M.Phil PHYSICAL EDUCATION

Course Category

MPEd : M.Phil in Physical Education
CCC: Compulsory Core Course
ECC: Elective Core Course

Contact Hours:

L: Lecture
T: Tutorial
P: Practical or Other

Marks Distribution :

IA: Internal Assessment (Test/Classroom Participation/Quiz/Presentation/Assignment etc.)
EoSE: End of Semester Examination

M. Phil (Physical Education)

(Course Structure)

Subject code	Subject Name	Teaching hours			Marks		
		L	T	P	External	Internal	Total
01MPED101	**Research Methodology :Theory & Techniques**	3	0	0	70	30	100
01MPED102	**Training Methods -I**	3	0	0	70	30	100
01MPED103	**Training Methods -II**	3	0	0	70	30	100

01MPED104	**Measurement and Evaluation in Physical Education**	**3**	**0**	**0**	**70**	**30**	**100**
Total		**12**	**0**	**0**	**280**	**120**	**400**

SEMESTER II

Subject code	**Subject Name**	**Teaching hours**			**Marks**		
		L	**T**	**P**	**External**	**Internal**	**Total**
02MPED101	**Advanced Research Methodology**	3	0	0	70	30	100
02MPED102	**HISTORY & PRINCIPLES OF PHYSICAL EDUCATION**	3	0	0	70	30	100
02MPED103	**SPORTS TRAINING & BIOMECHANICS IN PHYSICAL EDUCATION**	3	0	0	70	30	100
02MPED201	**DISSERTATION**	**3**	**0**	**0**	**50**	**50**	**100**
Total		**12**	**0**	**0**	**260**	**140**	**400**

Research Methodology Theory And Techniques

Unit - 01

Research - definition - importance and meaning of research - characteristics of research - types of research - steps in research - identification, selection and formulation of research problem – research questions - research design - formulation of hypothesis - review of literature

Unit - 02

Sampling techniques : sampling theory - types of sampling - steps in sampling - sampling and non-sampling error - sample size - advantages and limitations of sampling. Collection of data : primary data - meaning - data collection methods - secondary data - meaning - relevances, limitations and cautions.

Unit - 03

Statistics in research - measure of central tendency - dispersion - skewness and kurtosis in research. Hypothesis - fundamentals of hypothesis testing - standard error - point and interval estimates - important non-parametric tests : sign, run, kruskal - wallis tests and mann-whitney test.

Unit - 04

Para metric tests : testing of significance - mean, proportion, variance and correlation - testing for significance of difference between means, proportions, variances and correlation co-efficient. Chi-square tests - anova - one-way and two-way.

Unit - 05

Research report : types of reports - contents - styles of reporting - steps in drafting reports - editing the final draft - evaluating the final draft.

References:

1. Kothari, C.R.(2004). Research Methodology: Methods and Techniques, New AgeInternational Publishers, New Delhi.
2. Arya., P.P. and Pal, Y.(2001) Research Methodology in Management: Theory andCase Studies. Deep and Deep Publishers Pvt. Ltd., New Delhi

Training Methods – I

Unit - 01

Types of training - weight training - circuit training - fartlek training - over distance and under distance - pressure training.Basic concept of physical fitness - basic principles in training – basic physical characteristics - fitness and training emotional fitness and psychological training.

Unit - 02

Strength - maximum strength elastic strength - strength insurance - absolute and relative strength - external resistance and athletic ability to express force..

Unit – 03-

tatic muscular activity - dynamic muscular activity - eccentric muscular activity - isokinetic muscular activity - strength relative as movement - development of strength - strength development training.

Unit – 04-

Speed in sports, speed development - training for speed development – the speed barrier - endurance and speed training.Training methods - duration - repetition - competition and testing - endurance sports.

Unit – 05-

Mobility classification - factors influencing mobility - role of mobility - mobility training - mobility unit construction - mobility derivates.

Strength, speed, endurance and ability - vital capacity - apparatus - spirometer - spigmamano meter ; grip dynamometers, leg dynamometer, instra pulse apparatus and biomonitor

Reference Books:

1. Charles & Bucher: Foundations of Physical Education

2. Harold m. Barrow: Man &His movement principles of phy. Education.

3. J.F. Williams: principles of physical education.

4. Cowl &France: philosophy and principles of physical education.

5. D.G. wakharkar: Mannual of physical education.
6. M.L.Kamlesh &M.S. Sangral :physical education
7. Upadyke Johnson: principles of modern physical education health & recreation.

Training Methods – II

Unit - 01

Aeorobic muscle metabolism - anaerobic muscle metabolism - the cardiorespiratory system - cardio respiratory - response to exercise. Aerobic training, effects on heart rate and heart size, blood pressure, blood distribution, blood, lungs, maximal oxygen uptake - lactic acid.

Unit - 02

Anaerobic power and power and speed, anaerobic capacity, anaerobic glycolysis - anaerobic steriods.

Growth and development - physical growth effects - height, weight, chest width - physiological effects - heart rate response, oxygen consumption responses and other combined responses - reaction and movement time.

Unit - 03

Physiological changes accompanying the aging process.

A.muscle size and strength

B.fat, lean body weight and bascal metabolic rate.

C.respiratory system

D.cardiovascular system

E.nervous system. Training adaption in the aged . Basic principles and guidelines for constructing cardio respiratory

Endurance exercise programme for the aged.

Unit - 04

Carbohydrate, fat, protein, minerals, vitamins, etc. Pre game meal - sleep - rest, muscle tone and readiness.

Unit - 05

Effect of drugs - alcohol - coffine - smoking on performance – blood doping - anabolic steroid - drug abuse in athletes.Effect of climate changes and high attitude on human performance.

Reference Books:

1. Charles & Bucher: Foundations of Physical Education

2. Harold m. Barrow: Man &His movement principles of phy. Education.

3. J.F. Williams: principles of physical education.

4. Cowl &France: philosophy and principles of physical education.

5. D.G. wakharkar: Mannual of physical education.

6. M.L.Kamlesh &M.S. Sangral :physical education

7. Upadyke Johnson: principles of modern physical education health & recreation

Measurement and Evaluation in Physical Education

UNIT I: Meaning of the term Test, measurement, Evaluation and Assessment
Use of the term Test, measurement, Evaluation and Assessment in Research

UNIT II
Introduction the different test: Knowledge, Psychological, Fitness, Skill, Physiological, Special Population, Test batteries, Anthropometric test Trends in Evaluation in Physical Education

UNIT III:
Construction of Data collection tools .Questionnaire and Opinionnaire .Fitness and Skill test Rating Scale

UNIT IV:
Testing Validity and Reliability of testing tools Different methods for testing validity of tool Different methods for testing reliability of tool Norms- Types, Importance and construction

UNIT V:

Factors affecting measurement in physical education .Characteristics of Test batteries .Factors to be Considered for selecting test .Factors to be considered for administration of test. Written, Motor test .

References:

1. Dick, F.W. : Sports Training Principles, Lepus, London1980

2. Enson, C.R. Fischer AC : Scientific basis of Atheletic conditioning, Lea and Feliger, Philadelphia, 1979

3. Brook, J.D. Whiting H.T.A : Human Movement a Field of study.

4. Dr. Singh Hardgal : The Science -9 sports trainging

5. Cooper, K.H. : The Aerobic way, Bantom books Inc. 1978

6. Bunn, J.W. : Scientific Principles of coaching, Englewood ciffs, Prentice Hall

7. Breer Merison, R. : Efficiency of Human Movement London W.B. Saunders

SEMESTER II

PAPER I

ADVANCED RESEARCH METHODOLOGY 02MPHY101

UNIT I

. **Basic concepts:** Research process, problem identification, research designs, informal experimental designs. Completing randomised design, randomized block design, latin square design, factorial designs

UNIT II .

Sampling and testing of hypothesis: Concept of probability, probability distribution,Normal, Poisson, χ-square, t-test. Sampling distribution, central limit theorem, Sandler'sA-test, standard error, population mean, population proportion, sample size, confidence intervals, null hypothesis and alternative hypothesis, level of significance, two tailed and one tailed tests, Z-test, t-test, x2-test, F-test, testing of correlation coefficients, ANOVA one way ANOVA, two way ANOVA Tukey's HSD.

UNIT III

Non-parametric tests: Sign test, Fisher-Irwin test, Mc Nemer test, Wilcoxon Mali test, Wilcoxon, Mann-Whitnery test, Kruskal-Wallis test, one sample runs test. Spearman's rank correlation, Kendall's coefficient of concordance.

UNIT IV

Multivariate analysis: Multiple regression, multiple discriminant analysis, multiple analysis of variance, canonical correlation analysis, Factor analysis cluster analysis, pathanalysis. Computational techniques.

UNIT V

Computer Application, Basic of Computer, System Software & application Software. Computer as a tool of Research: Application in data Analysis, related software.MS Office, SPSS, Data Communication, LAN & WAN Data Exploration usinginternet tools, e-journal, e- books, Basic concept of teleconferencing & related configuration

.

References:

1. Kothari, C.R.(2004). Research Methodology: Methods and Techniques, New Age International Publishers, New Delhi.

2 Arya., P.P. and Pal, Y.(2001) Research Methodology in Management: Theory and Case Studies. Deep and Deep Publishers Pvt. Ltd., New Delhi.

PAPER-II

HISTORY & PRINCIPLES OF PHYSICAL EDUCATION 02MPHY102

UNIT I

Definition, Meaning & scope of Physical Education, Aims & objectives of Physical Education, Relationship of Physical Education & Recreation,. Contribution of physical Education towards general education

UNIT II

History of physical Education in ancient Greek, comparative study of Spartan Athenian education. The origin and development of Olympic Games. Development of Asian Games.

UNIT III

Physical Education in Germany, Sweden & Denmark (Emphasis only on contribution of based, Guts Moths, john spies, machtegall, ling).Present status of Physical Education & Recreation in Russia and Japan. History of physical education in India (Pre& Post independence Era).

UNIT IV

Critical appreciation of the following:, State Sports departments , I.OC . policies for developing Education &Sports , Compulsory programmed of physical education & sports for school Modern Olympics , Sports Authority of India , South Asian Federation Games

UNIT V

Foundation of physical education , Biological ativitity, its need, principle of use and dis-use Growth and development ,Age & Sex difference ,Qualification of physique.

Reference Books:

1. Charles & Bucher: Foundations of Physical Education

2. Harold m. Barrow: Man &His movement principles of phy. Education.

3. J.F. Williams: principles of physical education.

4. Cowl &France: philosophy and principles of physical education.

5. D.G. wakharkar: Mannual of physical education.

6. M.L.Kamlesh &M.S. Sangral :physical education

7. Upadyke Johnson: principles of modern physical education health & recreation.

PAPER-III
SPORTS TRAINING & BIOMECHANICS IN PHYSICAL EDUCATION
UNIT I
Introduction to Sports Training

1. Meaning and definition of sports Training and Coaching
2. Aims and Tasks of sports Training
3. Characteristics of sports Training
4. Training Load and its Factors – Quality of movements, Type of Exercises, Load Volume and Load Intensity.
5. Loading and Adoption Process.
6. Forms of adaptation; Adaptation, de-adaptation, Maladaption, and re-adaptation;
7. Laws of Adaptation.
8. Principles of Loading.
9. Judgment of Training Load: Objectives and Subjective Means.

UNIT II
Over Load: Meaning, Causes, Symptoms and Tackling of Over Load .

1. Principles of Sports Training
2. Recovery and its phases, Factors Affecting recovery, Means of Faster recovery.
3. Types of Training Means.

UNIT III
Conditional Abilities:

1. Strength : Meaning, Forms, Factors determining, Strength Training Methods, Organisation of Strength Training, General Guidelines for Strength Training, Principles of Strength Training , Strength Training for Children and Women.
2. Speed:- Meaning, Forms of Speed, Factors determining Speed Barrier.
3. Endurance:-Meaning and Significance, Forms of Endurance, Factors determining Endurance, Training Methods.

UNIT IV
Motor abilities

Motor Abilities - Meaning of Flexibility, Forms of Flexibility, Factors determining Flexibility, Methods for Flexibility training, and Guidelines for Flexibility Training.

1. Coordinative Abilities – Meaning , Types of Coordinative Abilities, Characteristics of Coordinative Abilities, Importance of coordinative Abilities, Methods for Coordinative Ability Training.

2. Periodisation – Meaning and Types of periodisation, contents of training for different periods.

3. Planning & Meaning, Principles of Planning, Types of Training Plans.

4. Competitions:- Importance of Competitive Frequency, Preparation for Competitions.

UNIT V

1. Bio-mechanics –Meaning, justification & Importance

2. Relative motion, cause of motion, kinds of motion

3. Kinematics - Linear, kinematics, distance and displacement Speed velocity and acceleration.

4. i) Projectiles, Trajectory, angle of release, velocity of release height of release

ii) Centripetal and Centrifugal forces

iii) Rebound; angle of rebounels, Type and effect of spin, Ball Spin (swing)

iv) work-power –Energy, kinds of liver.

References:

1. Dick, F.W. : Sports Training Principles, Lepus, London1980

2. Enson, C.R. Fischer AC : Scientific basis of Atheletic conditioning, Lea and Feliger, Philadelphia, 1979

3. Brook, J.D. Whiting H.T.A : Human Movement a Field of study.

4. Dr. Singh Hardgal : The Science -9 sports trainging

5. Cooper, K.H. : The Aerobic way, Bantom books Inc. 1978

6. Bunn, J.W. : Scientific Principles of coaching, Englewood ciffs, Prentice Hall

7. Breer Merison, R. : Efficiency of Human Movement London W.B. Saunders.

PAPER-IV

02MPHY201 DISSERTATION