

M.PHIL / PH. D COURSE WORK IN PHYSICAL EDUCATION

(AS PER CREDIT SYSTEM W.E.F. THE SESSION JANUARY 2017)

Program Specific outcome

PSO 1: Students would gain conceptual and theoretical knowledge of research methodology in the field of Physical Education and would apply them in research of Sports and Physical Education.

PSO 2: Student would understand the application of Sports Psychology, Sports Management and Sports Bio Mechanic and would be able to apply them in their professional areas.

PSO 3: Student would become competent enough and would acquire the advance skill of Physical Education profession.

PSO 4: Student will also know about the applications of computers in different fields..

SCHEME OF EXAMINATION

The entire course will be of two semester. Each student should earn a minimum of 28 credits over the entire course (Course - 20 + Dissertation- 8= 28)

Semester I

Paper Code	Nomenclature	Hours/ Week(L+T+P)	Marks			Exam. (hrs)	Credit L+T+P
			Int .	Ext.	Total		
17PHEMP11C1	Research Methodology	4+0+0	80	20	100	3 hrs	4+0+0=4
17PHEMP11C2	Statistics in Physical Education	4+0+0	80	20	100	3 hrs	4+0+0=4
17PHEMP11C3	Computer Applications in physical Education	4+0+0	80	20	100	3 hrs	4+0+0=4
Credits						Total credits =12	

Semester II

Paper Code	Nomenclature	Hours/ week (L+T+P)	Marks			Exam. (hrs)	Credit L+T+P
			Int .	Ext.	Total		
17PHEMP12C1	Measurement Evaluation in Physical Education.	4+0+0	80	20	100	3 hrs	4+0+0=4
17PHEMP12C2A	Optional :- Sports Bio-mechanics	4+0+0	80	20	100	3 hrs	4+0+0=4
17PHEMP12C2B	Sports Psychology						
17PHEMP12C2C	Sports						

	Management					
17PHEMP12C3	Dissertation	150+50= 200			Viva-voca	08
Credits					Total credits =16	

Total Credits-

$$12+16=28$$

INTERNAL ASSESSMENT: Each student will be required to appear in the Internal Assessment Test which will be taken by the concerned teacher. The test will be held 10 marks in each semester of each paper. In addition to it, the students will be required to submit one assignment in each paper which will be evaluated by the concerned teachers. Each assignment will carry 5 marks and 5 marks will be for attendance.

DISSERTATION: Maximum marks 200 (150 for evaluation of dissertation and 50for Viva-voce). The student will have to submit a dissertation in partial fulfilment of the degree. The topics for dissertation will be approved by the D.C. for which the students will have to submit a research proposal along with the topic of the dissertation in the 2nd Sem. in the form of a synopsis and make a power point presentation of the proposal.

The student will be required to write a dissertation on a selected topic. The allotment of the Supervisor shall be approved by Departmental Committee during the first semester. The dissertation may include the results of original research empirical or documentary or a fresh interpretation of existing knowledge of data and such other forms as may be determined by the D.C. The student will also be required to submit an abstract of his/her research work in about 300 words along with the dissertation.

Every student shall be required to submit monthly report to the supervisor. The supervisor of the student will give his/her assessment about the progress of the candidate in the office of the Department.

VIVA-VOCE: The scholar will undergo a viva-voce examination on his/her dissertation. This will be evaluated by the external examiner, HOD and Research Supervisor.

Paper-I RESEARCH METHODOLOGY
17PHEMP11C1

Time – 3 hours

Max. Marks = 100
External marks: 80
Internal marks: 20

COURSE OUTCOMES

CO 1: The students would be able to understand the concept of research

CO 2: The students would be able to define meaning, nature, scope, and purposes of Research in physical education and sports.

CO 3: The students would be able to understand the types and methods of research in physical education and sports.

CO 4: The students would be able to illustrate meaning, criteria and sources for identifying the research problems.

CO 5: The students would be able to describe the importance and various sources of review of related literature and hypothesis & sampling.

UNIT –I

RESEARCH

- Meaning, Need, Nature and scope of Research in Physical Education
- Characteristics of a good research
- Fundamental, applied and action research

REVIEW OF LITERATURE

- Importance, location of the research material – index, books, bibliography, reviews and abstract, critical literature and allied literature
- Steps in reviewing literature
- Not taking, scanning and skimming,

UNIT-II RESEARCH PROBLEM

- Identification of area for research in Physical Education
- Selection of problem
- Delimitation and operationalization of variables

HYPOTHESIS

- Meaning and Importance
- Characteristics of good hypothesis
- Sources (iv) Types of hypothesis

UNIT-III

METHODS OF RESEARCH

- Historical
- Descriptive
- Experimental
- Philosophical

RESEARCH DESIGN

- Meaning of research design and its importance
- Type of research design

UNIT-IV

SAMPLING

- Concept of population and sample
- Method of sampling : Probability and non-probability

TOOLS & TECHNIQUES

- Characteristics of a good research tools
- Questionnaire, Interview, Observation, Psychological Test, Sociometric Techniques, Attitude Scale, Inventories

REPORT WRITING

- Developing research proposal (synopsis)
- Characteristics of a good research report

- General format of a research report

REFERENCE

1. Aggarwal, Y.P. (1998) The Science of Educational Research, A Source book, Nirmal, Kurukshetra.
2. Garrett, H.E. (1973), Statistics in Psychology and Education Vakils, Feffer and Simon, Bombay.
3. Good: C.V. and Douglas, E.Scates 1954, Methods in Social Research, Mcgraw Hill, New York.
4. Kou, Lokesh (1988), Methodology of Research, Vikas, New Delhi.
5. Mouly, A.J. (1963), The Science of Educational Research Euroasia, New Delhi.

Paper-II STATISTICS IN PHYSICAL EDUCATION **17PHEMP11C2**

Time – 3 hours

Max. Marks = 100

External marks: 80

Internal marks: 20

COURSE OUTCOMES

CO 1: The students would be able to differentiate different types of data i.e. Quantitative data & Qualitative data.

CO 2: The students would be able to do practical orientation involving selection of appropriate data analysis techniques.

CO 3: The students would be able to explain and illustrate the concept & application of measures of central tendency dispersion and relative positions.

CO 4: The students would be able to describe the meaning, assumptions, computation & uses of T-Test, ANOVA & NPS

CO 5: The students would be able to differentiate between parametric test & non-parametric test.

UNIT-I

STATISTICS

- Meaning and importance in Physical Education

DATA

- Method of organizing data through frequency distribution

MEASURE OF CENTRAL TENDENCY (meaning and computation)

- Mean, Median, Mode.

UNIT-II

MEASURES OF DISPERSION (Meaning & Computation)

- Range
- Quartile Deviation
- Average Deviation
- Standard Deviation

MEASURES OF RELATIVE POSITION

- Meaning & Computation
- Percentile

- Percentile rank

UNIT-III

NORMAL PROBABILITY CURVE

- Meaning
- Characteristics
- Application
- Skewness and Kurtosis

CORRELATION

- (Meaning uses and computation)
- Product Moment Correlation Rank Difference Correlation (a) Partial and Multiple (b) Phi and Tetrachoric

UNIT-IV

ANALYSIS OF VARIANCE

- Meaning, Assumption and Computation (a) One way Anova (b) Two way Anova

CHI-SQUARE

- tests of equality and Independence (Meaning, Assumption and Computation)

T -TEST:

- Significance of difference between two means (independence samples)

REFERENCE

1. Siegel, S. (1986), Non-parametric Statistic, McGraw Hill, New York.
2. Van Dalen, D.B., (1992), Understanding Educational Research, McGraw Hill, New York.
3. Garrett, H.E. (1973), Statistics in Psychology and Education Vakils, Feffer and Simon, Bombay.

PAPER-III

Computer Applications in Physical Education 17PHEMP11C3

Max. Marks: 80

Int. Marks: 20

Time: 3 hours

COURSE OUTCOMES

CO 1: The students would be able to understand the basics & types of computer and aware about fundamentals of computer hardware and software.

CO 2: The students would be able to familiar with Net working & Internet.

CO 3: The students would be able to understand and able to use of different types of application software i.e. MS-word, MS-Excel etc.

CO 4: The students would be able to develop understanding about E-Book and Virtual library.

CO 5: The students would be able to analyze the concept of plagiarism.

UNIT-I

- Definition of Computer, Block diagram of computers, classification of computers, role of computer in Physical Education.
- Components of Computer
Hardware {CPU, Monitor, Keyboard etc.)
Software (DOS, Basic, Colbol}

UNIT-II

- What is an OS? Functions of an OS?
- OS as a resource manager, Types of OS, Features of OS, Concepts of warm & Cold booting, swapping, spooling and buffering.

UNIT-III

MS-office and data Analysis Software

- Word-Introduction of word processor, creating & saving documents.
- Excel- Introduction to excel, need of spreadsheet, creating, opening & saving workbook, editing worksheet, using links, applying different views, Types of functions.
- Power Point-Introduction of slides, speaker notes, media clips, graphs, picture, web pages, adding different kind of slides, working with Power Point, inserting text objects, formatting Text.
- Introduction to Data analysis software SPSS & application of t-test, Chi square and Anova through SPSS Soft-ware.

UNIT-IV

- Introduction
- Evaluating internet resources: Authority, Accuracy and objectivity.
- Brief note on e-books and virtual library.
- UGC-infonet, INFLIBNET and ERNET.
- What is Plagiarism and how to avoid it?

SEMESTER 2

PAPER- IV

Measurement and Evaluation in Physical Education

17PHEMP12C1

Max. Marks: 80

Int. Marks: 20

Time: 3 hours

COURSE OUTCOMES

CO 1: Students would be able to know the meaning of measurement and evaluation and its importance in the field of physical education.

CO 2: It will be helpful to conduct the various tests for example- agility, balance strength, speed and power test.

CO 3: It will be helpful to know reliability, validity and norms of the test.

CO 4: It will be helpful in standardization of test.

UNIT-I

Measurement and Evaluation

- Measurement (Meaning and its levels)
- Evaluation
 - i. Meaning
 - ii. Need and Importance
 - iii. Characteristics

- iv. Formative and Summative Evaluation
- v. External and Internal Evaluation (Advantages and disadvantages)
- Inter relationship between measurement and evaluation

UNIT-II

- Test Meaning & Importance
- Test for strength, Endurance, speed, flexibility & agility
- Administration of various fitness test
- **Agility test:** (a) Zigzag test (ii) Burpee test
- **Mobility & Balance:** Sit & Reach test (b) Trunk flexion test (c) Hip flexion test
- **Strength:** Chin-up test (b) Grip Strength test
- **Speed & Power:** 60 meter speed test (b) 400 meter sprint test

UNIT-III

CHARACTERISTICS OF A GOOD MEASURING INSTRUMENT

- Reliability (Concept and Procedures of Estimation)
- Validity (concept and Procedures of Estimation)
- Norms
- Usability

UNIT-IV

TEST STANDARIZATION

- Norm Referenced and Criteria Referenced
- Test, Standard Scores, T-scores
- Construction and standardization of Test
- Interpretation of Test Scores and Methods of Feedback to students.

References:

Measurement & Evaluation in Physical Education and Exercise Science – by Alan C. Lacy, Benjamin Cummings 2010

Paper-V (Optional-1)

BIO-MECHANICS IN PHYSICAL EDUCATION & SPORTS

17PHEMP12C2A

Max. Marks: 80

Int. Marks: 20

Time: 3 hours

COURSE OUTCOMES

CO 1: The students would be able to explain the Meaning Definition: functions and importance of Biomechanics in Phy. Edu and Sports

CO 2: The student will be able to understand the Classes of lever and application of levers and Advantages of Lever in physical education and sports

CO 3: The students would be able to illustrate the Drag, Skin Friction, Profile Drag, Effects of Stream lining on Drag.

CO 4: The students would be able to understand the concept of Qualitative Bio-mechanical Analysis to improve Technique.

CO 5: The students would be able to explain & illustrate the concept of spin, Magnus effect and its application in sports

UNIT-I

- Meaning Definition: functions and importance of Biomechanics in Phy. Edu and Sports
- Forms of Motion: Translatory: Rotatory and General
- Linear Kinematics: Speed and Velocity: acceleration; Acceleration due to Gravity; Vector and

Scaler: Resultant Vector; Vector Components; Projectile Motion. Kinematics

UNIT-II

- Angular displacement and Angular distance; Torque; Angular Inertia; Angular Momentum
- Meaning of Force; Classifying Forces (Internal & External) Resolution of Forces: Static-Equilibrium
- Newtons Laws of Motion: Law of Inertia: Law of acceleration: Law of Action and Reactions
- Definition of Levers: Classes of lever and application of levers: Advantages of Lever

UNIT-III

- Spin and its types
- Effect of spin on speed and direction on the object on surface
- Effect of spin on Speed and direction of the object in air
- The magnus Effect
- Drag: Skin Friction; Profile Drag: Effects of Stream lining on Drag
- Terminal Velocity
- Fluid Mechanics: Buoyout Force: relative Motion: fluid Resistance

UNIT-IV

- Bio-mechanical Analysis and its types
- Qualitative Bio-mechanical Analysis to improve Technique
- Analysis of Sports Techniques
- Track: i) Running Basic consideration
 - ii) Sprint (Start & Running): Leg action, (Support, Drive and Recovery Phases)
 - iii) High Hurdling: Approach; take off; Flight; between hurdles
- Field (Jumping) (i) High Hump (Fosbury Flop): Run up; take off; Bar clearance and landing (ii) Long Jump (Hang style) Run up: take off; Flight and Landing
- Field (Throws) (i) Shotput (O'Brain-style) Initial stance; Glide; Delivery and Reverse (ii) Javelin: Grip: Carry: Run; withdrawal: Cross Step and Reverse
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Paper- V (Optional-2)
SPORTS PSYCHOLOGY
17PHEMP12C2B

Max. Marks: 80

Int. Marks: 20

Time: 3 hours

COURSE OUTCOMES

CO 1: The students would be able to explain the Meaning Definition and importance of Sports Psychology in Phy. Edu and Sports.

CO 2: The student will be able to understand the different Methods of Psychology in Physical Education and their Utility.

CO 3: The students would be able to know and understand the concept and various aspects of behaviour and different Theories of Play.

CO 4: The students would be able to explain the Meaning, types and importance of transfer of training

CO 5: The students would be able to explain the Psyche up techniques for Sports Performance like Goal Setting, Pap- talks, Bulletin Boards, Mass Media, Fan Support etc.

UNIT-I

Introduction of Sports Psychology

Definition of Psychology and Sports Psychology, Areas of Psychological studies in Physical Education.

Methods of Psychology in Physical Education and their Utility.

UNIT-II

Meaning and Kinds of Behaviour.
Various aspects of behavior. Characteristics of behavior.
Process of Human Behaviour.
Definition of Play. Theories of Play.
Value of Play

UNIT-III

Meaning and types of transfer of training.
Different theories, importance of transfer of training
Competition as a social necessity
Competition and Motivation
Competition and Co-operation and its significance in sports.

UNIT- IV

Psyche up techniques for Sports Performance -Goal Setting,
Pap- talks, Bulletin Boards, Mass Media, Fan Support.
Pre-competitive work out, Post competition evaluation
Guidelines for improving sports performance.

ASSIGNMENTS

Sociometric test, Personality Test (16 P.F.)
Sports Competition anxiety test.
H.S. Ashtnana's adjustments inventory.

REFERENCE

1. Bhatia, Hans Raj, Test Book of Education Psychology, Delhi: Macmillan,2003.
2. Rouben.B.Frost : Psychological concepts applied to Physical Education and Coaching, Edition, Wesley Publishing Co.London.
3. Dridge & Hung : Psychological foundations of Education. Harper and Row Publishers.
4. Jain, D.,Introduction to Psychology, New Delhi: K.S.K,2003.
5. Kamlesh, M.L.Education Sports Psychology, New Delhi, Friends Pub.,2006.
6. Kamlesh,M.L.,Key Ideas in Sport Psychology, New Delhi, Friends Pub.2007 Kutty, S.K Foundations of Sports & Exercise Psychology, New Delhi: Sports, 2004.
7. Robert.S.Weinberg - Foundations of Sports and Exercise Psychology (Third Edition) Daniel Gould
8. Jack H.Liewellyn - Psychology of Coaching : Theory and Application (Surjeet Publisher New Judy A. Blucker Delhi)
9. Jashwant Kaur Virk - Psychology of Teaching and Learning (Twenty First Century Publication Pardeep Kumar Sahu Patiala.2008)

**PAPER-III (OPTIONAL -3)
SPORTS MANAGEMENT
17PHEMP12C2C**

**Max. Marks: 80
Int. Marks: 20**

Time: 3 hours

COURSE OUTCOMES

CO 1: The students would be able to explain the Scope and Concept of Sports Management and concept of Administration

CO 2: The students would be able to understand and know the rule and regulations, procedure and attributes of an organization.

CO 3: The students would be able to know the Designation and meaning of leadership and motivation

CO 4: The students would be able to understand the concept of Direct and Indirect public relation.

CO 5: The students would be able to understand the importance of public relation media & press relations.

UNIT-I

- a. Scope and Concept of Sports Management, (Element or Function)
- b. Management, its advantages, organizing in Sports, staffing controlling in sports, Importance and Philosophy of Sports Management system and profession.
- c. Scope and concept of Administration, relation between administration Sports Management, Importance of Sports administration, planning, organization, resource mobilization, Principles of Planning, Pol standard practices.

UNIT-II

- d. Organizational elements, rules and regulations, procedure and attributes of an organization, delegation of authority and division of power, Destination characteristics of delegation, organization dynamics, open and close advantages and disadvantage, type of organizations, line organizational structure, their functional pattern, manpower plan features of human resources, controlling and development organizational structures and practices.

UNIT-III

- e. Designation, meaning of leadership, its personality traits, leadership managerial grid, qualities of leader, leadership and managerial behavior approach, co-ordination: its definition, Principle and techniques co-ordination. Motivation for sports, enhancement of motivation, motivation in sports organizations and participation, motivator in sports, organizations and participation, incentive as motivator sports.
- f. Direct and Indirect public relation, importance of public relation media, press relations, qualities of good PRO, correspondence and public relation establishment, community involvement and relations.

UNIT-IV FINANCE AND BUDGET FOR SPORTS

- g. Infrastructure, equipment, salaries, rewards, rising of funds, funds-drives, budget: functional budget, works expenses budget, performance budgeting, management of denial resources.
- h. Physical Education Programmers, Teaching Methods, Class Management Intramural, recreational and leisure services, planning, construct maintenance of facilities, use of computer. Inter scholastic & Inter Collegiate athletics and competitions, School Health Education.

REFERENCES

1. Administration of Physical Education and Athletics/Sports practices, Reubden D.Frost, Barbura Bay Lckgart, Stanley J. Manchsal Universal Book Stall, 5 Ansari Road, New Delhi.
2. Sports Management, Sudhanca Shekhar Ray, Friends Pub. (India) Delhi 110089
3. Organization and Administration of Physical Education, S.Dher/Radhika Kamal