tests, their administration and scoring.
5. Rules of the game and their interpretations.
6. Officiating and coaching in the game.
7. Maintenance of equipment of the game.



## **Practical**

### **2. Aerobics (OR) Weight lifting**

**Credit: 02**

**Max. Marks: 100**

**Sessional Marks: 30**

**End semester exam marks: 70**

#### **Aerobics**

1. Introduction of Aerobics.
2. Aerobics activities without music and equipment.
3. Aerobics for fitness and health.
4. Aerobics for mass demonstration.
5. Aerobics with equipment and music.
6. Judging and scoring in aerobics.
7. Coaching, officiating and starting careers in aerobics.
8. Skill Practice of the Aerobics.
9. Skill lessons of Aerobics.
10. Coaching lessons of Aerobics.
11. Advance coaching and training of Aerobics (try for certification of coaching from district/state/national federation/online).
12. Officiating of Aerobics (Try for certification from concerned district/state/national federation for self-employment)

**OR**

## **Weight lifting**

1. History and Development of the weight lifting
2. Fundamental principles and procedures of weight lifting.
3. Weight lifting for competition purpose and general purpose.
4. Team selection and coaching in gymnastics.
5. Gym management and maintenance of equipment.
6. Officiating & Referee / Umpire /scorer for self-employment.
7. Starting own gym for self-employment.
8. Skill Practice of the Weight lifting.
9. Skill lessons of Weight lifting.
10. Coaching lessons of Weight lifting.
11. Advance coaching and training of Weight lifting (try for certification of coaching from district/state/national federation/online).
12. Officiating of Weight lifting (Try for certification from concerned district/state/national federation for self-employment)

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

## **Semester-VI**

### **Paper-I**

**Title: Counseling in Sports**

**Credit: 04**

**Max. Marks: 100**

**Sessional Marks: 30**

**End semester exam marks: 70**

#### **Learning outcomes:**

1. The student would be able to Counsel athletes in matters of handling success and failure.  
He would also be able to orient the athletes in future opportunities.

#### **Unit-I**

##### **Counselling in Physical Education and Sports**

- 1.1 Meaning, definition and scope of Counselling in sports.
- 1.2 Aims and Objective of Counselling in sports.
- 1.3 Principles of Counselling
- 1.4 Need and importance of Counselling.

#### **Unit-II**

##### **Stress & Anxiety in Sports**

- 2.1 Meaning and definition of stress and anxiety.
- 2.2 Types of stress and anxiety.
- 2.3 Symptoms and effects of stress, anxiety and competition anxiety.
- 2.4 Management of stress and anxiety.

### **Unit-III**

#### **Motivation and Sports Performance**

- 3.1 Meaning and definition of Motivation.
- 3.2 Types and techniques of motivation
- 3.3 Principles and Importance of motivation
- 3.4 Role of coach / teacher /government in motivation

### **Unit-IV**

#### **Counselling to Athletes**

- 4.1 Counselling on injuries and rehabilitation.
- 4.2 Counselling on handling success and failure in sports.
- 4.3 Counselling on drugs in sports.
- 4.4 Counselling on job opportunities and life after retirement from sports.

#### **Reference:**

- 1. Rechard Nelson-Jones, Basic Counselling Skills, Sage Publication, New Delhi.
- 2. Dr. M L Kamlesh, Psychology in Physical Education and Sports, Educational Publishers and Distributors.
- 3. An Introduction to Counselling- McGraw-Hill Education.
- 4. Understanding Psychology- McGraw Hill Book.

# **BACHELOR OF PHYSICAL EDUCATION AND SPORTS (B.P.E.S.) IN PHYSICAL, HEALTH AND SPORTS EDUCATION**

## **Semester-VI**

### **Paper-II**

**Title: Exercise Prescription / Therapeutic Exercise**

**Credit: 04**

**Max. Marks: 100**

**Sessional Marks: 30**

**End semester exam marks: 70**

#### **Learning outcomes:**

1. The student would be able to understand the type of exercise requirement for different groups of people as per their needs.
2. Students would be able to devise effective exercise program as per the need of the individual.

#### **Unit-I**

##### **Exercises and their Types**

1. Meaning and definition of exercise
2. Types of exercises- Aerobics, Anaerobic and Conditioning
3. Importance of warming up, cooling down and stretching
4. Therapeutic exercises and their principles.

#### **Unit-II**

##### **Weight management & Gym Exercises**

- 2.1 Understanding body weight, components of body weight and ideal weight.
- 2.2 Fat burning exercises and their variations.
- 2.3 Gym training exercises for weight loss and strengthening

2.4 Dance, Aerobics, cycling and swimming for weight loss.

### **Unit-III**

#### **Exercises and Elderly People**

- 3.1 Understanding aging and characteristics
- 3.2 Need and importance of exercises in aged people.
- 3.3 Principles and precautions while giving exercises to elderly people.
- 3.4 Type of exercises and recreational activities for elderly people.

### **Unit-IV**

#### **Exercises for special needs**

- 4.1 Exercises for rehabilitations after injuries.
- 4.2 Exercise for diabetics, Exercises during & after Pregnancy
- 4.3 Exercises for casuals and weekenders.
- 4.4 Exercises for recreations and kids.

#### **References: -**

1. Robert A. Robergs, Steven J. Keteyian (2003), Fundamentals of Exercise Physiology: For Fitness, Performance, and Health, Volume 1- McGraw-Hill
2. Dymrna Pearson (2012), Weight Management: A Practitioner's Guide, ISBN- 1405185597
3. ASCM and Arnold Schwarzenegger (2003), ASCM Fitness Book
4. David Nordmark (2015), Workout Routines- Exercise workout routines.
5. Frederic Delavier (2010), Strength Training Anatomy
6. Jenny Allan (2013), The Ultimate Body building Diet, Nutrition and Workout Plan for Men and Women.
7. Joseph Kandel and Chritine Adamec (2003), The Encyclopedia of Senior Health and Wellbeing.

# **BACHELOR OF PHYSICAL EDUCATION AND SPORTS (B.P.E.S.) IN PHYSICAL, HEALTH AND SPORTS EDUCATION**

## **Semester-VI**

### **Paper-III**

**Title: Talent Identification**

**Credit: 04**

**Max. Marks: 100**

**Sessional Marks: 30**

**End semester exam marks: 70**

#### **Learning outcomes:**

1. The student would be oriented with the inherited signs and symptoms that make one adept for excellence in a particular sport.
2. The student would be able to quantify those signs and symptoms through specific tools and techniques and thus guide the individual to that sports activity for which his/her physique is best suited.

#### **Unit-I**

##### **Introduction, Meaning, Concept and scope of talent identification in sports**

1. Need and Importance of talent identification.
2. Principles of talent identification.
3. Scope of Talent identification.
4. Role of Physical Education teacher / coach in talent identification.

#### **Unit-II**

##### **Understanding Human Body**

- 2.1 Genetics and Environment and their role in sports performance.
- 2.2 Body types and their relation to sports.

2.3 Basic Anthropometry

2.4 Anthropometric assessment and data recording.

### **Unit-III**

#### **Fitness Tests**

3.1 AAPHER youth fitness test

3.2 JCR test

3.3 Coopers 12-minute run/walk test

3.4 Harvard Step test.

### **Unit-IV**

#### **Skill Tests for talent identification**

4.1 Skill tests for Ball games

4.2 Skill test for Racket games.

4.3 Skill test for Athletic abilities

4.4 Psychological tests related to sports abilities.

#### **Reference: -**

1. Russell K. Athletic talent: from detection to perfection. *Sci Period Res Technol Sport* 1989; 9 (1): 1–6Google Scholar
2. Williams AM, Reilly T. Talent identification and development in soccer. *J Sport Sci* 2000; 18 (9): 657–67
3. Bartmus U, Neumann E, de Marées H. The talent problem in sports. *Int J Sports Med* 1987; 8 (6): 415–6
4. Barron, H.M. & Mchee, R. (1997). *A Practical approach to measurement in physical education*. Philadelphia: Lea and Febiger.
5. Kansal, D.K. (1996). *Test and measurement in sports and physical education*. New Delhi: D.V.S. Publications.



# **BACHELOR OF PHYSICAL EDUCATION AND SPORTS (B.P.E.S.) IN PHYSICAL, HEALTH AND SPORTS EDUCATION**

## **Semester-VI**

### **Paper-IV**

**Title: Sports Entrepreneurship**

**Credit: 04**

**Max. Marks: 100**

**Sessional Marks: 30**

**End semester exam marks: 70**

#### **Learning outcomes:**

1. The knowledge would enable students to set up their own enterprise, catering to various demands of sports industry.

#### **Unit-I**

1. Meaning and Definition of Entrepreneurship
2. Concept and characteristics Entrepreneurship.
3. Need and Importance of entrepreneurship in sports
4. Understanding Sports Business industry.

#### **Unit-II**

1. Understanding the entrepreneurial process.
2. Types of Entrepreneurs.
3. Risk and Rewards in entrepreneurship.
4. Leading sports companies and media channels.

#### **Unit-III**

1. Identifying the areas of business.

2. Understanding financial aspects of the business.
3. Government and private Organizations supporting entrepreneurs in India
4. Generating / arranging funds for the business.

#### **Unit-IV**

- 4.1 Entrepreneurship in the sports Goods / Equipment.
- 4.2 Entrepreneurship in Sports wears.
- 4.3 Entrepreneurship in Sports management / Event management.
- 4.4 Entrepreneurship in Sports software/fitness / Nutrition.

#### **Reference: -**

1. Peter Thiel, Zero to One: Notes on Start Ups, or How to Build the Future, 0804139296 (ISBN13: 9780804139298)
2. Guy Kawasaki (2004), The Art of the Start: The Time-Tested, Battle-Hardened Guide for Anyone Starting Anything, 1591840562 (ISBN13: 9781591840565)
3. Roger Cowdrey, Creating an Entrepreneurial Mindset-Failure IS an Option!

## **Practical**

### **1. Game of Specialization –II**

**Credit: 02**

**Max. Marks: 100**

**Sessional Marks: 30**

**End semester exam marks: 70**

1. Skill Practice of the game.
2. Skill lessons of the game.
3. Coaching lessons of the game.
4. Advance coaching and training of the game (try for certification of coaching from district/state/national federation/online).
5. Officiating of the game (Try for certification from concerned district/state/national federation for self-employment)

## **Practical**

### **2. Power Lifting (OR) Physique Training**

**Credit: 02**

**Max. Marks: 100**

**Sessional Marks: 30**

**End semester exam marks: 70**

#### **Power Lifting**

1. History and Development of the power lifting.
2. Power lifting for competition purpose and general purpose.
3. Fundamental principles and procedure for power lifting.
4. Team selection and coaching in gymnastics.
5. Gym management and maintenance of equipment.
6. Officiating & Referee / Umpire /scorer for self-employment.
7. Starting own gym for self-employment.

**OR**

#### **Physique Training**

1. Skill Practice of the power lifting and Physique.
2. Skill lessons of power lifting and Physique.
3. Coaching lessons of power lifting and Physique.
4. Advance coaching and training of power lifting and Physique (try for certification of coaching from district/state/national federation/online).
5. Officiating of power lifting and Physique (Try for certification from concerned district/state/national federation for self-employment)

## **State Level Study Tour (Semester-VI)**

**04 Credits**

**Marks 100**

**Project Report: 70 marks**

**Viva-Voce: 30 marks**

Students will visit a **Universities/Institutions** of the states of the country to do survey on availability of sports infra-structure in concerned universities/institutions, and submit an individual project report of 02 credits and will be assessed by a viva voce of 02 credits.