

DEPARTMENT OF PHYSICAL EDUCATION
SYLLABUS (SESSION: 2016-2017)
BACHELOR OF PHYSICAL EDUCATION (B.P.ED.)
Semester-IVth

TITLE: (PEB-4001) - Measurement and Evaluation in Physical Education

Credits: 04
Max. Marks: 100
Sessional Marks: 10
Mid Term Exam:30
Exam. Marks: 60
Paper Code: PEB-4001
Duration: 2:00 Hours

Unit-I

Introduction to Test & Measurement & Evaluation

- 1.1 Meaning of Test, Measurement & Evaluation in Physical Education
- 1.2 Need & Importance of Test, Measurement & Evaluation in Physical Education
- 1.3 Criteria of Test, scientific authenticity (reliability, objectivity, validity and availability of norms)
- 1.4 Type and classification of Test

Unit- II

Construction and Administration of Test

- 2.1 Test Administration
- 2.2 Construction of Physical Fitness / Efficiency Test
- 2.3 General types of sports skill test items
- 2.4 Construction of sports skill test

Unit- III

Physical Fitness Tests

- 3.1 AAHPER youth fitness test & U.S Army 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 Brady's Volley ball Skill Test & S.A.I Hockey test

References:

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

DEPARTMENT OF PHYSICAL EDUCATION
SYLLABUS (SESSION: 2016-2017)
BACHELOR OF PHYSICAL EDUCATION (B.P.ED.)
Semester-IVth

TITLE: (PEB-4002) - Kinesiology And Biomechanics

Credits: 04
Max. Marks: 100
Sessional Marks: 10
Mid Term Exam:30
Exam. Marks: 60
Paper Code: PEB-4002
Duration: 2:00 Hours

UNIT- I

Introduction to Kinesiology and Sports Biomechanics

- 1.1 Meaning and Definition of Kinesiology and Sports Biomechanics
- 1.2 Importance of Kinesiology and Sports Biomechanics to Physical Education Teacher, Athletes and Sports Coaches.
- 1.3 Terminology of Fundamental Movements
- 1.4 Fundamental concepts of following terms –
 - 1.4.1 Axes and Planes
 - 1.4.2 Centre of Gravity
 - 1.4.3 Equilibrium
 - 1.4.4 Line of Gravity

Unit – II

Mechanical Concepts o Force

- 2.1 Meaning, definition, types and its application to sports activities
- 2.2 Lever - Meaning, definition, types and its application to human body.
- 2.3 Newton's Laws of Motion – Meaning, definition and its application to sports activities.
- 2.4 Projectile – Factors influencing projectile trajectory

Unit –III

Kinetic/Kinematics Concept for Analysis Human Motion

- 3.1 Form of Motion
 - 3.1.1 Linear Motion
 - 3.1.2 Angular Motion
 - 3.1.3 General Motion
 - 3.1.4 Mechanical System
- 3.2 Standard reference terminology
 - 3.2.1 Anatomical reference position
 - 3.2.2 Anatomical reference plane
 - 3.2.3 Anatomical reference axis
- 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

Unit –IV

Qualitative Analysis

4.1 Qualitative Analysis of Human Movement

4.1.1 Kinematics

4.2.2 Kinetics

4.2 Tool of measuring Kinematics quantities

4.2.1 Cinematography

4.2.2 Videography

REFERENCES:

1. Amrit Kumar, R, Moses. (1995). Introduction to Exercise Physiology. Madras:PoompugarPathipagam.
2. BeotraAlka, (2000) Drug Education Handbook on Drug Abuse in Sports: SportsAuthority of India Delhi.
3. Clarke, D.H. (1975). Exercise Physiology. New Jersey: Prentice Hall Inc., EnglewoodCliffs.
4. David, L Costill. (2004). Physiology of Sports and Exercise.Human Kinetics.
5. Fox, E.L., and Mathews, D.K. (1981).The Physiological Basis of Physical Educationand Athletics. Philadelphia: Sanders College Publishing.
6. Guyton, A.C. (1976). Textbook of Medical Physiology. Philadelphia: W.B. Sanders co.
7. Richard, W. Bowers.(1989). Sports Physiology. WMC: Brown Publishers.
8. SandhyaTiwaji. (1999). Exercise Physiology.Sports Publishers.
9. Shaver, L. (1981).Essentials of Exercise Physiology. New Delhi: Subject Publications.
10. Vincent, T. Murche. (2007). Elementary Physiology. Hyderabad: Sports Publication.
11. William, D. McAradle. (1996). Exercise Physiology, Energy, Nutrition and Human Performance. Philadelphia: Lippincott Williams and Wilkins Company.
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DEPARTMENT OF PHYSICAL EDUCATION
SYLLABUS (SESSION: 2016-2017)
BACHELOR OF PHYSICAL EDUCATION (B.P.ED.)
Semester-IVth

TITLE: (PEB-4003) - Research and Statistics in Physical Education

Credits: 04
Max. Marks: 100
Sessional Marks: 10
Mid Term Exam:30
Exam. Marks: 60
Paper Code: PEB-4003
Duration: 2:00 Hours

Objectives: At the end of this course, the student will be able to-

- 1) Demonstrate an understanding about the basic components of research and statistics used in physical education**
- 2) Differentiate and compare the elements of qualitative and quantitative research methods**
- 3) Identify and distinguish the essential elements of quality research**
- 4) Apply the research skills in conducting systematic qualitative and quantitative investigations**
- 5) Develop a research based approach in physical education**

Unit-I

- 1.1 Meaning and definition of research
- 1.2 Need and importance of research in Physical Education
- 1.3 Scope of research in Physical Education
- 1.4 Research ethics principles, and informed consent of research
- 1.5 Paradigms of research and comparison between qualitative and quantitative research

Unit-II

- 2.1 Advantages and disadvantages of qualitative methods; Understanding the scenario to use qualitative method
- 2.2 Techniques of qualitative research (observation, focus group, depth interview, protocol analysis, projective technique)
- 2.3 Quantitative research: concepts and types of variables, types of scales; characteristics, application, advantages and disadvantages of quantitative research
- 2.4 Introduction of literature sources, Need for literature review (critical and allied reviews), Hypothesis (null and research, one tail and two tail)
- 2.5 Concept of population, sample; sampling methods and sample recruitment in qualitative and quantitative research

Unit-III

- 3.1 Data analysis in research: continuous and discrete data, raw score
- 3.2 Computing measures of central tendency and measures of variability from the sample/population (Using MS Excel)
- 3.3 Computing percentiles and quartiles from data(Using MS Excel)
- 3.4 Introduction and criteria for applying basic parametric and nonparametric techniques of data analysis (chi-square, z-test, t-test)
- 3.5 Graphical presentation of data(Using MS Excel)

Unit- IV

- 4.1 Writing grammar of research proposal (Quantitative and Qualitative research)
- 4.2 Evaluation criteria's of quantitative research proposal
- 4.3 Difference between bibliography and referencing
- 4.4 Introduction to referencing systems and writing reference in research.

References:



California State University (no date) *Quantitative sampling*. [online] Available from: http://www.csun.edu/~hbsoc126/soc4/chapter_8_outline.pdf [Accessed 5th Jan 2017].

Center for innovation in research and teaching (no date) *An Overview of Quantitative Research*. [online] Available from: https://cirt.gcu.edu/research/developmentresources/research_ready/quantresearch/overview_quant [Accessed 3rd Jan 2017].

Creswell, J. W. (2013). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage Publications, Incorporated.

Neill, J. (2003) *Analysis of Professional Literature Class 5: Quantitative Research Design: Sampling & Measurement*. [online] Available from: <http://wilderdom.com/OECourses/PROFLIT/Class5QuantitativeResearchDesignSamplingMeasurement.htm#Measurement> [Accessed 4th Jan 2017].

Regoniel, Patrick A. (2012) *Four Statistical Scales of Measurement*. [online] Available from: <http://simplyeducate.me/2012/12/16/4-statistical-scales-of-measurement/> [Accessed 2nd Jan 2017].

Sudeshna and Datt, S. (2016) *Importance of ethical considerations in a research*. [online] Available from: <https://www.projectguru.in/publications/limitations-quantitative-research/> [Accessed 1st Jan 2017].

Sudeshna and Datt, S. (2016) *Limitations and weakness of quantitative research methods*. [online] Available from: <https://www.projectguru.in/publications/limitations-quantitative-research/> [Accessed 4th Jan 2017].

Thomas, J., Nelson, J. and Silverman, S. (2015) *Research Methods in Physical Activity*. 7th edition. Champaign, IL, Human Kinetics.

University of Leicester (2009) *Measures of variability: the range, inter-quartile range and standard deviation charts*. [online] Available from: <http://www2.le.ac.uk/offices/ld/resources/study-guides-pdfs/numeracy-skills-pdfs/measures-variability-v0.1.pdf> [Accessed 2nd Jan 2017].

Video Links:



Research Methods

<http://study.com/academy/lesson/research-methodologies-quantitative-qualitative-mixed-method.html>

Measures of variability

<http://study.com/academy/lesson/measures-of-variability-range-variance-standard-deviation.html>

Types of sampling techniques

<http://study.com/academy/lesson/what-is-sampling-in-research-definition-methods-importance.html>

<http://study.com/academy/lesson/sampling-techniques-in-scientific-investigations.html>

Referencing

<https://www.youtube.com/watch?v=6RVrhlMUaS8>

http://www.powershow.com/view/26a409-NzYzM/The_Harvard_Reference_System_powerpoint_ppt_presentation

<https://www.youtube.com/watch?v=RdG91lhDseA>

Types of data

<https://www.youtube.com/watch?v=7bsNWq2A5gI>

<https://www.youtube.com/watch?v=hZxznft5v8>

Scales of measurements

<https://www.youtube.com/watch?v=KIBZUk39ncI>

<https://www.youtube.com/watch?v=yJpiUHbLKL U>

Hypothesis

<http://study.com/academy/lesson/what-is-a-null-hypothesis-definition-examples.html>

<http://study.com/academy/lesson/alternative-hypothesis-definition-example.html>

<http://study.com/academy/lesson/formulating-the-research-hypothesis-and-null-hypothesis.html>

Variables

<http://study.com/academy/lesson/research-variables-dependent-independent-control-extraneous-moderator.html>

Chi-square test

<http://study.com/academy/lesson/what-is-a-chi-square-test-definition-example.html>

<https://www.youtube.com/watch?v=ODxEoDyF6RI>

z-test

<https://www.youtube.com/watch?v=McISiEiXgfE>

<https://www.youtube.com/watch?v=AvjJuCKUIq4>

t-test

<http://study.com/academy/lesson/what-is-a-t-test-procedure-interpretation-examples.html>

<https://www.youtube.com/watch?v=BIS11D2VL U>

<https://www.youtube.com/watch?v=3azuAaOJack>

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BACHELOR OF PHYSICAL EDUCATION (B.P.ED.)
Semester-IVth

TITLE: (PEB-4012) - SPORTS MANAGEMENT

Credits: 04
Max. Marks: 100
Sessional Marks: 10
Mid Term Exam:30
Exam. Marks: 60
Paper Code: PEB-4012
Duration: 2:00 Hours

Unit-I

- 1.1 Definition, Principles, Nature and Concept of Sports Management.
- 1.2 Progressive concept of Sports management.
- 1.3 The purpose and scope of Sports Management.
- 1.4 Essential skills of Sports Management.
- 1.5 Qualities and competencies required for the Sports Manager.
- 1.6 Event Management in physical education and sports.

Unit-II

- 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

- 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

- 4.1 Financial management in Physical Education & sports in schools, Colleges and Universities.
- 4.2 Budget – Importance, Criteria of good budget,
- 4.3 Steps of Budget making
- 4.4 Principles of budgeting

REFERENCES:

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

DEPARTMENT OF PHYSICAL EDUCATION
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BACHELOR OF PHYSICAL EDUCATION (B.P.ED.)
Semester-IVth

TITLE: (PEB-4071) - Track and Field

Credits: 04
Max. Marks: 100
Sessional Marks: 40
Exam. Marks: 60
Paper Code: PEB-4071

Decathlon Events:

Unit-I

- 1.1 100 metres, 400 metres
- 1.2 Long Jump, High jump
- 1.3 Shot put

Unit-II

- 2.1 110 m Hurdles
- 2.2 Discuss throw, Javelin throw
- 2.3 Pole vault, 1500 m

Officiating, Scoring, Layout & Marking

Unit-III

- 3.1 Rules and Interpretation
- 3.2 Officiating for Decathlon Events
- 3.3 Layout and Standard Measurement for Decathlon Events

Scoring/ Point System:

Unit-IV

- 4.1 Formula for combined events scoring system
- 4.2 Points system in Decathlon events (Men)
- 4.3 Points system in Decathlon events (Women)

Books Recommended:

- 1) Jain R.: Play and Learn Track and Field, Khel Sahitya Kendra-4264/3, Ansari Road, Darya Ganj, New Delhi (2003).
- 2) Thani V.: Encyclopaedia of Track & Field (with Latest Rules), Khel Sahitya Kendra-4264/3, Ansari Road, Darya Ganj, New Delhi (2003).
- 3) Ken Sparks & Garry Bjorklund.: Long-Distance Runner's Guide to Training and Racing, Prentice-Hall, Inc., Englewood Cliffs, New Jersey-07632 (1984).
- 4) Sharma P.D.: Olympics –Athens to Atlanta 1896-1996, Friends Publications (India), 918, Dr. Mukherji Nagar, Delhi (1998-99).

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Semester-IVth

TITLE: (PEB-4074) - Skating & Football

Credits: 04
Max. Marks: 100
Sessional Marks: 40
Exam. Marks: 60
Paper Code: PEB-4074
Duration: 2:00 Hours

Skating:

Unit – I

- 1.1 Step Ratham on skates
- 1.2 Walking on Skates
- 1.3 Roll on Skates
- 1.4 Half Camel (Hand straight, right on the Rink and left on the air)

Unit – II

- 2.1 Half Camel (Hand straight, left on the Rink and Right on the air)
- 2.2 T-Brake (Right Leg/Left Leg)
- 2.3 Sit Forward (Both legs on Rink)
- 2.4 Sit Forward with Hinging Legs (Right Leg / Left Leg)

Football:

Unit– III

Push-Pass

- 3.1 Inside of the foot.
- 3.2 Inside Instep of the foot.
- 3.3 Drills

Unit– IV

Kicking

- 4.1 Inside Instep Kick
- 4.2 Instep Kick
- 4.3 Outside Instep Kick

Books Recommended For Study

- 1) Kumar, N. (2003) Play and Learn Football, Khel Sahity Kendra, New Delhi.
- 2) William, T. (1988). Teaching Soccer, Surjeet Publication, New Delhi.
- 3) Widdows, R. The Handbook of Football Techniques and Tactics.
- 4) Snow, S. and Thomas, J., (2009). Skill School Training Manual: Fundamental Ball Skills.
US Youth Soccer Technical Department

DEPARTMENT OF PHYSICAL EDUCATION
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BACHELOR OF PHYSICAL EDUCATION (B.P.ED.)
Semester-IVth

TITLE: (PEB-4075) - Skating & Cricket

Credits: 04
Max. Marks: 100
Sessional Marks: 40
Exam. Marks: 60
Paper Code: PEB-4075

Skating:

Unit – I

- 1.1 Step Ratham on skates
- 1.2 Walking on Skates
- 1.3 Roll on Skates
- 1.4 Half Camel (Hand straight, right on the Rink and left on the air)

Unit – II

- 2.1 Half Camel (Hand straight, left on the Rink and Right on the air)
- 2.2 T-Brake (Right Leg/Left Leg)
- 2.3 Sit Forward (Both legs on Rink)
- 2.4 Sit Forward with Hinging Legs (Right Leg / Left Leg)

Cricket:

Unit-III

Fielding:-

- 3.1 Pre-requisite of Fielding in Cricket
- 3.2 Basic Skills of Fielding
- 3.3 Fielding Positions in Cricket

Unit-IV

Bowling:-

- 4.1 Spin Bowling in Cricket
- 4.2 Types of Spin Bowling
- 4.3 Development of Bowling related Fitness Components.

DEPARTMENT OF PHYSICAL EDUCATION
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BACHELOR OF PHYSICAL EDUCATION (B.P.ED.)
Semester-IVth

TITLE: (PEB-4076) - Skating & Basketball

Credits: 04
Max. Marks: 100
Sessional Marks: 40
Exam. Marks: 60
Paper Code: PEB-4076

Skating:

Unit – I

1. Step Ratham on skates
2. Walking on Skates
3. Roll on Skates
4. Half Camel (Hand straight, right on the Rink and left on the air)

Unit – II

1. Half Camel (Hand straight, left on the Rink and Right on the air)
2. T-Brake (Right Leg/Left Leg)
3. Sit Forward (Both legs on Rink)
4. Sit Forward with Hinging Legs (Right Leg / Left Leg)

Basketball:

Unit- III

Introduction and Advanced Skills

- 3.1 Lay-up shot with variation
- 3.2 Rebounding with variation
- 3.3 Screening with variation
- 3.4 Shooting with variation
- 3.5 Tapping
- 3.6 Signals (Officials and Referees)
- 3.7 Score Sheet

Unit- IV

Advances Playing Techniques

- 4.1 Man to Man Full Court Press
- 4.2 Man To Man Half Court Press
- 4.3 Zone, 212, 122, 32, Techniques
- 4.4 Low Post & High Post
- 4.5 One on One Beat
- 4.6 Pick and Roll
- 4.7 Officiating Techniques

DEPARTMENT OF PHYSICAL EDUCATION
SYLLABUS (SESSION: 2016-2017)
BACHELOR OF PHYSICAL EDUCATION (B.P.ED.)
Semester-IVth

TITLE: (PEB-4080) - Sports Specialization: Coaching lessons Plans -Track and Field

Credits: 04
Max. Marks: 100
Sessional Marks: 40
Exam. Marks: 60
Paper Code: PEB-4080

Coaching Track & Field Event:

Unit-I

- 1.1 Important Terminology
- 1.2 Essential for sprinter
- 1.3 Qualities of Sprinter

Unit-II

- 2.1 Techniques for sprinter start
- 2.2 Proper Technique of a Runner
- 2.3 Coaching the correct Running Technique
- 2.4 Competitive Tactics

Unit-III

- 3.1 Rules for Race
- 3.2 Rules of Leaving the Track

Unit-IV

- 4.1 General Introduction of the Shot- put through
- 4.2 Technique of Shot-put throws
- 4.3 Technique of Javelin throws
- 4.4 Rules of throws

Books Recommended:

- 1) Jain R.: Play and Learn Track and Field, Khel Sahitya Kendra-4264/3, Ansari Road, Darya Ganj, New Delhi (2003).
- 2) Thani V.: Encyclopaedia of Track & Field (with Latest Rules), Khel Sahitya Kendra-4264/3, Ansari Road, Darya Ganj, New Delhi (2003).
- 3) Ken Sparks & Garry Bjorklund.: Long-Distance Runner's Guide to Training and Racing, Prentice-Hall, Inc., Englewood Cliffs, New Jersey-07632 (1984).
- 4) Sharma P.D.: Olympics –Athens to Atlanta 1896-1996, Friends Publications (India), 918, Dr. Mukherji Nagar, Delhi (1998-99).