

Chhatrapati Shahu Ji Maharaj University, Kanpur
Department of Physical Education

Ordinance
Syllabus and Scheme
of
M.P.Ed. (Master of Physical Education)
(July 2015 Onwards)

SUBJECTS & SCHEME OF EXAMINATION

Semester-I

Part A : Theoretical Course(400 Marks)						
Course Code	Title of the Papers			Internal Marks	External Marks	Total Marks
Core Course						
MPCC-101	Research Process & Statistics in Physical Education & Sports Sciences			20	80	100
MPCC 102	Physiology of Exercise			20	80	100
MPCC-103	Tests, Measurement and Evaluation in Physical Education			20	80	100
Elective Course (Anyone)						
MPEC-101	Yogic Sciences			20	80	100
MPEC-102	Sports Technology					
Part-B Practical Course(400 Marks)						
MPPC-101	Games Specialization -I (Performance of Any Two Events/Apparatus of each game & Five Lessons of Teaching, Coaching & Officiating of each game (4 Internal & 1 External) 1.Track and Field: Running, Walking , Hurdle & Relay Events * 2. Gymnastics/ Swimming (*Any one)			20	80	100
MPPC-102	Laboratory Practical Sports Psychology, Physiology of Exercise, Sports Biomechanics and Kinesiology (Two practical for each subject)			20	80	100
MPPC-103	Sports and Games -I 1.Yoga(Performance of Asanas, Kriyas, Bandhas& Pranayama) *2. (Any one activity of Indigenous/ Aerobics/Self Defence Technique-Martial Arts, Taekwondo/ Karate/ Wushu (Any one activity + Yoga)			20	80	100
MPPC-104	Physical Fitness Test(NPFP „A')			20	80	100
Total				160	640	800

Semester-II

Part A : Theoretical Course(400 Marks)						
Course Code	Title of the Papers			Internal Marks	External Marks	Total Marks
Core Course						
MPCC-201	Professional Preparation and Curriculum Designs in Physical Education			20	80	100
MPCC 202	Sports Biomechanics & Kinesiology			20	80	100
MPCC-203	Athletic Care and Rehabilitation			20	80	100
Elective Course (Anyone)						
MPEC-201	Sports Journalism and Mass Media			20	80	100
MPEC-202	Sports Management					
Part-B Practical Course(400 Marks)						
MPPC-201	Games Specialization -II (Performance of Any Two Events/Apparatus of each game & Five Lessons of Teaching, Coaching & Officiating of each Game 1.Track and Field: Jumping events *2. Gymnastics/ Swimming (*Any one)			20	80	100
MPPC-202	Sports and Games -II (Any Two games Individual Skill, Game Situation, Officiating, Lead-Up games) Cricket/Volleyball/Basketball/ Football/Handball/ Hockey/ Netball			20	80	100
MPPC-203	Adventure or leadership Camp/Tour/ training for internal marks &Seminar (4 Internal & 1 External) (Topics on sports, yoga, wellness, health & fitness their research findings, survey of literature, development, historical or current issues.			20	80	100
MPPC-204	Physical Fitness Test(NPFP „B')			20	80	100
Total				160	640	800

Note: Total number of hours required to earn 3 credits for each theory course are 45-51 hours per semester whereas 90-102 hours for each practicum course.

Semester-III

Part A : Theoretical Course(400 Marks)						
Course Code	Title of the Papers			Internal Marks	External Marks	Total Marks
Core Course						
MPCC-301	Scientific Principles of Sports Training			20	80	100
MPCC 302	Sports Medicine			20	80	100
MPCC-303	Health Education and Sports Nutrition			20	80	100
Elective Course (Anyone)						
MPEC-301	Sports Engineering			20	80	100
MPEC-302	Physical Fitness and Wellness					
Part-B Practical Course(400 Marks)						
MPPC-301	Games Specialization -III (Performance of Any Two Events/ Apparatus of each game & Five Lessons of Teaching, Coaching & Officiating of each game 1.Track and Field: Throwing Events *2. Gymnastics /Swimming (*Any one)			20	80	100
MPPC-302	Sports and Games - III (Any Two games Individual Skill, Game Situation, Officiating, Lead-Up games) Kabaddi/Kho-Kho/ Boxing/ Judo/Wrestling/ Baseball / Softball			20	80	100
MPPC-303	Internship(Internal) & Project			20	80	100
MPPC-304	Physical Fitness Test(Canadian)			20	80	100
Total				160	640	800

Note: Total number of hours required to earn 3 credits for each theory course are 45-51 hours per semester whereas 90-102 hours for each practicum course.

Semester-IV

Part A : Theoretical Course(400 Marks)						
Course Code	Title of the Papers			Internal Marks	External Marks	Total Marks
Core Course						
MPCC-401	Information & Communication Technology (ICT) in Physical Education			20	80	100
MPCC 402	Sports Psychology			20	80	100
MPCC-403	Sports Sociology			20	80	100
Elective Course (Anyone)						
MPEC-401	Adapted Physical Education			20	80	100
MPEC-402	Dissertation					
Part-B Practical Course(400 Marks)						
MPPC-401	Games Specialization - IV (Performance of Any Two Events/Apparatus of each game & Five Lessons of Teaching, Coaching & Officiating of each game 1.Track and Field: Heptathlon & Decathlon *2. Gymnastics / Swimming (*Any one)			20	80	100
MPPC-402	Sports and Games - IV (Any Two games Individual Skill, Game Situation, Officiating, Lead-Up games) Badminton/ T.T/ Tennis/ Squash/ Shooting/ Archery/ Fencing			20	80	100
MPPC-403	Classroom Teaching lessons on Theory Subjects(Topics) of Graduation Level (4 Internal & 1 External)			20	80	100
MPPC-404	Physical Fitness Test(Cooper)			20	80	100
Total				160	640	800
				640	2560	3200

Note: Total number of hours required to earn 3 credits for each theory course are 45-51 hours per semester whereas 90-102 hours for each practicum course.

**Semester I
Theory Courses**

MPCC-101 RESEARCH AND STATISTICS IN PHYSICAL EDUCATION & SPORTS

Unit I- Introduction:

Meaning of Research, Need and Importance and its scope in Physical Education, Type of Research, and Survey of Related Literature: Need to Library Search & Sources, Formulation and Development of Research Problem: Location of Research Problem, Criterion in Selecting the Research problem, Hypothesis.

Unit II- Methods of Research:

Historical Research: Scope of Historical Research in Physical Education, Historical evidence, Validity of Historical data. Survey Studies: Place of Survey Research in Physical education. Tools of Survey Research, Questionnaire and interviews. Case Studies: Definition of case Studies Importance of case studies, Characteristics of case Studies. Data Collection in case studies, Experimental Research: Meaning, Scope and nature, Control of Experimental Factors, Experimental Designs.

Unit III-Research Proposal and Report:

Chapterization of Thesis/Dissertation, Front Materials, Body of Thesis-Back Materials, Research Proposal, Writing Abstract and Full Paper for Presenting in Conference and to Publish in Journals, Mechanics of Writing Research Report, Footnote and Bibliography Writing.

Unit IV- Statistics Introduction:

Definition , its uses in Physical Education & Sports Research. Central tendency: Mean (AM & HM), Median. Dispersion: Standard Deviation and Coefficient of Variation, Skewness, Kurtosis, Bivariate Data. Correlation: Product moment correlation coefficient and rank correlation coefficient .

Unit V- Inferential Statistics:

Elementary idea of probability, random variable, Binomial and Normal distribution. Sampling: Random and stratified sampling. Type I and Type II error. Testing various Hypothesis with the help of Z, χ^2 , t and F Sampling distributions.

REFERENCE:

- Best J. W(1971) Research in Education, New Jersey, Prentice Hall Inc.
Clarke David H. & Clarke H. Harrison (1984) Research processes in Physical Education. New Jersey, Prentice Hall Inc.
Garret, Harry E. and Goodworth R.S(1958) Statistics in Psychology and Education, Bombay: Allied Pacific Private Ltd.
Guilford, J.P: Fundamental Statistics in Psychology Education(1956) New York: McGraw Hill Book Co. Inc.
Hubbard W. Allred(1979) Research Methods in Health Physical Education and recreation, 3rd Revised Edn. Washington : D.C.: Americas Association of Health Physical Education and Recreation.
Kamlesh, M.L(1999) Research Methodology in physical education & sports, New Delhi, Metropolitan,
Moorthy, A.M(2010) Research Methods in Physical Education, New Delhi, Friends publication. Moses A.K(1995) Thesis writing Format, Chennai, Poompugar Pathippagam.
Rai, P. N(2001) Anusandhan Parichaya, Agra: Lakshmi Narayan Agarwal,

**Semester I
Theory Courses**

MPC-102 PHYSIOLOGY OF EXERCISE

UNIT I - Skeletal Muscles and Exercise

Macro & Micro Structure of the Skeletal Muscle, Chemical Composition, Sliding Filament theory of Muscular Contraction, Types of Muscle fibre, Muscle Tone, Chemistry of Muscular Contraction - Heat Production in the Muscle, Effect of exercises and training on the muscular system.

UNIT II - Cardiovascular System and Exercise

Heart Valves and Direction of the Blood Flow - Conduction System of the Heart - Blood Supply to the Heart - Cardiac Cycle - Stroke Volume - Cardiac Output - Heart Rate - Factors Affecting Heart Rate - Cardiac Hypertrophy - Effect of exercises and training on the Cardiovascular system.

UNIT III - Respiratory System and Exercise

Mechanics of Breathing - Respiratory Muscles, Minute Ventilation - Ventilation at Rest and During Exercise, Diffusion of Gases - Exchange of Gases in the Lungs - Exchange of Gases in the Tissues - Control of Ventilation - Ventilation and the Anaerobic Threshold, Oxygen Debt - Lung Volumes and Capacities - Effect of exercises and training on the respiratory system.

UNIT IV - Metabolism and Energy Transfer

Metabolism - ATP - PC or Phosphagen System - Anaerobic Metabolism - Aerobic Metabolism - Aerobic and Anaerobic Systems during Rest and Exercise. Short Duration High Intensity Exercises - High Intensity Exercise Lasting Several Minutes - Long Duration Exercises.

UNIT V - Climatic conditions and sports performance and ergogenic aids

Variation in Temperature and Humidity - Thermoregulation - Sports performance in hot climate, Cool Climate, high altitude. Influence of: Amphetamine, Anabolic steroids, Androstenedione, Beta Blocker, Choline, Creatine, Human growth hormone on sports performance. Narcotic, Stimulants: Amphetamines, Caffeine, Ephedrine, Sympathomimetic amines. Stimulants and sports performance.

Note: Laboratory Practicals in Physiology be designed and arranged internally.

REFERENCES:

- Anurag Kumar, R, Moses. (1995). Introduction to Exercise Physiology. Madras: Poompugur Pathipagam.
- Beotra Alka, (2000) Drug Education Handbook on Drug Abuse in Sports: Sports Authority of India Delhi.
- Clarke, D.H. (1975). Exercise Physiology. New Jersey: Prentice Hall Inc., Englewood Cliffs.
- David, L Costill. (2004). Physiology of Sports and Exercise. Human Kinetics.
- Fox, E.L., and Mathews, D.K. (1981). The Physiological Basis of Physical Education and Athletics. Philadelphia: Sanders College Publishing.
- Guyton, A.C. (1976). Textbook of Medical Physiology. Philadelphia: W.B. Sanders co.
- Richard, W. Bowers. (1989). Sports Physiology. WMC: Brown Publishers.
- Sandhya Tiwaji. (1999). Exercise Physiology. Sports Publishers.
- Shaver, L. (1981). Essentials of Exercise Physiology. New Delhi: Subject Publications.
- Vincent, T. Murche. (2007). Elementary Physiology. Hyderabad: Sports Publication.
- William, D. Mc Aradle. (1996). Exercise Physiology, Energy, Nutrition and Human Performance. Philadelphia: Lippincott Williams and Wilkins Company.

**Semester I
Theory Courses**

MPCC-103 TEST, MEASUREMENT AND EVALUATION IN PHYSICAL EDUCATION

UNIT I - Introduction

Meaning and Definition of Test, Measurement and Evaluation. Need and Importance of Measurement and Evaluation. Criteria for Test Selection – Scientific Authenticity. Meaning, definition and establishing Validity, Reliability, Objectivity. Norms – Administrative Considerations.

UNIT II - Motor Fitness Tests

Meaning and Definition of Motor Fitness. Test for Motor Fitness; Indiana Motor Fitness Test (for elementary and high school boys, girls and College Men) Oregon Motor Fitness Test (Separately for boys and girls) - JCR test. Motor Ability; Barrow Motor Ability Test – Newton Motor Ability Test – Muscular Fitness – Kraus Weber Minimum Muscular Fitness Test.

UNIT III - Physical Fitness Tests

Physical Fitness Test: AAHPERD Health Related Fitness Battery (revised in 1984), ACSM Health Related Physical Fitness Test, Roger's physical fitness Index. Cardio vascular test; Harvard step test, 12 minutes run / walk test, Multi-stage fitness test (Beep test)

UNIT IV - Anthropometric and Aerobic-Anaerobic Tests

Physiological Testing: Aerobic Capacity: The Bruce Treadmill Test Protocol, 1.5 Mile Run test for college age males and females. Anaerobic Capacity: Margaria-Kalamen test, Wingate Anaerobic Test, Anthropometric Measurements: Method of Measuring Height: Standing Height, Sitting Height. Method of measuring Circumference: Arm, Waist, Hip, Thigh. Method of Measuring Skin folds: Triceps, Sub scapular, Suprailiac.

UNIT V - Skill Tests

Specific Spots Skill Test: Badminton: Miller Wall Volley Test. Basketball: Johnson Basketball Test, Harrison Basketball Ability Test. Cricket: Sutcliff Cricket test. Hockey: Friendel Field Hockey Test, Harban's Hockey Test, Volleyball, Russel Lange Volleyball Test, Brady Volleyball Test. Football: Mor-Christian General Soccer Ability Skill Test Battery, Johnson Soccer Test, McDonald Volley Soccer Test. Tennis: Dyer Tennis Test.

Note: Practicals of indoors and out-door tests be designed and arranged internally.

REFERENCES :

- Authors Guide (2013) ACSM's Health Related Physical Fitness Assessment Manual, USA: ACSM Publications
- Collins, R.D., & Hodges P.B. (2001) A Comprehensive Guide to Sports Skills Tests and Measurement (2nd edition) Lanham: Scarecrow Press
- Cureton T.K. (1947) Physical Fitness Appraisal and Guidance, St. Louis: The C. Mosby Company
- Getchell B (1979) Physical Fitness A Way of Life, 2nd Edition New York, John Wiley and Sons, Inc
- Jenson, Clayne R and Cynt ha, C. Hirst (1980) Measurement in Physical Education and Athletics, New York, Macmillan Publishing Co. Inc
- Kansal D.K. (1996), "Test and Measurement in Sports and Physical Education, New Delhi: DVS Publications
- Krishnamurthy (2007) Evaluation in Physical Education and Sports, New Delhi; Ajay Verma Publication
- Vivian H. Heyward (2005) Advance Fitness Assessment and Exercise Prescription, 3rd Edition, Dallas TX: The Cooper Institute for Aerobics Research
- Wilmore JH and Costill DL. (2005) Physiology of Sport and Exercise: 3rd Edition. Champaign IL: Human Kinetics
- Yobu, A (2010), Test, Measurement and Evaluation in Physical Education in Physical Education and Sports. New Delhi; Friends Publication.

**Semester I
Theory Courses**

MPEC-101 Yogic Sciences (Elective)

UNIT I - Introduction

Meaning and Definition of Yoga. Astanga Yoga: Yama, Niyama, Asana, Pranayama, Pratyahara, Dharana, Dhyana, Samadhi, Concept of Yogic Practices; Principles of Breathing - Awareness - Relaxation, Sequence - Counter pose - Time - Place - Clothes - Bathing - Emptying the bowels - Stomach - Diet - No Straining - Age - Contra- Indication - Inverted asana - Sunbathing.

UNIT II - Asanas and Pranayam

Loosening exercise: Techniques and benefits. Asanas: Types- Techniques and Benefits, Surya Namaskar: Methods and benefits. Pranayama: Types- Methods and benefits. Nadis: Meaning, methods and benefits, Chakras: Major Chakras- Benefits of clearing and balancing Chakras.

UNIT III - Kriyas

Shat Kriyas- Meaning, Techniques and Benefits of Neti - Dharti - Kapalabhati- Trataka - Nauli - Basti, Bandhas: Meaning, Techniques and Benefits of JalendraBandha, JihvaBandha, UddiyanaBandha, MulaBandha.

UNIT IV - Mudras

Meaning, Techniques and Benefits of Hasta Mudras, Asamyuktahastam, Samyuktahastam , Mana Mudra, Kaya Mudra, Banda Mudra, Adhara Mudra. Meditation: Meaning, Techniques and Benefits of Meditation - Passive and active, Saguna Meditation and Nirguna Meditation.

UNIT V - Yoga and Sports

Yoga Supplemental Exercise - Yoga Compensation Exercise - Yoga Regeneration Exercise Power Yoga. Role of Yoga in Psychological Preparation of athlete: Mental Wellbeing, Anxiety, Depression Concentration, Self Actualization. Effect of Yoga on Physiological System: Circulatory, Skeletal, Digestive, Nervous, Respiratory, Excretory System.

Note: Practicals be designed and arranged internally.

REFERENCE:

- George Feuerstein, (1975). Text Book of Yoga. London: MotilalBansaridass Publishers (P) Ltd.
Gore, (1990), Anatomy and Physiology of Yogic Practices. Lonavata: KanchanPrakashan.
Helen Purperhart (2004), The Yoga Adventure for Children. Netherlands: A Hunter House book.
Iyengar, B.K.S. (2000), Light on Yoga. New Delhi: Harper Collins Publishers. Karbelkar N.V.(1993)
Kenghe.C.T. (1976). Yoga as Depth-Psychology and para-Psychology (Vol-I): Historical Background, Varanasi: BharataManishai.
Kuvalyananda Swami & S.L. Vinekar, (1963), Yogic Therapy - Basic Principles and Methods. New Delhi: Govt. of India, Central Health Education and Bureau.
Moorthy A.M. & Alagesan. S. (2004) Yoga Therapy. Coimbatore: Teachers Publication House.
PatanjalYogasutraBhashya (Marathi Edition) Amravati: Hanuman VyayamPrasarakMandal
Swami Kuvalayanda, (1998), Asanas. Lonavala: Kaivalyadhama.
Swami SatyananadaSarasvati. (1989), Asana Pranayama Mudra Bandha. Munger: Bihar School of Yoga.
Swami SatyanandaSaraswathi. (1984), Kundalini and Tantra, Bihar: Yoga Publications Trust.
Swami Sivananda, (1971), The Science of Pranayama. Chennai: A Divine Life Society Publication.
Thirumalai Kumar. S and Indira. S (2011) Yoga in Your Life, Chennai: The Parkar Publication.
Tiwari O.P. (1998), Asanas-Why and How. Lonavala: Kaivalyadham.

**Semester I
Theory Courses**

MPEC-102 SPORTS TECHNOLOGY (Elective)

UNIT I - Sports Technology

Meaning, definition, purpose, advantages and applications, General Principles and purpose of instrumentation in sports, Workflow of instrumentation and business aspects, Technological impacts on sports.

UNIT II - Science of Sports Materials

Adhesives- Nano glue, nanomoulding technology, Nano turf. Foot wear production, Factors and application in sports, constraints. Foams- Polyurethane, Polystyrene, Styrofoam, closed cell and open-cell foams, Neoprene, Foam. Smart Materials - Shape Memory Alloy (SMA), Thermo chromic film, High-density modelling foam.

UNIT III - Surfaces of Playfields

Modern surfaces for playfields, construction and installation of sports surfaces. Types of materials - synthetic, wood, polyurethane. Artificial turf. Modern technology in the construction of indoor and outdoor facilities. Technology in manufacture of modern play equipments. Use of computer and software in Match Analysis and Coaching.

UNIT IV - Modern equipment

Playing Equipments: Balls: Types, Materials and Advantages, Bat/Stick/ Racquets: Types, Materials and Advantages. Clothing and shoes: Types, Materials and Advantages. Measuring equipments: Throwing and Jumping Events. Protective equipments: Types, Materials and Advantages. Sports equipment with nano technology, Advantages.

UNIT V - Training Gadgets

Basketball: Ball Feeder, Mechanism and Advantages. Cricket: Bowling Machine, Mechanism and Advantages, Tennis: Serving Machine, Mechanism and Advantages, Volleyball: Serving Machine Mechanism and Advantages. Lighting Facilities: Method of erecting Flood Light and measuring luminous. Video Coverage: Types, Size, Capacity, Place and Position of Camera in Live coverage of sporting events.

Note: Students should be encouraged to design and manufacture improvised sports testing equipment in the laboratory/workshop and visit sports technology factory/ sports goods manufacturers.

REFERENCE:

- Charles J.A. Crane, F.A.A. and Furness, J.A.G. (1987) "Selection of Engineering Materials" UK: Butterworth Heiremann.
- Finn, R.A. and Trojan P.K. (1999) "Engineering Materials and their Applications" UK: Jaico Publisher.
- John Mongilo, (2001), "Nano Technology 101" New York: Green wood publishing group.
- Kochar, S.K. (1982) Methods and Techniques of Teaching (New Delhi, Jullandhar, Sterling Publishers Pvt. Ltd.)
- Kozman, Cassidy and Jackson. (1952) Methods in Physical Education (W.B. Saunders Company, Philadelphia and London)
- Walia, J.S. (1999) Principles and Methods of Education (Paul Publishers, Jullandhar)

**Semester II
Theory Courses**

**MPCC-201 PROFESSIONAL PREPARATION & CURRICULUM DESIGN IN PHYSICAL
EDUCATION**

UNIT I- Features of Indian Democracy with regards to Contribution of Physical Education & sports. Historical review of Professional preparations in India. Role of the Government & non-official agencies in Accreditation / Certification, preparation and in improving professional preparation. Aim & purposes in professional Preparation, Basic principles of curriculum construction, Organization in general education, Preparation of General Education, allied and foundational subject.

UNIT II- Physical Education Graduate & Post-graduate level Professional preparation Areas, Purposes, admissions, Curriculum, Laboratory experience, Field Experiences, Teaching Practice, area of specialization and concentration on core areas, Research requirement, Methods of instruction, Professional competencies, facilities and special resources for Library, Laboratory, Staff placement and follow-up.

UNIT III- Importance of Curriculum Development, factors affecting curriculum, changing needs of student, National and professional policies. The role of teacher in curriculum Development. Principles of planning Professional preparation, Evaluation and follow-up. Selecting material for instruction- Calculations of activities in Physical Education, Cultural influence in the choice of activities and flexibility of programme material.

UNIT IV- Selecting methods of teaching- Grouping of students for instruction, Lectures, Projects activities, demonstration, block of period, total time allotment for a given activity, teaching aids, conditioning special gadgets to concentrate on development of particular skills, bring up pre-requisites for learning a given skill or activity, provision for individual differences. Development programme suitability of activities for different age groups and sexes, for different levels of education- Kindergarten elementary school, middle school, 10 + 2 school, college and university, special institution (Technical school, orphan hostel & for challenged people) special days and national days etc.

UNIT V- Co-education in Physical Education - Integrating the programmes for boys and girls, activities suitable for co-education needs, level at which co-education is desirable, special provision for development of girls programme.

Committee recommendation - NCTE, NCERT, CBSE, UGC recommendations on curriculum for school and colleges curriculum followed in colleges of physical education CPed, DPed, BPE, B.Sc, BPed, MPE, MPed and M. Phil.

REFERENCES:

- Aggarwal, J.C (1990) Curriculum Reform in India-World Overviews, Doaba World Education Series-3 Delhi Doaba House, Book Seller and Publisher.
- Arora, G.L (1984) Reflections on Curriculum, New Delhi: NCERT
- Gattu, J. Rryant, (1971) Career Potentials Physical Activity. New Jersey: Englewood Chiffs, Prentice Hall Inc.
- Jrwin, W. Lestia (1984) Curriculum in Health & Physical Edu, St. Louis: The C.V. Mosby Company. Pyke, Frank, S (1980) Towards better coaching. Australian Govt. Publishing Service Canberra. Willgoose, E. Carl (1982) The curriculum in Physical Education, Edition 3, New Jersey : Englewood Cliffs, Prentice Hall Inc.

**Semester II
Theory Courses**

MPCC-202 SPORTS BIOMECHANICS AND KINESIOLOGY

UNIT I - Introduction

Meaning, nature, role and scope of Applied kinesiology and Sports Biomechanics. Meaning of Axis and Planes, Dynamics, Kinematics, Kinetics, Statics Centre of gravity -Line of gravity plane of the body and axis of motion, Vectors and Scalars.

UNIT II - Muscle Action

Origin, Insertion and action of muscles: Pectoralis major and minor, Deltoid, Biceps, Triceps (Anterior and Posterior), Trapezius, serratus, Sartorius, Rectus femoris, Abdominis, Quadriceps, Hamstring, Gastrocnemius.

UNIT III - Motion and Force

Meaning and definition of Motion. Types of Motion: Linear motion, angular motion, circular motion, uniform motion. Principles related to the law of Inertia, Law of acceleration, and law of counter force. Meaning and definition of force- Sources of force -Force components .Force applied at an angle - pressure -friction -Buoyancy, Spin - Centripetal force - Centrifugal force.

UNIT IV - Projectile and Lever

Freely falling bodies -Projectiles -Equation of projectiles stability Factors influencing equilibrium - Guiding principles for stability -static and dynamic stability. Meaning of work, power, energy, kinetic energy and potential energy. Leverage -classes of lever - practical application. Water resistance - Air resistance -Aerodynamics. Note: Laboratory practicals should be designed and arranged for students internally.

UNIT V - Movement Analysis

Analysis of Movement: Types of analysis: Kinesiological, Biomechanical. Cinematographic. Methods of analysis - Qualitative, Quantitative, Predictive.

Note: Laboratory Practicals be designed and arranged internally.

REFERENCE:

Deshpande S.H.(2002). ManavKriya Vigyan – Kinesiology (Hindi Edition) Amravati :HanumanVyayamPrasarakMandal.

Hoffman S.J. Introduction to Kinesiology. Human Kinesiology publication In.2005.

Steven Roy, & Richard Irvin. (1983). Sports Medicine. New Jersey: Prentice hall.

Thomas. (2001). Manual of structural Kinesiology, New York: Me Graw Hill. Uppal

A.K. Lawrence Mamta MP (2004) Kinesiology. Delhi, Friends Publication .

Uppal, A K. (2004), Kinesiology in Physical Education and Exercise Science, Delhi, Friends publications.

Williams M (1982) Biomechanics of Human Motion, Philadelphia; Saunders Co.

**Semester II
Theory Courses**

MPCC-203 ATHLETIC CARE AND REHABILITATION

UNIT I - Corrective Physical Education

Definition and objectives of corrective physical Education. Posture and body mechanics, Standards of Standing Posture. Value of good posture, Drawbacks and causes of bad posture. Posture test - Examination of the spine.

UNIT II - Posture

Normal curve of the spine and its utility, Deviations in posture: Kyphosis, lordosis, flat back, Scoliosis, round shoulders, Knock Knee, Bow leg, Flat foot. Causes for deviations and treatment including exercises.

UNIT III - Rehabilitation Exercises

Passive, Active, Assisted, Resisted exercise for Rehabilitation, Stretching, PNF techniques and principles.

UNIT IV - Massage

Brief history of massage - Massage as an aid for relaxation - Points to be considered in giving massage - Physiological, Chemical, Psychological effects of massage - Indication / Contra indication of Massage - Classification of the manipulation used massage and their specific uses in the human body - Stroking manipulation: Effleurage - Pressure manipulation: Petrissage Kneading (Finger, Kneading, Circular) ironing Skin Rolling - Percussion manipulation: Tapotement, Hacking, Clapping, Beating, Pounding, Slapping, Cupping, Poking, Shaking Manipulation, Deep massage.

UNIT V - Sports Injuries Care, Treatment and Support

Principles pertaining to the prevention of Sports injuries - care and treatment of exposed and unexposed injuries in sports - Principles of apply cold and heat, infrared rays - Ultrasonic, Therapy - Short wave diathermy therapy. Principles and techniques of Strapping and Bandages.

Note: Each student shall submit Physiotherapy record of attending the Clinic and observing the cases of athletic injuries and their treatment procedure. (To be assessed internally)

REFERENCES:

- Doherty, J. Meno. Wetb, Moder D (2000) Track & Field, Englewood Cliffs, Prentice Hal Inc. Lacey, M. V. (1951) Massage and Medical Gymnastics, London: J & A Churchill Ltd. Mc Ooyand Young (1954) Tests and Measurement, New York: Appleton Century. Naro, C. L. (1967) Manual of Massage and, Movement, London: Febra and Febra Ltd. Rathbone, J.I. (1965) Corrective Physical education, London: W.B. Saunders & Co. Stafford and Kelly, (1968) Preventive and Corrective Physical Education, New York

**Semester II
Theory Courses**

MPEC-201 SPORTS JOURNALISM AND MASS MEDIA (Elective)

UNIT I Introduction

Meaning and Definition of Journalism, Ethics of Journalism – Canons of journalism- Sports Ethics and Sportsmanship – Reporting Sports Events. National and International Sports News Agencies.

UNIT II Sports Bulletin

Concept of Sports Bulletin: Journalism and sports education – Structure of sports bulletin – Compiling a bulletin – Types of bulletin – Role of Journalism in the Field of Physical Education: Sports as an integral part of Physical Education – Sports organization and sports journalism – General news reporting and sports reporting.

UNIT III Mass Media

Mass Media in Journalism: Radio and T.V. Commentary – Running commentary on the radio – Sports expert's comments. Role of Advertisement in Journalism. Sports Photography: Equipment-Editing – Publishing.

UNIT IV Report Writing on Sports

Brief review of Olympic Games, Asian Games, Common Wealth Games World Cup, National Games and Indian Traditional Games. Preparing report of an Annual Sports Meet for Publication in Newspaper. Organization of Press Meet.

UNIT -V Journalism

Sports organization and Sports Journalism – General news reporting and sports reporting. Methods of editing a Sports report. Evaluation of Reported News. Interview with and elite Player and Coach.

Practical assignments to observe the matches and prepare report and news of the same; visit to News Paper office and TV Centre to know various departments and their working. Collection of Album of newspaper cuttings of sports news.

REFERENCE:

- Ahiya B.N. (1988) Theory and Practice of Journalism: Set to Indian context Ed3. Delhi :Surjeet Publications
- Ahiya B.N. Chobra S.S.A. (1990) Concise Course in Reporting. New Delhi: Surjeet Publication
- Bhatt S.C. (1993) Broadcast Journalism Basic Principles. New Delhi. Haranand Publication
- Dhananjay Joshi (2010) Value Education in Global Perspective. New Delhi: Lotus Press.
- Kannan K (2009) Soft Skills, Madurai: Madurai: Yadava College Publication
- MohitChakrabarti (2008): Value Education: Changing Perspective, New Delhi: Kanishka Publication.
- Padmanabhan. A &Perumal A (2009), Science and Art of Living, Madurai: Pakavathi Publication
- Shiv Khara (2002), You Can Win, New Delhi: Macmillan India Limited.
- Varma A.K. (1993) Journalism in India from Earliest Times to the Present Period. Sterling publication Pvt. Ltd.
- Venkataiah. N (2009) Value Education,- New Delhi: APH Publishing Corporation. 43

**Semester II
Theory Courses**

MPEC-202 SPORTS MANAGEMENT (Elective)

UNIT I- Management:

Meaning and Functions, The skills of management, the universal nature of the management process, Management and Administration, Principles and Theories of Management.

UNIT II- Organisation:

Classical Principles, Bureaucracy; Bureaucracy in Democracy and in sports organizations. Open systems perspectives. The constitution of a national sports organization, office holders of an organization and their functional meetings.

UNIT III- Human resource management:

Definition & Aspect of HRM, Job analysis and its process. Human resource planning, Recruitments, Manpower Planning, Personal Management and its principles, Appraisals & Public Relation in physical education.

UNIT IV- Management of performance:

Evaluation and its techniques in physical education. Sports competition and its system, Training structure & performance. Injury management, Ethics of sports.

UNIT V- Management of finance, Facilities and material:

Financial administration in sports and physical education, Sources of funds in sports. Budgeting in sports and games, purpose and principles of budgeting.

Material Management: Improvisation and Standardization of Sports equipments and materials. Scientific purchasing, Storekeeping, inventory control and value analysis.

Facility (outdoor and indoor) Planning, Construction and maintenance of sports facilities.

REFERENCE:

- Bucher Carles, A. (1987) Administration of Physical Education and Athletic programs. London, The C.V. Mosby Co.
- Chelladurai P. (1985) Sports Management Macro perspective. Canada Sports Dynamics
- Earle F. Zeigler & Gary W. Bowie (1993): Management competency Development in sports and physical education Philadelphia: W. Leo and Febiger.
- heph Bucher and Earnest Koerigeberg (1968): Scientific Inventory Management . New Delhi: Prentice Hall of India Pvt. Ltd.,
- Morson James G and Jimpaul (1988) Modern Sports Administration. Englewood Cliffs, New Jersey: Prentice Hall, Inc.
- Scholar Rondoll S and Nicholas. J (1983) Personal Management. New York, West Publishing company.
- Vanderwag Harold. J (1984) Sports Management (New York: Mac Millon publishing company.

**Semester I
Practicum Course**

MPPC- 101 GAMES SPECIALIZATION: TRACK & FIELD / GYMNASTICS/ SWIMMING.

Running, Walking, Hurdle & Relay Events

- Fundamental skills –
 - Use of Starting blocks- stance on the blocks.
 - Body position at the start, Hurdle & Relay Events- starting technique, change in bodyposition during running, movements of the arms, stride length and frequency, position of torso while running/ walking/ clearing hurdle/ baton exchange and at finish.
- Advanced Skills/Correction of faults: various techniques of sprint start: Bullet start, standing start, Walking, Hurdle & Relay Events
- Active game practice

Note: Course contents in Gymnastics and Swimming should be chalked out internally considering availability of facilities, advance level of students, suitable to their age and gender

**Semester I
Practicum Course**

MPPC- 102 Laboratory Practical in Anthropometric Measurement, Sports Psychology, Physiology of Exercise, Biomechanics and Kinesiology (Two standardized tests practical from each subject)

**Semester I
Practicum Course**

MPPC- 103 SPORTS AND GAMES: YOGA & INDIGENOUS ACTIVITIES (Lezium, Dumb-Bell, Umbrella, Tipri, Wands, Hoops/ Malkhambh) /AEROBICS/SELF DEFENCE TECHNIQUE- Martial Arts, Taekwondo/Karate/ Wushu(Yoga + Any one activity)

YOGA- Asanas prescribed by Maharshi „Patanjali“, Shudhi Kriyas, jalneti, sutraneti, dugdhaneti, kunjai, Nauli, Bhastika, shatkriya, Pranayams, Anulom-vilom, Kapalbhathi,

INDIGENOUS & MASS DEMONSTRATION ACTIVITIES: The students of M.P.Ed-I Semester need to develop proficiency in taking teaching classes in indigenous activities and Mass demonstration under school situation. In view of this, the students shall be provided with teaching

experience. The duration of the lesson to be conducted by these students shall be in the range of 30 to 40 minutes depending on the class they are going to handle at school and college level.

Each student teacher is expected to take at least five lessons during the course of the first semester. The lessons will be supervised by the faculty members and experts who would discuss the merits and demerits of the concerned lesson and guide them for the future. In these lessons, the duration should slowly increase and all the parts of the lesson covered progressively. Students are expected to learn and organize mass drill in school Situation on following aspects:

- Apparatus/ Light apparatus Grip
- Attention with apparatus/ Light apparatus
- Stand-at-ease with apparatus/ light apparatus
- Exercise with verbal command, drum, whistle and music-Two count, Four count, Eightcount and Sixteen count.
- Standing Exercise
- Jumping Exercise
- Moving Exercise
- Combination of above all

MALKHAMB: Table of Exercises on Malkhamb should be prepared internally for teaching. General out-line of the contents of teaching of theory of Games and Sports

Introduction of the game/sport and historical development with special reference to India, Orientation of the students to the play area and equipment used in the game/sport, Important tournaments held at National and International levels, Distinguished sports awards and personalities related to the Game/sport. Warming-up- General free hand exercises, specific work out using equipment. Fundamental skills, Lead up activities, General rules and their interpretations, Duties of officials, officiating in class competitions and Intramurals, Marking of the play area.

AEROBICS -Rhythmic Aerobics-dance, Low impact aerobics, High impact aerobics, Aerobickick boxing

- Moves March single, basics, side to side alternate, turn s/a ,double side to side, steptouch, grapevine, knee up, leg curl, kick front, toe touch, kick side, side lunge, over the top, back lunge, straddle, kick front, travel s 11. kick side, corner, heel to reft, shape, 'e' shape, shapew, shape, repeater left mode
- Warm up and cool down
- Being successful in exercise and adaptation to aerobic workout.

Semester I
Practicum Course
MPPC-104 PHYSICAL FITNESS TEST:

National physical fitness proficiency Modified Test (NPPF „A') is to be practiced and organised as per the norms/scores prepared by the department presented below.

Semester -I : National Physical Fitness Proficiency Test Modified Norms (Battery 'A')

S. No.	Events	Sex	Performance Scores					
			14 Marks	12 Marks	10 Marks	08 Marks	07 Marks	06 Marks
1.	100 M run (Sec.)	Men	Below 12.0	12.0-12.9	13.0-13.9	14.0-14.9	15.0-15.9	16.0 & Above
		Women	Below 14.0	14.0-14.9	15.0-15.9	16.0-16.9	17.0-17.9	18.0 & Above
2.	Long Jump (Mtr.)	Men	Above 5.25	5.25-4.74	4.75-4.24	4.25-3.74	3.75-3.26	3.25 & Below
		Women	Above 4.00	4.00-3.75	3.50-4.26	3.25-3.01	3.00-2.76	2.75 & Below
3.	Shot Put (Mtr.)	Men	Above 8.00	8.0-7.51	7.50-6.51	6.50-5.51	5.50-4.51	4.50 & Below
		Women	Above 7.00	7.0-6.51	6.50-5.51	5.50-4.51	4.50-3.51	3.50 & Below
4.	High Jump (Mtr.)	Men	Above 1.50	1.50-1.46	1.45-1.30	1.30-1.16	1.15-1.01	1.00 & Below
		Women	Above 1.26	1.25-1.06	1.05-0.96	0.95-0.86	0.85-0.76	0.75 & Below
5.	800 M run (Min.) 200 M run (Min.)	Men	Below 2:25	2:25-2:34	2:35-2:44	2:45-2:69	2:75-2:99	3:00 & Below
		Women	Below 30.0	30.0-32.4	32.5-34.9	35.0-37.4	37.5-39.9	40.0 & Above

Semester II
Practicum Course
MPPC- 201 GAMES SPECIALIZATION: TRACK & FIELD / GYMNASTICS/ SWIMMING.

Jumping Events: Long Jump, Triple Jump, High Jump, Pole Vault.

- Fundamental skills –
 - Body position at the start, Use of runway, Running, Take off & Landing-starting technique, change in body position during running, movements of the arms, stride length and frequency, position of torso.
- Advanced Skills/Correction of faults: various techniques of start, Running, Take off & Landing.
- Active game practice

Note: Course contents in Gymnastics and Swimming should be chalked out internally considering availability of facilities, advance level of students, suitable to their age and gender

Semester II
Practicum Course

MPPC-202 SPORTS AND GAMES: The Candidate has choice to select any two of the following games in 2nd Semester (Cricket/Volleyball/Basketball/ Football/Handball/ Hockey/

Netball)

Note: Course contents in game or sport should be chalked out internally considering advance level of students (Teaching & Officiating) and suitable to their age and gender. Practical skill test- any one of each.

Semester II
Practicum Course

MPPC-203 ADVENTURE or LEADERSHIP CAMP/TOUR/TRAINING & SEMINAR
ADVENTURE ACTIVITIES: Trekking, Wall climbing, River crossing, Mountaineering, etc

SEMINAR: Presentation on topics of sports, yoga, wellness, health & fitness their research findings, survey of literature, development, historical or current issues.

Semester II
Practicum Course

MPPC-204 PHYSICAL FITNESS TEST:

Modified National physical fitness proficiency Test (NPPF „B’) is to be practiced and organised as per the norms/ scores prepared by the department presented below.

Semester -II : National Physical Fitness Proficiency Test Modified Norms (Battery 'B')

S. No.	Events	Sex	Performance Scores					
			14 Marks	12 Marks	10 Marks	08 Marks	07 Marks	06 Marks
1.	100 M run (Sec.)	Men	Below 12.0	12.0-12.9	13.0-13.9	14.0-14.9	15.0-15.9	16.0 & Above
		Women	Below 14.0	14.0-14.9	15.0-15.9	16.0-16.9	17.0-17.9	18.0 & Above
2.	Long Jump (Mtr.)	Men	Above 5.25	5.25-4.74	4.73-4.24	4.23-3.74	3.73-3.26	3.25 & Below
		Women	Above 4.00	4.00-3.75	3.50-4.26	3.25-3.01	3.00-2.76	2.75 & Below
3.	12 Min. Run /Walk (Mtr.)	Men	Above 2601	2600-2301	2300-2001	2000-1601	1600-1201	1200 & Below
		Women	Above 1701	1700-1501	1500-1301	1300-1101	1100-901	900 & Below
4.	Press ups /Hand Sicke (Nos)	Men	Above 35	35-30	29-25	24-15	15-06	05 & Below
		Women	Above 35	35-30	29-25	24-15	15-06	05 & Below
5.	Cricket Ball Throw (Mtr.)	Men	Above 65	35-56	55-46	45-36	35-26	25 & Below
		Women	Above 25	25-21	20-16	15-11	10-06	05 & Above