

**DEPARTMENT OF PHYSICAL EDUCATION
& SPORTS SCIENCES**

**UNIVERSITY OF DELHI, B-BLOCK, VIKASPURI,
NEW DELHI -110 018.**

PH.D. COURSE WORK-I & II



Passed in DRC Meeting held on 8th February, 2016

Ph.D. in Physical Education

(Signature)
(Dr. Anil Kumar Vanaik)

(Signature)
(Dr. Gauri Chakraborty)

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(Dr. S.J. Basumatary)

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(Dr. Meenakshi)

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HEAD
Department of Physical Education
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(Signature)



DEPARTMENT OF PHYSICAL EDUCATION & SPORTS SCIENCES
(Faculty of Inter-Disciplinary & Applied Sciences University of Delhi)

B-BLOCK, VIKASPURI, NEW DELHI-110018

Website: www.igipess.du.ac.in E-mail: dudpess1@gmail.com Ph.: 25624753, 25593497, Fax No.: 25549003

All the students for Ph.D. Programme in Department of Physical Education will have to take a minimum of three papers (One from Course Work-I and Two from Course Work-II). The Research Methodologies is a compulsory paper which has four options (DPESS- I, DPESS- II, DPESS- III & DPESS- IV). A Ph.D. Research Scholar has to select one option from out of the four optional papers of Research Methodologies (DPESS- I, DPESS- II, DPESS- III & DPESS- IV). All the students for Ph.D. Programme in Department of Physical Education have to take a minimum of two papers from the Course Work-II which shall be the requirement for completion of Course Work-II. The course Work-II contains 15 options (DPESS-V, DPESS-VI, DPESS-VII, DPESS-VIII, DPESS-IX, DPESS-X, DPESS-XI, DPESS-XII, DPESS-XIII, DPESS-XIV, DPESS-XV, DPESS-XVI, DPESS-XVII, DPESS-XVIII, DPESS-XIX). The detailed syllabus for the offered papers by the department is appended with a list of suggested readings.

The proposed programme shall be governed by the Department of Physical Education & Sports Sciences, Faculty of Interdisciplinary and Applied Sciences, University of Delhi.

Evaluation Scheme

The following evaluation pattern will be followed for the assessment purpose:

| Courses | Written Test Marks | Presentation Marks (Two) | Written Assignment Marks | Total Marks |
|---|--------------------|--------------------------|--------------------------|-------------|
| Course Work –I (Research Methodologies) (Paper-I) | 50 | 40 (20 +20) | 10 | 100 |
| Course Work-II (Paper –II) | 50 | 40 (20 +20) | 10 | 100 |
| Course Work-II (Paper –III) | 50 | 40 (20 +20) | 10 | 100 |

- **Written Test:** Written Test shall contain eight descriptive type questions. A student has to attempt any five questions. Each question shall carry equal marks. The duration of the written examination shall be three hours.
- **Presentation:** A student has to give two presentations which shall be from the area related to their topic of research. Each presentation shall be of twenty minutes duration followed by ten minutes question and answer session. The presentation shall be evaluated by the advisory committee members and the award assigned to the candidate will have to be submitted in the DPESS. The average of the three evaluators will be taken.
- **Written Assignment:** Each supervisor shall give one assignment to the student registered under him/her. The supervisor shall evaluate the assignment and provide the award list along with the assignment submitted by the research scholar to the Department of Physical Education & Sports Sciences.

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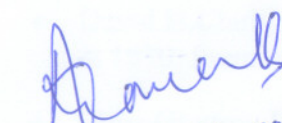
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PROGRAMME STRUCTURE

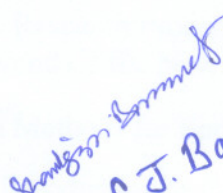
All the students for Ph.D. Programme in Department of Physical Education will have to take one paper on Research Methodologies. The Research Methodologies is a compulsory paper which has four options (DPESS- I, DPESS- II, DPESS- III & DPESS- IV). A Ph.D. Research Scholar has to select one option from out of the four optional papers of Research Methodologies (DPESS- I, DPESS- II, DPESS- III & DPESS- IV).


Course Work-I (Research Methodologies)


| Course Work-I (Research Methodologies) | | Maximum Marks |
|--|--|---------------|
| DPESS- I | Descriptive Research in Physical Education | 100 |
| DPESS-II | Experimental Research Design in Physical Education | 100 |
| DPESS-III | Quantitative and Qualitative Research in Physical Education | 100 |
| DPESS-IV | Historical Research Design in Physical Education & Sports Sciences | 100 |


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COURSE WORK –I

DPESS-I

Theory: 50 Marks

Presentation: 40 Marks

Assignment: 10 Marks

DESCRIPTIVE RESEARCH IN PHYSICAL EDUCATION

Unit-I An introduction to Descriptive Research

- Descriptive research as differentiated from other type of research.

Unit-II The Survey

- The questionnaire, The Delphi method,
- Personal interview, Normative Survey.

Unit-III Other Descriptive Research

- Observation Research ,Correlation Research,
- Case Study, Job analysis.

Unit IV Completing the Research Process

- Research proposal, Developing a Good Introduction, Describing the Method, The Proposal Process
- Preparing and Presenting Qualitative Research Proposals, Writing Proposal for Granting Agencies
- Ways of reporting research – Basic Writing Guidelines, Thesis and Dissertation Format: Traditional Versus Journal, Journal Writing.

Unit –V Related Statistics

- Non Parametric Techniques, Chi –Square, Rank Order, Correlation, Contingency Coefficient, Scales for Measuring Affective behavior, Hikert type scale, Semantic differential scale.

References:

- David H.Clark, H. Harrison Clark. Research Process in Physical Education. 2nd Ed.1984 & 1970. Prentice Hall, Inc. Eaglewood Cliffs. New Jersey, USA.
- Chris Gratton, Ian Jones. Research Methods for Sport Studies, Routledge
- Jerry R. Thomas, Jack K. Nelson. Introduction to Research. Human Kinetics
- Research methodologies and methods, “Research and Methods”, IGNOU, school of social science Book-1, New Delhi. , 2005.
- Research methodologies and methods, “Quantitative and survey methods”, IGNOU, school of social science Book-2, New Delhi. , 2005.

- Research methodologies and methods, “ Qualitative methods and presentation of research findings” IGNOU, school of social science Book-3, New Delhi. , 2005.

COURSE WORK –I

DPESS-II

Theory: 50 Marks

Presentation: 40 Marks

Assignment: 10 Marks

EXPERIMENTAL RESEARCH DESIGN IN PHYSICAL EDUCATION

- Unit –I** An introduction to experimental research. Laboratory experiment and field experiment, ex post facto research.
- Experimental Research as differentiated from other type of researches.
- Unit- II** Research designs:-
- Post test only design, Pre test and Post Test Design for single group ,Pre test Post test Design for multi group ,Repeated measure Design for single group, Multiple group.
- Unit-III** Quasi Experimental Designs:-
- Reversal Designs, Non equivalent control group Design, Ex- post facto Design, Switched Replication Design, Time series Design, Switched Replication Design ,Time Series Design, Single Subject Design.
- Unit IV** Completing the research process:-
- Research proposal, developing a Good Introduction, Describing the Method, The Proposal Process, Preparing and Presenting Qualitative Research Proposals, Writing Proposal for Granting Agencies.
 - Ways of reporting research – Basic Writing Guidelines, Thesis and Dissertation Format: Traditional Versus Journal, Journal Writing.
- Unit –V** Descriptive Statistics, Comparative Statistics, Relative, Knowledge of SPSS.

References:-

- David H.Clark, H. Harrison Clark. Research Process in Physical Education. 2nd Ed.1984 & 1970. Prentice Hall, Inc. Eaglewood Cliffs. New Jersey, USA.
- Chris Gratton, Ian Jones. Research Methods for Sport Studies, Routledge
- Jerry R. Thomas, Jack K. Nelson. Introduction to Research. Human Kinetics
- Research methodologies and methods, “Research and Methods”, IGNOU, school of social science Book-1, New Delhi. , 2005.
- Research methodologies and methods, “Quantitative and survey methods”, IGNOU, school of social science Book-2, New Delhi. , 2005.
- Research methodologies and methods, “ Qualitative methods and presentation of research findings” IGNOU, school of social science Book-3, New Delhi. , 2005.

COURSE WORK –I

DPESS-III

Theory: 50 Marks

Presentation: 40 Marks

Assignment: 10 Marks

QUANTITATIVE & QUALITATIVE RESEARCH IN PHYSICAL EDUCATION

Unit-I Quantitative research

- i) Its characteristics
- ii) Types of research inquiry
- iii) Sampling methods estimation of sample size
- iv) Measures of central tendency
- v) Measures of dispersion and variability

Unit-II

- i) Statistical inferences test of sympathises
- ii) Correlation and regression
- iii) Survey method and design
- iv) Survey instrumentation, execution and data analysis

Unit-III Qualitative research

- i) Field research ethnography and participant observation
- ii) Interviews- interview depth, unstructured interview
- iii) Content (documents) analysis focus group
- iv) Phenomenology and seniorities

Unit-IV

- i) Reliability, Validity and triangulation
- ii) Themes selection, coding, transcription
- iii) Writing up qualitative data
- iv) Data presentation, editing, coding and transcription

Unit-V

- i) Using SPSS in analysis of data
- ii) Writing report in quantitative and qualitative research.

References:

- David H. Clark, H. Harrison Clark. Research Process in Physical Education. 2nd Ed. 1984 & 1970. Prentice Hall, Inc. Eaglewood Cliffs. New Jersey, USA.
- Chris Gratton, Ian Jones. Research Methods for Sport Studies, Routledge
- Jerry R. Thomas, Jack K. Nelson. Introduction to Research. Human Kinetics
- Research methodologies and methods, “Research and Methods”, IGNOU, school of social science Book-1, New Delhi. 2005.
- Research methodologies and methods, “Quantitative and survey methods”, IGNOU, school of social science Book-2, New Delhi. , 2005.
- Research Methodologies and Methods. “Qualitative Methods and Presentation of Research Findings” IGNOU, School of Social Science Book-3, New Delhi. 2005.

COURSE WORK –I

DPESS-IV

Theory: 50 Marks

Presentation: 40 Marks

Assignment: 10 Marks

HISTORICAL RESEARCH DESIGN IN PHYSICAL EDUCATION & SPORTS SCIENCES

- Unit-I** Introduction: Historical perspectives of research meaning concepts; History about methods of acquiring knowledge; the nature of physical education and sports science research. Historical potentials of physical education. Nature of Historical Research; value of Historical Research.
- Unit-II** Historical Research problem and preparation of research proposal; selection of Historical Research problem; definition and topic specification, evaluation of topic, hypothesis. Historical Research perspectives through ancient to modern times.
- Unit-III** Method of Historical Research; concepts and objectives; Historical research proposal design Areas of Historical Research. Statistics for historical research. Humanistic educational perspectives of physical education.
- Unit-IV** Types of Historical Research, sampling, documents gathering tools, historical data collection, documents listing, documents authentication, criticism of documents.
- Unit-V** Organization of Historical Research, Analysis & Interpretation of Historical data; computerization of historical data, formulation of conclusions and generalization of historical results. Historical Research reports presentation.

Suggested Readings:

Bebbie, E.R. (1973). Survey Research Methods. Wadsworth Publishing Co. Belmont, California, USA.

Best. J.W. and J.V. Kahn (1992). Research in Education. Prentices Hall of India Pvt. Ltd., New Delhi

Brickman W.W. (1949). A Guide Research in Educational History. New York University Bookstore, New York.

Carr, E.H. (1962). What is History? Alfred A Knopf. New York, USA

Clarke, D.H. and H.H. Clarke (1984) Research Process in Physical Education, Prentices Hall Inc., Englewood Cliffs, New Jersey, USA.

Festinger, L. And D. Katz (1950). Research Methods in Behavioural Sciences. Halt, Rinhart and Winston Inc., New York, USA.

Garraghan, G.J. (1946). A Guide to Historical Method. Fordham University Press New York, USA.

Gattschalk, L.R.ed. (1963). Generalization in Writing of History. University of Chicago Press, Chicago, Illinois, USA.

Good, C.V. (1966). Essentials of Educational Research: Methodology and Design. Appleton-Century Crofts, New York, USA.

Good, C.V., A.S. Brar and Douglas E. Scates (1941). Methodology of Educational Research. Appleton-Century Crofts, New York, USA.

Kaul, L. (2002) Methodology of Educational Research. Vikas Publishing Pvt. Ltd.

Kelly, A.E. (2008) Handbook of Design: Research Methods in Physical Education. Taylor and Francis, Inc., USA.

Nelson, J.K., JR. Thomas and S.J. Silverman (2005) Research Methods in Physical Activity. Human Kinetics, Champaign, Illinois, USA.

Rothstein, A.L. (1985). Research Design & Statistics for Physical Education, Prentices Hall Inc.,

Schweigert, W.A. (2003). Research Methods. Waveland, Prentices Hall Inc., New Jersey, USA.

Shankar, O. and S.P. Ahluwalia eds. (1968). Research Needs in the Study of Education. Kurukshetra University Books and Stationary Shop., Kurukshetra, Haryana

Singh, L.C. and S.P. Malhotra (1991). Research in Teacher Education: A Trend Report, in Forth Survey of Research in Education ed. H.B. Buch, NCERT, New Delhi.

Thomas, J.R. and Nelson, J.K. (2001). Research Methods in Physical Activity, Human Kinetics, Champaign, Illinois, USA.

Van Dalen, D.B. and B.L. Bennett (1971). A World History of Physical Education, Prentices Hall Inc., Englewood Cliffs, New Jersey, USA.

Vandalen, D.B. (1973). Understanding Educational Research, McGraw Hill Book Company, New York, USA.

Whitnery, F.L. (1964). The Elements of Research. Prentices Hall Inc., Englewood Cliffs, New Jersey, USA.



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All the students for Ph.D. Programme in Department of Physical Education will have to take a minimum of two papers from the Course Work-II which shall be the requirement for completion of Course Work-II. A total of 15 papers have been tabulated below. The detailed syllabus for the offered papers in the Course Work-II is appended with a list of suggested readings.

The proposed programme shall be governed by the Department of Physical Education & Sports Sciences, Faculty of Interdisciplinary and Applied Sciences, University of Delhi.

PROGRAMME STRUCTURE

Course Work-II

| Course Work-II | |
|----------------|---|
| DPESS-V | Health Related Fitness Assessment in Youth |
| DPESS-VI | Physiology of Aging |
| DPESS-VII | Test and Measurement in Physical Education |
| DPESS-VIII | Sports Specific Fitness Testing |
| DPESS-IX | Physical Activity & Positive Psychology |
| DPESS-X | Psychological Interventions in sports |
| DPESS-XI | Theory, Methodology of Training & Assessment |
| DPESS-XII | Physiology of Yogic Practices |
| DPESS-XIII | Athletic Intelligence |
| DPESS-XIV | Society, Stratification and Sports |
| DPESS-XV | Management Practices in Sports |
| DPESS-XVI | Biomechanics of Exercise, Fitness, Physical Education & Sports |
| DPESS-XVII | Neurophysiology of yoga & fitness |
| DPESS-XVIII | Physiology of Exercise |
| DPESS-XIX | Fitness And Wellness In Women Undergoing Transitionary Changes/Midlife Crisis |

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COURSE WORK –II

DPESS-V

Theory: 50 Marks

Presentation: 40 Marks

Assignment: 10 Marks

HEALTH RELATED FITNESS ASSESMENT IN YOUTH.

UNIT-I

- 1- Health Related Fitness: Overview, Association Between Physical Activity And Health, Lifestyle As A Health Problem, Health Benefit
- 2- Health Related Fitness Testing: Purpose Of Fitness Testing, Scientific Authenticity Of Test Selection, Pre Testing, Testing, Post Testing Session, Inform Consent

UNIT-II

- 3- Measuring Health Related Component Related Fitness Component: Significance Of Assessing Cardio Respiratory Fitness, Flexibility, Muscular Strength And Endurance And Body Composition, Various Field Test And Lab Test To Measure Health Related Fitness Component
- 4- Body Composition Assessment: Technique To Assess Body Composition, Importance Of Regular Body Composition Assessment

UNIT-III

- 5- Obesity: Etiology Of Obesity, Risk Associated With Obesity And Prevention
- 6- Cardio Vascular Disease And Physical Activity: Forms Of Cardiovascular Disease, Risk Factors For Cvd, Prevention Through Physical Activity

UNIT-IV

- 7- Fitness And Health Assessment: Factors Affecting Fitness Assessment, Variability And Reliability Of Testing, Test Administration
- 8- Guideline For Fitness Testing: Medical Clearance, Par-Q, Criteria For Selecting Cardio respiratory Fitness Test And Stop Test Indicator

UNIT-V

- 9- Maximising Cardio Respiratory Fitness: The Fitt Prescription, Life Time Exercise Activities, Calculating Exercise Activities.
- 10- Developing Musculoskeleton Fitness: Factor Affecting Flexibility, Types Of Flexibility, Guideline And Principle Of Flexibility Development

REFERENCES

1. Camaione David N. (1993), Fitness Managemrnt, Brown And Benchmark Communication, Inc.
2. Hoeger Werner W.K, Principles And Labs For Fitness And Wellness, Thomson Wadsworth Publication

COURSE WORK –II

DPESS-VI

Theory: 50 Marks

Presentation: 40 Marks

Assignment: 10 Marks

PHYSIOLOGY OF AGING

UNIT-I

- Physical activity, health and aging: Concept of aging, physical activity in the population, health status in the elderly and health related quality of life in the population.
- Changes associated with aging: Physiological, physical and psychological changes, gender differences.

UNIT-II

- Fitness assessment guidelines in the elderly population: guidelines for fitness testing, factors affecting performance on fitness tests and fitness testing protocols.
- Physical fitness screening and testing concepts: medical screening, health status questionnaire, cardiovascular disease risk factor analysis, contraindications for exercise and exercise testing, informed consent.

UNIT-III

- Physical Activity health and longevity: causes of deaths in the elderly population, exercise, health and longevity, benefits of regular moderate exercise.
- Physical training by the elderly: Vo2 max and the aging process, cardio respiratory training, muscular strength and resistance training and body compositions changes.

UNIT-IV

- Fitness testing in the elderly population: importance of functional fitness tests, contraindications for fitness testing, administering the PAR-Q, prior to exercise testing.
- Administration of fitness test: Exploring field and lab test or assessing fitness test in the elderly population, fitness/functional fitness testing batteries.

UNIT-V

- Physical activity and Psychological well being: Benefits of exercise on mental health and other psychological parameters, questionnaire review or psychological well being in the elderly population.
- Age related health disorders: Cardiovascular disease, osteoporosis.

References:

Williams D. et.al., "Exercise Physiology: Nutrition, energy and human performance (seventh edition), Lippincott Williams & Wilkins, 2010.

David C.Nieman, "fitness and sports medicine a health related approach (third edition), Mayfield publication 1998.

Jack H.Wilmore and David L.costil, "Physiology of sports and exercise" (third edition), Human Kinetic Publication, 2004.

Scott K.Powers and Edward T.Howley, Exercise Physiology: Theory and application to fitness and performance (seventh edition), Human Kinetic, 2000.

Stanly P.Brown et.al., "Exercise Physiology: Basis of human movement in health and disease", Human kinetics, 2006.

COURSE WORK –II

DPESS-VII

Theory: 50 Marks

Presentation: 40 Marks

Assignment: 10 Marks

TEST & MEASUREMENT IN PHYSICAL EDUCATION

Unit-I

- Meaning, Definition & Relationship Among Test, Measurement & Evaluation
- Basic Functions of Test, Measurement & Evaluation
- Importance of Test, Measurement & Evaluation in the Field of Physical Education & Sports
- Common Methods of Measurement
- Everyday Usage of Test, Measurement & Evaluation

Unit-II

- Meaning & Definition of Tests
- Importance of Tests
- Classification of Tests
- Tools in Measurement & Evaluation in Physical Education
- Sports Psychological & Skill Testing- General Sports Skill Tests

Unit-III

- Criterion of a Good Test
- Meaning , Definition & Comparative Importance of Different Types of :
 - Validity
 - Reliability
 - Objectivity
 - Precision
 - Administrative Feasibility

Unit-IV

- Meaning, Definition & Relative Importance of Different Types of Norms & Standards
- Development of Different Types of Norms, Scales, Standards of Physical Education
- Construction of Sports Skill Tests
- Steps for Construction of Sports Skill Tests
- General Type of Sports Skill Tests
- Utility of Sports Skill Tests
- General Sports Skill Measurement with Lab & Field Tests
- Skills Evaluation and Rating Scales: Subjective and Objective Evaluation, Construction of Rating Scale of Evaluation; General Procedures for Skill Achievement Evaluation (Pilot Study, Revision of Evaluation Battery and Validity of Evaluation Batteries).

Unit-V

- Evaluation & Levels of Measurement: Nominal, Ordinal, Interval & Ratio Scale Evaluation
- Introduction, Meaning, Definitions and Types of Grades.
- Grading Systems & Factors used in Grading (Affective, Grading & Psychomotor Grading Factors); Weight age of Factors in Grading.

References:

- Barrow, H.M. R. McGee and K. A. Tritschler (1989), Practical Measurement in Physical Education and Sports, Lea & Febiger, Philadelphia, USA.
- Baumgartner, T.A. and A.S. Jackson (1995), Measurement for Evaluation in Physical Education & Exercise Science, WCB-Brown & Enchmark Publication, Madison, Wisconsin, USA.
- Chopra, D. (1993), Ageless Body, Time less Mind: A practical alternative to GROWING Old, Crown Publishers Inc. New York, USA (Indian Print by Runa & Co. & Gopsos Papers Ltd., Noida, U.P.)
- Kansal, D.K. (2006), Test, Measurement & Evaluation in Physical Educational Sports , Sports and Spiritual Science Publications, New Delhi.
- Miller, D.K. (2006), Measurement by the Physical Education: Why and How, WCB, Brown & Benchmark Publishers, Madison, Wisconsin, USA.
- Shaw, Dhananjay, Fundamental Statistics in Physical Education and Sports (1998, 2000, 2006) Sports Publication, New Delhi.

COURSE WORK –II

Theory: 50 Marks

Presentation: 40 Marks

DPESS-VIII
Assignment: 10 Marks

SPORTS SPECIFIC FITNESS TESTING

UNIT -I

- Physical and physiological prerequisite of soccer players: Physical attributes related to playing position, physiological attributes based on playing position.
- Guidelines for fitness testing in soccer players: Overview guidelines for fitness testing, importance of health screening, factors influencing physical fitness test performance.

UNIT -II

- Fitness testing in soccer players: Fitness testing batteries, field and lab based tests, contraindication of fitness testing.
- Physiological assessment of soccer players: Monitoring blood pressure, heart rate, lung volume and capacities and VO₂ during exercise and rest, assessment based on level of performance of the soccer players.

UNIT-III

- Assessment of body composition in soccer players: Methods of assessing body composition, generalized body composition equations, assessment based on specific playing position of the players, anthropometric assessments.
- Assessment of performance related fitness in soccer players: Explosive strength, cardio respiratory endurance (VO₂ max), anaerobic power, strength and flexibility. Assessing soccer players of different levels.

UNIT -IV

- Soccer specific fitness test: Overview, soccer specific fitness test batteries.
- Administration of soccer specific fitness test: Yo-yo Intermittent recovery test level 1 and level 2, Yo-Yo intermittent endurance test, Beep test, Hoff test.

UNIT -V

- Review on studies focusing on validating and establishing reliability of soccer specific fitness test.
- Procedure followed to establish validity and reliability of soccer specific fitness test.

References:

Sharon A. Plowman, Denise C. Smith, Exercise physiology for health, fitness and performance, (2nd edition), 2008, Human Kinetics.

Reilly, Thomas Reilly, Jein Water house, Sports exercise and environmental physiology, (2004), Human Kinetics.

Jerry Thomas, Jack Nelson, Research methods in physical activity, (4th edition), Human Kinetics.

Vivian H. Heywards, Dale R. Wagner, Applied body Composition assessment, (2004), Human Kinetics.

Roger Eston, Thomas Reilly, Kin anthropometry and exercise physiology lab manual, test procedures and data, (2001), Human Kinetics.

COURSE WORK –II

Theory: 50 Marks

Presentation: 40 Marks

DPESS-IX
Assignment: 10 Marks

PHYSICAL ACTIVITIES & POSITIVE PSYCHOLOGY

Unit-I

- Positive psychology perspective.
- A new perspective for professional practice.
- Fostering healthy self regulation from within and without, a self determination theory perspective.
- Theoretical foundation for positive psychology in practice.

Unit-II

- Life style practices for health & well being.
- Physical activity: Positive psychology in motion.
- Achieving sustainable new happiness: prospects practices & prescriptions.

Unit-III

- Health psychology: A positive psychological perspective.
- Health psychology: An overview.
- Emotion and health.
- Primary prevention: Decreasing the risks of illness.

Unit-IV

- Psychology and health.
- Clinical application of wellbeing therapy.
- Stress: Its causes, effects & control.
- Personal characteristics & Health.
- Hestility, Perfectionism & socioeconomic status.
- Promoting healthy lifestyle.

Unit-V

- Personality & Health
- The psychoanalytic approach.
- Social Cognition theory.
- Roger's self theory.
- The big five factors.
- Personal & health: types & behavior pattern.
- Personality & behavior in work settings.

References:

- Positive Therapy- A positive psychological theory of therapeutic practice.
- K.D.Broota et.al, (ed.) Introduction to psychology Part I (NCERT).
- Robert A.Baron, Denn Byrne, Nyla R.Branscombe., Social Psychology 11th edition (Prentice hall).
- Robert A.Baron., Psychology 5th edition (prentice hall, 2002).
- Stephen Wovchel 2nd edition Psychology.: Principles & Applications.
- P.Alex Linley & Stephen Joseph.(ed.) Positive psychology in practice.

COURSE WORK –II

DPESS-X

Theory: 50 Marks

Presentation: 40 Marks

Assignment: 10 Marks

PSYCHOLOGICAL INTERVENTION IN SPORTS

Unit-I: Introduction to Psychological Skills Training:

1. What are psychological skills training?
2. Importance of psychological skills training and its effectiveness
3. Designing and implementation of PST program
4. Attention, Measurement, Attention control
5. What is Motivation, Self theory of motivation, sport motivation
6. Cohesion, Goal Setting

Unit-II Arousal Regulation

1. Self-awareness of arousal
2. Anxiety reduction techniques
3. Coping with adversity
4. On-site relaxation tips
5. Arousal-inducing techniques
6. Team energizing strategies

Unit-III Imagery

1. What is Imagery?
2. Factors affecting the effectiveness of imagery
3. How imagery works
4. Keys to effective imagery
5. Developing an imagery training program

Unit-IV Self-Confidence

1. Defining self –confidence
2. How expectations influence performance
3. Self-efficacy theory
4. Assessing Self-confidence
5. Building self-confidence
6. Sport self-confidence

Unit-V Coping

1. Meaning and concept of coping
2. Emotional focus coping
3. Problem focus coping
4. Individual difference & coping strategy

References:

- Arnold Leunes, Jack R .Nation .Sport Psychology 3rd ED.USA Vicki Knight
- Richard A Schmidt , Craig A-Wrisberg. Motor Learning and Performance 3rd ED. Human Kinetics
- Richard Cox. Sports Psychology. Human Kinetics
- Robert S.Weinberg, Daniel Gould. Foundations of Sport& Exercise Psychology 3rd ED. Human Kinetics

COURSE WORK –II

DPESS-XI

Theory: 50 Marks

Presentation: 40 Marks

Assignment: 10 Marks

THEORY AND METHODOLOGY OF TRAINING AND ASSESSMENT

Unit-I

1). Sports training:

- Definition, meaning and importance.
- Methods of Training-continuous method, interval methods and repetition methods.

2). Training load, adaptation and recovery:

- Concept of training load, factors of load.
- Training & completion demands & degree of load.
- Process of load and adaptation.
- Relationship of load & recovery.
- Means to assess the load.
- Relationship between volume & intensity, dynamics of increasing the volume and intensity.
- Intensity zones for strength, speed, endurance and cyclic sports.
- Fatigue and symptoms of fatigue.
- Overload causes and symptoms of overload, tackling of overload.
- Recovery, factors affecting recovery, means and methods of recovery.

Unit-II

3). Load of physical activity in weight control:

- Changes in body composition with exercise training.
- Mechanism for change in body weight and composition.
- Exercise and mobilization of body fat.

Unit-III

4). Physiological adaptation to training programme:

- Cardiovascular, respiratory and metabolic physiological adaptation
- Factor affecting the responses to aerobic training
- Assessment of blood pressure, resting heart rate, vital capacity, peak flow rate, physiological responses and adaptation to intermittent and endurance training programme
- Effect of continuous aerobic training on the system, effect of intermittent aerobic training on the system.

Unit-IV

5). Assessment of body compositions:

Concepts of body compositions.

Methods of measuring body compositions, Body Mass Index, skin fold measurement, conecity index, waist hip ratio, generalize body composition equations.

6). Energy cost of activities:

- Direct and indirect estimation energy cost, resting energy expenditure, basal metabolic rate, and energy cost of level walking, uphill walking and other activities.
- Assessment of basal metabolic rate.

Unit-V

7). Assessment of cardio respiratory fitness:

- Concept of cardio respiratory fitness.
- Field and lab test to measure cardio-respiratory fitness in adults.

8). Assessment of psychological parameters:

- Concept of general well being and self esteem.
- Benefits of training on general well being and self esteem.
- Administration of general well being and self esteem.

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COURSE WORK –II

Theory: 50 Marks

Presentation: 40 Marks

DPESS-XII
Assignment: 10 Marks

PHYSIOLOGY OF YOGIC PRACTICES

Unit-I Historical studies

- a. Definition, Importance of yoga.
- b. Dimensions of Yoga.

Unit-II Asanas

- a. Define, Difference between asanas and exercise.
- b. Anatomic –physiology features of classification of asanas.

Unit-III Pranayama

- a. Mechanism of Pranayama.
- b. Scientific aspect of Pranayama.

Unit-IV Yoga for sports and wellness

- a. Yoga for different age groups.
- b. Yoga Asanas on sports preparation.

Unit-V Yoga and health

- a. Perfect healthy frame of body and its characteristic. .
- b. Mitahara and concept of life.

References

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- “Asana why and how”, O.P. Tiwari.
- “Pranayama”, Swami Kuvalayananda.
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- “Yoga anatomy”, Leslie Kaminoff.
- “Yoga for ever athlete”, Kogler.
- “Yogic Techniques”, Dr. Manohar L .Gharote.
- “Anatomy and Physiology of Yogic Practices” M.M. Gore.

COURSE WORK –II

DPESS-XIII

Theory: 50 Marks

Presentation: 40 Marks

Assignment: 10 Marks

Athletic Intelligence

Unit- I Intelligence:

- Contrasting views of its nature
- Unitary or multifaceted
- Gardner's theory of multiple intelligence
- Sternberg's triarchic theory: the value of practical intelligence
- Cattell's theory of fluid and crystallized intelligence

Unit-II Measuring intelligence:

- Its measuring then and now
- The Wechsler scales
- Individual tests of intelligence
- Basic requirements of psychological tests

Unit-III Human Intelligence:

- The role of heredity and environment
- Gender differences in intelligence
- Group differences in ICS score

Unit-IV Emotional Intelligence:

- Meaning
- Measurement of emotional intelligence

Unit-V Athletic Intelligence:

- Concept and definition
- Cratty's 13 Components
- Executive function of athletic intelligence
- Assessment athletic intelligence
- Athletic intelligence and performance

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COURSE WORK –II

Theory: 50 Marks

Presentation: 40 Marks

DPESS-XIV
Assignment: 10 Marks

SOCIETY, STRATIFICATION AND SPORTS

Unit-I -Introduction :

- 1) Sociology and Sports Sociology
- 2) Sociological thinkers : Emile Durkheim, Max Weber, Karl Marx
- 3) Theories and sociological theories.
- 4) Functionalism, conflict theory, interactionism

Unit-II –Social Stratification and Perspectives:

- 1) Meaning and types of social stratification
- 2) Social stratification and functional perspectives
- 3) Social stratification and conflict perspective
- 4) Social stratification and symbolic interactions perspective

Unit-III –Classes and Social Stratification:

- 1) Class, Social groups and social categories
- 2) Caste and class
- 3) Social mobility and stratification
- 4) Types of mobility-upward, downward, parallel

Unit-IV –Society and Individual:

- 1) Society and individual (personality)
- 2) Social context and type of personality
- 3) Social context and motivation aspiration
- 4) Social forces and individual

Unit-V –Social stratification and demography:

- 1) Society and concept of society
- 2) Ancient, feudal, model (feudalistic and socialistic and) sports
- 3) Demographical research (selection of subjects)
- 4) Demography study & sports research
- 5) Ethnology & Sports research.

Reference:

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COURSE WORK –II

Theory: 50 Marks

Presentation: 40 Marks

DPESS-XV
Assignment: 10 Marks

MANAGEMENT PRACTICES IN SPORTS

Unit-I: Fundamental Concepts of Sports Management:

- 1.1. Definition, evolution & curriculum
- 1.2. Career considerations & avenues & professional preparation
- 1.3. Research Theory & Practice
- 1.4. Aims, Objectives & Principles of Sports Management
- 1.5. Who are Sports Managers? Job Specifications, and environment.

Unit-II: The World of Sports Management:

- 2.1. International Perspective in Sports Management: Asia (China, Korea & India), Australia, Africa, America (Canada, USA), Europe (France, Hungary, Netherland, Germany, Spain)
- 2.2. Management Approaches: Classical, Behavioural, Systems, Contingencies, Management Science.
- 2.3. Management Styles: The Autocratic, The Bureaucratic, The Democratic & The Spectator Style.
- 2.4. Management Information System (MIS).
- 2.5. Media & Sports Management, Public Relations, Communications

Unit-III: Event Management:

- 3.1. Basic Principles & Planning (Organizing, Directing & Evaluating)
- 3.2. Facilities, Equipments, Personnel/Committee & Leadership, Creating & Maintaining Motivation.
- 3.3. Promotion & Marketing (Budget Considerations & Risk Management).
- 3.4. Applied Concepts: Evaluation & Feedback Protocol of Ceremonies, Websites, Marketing Process, Public Relations.
- 3.5. Control & Security: Violent Behaviour, Crowd Management, Alcohol Policy, Medical Plan, Crisis Management & Evaluation Plan, Parking & Traffic Control.

Unit-IV: Facilities & Equipment Management:

- 4.1. Sports Facilities Equipments & Ancillaries Areas
- 4.2. Fitness & Health Relation Areas
- 4.3. Aquatic & Indoor Facilities
- 4.4. Outdoor & Adventure Sports
- 4.5. Facilities for Senior, Impaired/Challenged and Special Population.

Unit-V: Fiscal Management & Applied Areas:

- 5.1. Definition & Role of Accounting in Sports Management
- 5.2. Fund Raising, Sponsorships, Economic Problems Areas.
- 5.3. Budgeting: Preparation, Presentations, Revision etc.
- 5.4. Office Management: Record, Reports, time management, conflict resolutions, decision taking shared planning Identifying weaknesses & strength.
- 5.5. Preventing legal Issues & Hassels.

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COURSE WORK –II

Theory: 50 Marks

Presentation: 40 Marks

DPESS-XVI
Assignment: 10 Marks

BIOMECHANICS OF EXERCISE, FITNESS, PHYSICAL EDUCATION AND SPORTS

UNIT-I: Kinesiology of Fitness and Exercise:-

- Properties of Human Tissue and adaptation (Bone, Cartilage, Muscles, Collagen and Tendon) as an effect of exercise or Physical loading.
- Biomechanics of work space and Environment.
- Postures and Works.
- Handling Load.
- Biomechanics of Fitness and Sports Industry.
- Neurophysiological basis of movements for exercise and fitness.

Practical Applications and Evaluation of Biomechanical Principles:-

- Principles of Initial Force.
- Principles of Optimum Path of acceleration
- Principles of Action and Reaction
- Principles of Conservation of Angular Momentum
- Principles of other Principles .

UNIT-II: Electromyographic Applications:

- Scope and Use
- Physiological basis of EMG and Instrumentation
- Recording Methods
- Relation to Muscular Tension/Activation
- Use of EMG to Exercise, Fitness and Sports
- Bio-mechanical Measurements using EMG data

Biomechanical Measurement using:-

- Force Platform
- Pressure Transducer
- Accelerometer
- Other Dynamometry

UNIT-III: Biomechanics of Distance Running And Locomotion.

- Human Gait
- Computer Simulation.
- Performance Improvement.

Electrogoniometry and it's Practical Applications.

- Instrumentation
- Use and Scope.
- Biomechanical Measurement using Elgon Data.

UNIT-IV: Two and Three Dimensional Analysis of Human Movement:

- Data Capture and Processing of the Data
- Cinematography and Image based Analysis
- Video Based 2 D & 3 D.
- Opto-Electronic Based 2D & 3D
- Computer Graphics for Visualization and Animation,
- X-ray Photogrammetry.

Biomechanical Analysis of Fitness, Sports Movements, Technique or Skill, and Performance:-

- Qualitative Analysis
- Quantitative Analysis
- An Introduction to deterministic and Stochastic (Statistical) Bio-mechanics.

UNIT-V: Biomechanical Basis of Fitness and Performance:

- Principles and Evaluation of Training
- Training of Strength, Speed Power, Endurance, Fatigue and Flexibility
- Exercise Devices.
- Different types of Exercise.
- Methods and Means of Exercises
- Biomechanical Measurements of Fitness and Performance

Structure and Qualities of Motor Actions:

- Structures and types of Motor Actions (Motor Movements)
- Design of Motor Action in relation to it's different parts/phase.
- Analysis of Motor Action using biomechanical Instruments.
- Different Qualities of Motor Actions
- Measurement of different Qualities of Motor Action using Biomechanical Instruments.

SUGGESTED STUDIES:

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COURSE WORK –II

Theory: 50 Marks

Presentation: 40 Marks

DPESS-XVII
Assignment: 10 Marks

NEUROPHYSIOLOGY, YOGA AND FITNESS

Unit-I

Definition of endurance and different types of endurance, Physiological basis of endurance

Unit-II

Sex difference and endurance performance, Age and endurance performance

Unit-III

Different methods of endurance measurement.

Unit IV

An introduction to VO_2 max and different tests available for measuring VO_2 max

Unit-V

Yoga (meditation, pranayama) and life style, different schools of thought.

Unit- VI

Study on Test and Measurement in Yoga /related study

Unit- VII

Researches in yoga

Unit-VIII

Parasympathetic Testing (Activity /Reactivity)

Unit-IX

Sympathetic Testing (Activity /Reactivity)

Unit-X

Definition of Reliability and Validity; methods of determining different types of reliability and validity.

COURSE WORK –II

Theory: 50 Marks

Presentation: 40 Marks

DPESS-XVIII
Assignment: 10 Marks

PHYSIOLOGY OF EXERCISE

1. Anthropometric Measurements :

- Why measure body structure and Composition.
- Anthropometric Measurements Detailing
- Assessment of Body Composition

2. Effect of Training and Exercise

- Resting Blood
- Resting Pulse Rate
- Muscular Grip Strength
- Muscular Grip endurance

3. Water

- Water balance at rest
- Water balance during exercise
- Dehydration and exercise performance
- Electrolyte balance during rest
- Replacement of body fluid losses

4. Weight Loss Programmed

- Weight loss in weight category events
- Methods of weight loss
- Effects of dehydration
- Rehydration
- Effect of loss of weight by exercise and restriction of diet

COURSE WORK –II

DPESS-XIX

Theory: 50 Marks

Presentation: 40 Marks

Assignment: 10 Marks

FITNESS AND WELLNESS IN WOMEN UNDERGOING TRANSITIONARY CHANGES/MIDLIFE CRISIS

UNIT- I

1. The Fitness Phenomenon : Physical Activity , Exercise And Physical Fitness , Special Benefit Of Fitness
2. Special Consideration While Dealing With Women : Pre, Peri , Post Menopausal phase, Physical , Physiological And Psychological Changes Associated With Midlife Crisis

UNIT – II

3. Body Size And Composition : Assessment Of Body Composition Using Various Technique Calculating Body Fat Percentage Using Standardized Equation, Significance Of Assessing Body Composition
4. Cardio respiratory Fitness: The Significance Of Assessing Cardio respiratory Fitness , Administrative Suggestion, Protocol Guidelines

UNIT – III

5. Measuring Flexibility : The Significance Of Assessing Flexibility , Types Of Flexibility , Low Back Pain , Factors Affecting Flexibility
6. Measuring Muscular Strength And Endurance : The Significance Of Assessing Musculo-Skeletal Fitness , Relationship Between Strength And Metabolism And Gender Difference

UNIT - IV

7. Assessment Of Selected Health Related Fitness Components In Women : Various Laboratory/Field Test Of Cardio- Respiratory Fitness and Muscular- Skeletal Fitness
8. Physiological Responses To Acute Exercise : Neuro- Muscular , Cardio- Vascular, Respiratory And Metabolic Responses , Body Composition And Chronic Adaptation

UNIT- V

9. Physical Activity Participation: Physical Activity, Well Being And Exercise Adherences Long Term Benefits Of Physical Activity Participation
10. Modes Of Exercise Participation And Their Health Benefits: Yoga, Pilate, Brisk Walking , Tia-Chi And Various Other Activities

REFERENCES

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