

DR. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY, CHHATRAPATI SAMBHAJINAGAR.

DEPARTMENT OF PHYSICAL EDUCATION

PET SYLLABUS-2024

Unit 1: Introduction and Trends in Sports Training

- Aim and Characteristics and Principle of Sports Training
- Periodization
- Training Program and Plans
- Evaluation of Training Program

Unit 2: Introduction and Trends in Biomechanics

- Analysis of fundamental Skills and Sports Skills
- Tools of Biomechanical Analysis
- Skill Analysis of Various Sports

Unit 3: Pedagogy and Technology in Physical Education

- Components of technology in Physical Education software and hardware
- Pedagogical designs & e-learning
- Introduction Pedagogy in Physical Education and Sport
- Designing and Development of curriculum and Curriculum models & Frameworks
- Trends in PETE in India, Curriculum in Physical Education Teacher Education
- Traditional methods and Systematic improvement in teaching skills
- What to observe, training observer, calculating reliability of observation data

Unit 4: Introduction to Sports Nutrition

- Importance of Sports Nutrition
- Principles of Sports Nutrition
- Proportion of carbohydrates, fat & protein
- Water, exercise & dehydration, Sports supplement
- Doping & its classification

Unit 5: New trends in Management

- New trends of Management
- Scope, importance and Principle of Management
- Various Managements in Physical Education
- Sports management and marketing

Unit 6: Introduction of Evaluation process

- Different test in Physical Education: Knowledge, Psychological, Fitness, Skill, Physiological, Special Population, Test batteries, Anthropometric test
- Characteristics of tests and tests batteries
- Factors considering for administration of test
- Different methods for testing validity, reliability, Objectivity and norms for test construction
- Construction of motor test & Questionnaire

Unit 7: Introduction of physical fitness and wellness

- Concepts of Exercise, Physical Activity, Health and obesity
- Principles of Exercise training to improve physical fitness
- Concept of wellness and the Components of total wellness
- Phases for Exercise prescription and Management of Fitness programme

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- Means and methods of developing physical fitness: Circuit training, Resistance training, plyometric training, Fartlek training, interval training, Core training, cross training and other

Unit 8: Introduction Exercise Physiology

- Aims and Objectives OF Exercise physiology
- Effect of Different exercise and Training Program of Different Systems
- Sources of Energy System, Hormonal Regulation of Exercise, Muscular and Neurological Control of Movement
- Effect of Altitude on Performance
- Aims, objectives and concept of Yoga
- Classification of Yoga: A) Hath Yoga, B) Power Yoga C) Ashtang Yoga
- Self-Study Learning Control Through learning you're self

Unit 9: Introduction of Sports Psychology

- Meaning, scope & development of sport psychology
- Personality & Anxiety-Types, Effect of Anxiety on performance
- Psychological Tests: Motivation, Personality, Anxiety, Aptitude, Intelligence, etc.
- Description of the approved tests

Unit 10: Introduction of Sports Statistics

- **Processing and Analysis of Data** – (Measures of Central Tendency, Measures of Dispersion, Measures of Asymmetry (Skewness), Measures of Relationship, Simple Regression Analysis, Multiple Correlation and Regression, Partial Correlation.)

- **Testing of Hypotheses-I** – What is a Hypothesis? Basic Concepts Concerning Testing of Hypotheses, Procedure for Hypothesis Testing, Flow Diagram for Hypothesis Testing, Measuring the power of a Hypothesis Test, Tests of Hypotheses, Important Parametric Tests, Hypothesis Testing of Means, Hypothesis Testing for Differences between Means, Hypothesis Testing for Comparing Two Related Samples, Hypothesis Testing of proportions, Hypothesis Testing for Difference between Proportions, Hypothesis Testing for Comparing a Variance to some Hypothesized Population Variance, Testing the Equality of Variances of Two Normal Populations, Hypothesis Testing of Correlation Coefficients, Limitations of the Tests of Hypotheses

- **Testing of Hypotheses-II (Nonparametric or Distribution-free Tests)** –

Characteristics of Distribution-free or Non-parametric Tests

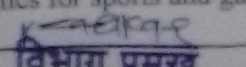
Important Nonparametric or Distribution-free Test

Relationship between non-parametric tests

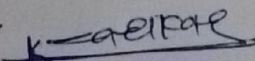
- **Interpretation of data** – What is ANOVA? The Basic Principle of ANOVA, ANOVA, Technique, Methods for one-way ANOVA, Two-way ANOVA Analysis of Co-variance (ANOCOVA), ANOCOVA Technique, Assumptions in ANOCOVA, Standard deviation, regression equation, T-value

Suggested Reading:

1. Singh, H. (1991). Science of sports training. New Delhi: DVS publication
2. Uppal, A. K. (2001). Principles of sports training. New Delhi: Friends publication
3. Rainer Martens (2005). Successful coaching
4. Beachel & Taylor (2006). Essentials of strength training & conditioning
5. Hay, J (1981). The Biomechanics of sports techniques. New Jersey: Prentice Hall
6. Bunn, J. W. (1981). Scientific principles of coaching. Englewood: Cliffs. Prentice Hall
7. McGinnis, P. M. (2005). Biomechanics of sports exercises. USA: Human Kinetics
8. Sunderrajan, G. S. Biomechanics of sports and games. Ludhiana: Tondon Publication
9. Susan, J. H. (2003). Basic Biomechanics. (4th Edn.) Mc.Graw Hill Publication
10. Rajlakshmi, D. (2007). Biomechanics for sports and games. Sports Educational


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 अहमदनगर

11. Integrating Technology in the classroom shelly, Cashman, gunter and gunter, publication by Thomson course technology
12. Essentials of Technology in Physical Education, Madan Lal, Anmol Publications
13. Online Teaching Tools and Methods, Mahesh Varma, Murari Lal & Sons
14. Education and Communication for development, O. P. Dahama, O. P. Bhatnagar, Oxford & IBH Publishing company, New Delhi
15. Information and Communication Technology, N. Sareen, Anmol Publication
16. Manore, M. & Thompson, J. (2000). Sports Nutrition for sport & performance Champaign: Human kinetics
17. Kern, m. (2005). Sports nutrition. Tayloy.
18. Driskell, J. A. & Wolinsky, I. (2006). Sports nutrition. New Delhi: Friends publications
19. Groff, J. (2000). Advanced nutrition & human metabolism. Wadsworth
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21. Voltmer, E. F. (1979). The organization and administration of Physical Education (5th Edn). New Jersy: Prentice Hall
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23. Miller, David. K. (2002). Measurement by the Physical Educator. New York: McGraw Hill companies
24. John & Nelson (1998). Practical Measurements for Evaluation in Physical Education Delhi: Surjit Publication
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26. Siedentop, D. (1991). Developing teaching skills in Physical Education. Ca:Mayfield Publishing company
27. Mosston, M., Ashowrth, S. (1994). Teaching Physical Education (4th Ed). NY: Macmillan College Publishing Company
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29. Fahey, Insel, Roth (2004). Fit & well (6th Ed.). Boston:McGraw Hill co.
30. Greenberg, Dintiman, Oakes. (2004). Physical fitness & wellness (3rd Ed.) IL: Human Kinetics
31. Howley & Franks (1997). Health fitness instructor's Handbook (3rd Ed.) IL: Human Kinetics
32. ACSM (1998). ACSM's resource manual for guidelines for exercise testing & Prescription (3rd Ed.) Lippincott, Williams & Wilkins
33. Mathew, D. K. and Fox, E. L. (1976). Physiology basis of Physical Education and athletics Philladelphia: UBS company
34. Pearce Evelyn. (1992). Anatomy and physiology for nurces, Calcutta: Oxford university Press
35. Sedey, Rod R. (1992). Anatomy and physiology. St. louis: Mosby
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38. Alice, C. (2000). Yoga for sports. Chicago: CB
39. B. J. Cratty. Psychology of Contemporary sports Champaign: Human Kinetics Publishers
40. John M. Silva & Roberts. Psychological Foundations of Sport. Champaign: Human Kinetics Publishers.


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