

BHARATHIAR UNIVERSITY, COIMBATORE – 641 046
UNIVERSITY DEPARTMENT
Regulations, Scheme of Examination and Syllabus for the
Master of Physical Education Course (M.P.Ed., 2019-20 onwards)
(FOUR SEMESTERS) (CBCS)

Preamble:

The Master of Physical Education (M.P.Ed) two years (Four Semesters, Choice Based Credit System) programme is a professional programme meant for preparing Physical Education Teachers for senior secondary (Class XI and XII) level as well as Assistant Professor/Directors/Sports Officers in Colleges/Universities and teacher educators in College of Physical Education.

Course objectives:

To enable the students to

- Attain wholesome development through physical education and sports
- Produce resourceful physical education teachers
- Acquire professional skills and capacities in various games and sports be familiar in the rules, regulation and their interpretation in officiating sports and games
- Become organizer in sports and games
- Study about the scientific principles from various allied subjects in the field of physical education and sports
- Understand the concepts and role of different training methods in sports
- Develop desirable health habits and social integration of sports persons

1. Intake, Eligibility and Admission Procedure:

The Intake, Eligibility and Admission Procedure is as per the NCTE norms and standards.

1.1 Eligibility

- (a) Bachelor of Physical Education (B.P.Ed.) or equivalent with at least 50 % of marks. (up to 2015-16 one year B.P.Ed)
- (b) The reservation in seats and relaxation in the qualifying marks for SC/ST/OBC/PWD and other categories shall be as per the rules of the Central Government/State Government, whichever is applicable.

1.2 Admission Procedure:

Admission shall be made on merit on the basis of marks obtained in the entrance examination (written test, skill test, interview and percentage in qualifying examination) or any other selection process as per the policy of the State Government/ Affiliating University.

1.2.1 Scheme of selection:

The selection of candidates for the M.P.Ed degree course is based on the following criteria for a grand total of 150 marks.

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|---|-----------------|
| a) Marks obtained in the Qualifying Examinations | 40 Marks |
| b) Games proficiency test in any one game(Badminton, Ball Badminton, Basketball, Cricket, Football, Handball, Hockey, Kabaddi, Kho – Kho & Volleyball, Athletics) and the games approved by AIU | 60 Marks |
| c) For Previous participation / Representation certificates | 20 Marks |
| d) Entrance written examination – objective type – Multiple choices | 30 Marks |

Grand Total	150 Marks
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**1.2.2 Guidelines Followed For Allotting Marks for Games / Sports Participation
Certificates Norms for Sports Certificate**

Sl. No	Sports Achievement	Marks
01.	Winning I, II, III place in National /State/ All India University Tournaments	20
02.	Winning I, II, III place in National sub Jr./Junior	19
03.	Winning I, II, III place in Open Rural National	18
04.	Winning I, II, III place in south zone Nationals / S.Z Inter University	17
05.	Representing south Zone in inter zone nationals All India inter university	16
06.	Representing state team Jr./ Sr./ University	15
07.	Winning I, II, III place in Senior State championship	14
08.	Winning I, II, III place in SDAT / open state championship	13
09.	Winning I, II, III place in sub Jr. / Junior state championship	12
10.	Representing District in senior state championship	11
11.	Representing district team Jr. in state championship / SDAT open championship	10
12.	Wining I, II, III place in open Inter Collegiate Physical education tournament	9
13.	Wining I, II, III place in open Inter Collegiate	8
14.	Wining I, II, III place in zone / Division Inter collegiate tournament	7
15.	Representing zone / Division Inter Collegiate tournament	6
16.	Representing College team in University Inter Collegiate / open	5

2. Duration:

The M.P.Ed programme is of a duration of two academic years, that is, Four semesters. However, the students shall be permitted to complete the programme requirements within a maximum of three years from the date of admission to the programme.

3. The CBCS System:

All programmes shall run on Choice Based Credit System (CBCS). It is an instructional package developed to suit the needs of students, to keep pace with the developments in higher education and the quality assurance expected of it in the light of liberalization and globalization in higher education.

4. Course:

The term course usually referred to, as „papers“ is a component of a programme. All courses need not carry the same weight. The courses should define learning objectives and learning outcomes. A course may be designed to comprise Lectures/Tutorials/Laboratory Work/ Field Work/ Outreach Activities/ Project Work/ Vocational Training/VIVA/ Seminars/ Term Papers/Assignments/ Presentations/ Self-Study etc. or a combination of some of these.

5. Courses of Programme:

The M.P.Ed. Programme consists of a number of courses, the term „Course“ applied to indicate a logical part of subject matter of the programme and is invariably equivalent to the subject matter of a “paper” in the conventional sense. The following are the various categories of courses suggested for the M.P.Ed. Programme.

- **Theory**
- **Core Course**
- **Elective Course**
- **Practicum**
- **Compulsory Course (Track and Field)**
- **Dissertation**
- **Teaching / Coaching Practices**
- **Internship**

6. Semesters:

An academic year is divided into two semesters. Each semester will consist of 17-20 weeks of academic work equivalent to 100 actual teaching days. The odd semester may be scheduled from July to December and even semester from December to May. The institution shall work for a minimum of 36 working hours in a week (five or six days a week).

7. Working days:

There shall be at least 200 working days per year exclusive of admission and examination processes etc.

8. Credits:

The term 'Credit' refers to a unit by which the programme is measured. It determines the number of hours of instructions required per week. One credit is equivalent to one hour of teaching (lecture or tutorial) or one and half / two hours of practical work/field work per week. The term „Credit“ refers to the weight given to a course, usually in relation to the instructional hours assigned to it. The total minimum credits, required for completing M.P.Ed. Programme is 90 credits and for each semester 20 credits.

9. Evaluation:

The performance of a student in each course is evaluated in terms of percentage of marks with a provision for conversion to grade point. Evaluation for each course shall be done by a continuous internal assessment (CIA) by the concerned course teacher as well as by end semester examination and will be consolidated at the end of course. The components for continuous internal assessment are;

Best two out of three tests	20 Marks
Assignments / Seminar	5 Marks
Total	25 Marks

The students should have minimum 75% attendance in each course. In addition to continuous evaluation component, the end semester examination, which will be written type examination of at least 3 hours duration, would also form an integral component of the evaluation. The ratio of marks to be allotted to continuous internal assessment and to end semester examination is 25:75. The evaluation of practical work, wherever applicable, will also be based on continuous internal assessment and on an **end**-semester practical examination.

10. Condonation

Student must have 75% of attendance in each course for appearing the examination. Students who have 74% to 65% of attendance shall apply for condonation in the prescribed form with the prescribed fee. Students who have 64% to 50% of attendance shall apply for condonation in prescribed form with the prescribed fee along with the medical certificate. Students who have below 50% of attendance are not eligible to appear for the examination.

11. Grading:

As per Bharathiar University grading system.

12. Classification of Final Results:

For the purpose of declaring a candidate to have qualified for the Degree of Master of Physical Education in the First class / Second Class / Pass Class or First Class with Distinction, the marks and the corresponding CGPA earned by the candidate in Core Courses will be the criterion. It is further provided that the candidate should have scored the First / Second Class separately in both the grand total and end Semester (External) examinations.

13. Grievance Redressal Committee:

The department shall form a Grievance Redressal Committee for each course in each department with the course teacher / Director and the HOD of the faculty as the members. This Committee shall solve all grievances of the students.

14. Revision of syllabi

Syllabi of every course will be revised according to the regulation of the NCTE.

15. Award of the M.P.Ed Degree

A candidate shall be eligible for the award of the degree of M.P.Ed. Only if he/she has earned the minimum required credit including bonus 90 credits of the programme prescribed above. i.e. not less than 50% of mark.

COURSE SCHEME AND SCHEME OF EXAMINATIONS

Semester- I

Part A: Theoretical course						
Course code	Title of the papers	Weekly contact Hour	Credit	Internal marks	External marks	Total marks
Core Course						
MPCC- 101	Health Education and Sports Nutrition	4	4	25	75	100
MPCC- 102	Tests, Measurement and evaluation in physical Education	4	4	25	75	100
MPCC- 103	Sports management and curriculum design	4	4	25	75	100
Elective Course (Anyone)						
MPEC-101	Value and Environmental Education					
MPEC-102	Sports Technology	4	4	25	75	100
	Supportive	2	2	12	38	50
Part-B: Practical Course						
MPPC-101	Track and Field 1. Running Events	6	4	25	75	100
MPPC-102	Laboratory Practical Test and Measurement	6	4	25	75	100
MPPC-103	Yoga	6	4	25	75	100
MPPC-104	Game of Specialization- 1	6	4	25	75	100
Total		42	34	212	638	850

Semester- II

Part A: Theoretical course						
Course code	Title of the papers	Weekly contact Hour	Credit	Internal marks	External marks	Total marks
Core Course						
MPCC-201	Scientific Principles of Sports Training Sports	4	4	25	75	100
MPCC-202	Exercise physiology	4	4	25	75	100
MPCC-203	Theories of sports and games	4	4	25	75	100
Elective Course (Anyone)						
MPEC-201	Athletic Care and Rehabilitation	4	4	25	75	100
MPEC-202	Physical fitness and wellness					
	Supportive	2	2	12	38	50
Part-B: Practical Course						
MPPC-201	Track and Field II: Jumping events and Hurdles	6	4	25	75	100
MPPC-202	Games of specialization -1 Teaching and Coaching	6	4	25	75	100
MPPC-203	Laboratory Practical: Exercise Physiology	6	4	25	75	100
MPPC-204	Class room Teaching lessons on theory of different sports and Games- 5 Lessons (4 internal & 1 External)	6	4	25	75	100
Total		42	34	212	638	850

Semester- III

Part A: Theoretical course						
Course code	Title of the papers	Weekly contact Hour	Credit	Internal marks	External marks	Total marks
Core Course						
MPCC-301	Research process in physical education	4	4	25	75	100
MPCC-302	Applied statistics in physical education	4	4	25	75	100
MPCC-303	Sports Medicine	4	4	25	75	100
Elective Course (Anyone)						
MPEC-301	Sports journalism and mass media	4	4	25	75	100
MPEC-302	Information and communication Technology in physical Education					
	Supportive	2	2	12	38	50
Part-B: Practical Course						
MPPC-301	Track and Field III: Throwing events	6	4	25	75	100
MPPC-302	Games of specialization -2	6	4	25	75	100
MPPC-303	Laboratory Practical: Sports Medicine	6	4	25	75	100
MPPC-304	Internship: Project Meet, Inter department tournament, Industrial visit	6	4	25	75	100
Total		42	34	212	638	850

Semester- IV

Note: Total number of hours required to earn 4 credits for each theory course are 51- 60

Part A: Theoretical course						
Course code	Title of the papers	Weekly contact Hour	Credit	Internal marks	External marks	Total marks
Core Course						
MPCC-401	Sports biomechanics and kinesiology	4	4	25	75	100
MPCC-402	Sports psychology & Sports sociology	4	4	25	75	100
MPCC-403	Yogic sciences	4	4	25	75	100
MPCC-404	Dissertation			25	75	100
Elective Course (Anyone)						
MPEC-401	Sports engineering	4	4	25	75	100
MPEC-402	Education Technology in physical Education					
Part-B: Practical Course						
MPPC-401	Track and Field III: Combined events	6	4	25	75	100
MPPC-402	Games of specialization -2	6	4	25	75	100
MPPC-403	Laboratory Practical: Biomechanics kinesiology and sports psychology	6	4	25	75	100
MPPC-404	Officiating lessons of sports & game specialization	6	4	25	75	100
Total		40	32	225	675	900
		166	134	861	2589	3450

hours per semester whereas 102-120 hours for each Practicum Course.

SEMESTER- I

paper	Subject	Internal	External	Total marks
Core Course				
MPCC-101	Health Education and Sports Nutrition	25	75	100
MPCC-102	Tests, Measurement and evaluation in physical education	25	75	100
MPCC-103	Sports management and curriculum design	25	75	100
Elective Course (Anyone)				
MPEC-101	Value and Environmental Education	25	75	100
MPEC-102	Sports Technology			
	Supportive	12	38	50
Practical Course				
MPPC-101	Track and Field 1. Running Events	25	75	100
MPPC-102	Laboratory Practical Test and Measurement	25	75	100
MPPC-103	Yoga	25	75	100
MPPC-104	Game of Specialization-1	25	75	100
Total		212	638	850

SEMESTER – II

paper	Subject	Internal	External	Total marks
Core Course				
MPCC-201	Scientific Principles of Sports Training Sports	25	75	100
MPCC-202	Exercise physiology	25	75	100
MPCC-203	Theories of sports and games	25	75	100
Elective Course (Anyone)				
MPEC-201	Athletic Care and Rehabilitation	25	75	100
MPEC-202	Physical fitness and wellness			
	Supportive	12	38	50
Practical Course				
MPPC-201	Track and Field II: Jumping events and Hurdles	25	75	100
MPPC-202	Games of specialization -1 Teaching and Coaching	25	75	100
MPPC-203	Laboratory Practical: Exercise Physiology	25	75	100
MPPC-204	Class room Teaching lessons on theory of different sports and Games- 5 Lessons (4 internal & 1 External)	25	75	100
Total		212	638	850

SEMESTER – III

paper	Subject	Internal	External	Total marks
Core Course				
MPCC-301	Research process in physical education	25	75	100
MPCC-302	Applied statistics in physical education	25	75	100
MPCC-303	Sports Medicine	25	75	100
Elective Course (Anyone)				
MPEC-301	Sports journalism and mass media	25	75	100
MPEC-302	Information and communication Technology in physical education			
	Supportive	12	38	50
Practical Course				
MPPC-301	Track and Field III: Throwing events	25	75	100
MPPC-302	Games of specialization -2 (Any one game)	25	75	100
MPPC-303	Laboratory Practical: Sports Medicine	25	75	100
MPPC-304	Internship: Project Meet, Inter department tournament, Industrial visit	25	75	100
Total		212	638	850

SEMESTER - IV

paper	Subject	Internal	External	Total marks
Core Course				
MPCC-401	Sports biomechanics and kinesiology	25	75	100
MPCC-402	Sports psychology and Sports Sociology	25	75	100
MPCC-403	Yogic sciences	25	75	100
MPCC-404	Dissertation	25	75	100
Elective Course (Anyone)				
MPEC-401	Sports engineering	25	75	100
MPEC-402	Education Technology in Physical Education			
Practical Course				
MPPC-401	Track and Field III: Combined events	25	75	100
MPPC-402	Games of specialization -2	25	75	100
MPPC-403	Laboratory Practical: Biomechanics kinesiology and sports psychology	25	75	100
MPPC-404	Officiating lessons of sports & game specialization	25	75	100
Total		225	675	900
		861	2589	3450

Note: Total number of hours required to earn 3 credits for each theory course are 51-60 hours per semester whereas 102-120 hours for each Practicum Course.

Semester I Theory Courses

MPCC-101 HEALTH EDUCATION AND SPORTS NURTITION

Unit - I Health Education

Concept, Dimensions, Spectrum and Determinants of Health
Definition of Health, Health Education, Health Instruction, Health Supervision
Aim, objective and Principles of Health Education
Health Service and guidance instruction in personal hygiene

Unit - II Health Problems in India

Communicable and Non Communicable Diseases
Obesity, Malnutrition, Adulteration in food, Environmental sanitation,
Explosive, Population, Personal and Environmental Hygiene for schools
Objective of school health service, Role of health education in schools
Health Services - Care of skin, Nails, Eye health service, Nutritional service,
Health appraisal, Health record, Healthful school environment, first- aid and
emergency care etc.

Unit- III – Hygiene and Health

Meaning of Hygiene, Type of Hygiene, Dental Hygiene, Effect of Alcohol on
Health, Effect of Tobacco on Health, Life Style Management, Management of
Hypertension, Management of Obesity, Management of Stress

Unit – IV- Introduction to Sports Nutrition

Meaning and Definition of Sports Nutrition, Role of nutrition in sports, Basic
Nutrition guidelines, Nutrients: Ingestion to energy metabolism (Carbohydrate,
Protein and Fat), Role of carbohydrates, Fat and protein during exercise,
Vitamins, minerals and water.

Unit – V Nutrition and Weight Management

Concept of BMI (Body mass index), Obesity and its hazard, Dieting
versus exercise for weight control Maintaining a Healthy Lifestyle, Weight
management program for sporty child, Role diet and exercise in weight
management, Design diet plan and exercise schedule for weight gain and
loss.

References:

1. Bucher, Charles A. "**Administration of Health and Physical Education Programme**".
2. Delbert, Oberteuffer, et. al. "**The School Health Education**". Ghosh, B.N. "Treaties of Hygiene and Public Health". Hanlon, John J. "**Principles of Public Health Administration**" 2003. Turner, C.E. "The School Health and Health Education".
3. Moss and et. At. "Health Education" (National Education Association of U.T.A.) Nemir A. "**The School Health Education**" (Harber and Brothers, New York). Nutrition Encyclopedia, edited by Delores C.S. James, the Gale Group, Inc.
4. Boyd-Eaton S. et al (1989) The Stone Age Health Programme: **Diet and Exercise as Nature Intended.**

5. Angus and Robertson. Terras S. (1994) Stress, How Your Diet can Help: **The Practical Guide to Positive Health Using Diet, Vitamins, Minerals, Herbs and Amino Acids, Thorons.**

MPCC-102 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, Rogers' physical fitness Index. Cardiovascular 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, 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 Sports 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: Johnson Soccer Test, Mc-Donald Volley Soccer Test.
Tennis: Dyer Tennis Test.

REFERENCES :

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

MPCC-103 SPORTS MANAGEMENT AND CURRICULUM DESIGN IN PHYSICAL EDUCATION

UNIT I – INTRODUCTION TO SPORTS MANAGEMENT

Definition, Importance. Basic Principles and Procedures of Sports Management. Functions of Sports Management. Personal Management: Objectives of Personal Management, Personal Policies, Role of Personal Manager in an organization, Personnel recruitment and selection.

UNIT II – PROGRAM MANAGEMENT

Importance of Programme development and the role of management, Factors Influencing programme development. Steps in programme development, Competitive Sports Programs, Benefits, Management Guidelines for School, Colleges Sports Programs, Management Problems in instruction programme, Community Based Physical Education and Sports program.

UNIT III – EQUIPMENTS AND PUBLIC RELATION

Purchase and Care of Supplies of Equipment, Guidelines for selection of Equipments and Supplies, Purchase of equipments and supplies, Equipment Room, Equipment and supply Manager. Guidelines for checking, storing, issuing, care and

maintenance of supplies and equipments. Public Relations in Sports: Planning the Public Relation Program – Principles of Public Relation – Public Relations in School and Communities – Public Relation and the Media.

UNIT IV – CURRICULUM

Meaning and Definition of Curriculum. Principles of Curriculum Construction: Students centred, Activity centred, Community centred, Forward looking principle, Principles of integration, Theories of curriculum development, Conservative (Preservation of Culture), Relevance, flexibility, quality, contextually and plurality. Approaches to Curriculum; Subject centred, Learner centred and Community centred, Curriculum Framework.

UNIT V – CURRICULUM SOURCES

Factors that affecting curriculum: Sources of Curriculum materials – text books – Journals – Dictionaries, Encyclopaedias, Magazines, Internet. Integration of Physical Education with other Sports Sciences – Curriculum research, Objectives of Curriculum research – Importance of Curriculum research. Evaluation of Curriculum, Methods of evaluation.

Reference:

1. Aggarwal, J.C (1990). **Curriculum Reform in India** – World overviews, Doaba World Education Series – 3 Delhi: Doaba House, Book seller and Publisher.
2. Arora, G.L. (1984): Reflections on Curriculum, New Delhi: NCERT.
3. Bonnie, L. (1991). **The Management of Sports**. St. Louis: Mosby Publishing Company, Park House.
4. Bucher A. Charles, (1993) **Management of Physical Education and Sports** (10th ed.,) St.Louis: Mobsy Publishing Company.
5. Carl, E, Willgoose. (1982. Curriculum in Physical Education, London: Prentice Hall.
6. Chakraborty & Samiran. (1998). Sports Management. New Delhi: Sports Publication.
7. Charles, A, Bucher & March, L, Krotee. (1993). Management of Physical Education and Sports. St. Louis: Mosby Publishing Company.
8. Chelladurai, P. (1999). Human Resources Management in Sports and Recreation. Human Kinetics.
9. John, E, Nixon & Ann, E, Jewett. (1964). Physical Education Curriculum, New York: The Ronald Press Company.
10. McKernan, James (2007) Curriculum and Imagination: Process, Theory, Pedagogy and Action Research., U.K. Routledge
11. NCERT (2000). National Curriculum Framework for School Education, New Delhi: NCERT.
12. NCERT (2000). National Curriculum Framework for School Education, New Delhi: NCERT.
13. NCERT (2005). National Curriculum Framework, New Delhi: NCERT. NCERT (2005). National Curriculum Framework-2005, New Delhi: NCERT. Williams, J.F. (2003). Principles of Physical Education. Meerut: College Book House. Yadvnider Singh. Sports Management, New Delhi: Lakshay Publication.

MPEC-101 VALUE AND ENVIRONMENTAL EDUCATION (Elective)

UNIT I – Introduction to Value Education.

Values: Meaning, Definition, Concepts of Values. Value Education: Need, Importance and Objectives. Moral Values: Need and Theories of Values. Classification of Values: Basic Values of Religion, Classification of Values.

UNIT II – VALUE SYSTEMS

Meaning and Definition, Personal and Communal Values, Consistency, Internally consistent, internally inconsistent, Judging Value System, Commitment, Commitment to values.

Unit III – ENVIRONMENTAL EDUCATION

Definition, Scope, Need and Importance of environmental studies., Concept of environmental education, Historical background of environmental education, Celebration of various days in relation with environment, Plastic recycling & prohibition of plastic bag / cover, Role of school in environmental conservation and sustainable development, Pollution free eco-system.

Unit IV RURAL SANITATION AND URBAN HEALTH

Rural Health Problems, Causes of Rural Health Problems, Points to be kept in Mind for improvement of Rural Sanitation, Urban Health Problems, Process of Urban Health, Services of Urban Area, Suggested Education Activity, Services on Urban Slum Area, Sanitation at Fairs & Festivals, Mass Education.

Unit V NATURAL RESOURCES AND RELATED ENVIRONMENTAL ISSUES:

Water resources, food resources and Land resources, Definition, effects and control measures of: Air Pollution, Water Pollution, Soil Pollution, Noise Pollution, Thermal Pollution Management of environment and Govt. policies, Role of pollution control board.

REFERENCE:

1. Miller T.G. Jr., Environmental Science (Wadsworth PublishingCo.)
2. Odum, E.P. Fundamentals of Ecology (U.S.A.: W.B. Saunders Co.)1971.
3. Rao, M.N. & Datta, A.K. Waste Water Treatment (Oxford & IBH Publication Co. Pvt. Ltd.)
4. 1987 Townsend C. and others, Essentials of Ecology (Black well Science)
5. Heywood, V.H. and Watson V.M., Global biodiversity Assessment (U.K.: Cambridge University Press), 1995.
6. Jadhav, H. and Bhosale, V.M. Environmental Protection and Laws (Delhi: Himalaya Pub. House), 1995.
7. Mc Kinney, M.L. and Schoel, R.M. Environmental Science System and Solution
8. (Web enhanced Ed.) 1996.
9. Miller T.G. Jr., Environmental Science (Wadsworth Publishing Co.)

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, nano moulding 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: JaicoPublisher.

John Mongilo, (2001), “Nano Technology 101 “New York: Green wood publishing group. Walia, J.S. Principles and Methods of Education (Paul Publishers, Jullandhar), 1999.

Kochar, S.K. Methods and Techniques of Teaching (New Delhi, Jullandhar, Sterling Publishers Pvt. Ltd.)

PRACTICAL COURSE I SEMESTER

MPPC-101 TRACK AND FIELD

RUNNING

- Fundamental skills –Short and Middle distance.
- Use of Starting blocks- stance on the blocks.
- Body position at the start- starting technique, change in body position during running, movements of the arms, stride length and frequency, position of torso while running and at finish.
- Advanced Skills
- Various techniques of sprint start: Bullet start, standing start ,
- Active game practice

MPPC- 102 Laboratory Practical: Test and Measurement

Oregon motor fitness test, JCR test , Barrow motor test, Krus weber test

AAHPERD health related test ,Rogers test, Harvard step test , copper 12 minutes test

Johnson basketball test, Russal Launge volley ball test , Friendel field hockey test, Dyer tennis test, MC-Donald soccer test.

MPPC - 103 YOGA

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

MPPC-104 GAME OF SPECIALIZATION - 1

The Candidate has choice to select any one of the following games as the Specialization – I (Second best) in 2nd Semester.

(Kabaddi, Kho-kho, Badminton/ Table Tennis/ Tennis/ Squash/ Baseball/ Volleyball/ Basketball/ Cricket/ football/ Handball/ Hockey/ Netball/ Softball)

Semester II
Theory Courses

MPCC-201 SCIENTIFIC PRINCIPLES OF SPORTS TRAINING

UNIT I – Introduction

Sports training: Definition – Aim, Characteristics, Principles of Sports Training, Over Load:

Definition, Causes of Over Load, Symptoms of Overload, Remedial Measures – Super

Compensation – Altitude Training – Cross Training

UNIT II – Components of Physical Fitness

Strength: Methods to improve Strength: Weight Training, Isometric, Isotonic, Circuit Training, Speed: Methods to Develop Speed: Repetition Method, Downhill Run, Parachute Running, Wind Sprints, Endurance, Methods to Improve Endurance: Continuous Method, Interval Method, Repetition Method, Cross Country, Fartlek Training

UNIT III – Flexibility

Flexibility: Methods to Improve the Flexibility- Stretch and Hold Method, Ballistic Method, Special Type Training: Plyometric Training. Training for Coordinative abilities: Methods to improve Coordinative abilities: Sensory Method, Variation in Movement Execution Method, Variation in External Condition Method, Combination of Movement Method, Types of Stretching Exercises.

UNIT IV – Training Plan

Training Plan: Macro Cycle, Meso-Cycle. Short Term Plan and Long Term Plans - Periodisation: Meaning, Single, Double and Multiple Periodisation, Preparatory Period, Competition Period and Transition Period.

UNIT V – Doping

Definition of Doping – Side effects of drugs – Dietary supplements – IOC list of doping classes and methods. Blood Doping – The use of erythropoietin in blood boosting – Blood doping control – The testing programmes – Problems in drug detection – Blood testing in doping control – Problems with the supply of medicines Subject to IOC regulations : over- the- counter drugs (OTC) – prescription only medicines (POMs) – Controlled drugs (CDs). Reporting test results – Education

REFERENCES :

1. Beotra Alka, (2000), Drug Education Handbook on Drug Abuse in Sports. Delhi:Sports Authority of India.
2. Bunn, J.N. (1998) Scientific Principles of Coaching, New Jersey Engle Wood Cliffs, PrenticeHall Inc.
3. Cart, E. Klafs & Daniel, D. Arnheim (1999) Modern Principles of Athletic Training
4. St. Louis C.V. Mosphy Company
5. Daniel, D.Arnheim (1991) Principles of Athletic Training, St. Luis, MosbyYear Book
6. David R. Mottram (1996) Drugs in Sport, School of Pharmacy, Liverpool: John MooreUniversity
7. Gary, T. Moran (1997) – Cross Training for Sports, Canada : HumanKinetics

8. Hardayal Singh (1991) Science of Sports Training, New Delhi, DVS Publications
9. Jensen, C.R. & Fisher A.G. (2000) Scientific Basic of Athletic Conditioning, Philadelphia
10. Ronald, P. Pfeiffer (1998) Concepts of Athletics Training 2nd Edition, London: Jones and Bartlett Publications
11. Yograj Thani (2003), Sports Training, Delhi : Sports Publications

MPCC-202

EXERCISE PHYSIOLOGY

UNIT I – Skeletal Muscles and Exercise

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 Cardio vascular 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.

REFERENCES:

- Amrit Kumar, R, Moses. (1995). Introduction to Exercise Physiology. Madras: Poompugar 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). Elementar y P hysiology. Hyderabad: Sports Publication.
- William, D. Mc Aradle. (1996). Exercise P hysiology, Energy, Nutrition and Human Performance. Philadelphia: Lippincott Williams and Wilkins Company.

MPCC-203 THEORIES OF SPORTS AND GAMES

(Specialization of Major Games and Track & Field)

UNIT – I

Introduction - Origin and development of the game - Recent status of the game in India - comparative study of Techniques adopted by Nations leading in the game, various Tournaments -Inter - National – National - State - District level-Development of the rules of the games.

UNIT –II

Fundamental skills -List of skills related to attack and defense - teaching procedure for each skill - thorough analysis of each skill in relation to Mechanical Principles. Specific exercises for each skill various drills related to the fundamental skills Lead - up games.

UNIT – III

Team Tactics - Different system of play related to attack and defense – Training methods to develop term tactics. Coaching plan - preparation of Training schedules. Warm - up and conditioning exercise - skill Training.

UNIT – IV

Rules of the game - current interpretations - new changes in the game. Evaluation of skills of the players - skill tests - Evaluation of the performance of the players - Judges rating - Preparation of profiles for Players.

UNIT – V

Rules of the Field events - combined , new changes in the Field events. Evaluation of skills of the Athletes - skill tests - Evaluation of the performance of the Athletes - Selection - Preparation & Coaching for Athletic events.

Reference Books:

01. Willi D.Daythn. "Athletic Training and Conditioning".
02. Ronald P. Pfeisfes, Brent C. Mangus (1998) concepts or Athletic training. Second Jones and Baltlett publishes
03. Jery Colangelo (1999) How you play the game Amacom, American Management Association.
04. Malcom cook & Nick white head (2001) soccer training sixth edition A&C black ublished.
05. Balagan.D. (2005) play & learn throwing with latest rules . khel sathiya Kendra published
06. Marcel gauschi (1978) tennis playing , training and winning.
07. Jim Pruitt (1982) play better Basketball . An Illustrated Guide to winning techniques and strategies for players and coaches .
08. Dubey H.C. (1999) DPH sports series hockey . first edition. Discovery publishing house.
09. Mike douchant, foreword by dick vitale (1995) Encyclopedia or college basketball. Published by visible ink press tm A division or gale research.

MPEC-201 ATHLETIC CARE AND REHABILITATION – (Elective)

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 bed posture. Posture test – Examination of the spine.

Unit II – Posture

Normal curve of the spine and its utility, Deviations in posture: Hypnosis, 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 , effects of massage – Indication / Contra indication of Massage – Classification of the manipulation used in massage and their specific uses in the human body – Stroking manipulation: Effleurage – Pressure manipulation: Petri sage 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 applying 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. Lace, 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 course

MPEC-202 PHYSICAL FITNESS AND WELLNESS (Elective)

Unit I – Introduction

Meaning and Definition" of Physical Fitness, Physical Fitness Concepts and Techniques,

Principles of physical fitness, Physiological principles involved in human movement. Components of Physical Fitness. Leisure time physical activity and identify opportunities in the community to participate in this activity. Current trends in fitness and conditioning, components of total health fitness and the relationship between physical activity and lifelong wellness.

Unit II – Nutrition

Nutrients; Nutrition labelling information, Food Choices, Food Guide Pyramid, Influences on food choices-social, economic, cultural, food sources, Comparison of food values. Weight Management-proper practices to maintain, lose and gain. Eating Disorders, Proper hydration, the effects of performance enhancement drugs, Carbohydrates, fats, minerals, proteins.

Unit III – Aerobic Exercise

Cardio respiratory Endurance Training; proper movement forms, i.e., correct stride, arm movements, body alignment; proper warm-up, cool down, and stretching, monitoring heart rates during activity. Assessment of cardio respiratory fitness and set goals to maintain or improve fitness levels. Cardio respiratory activities including i.e. power walking, pacer test, interval training, incline running, distance running, aerobics and circuits.

Unit IV – Anaerobic Exercise

Resistance Training for Muscular Strength and Endurance; principles of resistance

training, Safety techniques (spotting, proper body alignment, lifting techniques, spatial, awareness. and proper breathing techniques). Weight training principles and concepts; basic resistance exercises (including free hand exercise, free weight exercise, weight machines, exercise bands and tubing, medicine balls, fit balls) Advanced techniques of weight training

Unit V – Flexibility Exercise

Flexibility Training, Relaxation Techniques and Core Training. Safety techniques (stretching protocol; breathing and relaxation techniques) types of flexibility exercises (i.e. dynamic, static), Develop basic competency in relaxation and breathing techniques. Pilates, Yoga, PNF

Reference

- David K. Miller & T. Earl Allen, Fitness, A life time commitment, Surjeet Publication Delhi 1989.
- Dificore Judy, the complete guide to the postnatal fitness, A & C Black Publishers Ltd. 35 Bedford row, London 1998
- Dr. A.K. Uppal, Physical Fitness, Friends Publications (India), 1992. Warner W.K. Oeger & Sharon A. Hoeger, Fitness and Wellness, Morton Publishing Company, 1990.
- Elizabeth & Ken day, Sports fitness for women, B.T. Batsford Ltd, London, 1986.
- Emily R. Foster, Karyn Hartiger & Katherine A. Smith, Fitness Fun, Human Kinetics Publishers 2002.
- Lawrence, Debbie, Exercise to Music. A & C Black Publishers Ltd. 37, Sohe Square, London 1999
- Robert Malt. 90 day fitness plan, D.K. publishing, Inc. 95, Madison Avenue, New York 2001

Practical Course Semester II

MPPC- 201 TRACK AND FIELD II: JUMPING EVENTS AND HURDLES

(Course contents in jumping events and hurdles should be chalked out internally considering advance level of students and suitable to their age and gender).

MPPC-202 GAMES OF SPECIALIZATION- I Teaching and Coaching

The Candidate has choice to select any one of the following games as the Specialization – I (Second best) in 2nd Semester.

(Kabaddi, Kho-kho, Badminton/ Table Tennis/ Tennis/ Squash/ Baseball/ Volleyball/ Basketball/ Cricket/ football/ Handball/ Hockey/ Netball/ Softball)

MPPC-203 Laboratory Practical: Exercise physiology Physiological parameters:

Pulse rate, systolic Blood Pressure, Diastolic Blood Pressure, Rate of Breathing, Peak expiratory Rate, Vital capacity, Maximal Oxygen Consumption, Anaerobic Capacity, Aerobic Capacity, Basal Metabolic Rate (B.M.R), Percent of Body Fat, Weight of the Fat, Learn Body Mass, Bone Density.

**MPPC-204 CLASS ROOM TEACHING
(LESSONS ON THEORY OF DIFFERENT SPORTS & GAMES-5)
Lessons (4 internal & 1 External)**

The students of M.P.Ed – II Semester need to develop proficiency in taking teaching Lessons as per selected games and sport or game specialization. In view of this, the students shall be provided with selected or specialized game 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 time 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 second 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 teaching lessons, the duration should slowly increase and all the parts of the lesson covered progressively.

**SEMESTER III
Theory Course**

MPCC-301

**RESEARCH PROCESS IN PHYSICAL EDUCATION AND SPORTS
SCIENCES**

UNIT I –Introduction

Meaning and Definition of Research – Need, Nature and Scope of research in Physical Education. Classification of Research, Location of Research Problem, Criteria for selection of a problem, Qualities of a good researcher.

UNIT II – Methods of Research

Descriptive Methods of Research; Survey Study, Case study, Introduction of Historical Research, Steps in Historical Research, Sources of Historical Research: Primary Data and Secondary Data, Historical Criticism: Internal Criticism and External Criticism.

UNIT III – Experimental Research

Experimental Research – Meaning, Nature and Importance, Meaning of Variable, Types of Variables. Experimental Design - Single Group Design, Reverse Group Design, Repeated Measure Design, Static Group Comparison Design, Equated Group Design, Factorial Design.

UNIT IV – Sampling

Meaning and Definition of Sample and Population. Types of Sampling; Probability Methods; Systematic Sampling, Cluster sampling, Stratified Sampling. Area Sampling – Multistage Sampling. Non- Probability Methods; Convenience Sample, Judgement Sampling, Quota Sampling.

UNIT V – Research Proposal and Report

Characterization of Thesis / Dissertation, Front Materials, Body of Thesis – Back materials. Method of Writing Research proposal, Thesis / Dissertation; Method of writing abstract and full paper for presenting in a conference and to publish in journals, Mechanics of writing Research Report, Footnote and Bibliography writing.

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.
- Craig Williams and Chris Wragg (2006) Data Analysis and Research for Sport and Exercise Science, London; Routledge Press
- Jerry R Thomas & Jack K Nelson (2000) Research Methods in Physical Activities; Illinois; Human Kinetics;
- Kamlesh, M. L. (1999) Research Methodology in Physical Education and Sports, New Delhi
- Moses, A. K. (1995) Thesis Writing Format, Chennai; Poompugar Pathippagam

MPCC-302 APPLIED STATISTICS IN PHYSICAL EDUCATION AND SPORTS

UNIT I – Introduction

Meaning and Definition of Statistics. Function, need and importance of Statistics. Types of Statistics. Meaning of the terms, Population, Sample, Data, types of data. Variables; Discrete, Continuous. Parametric and non-parametric statistics.

UNIT II – Data Classification, Tabulation and Measures of Central Tendency

Meaning, uses and construction of frequency table. Meaning, Purpose, Calculation and advantages of Measures of central tendency – Mean, median and mode.

UNIT III – Measures of Dispersions and Scales

Meaning, Purpose, Calculation and advances of Range, Quartile, Deviation, Mean Deviation, Standard Deviation, probable Error. Meaning, purpose, calculation and advantages of scoring scales; Sigma scale, Z Scale, Hull scale

UNIT IV – Probability Distributions and Graphs

Normal Curve. Meaning of probability- Principles of normal curve – Properties of normal curve. Divergence from normality – Skewness and Kurtosis. Graphical Representation in Statistics; Line diagram, Bar diagram, Histogram, Frequency Polygon, Ogive Curve.

UNIT V – Inferential and Comparative Statistics

Tests of significance; Independent “t” test, Dependent “t” test – chi – square test, level of confidence and interpretation of data. Meaning of correlation – co-efficient of correlation – calculation of co-efficient of correlation by the product moment method and rank difference method. Concept of ANOVA and ANCOVA.

Note : It is recommended that the theory topics be accompanied with practical, based on computer software of statistics.

REFERENCE

- Best J. W (1971) Research in Education, New Jersey; Prentice Hall, Inc
- Clark D.H. (1999) Research Problem in Physical Education 2nd edition, Eaglewood Cliffs, Prentice Hall, Inc.
- Jerry R Thomas & Jack K Nelson (2000) Research Methods in Physical Activities; Illonosis;
Human Kinetics;
- Kamlesh, M. L. (1999) Reserach Methodology in Physical Education and Sports, New Delhi
- Rothstain A (1985) Research Design and Statistics for Physical Education, Englewood Cliffs: Prentice Hall, Inc
- Sivaramakrishnan. S. (2006) Statistics for Physical Education, Delhi; Friends Publication
- Thirumalaisamy (1998), Statistics in Physical Education, Karaikudi, Senthilkumar Publications.
- Rothstain, A (1985) Research Design and Statistics for Physical Education, EnglewoodCliffs: Prentice Hall, Inc
- Subramanian, R, Thirumalai Kumar S & Arumugam C (2010) Research Methods in Health, Physical Education and Sports, New Delhi; Friends Publication
- Moorthy A. M. Research Processes in Physical Education (2010); Friend Publication, NewDelhi

MPCC-303 SPORTS MEDICINE

UNIT I – Introduction

Meaning, definition and importance of Sports Medicine, Definition and Principles of therapeutic exercises. Coordination exercise, Balance training exercise, Strengthening exercise, Mobilization exercise, Gait training, Gym ball exercise Injuries: acute, sub-acute, chronic. Advantages and Disadvantages of PRICE, PRINCE therapy, Aquatic therapy.

UNIT II – Basic Rehabilitation

Basic Rehabilitation: Strapping/Tapping: Definition, Principles Precautions Contraindications. Proprioceptive neuromuscular facilitation: Definition hold, relax, repeated contractions. Show reversal technique exercises. Isotonic, Isokinetic, isometric stretching. Definition. Types of stretching, Advantages, dangers of stretching, Manual muscle grading.

UNIT III – Spine Injuries and Exercise

Head, Neck and Spine injuries: Causes, Presentational of Spinal anomalies, Flexion, Compression, Hyperextension, Rotation injuries. Spinal range of motion. Free hand exercises, stretching and strengthening exercise for head neck, spine. Supporting and aiding techniques and equipment for Head, Neck and Spine injuries.

UNIT IV – Upper Extremity Injuries and Exercise

Upper Limb and Thorax Injuries: Shoulder: Sprain, Strain, Dislocation, and Strapping. Elbow: Sprain, Strain, Strapping. Wrist and Fingers: Sprain Strain, Strapping. Thorax, Rib fracture. Breathing exercises, Relaxation techniques, Free hand exercise,

Stretching and strengthening exercise for shoulder, Elbow, Wrist and Hand. Supporting and aiding techniques and equipment for Upper Limb and Thorax Injuries.

UNIT V – Lower Extremity Injuries and Exercise

Lower Limb and Abdomen Injuries: Hip: Adductor strain, Dislocation, Strapping. Knee: Sprain, Strain, Strain, Strapping. Ankle: Sprain, Strain, Strapping. Abdomen: Abdominal wall, Contusion, Abdominal muscle strain. Free exercises – Stretching and strengthening exercise for Hip, knee, ankle and Foot. Supporting and aiding techniques and equipment for Lower limb and Abdomen injuries.

Practicals: Lab. Practicals and visit to Physiotherapy Centre to observe treatment procedure of sports injuries; data collection of sports injury incidences, Visit to TV Centre etc. should be planned internally.,

REFERENCES:

- Christopher M. Norris. (1993). Sports Injuries Diagnosis and Management for Physiotherapists. East Kilbride: Thomson Litho Ltd.
- James, A. Gould & George J. Davies. (1985). Physical Physical Therapy. Toronto: C.V. Mosby Company.
- Morris B. Million (1984) Sports Injuries and Athletic Problem. New Delhi: Surjeet Publication.
- Pande. (1998). Sports Medicine. New delhi: Khel Shitya Kendra
- The Encyclopedia of Sports Medicine. (1998). The Olympic Book of Sports Medicine, Australia: Tittel Blackwell Scientific publications.
- Practical: Anthropometric Measurements,

MPEC-301 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: SurjeetPublication
- 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
- Mohit Chakrabarti (2008): Value Education: Changing Perspective, New Delhi: KanishkaPublication,.
- Padmanabhan. A & Perumal A (2009), Science and Art of Living, Madurai: PakavathiPublication
- Shiv Khera (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

MPEC-302 INFORMATION & COMMUNICATION TECHNOLOGY (ICT) IN PHYSICAL EDUCATION

Unit I – Communication & Classroom Interaction

Concept, Elements, Process & Types of Communication, Communication Barriers & Facilitators of communication, Communicative skills of English - Listening, Speaking, Reading & Writing Concept & Importance of ICT, Need of ICT in Education, Scope of ICT: Teaching Learning Process, Publication Evaluation, Research and Administration Challenges in Integrating ICT in Physical Education.

Unit II – Fundamentals of Computers

Characteristics, Types & Applications of Computers, Hardware of Computer: Input, Output & Storage Devices. Software of Computer: Concept & Types Computer. Memory: Concept & Types. Viruses & its Management Concept, Types & Functions of Computer Networks, Internet and its Applications, Web Browsers & Search Engines, Legal & Ethical Issues.

Unit III – MS Office Applications

MS Word: Main Features & its Uses in Physical Education
MS Excel: Main Features & its Applications in Physical Education
MS Access: Creating a Database, Creating a Table, Queries, Forms & Reports on Tables and its Uses in Physical Education
MS Power Point: Preparation of Slides with Multimedia Effects
MS Publisher: Newsletter & Brochure
Need and scope of computer education in sports

Unit IV – ICT Integration in Teaching Learning Process

Approaches to Integrating ICT in Teaching Learning Process, Project Based Learning (PBL), Co-Operative Learning, Collaborative Learning, ICT and Constructivism:
A Pedagogical Dimension, Statistical packages for physical education

Unit V – E-Learning & Web Based Learning

E-Learning- Professional communication and sports information through Internet.
Web Based Learning- Sports Websites
Visual Classroom- Use of current software for class room presentation
Sports multimedia packages- Role of computer education in Sports

REFERENCES:

B. Ram, New Age International Publication, Computer Fundamental, Third Edition-2006
Brain under IDG Book. India (p) Ltd Teach Yourself Office 2000, Fourth Edition-2001
Douglas E. Comer, The Internet Book, Purdue University, West Lafayette in 2005
Heidi Steel Low price Edition, Microsoft Office Word 2003- 2004
ITL Education Solution Ltd. Introduction to information Technology, Research and Development Wing-2006 Pradeep K. Sinha & Priti; Sinha, Foundations computing BPB Publications -2006. Rebecca Bridges Altman Peach pit Press, Power point for window, 1999
Sanjay Saxena, Vikas Publication House, Pvt. Ltd. Microsoft Office for ever one, Second Edition-2006

**Practical Course
Semester III**

MPPC- 301 TRACK AND FIELD III: THROWING EVENTS

(Course contents in throwing events should be chalked out internally considering advance level of students and suitable to their age and gender).

MPPC-302 GAMES OF SPECIALIZATION- II (Any one of game)

(Course contents in the game of specialization should be chalked out internally considering advance level of students and suitable to their age and gender).

MPPC-303 Laboratory Practical: Sports Medicine

Types of bandages, Types of baths, Types of massage, any two in – (Cryotherapy, Hydro therapy, Electrotherapy) First aid treatment for basic sports injuries.

MPPC-304 Internship: Project, Inter department, Industrial visit

**Semester IV
Theory Courses**

MPCC-401 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.

UNIT V – Movement Analysis

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

Note: Laboratory practicals should be designed and arranged for students internally.

REFERENCE:

- Deshpande S.H.(2002). Manav Kriya Vigyan – Kinesiology (Hindi Edition) Amravati :Hanuman Vyayam Prasarak Mandal. Hoffman S.J. Introduction to Kinesiology (Human Kinesiology publication In.2005. Steven Ro y, & Richard Irvin. (1983). Sports Medicine. New Jersery: Prentice hall. Thomas. (2001). Manual of structural Kinesiology, New York: Me Graw Hill. Uppal A.K. Lawrence Mamta MP Kinesiology(Friends Publication India 2004) Uppal, A (2004), Kinesiology in Physical Education and Exercise Science, Delhi Friends publications. Williams M (1982) Biomechanics of Human Motion, Philadelphia; Saunders Co.

MPCC-402 SPORTS PSYCHOLOGY AND SPORTS SOCIOLOGY

UNIT I – Introduction

Meaning, Definition, History, Need and Importance of Sports Psychology. Present Status of Sports Psychology in India. Motor Learning: Basic Considerations in Motor Learning– Motor Perception – Factors Affecting Perception – Perceptual Mechanism. Personality: Meaning, Definition, Structure – Measuring Personality Traits. Effects of Personality on Sports Performance.

UNIT II - Motivation

Meaning and Definition, Types of Motivation: Intrinsic, Extrinsic. Achievement Motivation: Meaning, Measuring of Achievement Motivation. Anxiety: Meaning and Definition, Nature, Causes, Method of Measuring Anxiety. Competitive Anxiety and Sports Performance. Stress: Meaning and Definition, Causes. Stress and Sports Performance. Aggression: Meaning and Definition, Method of Measurement. Aggression and Sports Performance. Self-Concept: Meaning and Definition, Method of Measurement.

UNIT III – Goal Setting

Meaning and Definition, Process of Goal Setting in Physical Education and Sports. Relaxation: Meaning and Definition, types and methods of psychological relaxation. Psychological Tests: Types of Psychological Test: Instrument based tests: Pass-along test – Tachistoscope – Reaction timer – Finger dexterity board – Depth perception box – Kinesthesiometer board. Questionnaire: Sports Achievement Motivation, Sports Competition Anxiety.

UNIT IV – Sports Sociology

Sociology Meaning and Definition – Sports sociology: Meaning and Definition- Need and nature - importance sport sociology - Sociability-socialization - Social institutions: sports-family-school. Social significance of sport. National Integration through Sports. Fans and Spectators: Meaning and definition, Advantages and disadvantages on Sports Performance. Leadership: Meaning, Definition, types. Leadership and Sports Performance.

UNIT V – Group Cohesion

Group: Definition and Meaning, Group size, Types of groups-Cohesion. Group Cohesion, Group Interaction, Group Dynamics. Current Problems in Sports and Future Directions – Sports Social Crisis in sport: socio economic status-race-class-gender. Socio mobility and sport. Women in Sports: Women sports Participation in India. Gender inequalities in Sports. Sports mass media: Sociological measure: Sociability-cohesiveness-leadership-socio economic status.

Practicals: *Atleast five experiments related to the topics listed in the Units above should be conducted by the students in laboratory. (Internal assessment.)*

REFERENCES:

- Authors Guide (2013) National Library of Educational and Psychological Test (NLEPT) Catalogue of Tests, New Delhi: National Council of Educational Research and Training Publication.
- Authors Guide (2013) National Library of Educational and Psychological Test (NLEPT) Catalogue of Test, New Delhi: National Council of Educational Research and Training Publication.
- Jain. (2002), Sports Sociology, Heal Sahety Kendre Publishers.
- Jay Coakley. (2001) Sports in Society – Issues and Controversies in International Education, Mc-Craw Seventh Ed.
- John D Lauther (2000) Psychology of Coaching. Ner Jersey: Prentice Hall Inc. John D. Lauther (1998) Sports Psychology. Englewood, Prentice Hall Inc.
- Miroslaw Vauks & Bryant Cratty (1999). Psychology and the Superior Athlete. London: The Macmillan Co.
- Richard, J. Crisp. (2000). Essential Social Psychology. Sage Publications.
- Robert N. Singer (2001). Motor Learning and Human Performance. New York: The Macmillan Co.
- Robert N. Singer. (1989) The Psychology Domain Movement Behaviour. Philadelphia: Lea and Febiger.
- Thelma Horn. (2002). Advances in Sports Psychology. Human Kinetic.
- Whiting, K, Karman., Hendry L.B & Jones M.G. (1999) Personalit y and Performance in Physical Education and Sports. London: Hendry Kimpton Publishers.

MPCC-403 Yogic Sciences

Unit I – Introduction

Meaning and Definition of Yoga. Astanga Yoga: Yama, Niyama, Aasna, Pranayama, Prathyahara, 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 – Aasanas 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 Chakaras- Benefits of clearing and balancing Chakras.

Unit III – Kriyas

Shat Kriyas- Meaning, Techniques and Benefits of Neti – Dharti – Kapalapathi-Trataka – Nauli – Basti, Bandhas: Meaning, Techniques and Benefits of Jalendra Bandha, Jihva Bandha, Uddiyana Bandha, Mula Bandha.

Unit IV – Mudras

Meaning, Techniques and Benefits of Hasta Mudras, Asamyukta hastam, Samyukta hastam , Mana Mudra, Kaya Mudra, Banda Mudra, Adhara Mudra. Meditation: Meaning, Techiques 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 Welbeing, Anxiety, Depression Concentration, Self Actualization. Effect of Yoga on Physiological System: Circulatory, Skeletal, Digestive, Nervous, Respiratory, Excretory Syste.

Note: Laboratory Practicals be designed and arranged internally.

REFERENCE:

- George Feuerstein, (1975). Text Book of Yoga. London: Motilal Bansaridass Publishers (P) Ltd.
- Gore, (1990), Anatomy and Physiology of Yogic Practices. Lonavata: Kanchan Prkashan. Helen Purperhart (2004), The Yoga Adventure for Children. Netherlands: A Hunter Housebook.
- Iyengar, B.K.S. (2000), Light on Yoga. New Delhi: Harper Collins Publishers.
- Karbelkar N.V.(1993) Patanjali Yogasutra Bhashya (Marathi Edition) Amravati: HanumanVyayam Prasarak Mandal
- Kenghe. C.T. (1976). Yoga as Depth-Psychology and para-Psychology (Vol-I): Historical Background, Varanasi: Bharata Manishai.
- Kuvalyananada 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.
- Swami Kuvalayanda, (1998), Asanas. Lonavala: Kaivalyadhama.
- Swami Satyananada Sarasvati. (1989), Asana Pranayama Mudra Bandha. Munger: Bihar School of Yoga.
- Swami Satyananda Saraswathi. (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.

MPCC-404 DISSERTATION

1. A candidate shall have dissertation for M.P.Ed. – IV Semester and must submit his/her Synopsis and get it approved by the Head of Department on the recommendation of D.R.C. (Departmental Research Committee).
2. A candidate selecting dissertation must submit his/her dissertation not less than one week before the beginning of the IVth Semester Examination.
3. The candidate has to face the Viva-Voce conducted by DRC.

**Semester IV
Theory Courses
(Elective)**

MPEC-401 SPORTS ENGINEERING

Unit - I Introduction to sports engineering and Technology

Meaning of sports engineering, human motion detection and recording, human performance, assessment, equipment and facility designing and sports related instrumentation and measurement.

Unit - II Mechanics of engineering materials

Concept of internal force, axial force, shear force, bending movement, torsion, energy method to find displacement of structure, strain energy. Biomechanics of daily and common activities –Gait, Posture, Body levers, ergonomics, Mechanical principles in movements such as lifting, walking, running, throwing, jumping, pulling, pushing etc.

Unit- III Sports Dynamics

Introduction to Dynamics, Kinematics to particles – rectilinear and plane curvilinear motion coordinate system. Kinetics of particles – Newton's laws of Motion, Work, Energy, Impulse and momentum.

Unit- IV Building and Maintenance:

Sports Infrastructure- Gymnasium, Pavilion, Swimming Pool, Indoor Stadium, Out-door Stadium, Play Park, Academic Block, Administrative Block, Research Block, Library, Sports Hostels, etc.

Requirements: Air ventilation, Day light, Lighting arrangement, Galleries, Store rooms, Office, Toilet Blocks (M/F), Drinking Water, Sewage and Waste Water disposal system, Changing Rooms (M/F), Sound System (echo-free), Internal arrangement according to need and nature of activity to be performed, Corridors and Gates for free movement of people, Emergency provisions of lighting, fire and exits, Eco-friendly outer surrounding. Maintenance staff, financial consideration.

Building process:- design phase (including brief documentation), construction phase functional (occupational) life, Re-evaluation, refurbish, demolish.

Maintenance policy, preventive maintenance, corrective maintenance, record and register for maintenance.

Unit – V Facility life cycle costing

Basics of theoretical analysis of cost, total life cost concepts, maintenance costs, energy cost, capital cost and taxation

Reference

Franz K. F. et. al., Editor, **Routledge Handbook of Sports Technology and Engineering**(Routledge, 2013)

Steve Hake, Editor, **The Engineering of Sport** (CRC Press, 1996)

Franz K. F. et. al., Editor **The Impact of Technology on Sports II** (CRC Press, 2007) Helge N., **Sports Aerodynamics** (Springer Science & Business Media, 2009)

Youlin Hong, Editor **Routledge Handbook of Ergonomics in Sport and Exercise**(Routledge, 2013)

Jenkins M., Editor **Materials in Sports Equipment, Volume I** (Elsevier, 2003) Colin White, **Projectile Dynamics in Sport: Principles and Applications**

Eric C. et al., Editor **Sports Facility Operations Management** (Routledge, 2010)

MPEC-402 EDUCATION TECHNOLOGY IN PHYSICAL EDUCATION- (Elective)

Unit I – Nature and Scope

Educational technology-concept, Nature and Scope. Forms of educational technology: teaching technology, instructional technology, and behaviour technology; Transactional usage of educational technology: integrated, complementary, supplementary stand-alone (independent); programmed learning stage; media application stage and computer application stage.

Unit II – Systems Approach to Physical Education and Communication

Systems Approach to Education and its Components: Goal Setting, Task Analysis, Content Analysis, Context Analysis and Evaluation Strategies; Instructional Strategies and Media for Instruction. Effectiveness of Communication in instructional system; Communication - Modes, Barriers and Process of Communication.

Unit III- Instructional Design

Instructional Design: Concept, Views. Process and stages of Development of Instructional Design. Overview of Models of Instructional Design; Instructional Design for Competency Based Teaching: Models for Development of Self Learning Material.

Unit IV – Audio Visual Media in Physical Education

Audio-visual media - meaning, importance and various forms Audio/Radio: Broadcast and audio recordings - strengths and Limitations, criteria for selection of instructional units, script writing, pre-production, post-production process and practices, Audio Conferencing and Interactive Radio Conference. Video/Educational Television: Telecast and Video recordings Strengths and limitations, Use of Television and CCTV in instruction and Training, Video Conferencing, SITE experiment, countrywide classroom project and Satellite based instructions. Use of animation films for the development of children's imagination.

Unit V – New Horizons of Educational Technology

Recent innovations in the area of ET interactive video - Hypertext, video-texts, optical fiber technology - laser disk, computer conferencing. etc. Procedure and organization of Teleconferencing/Interactive video-experiences of institutions, schools and universities. Recent experiments in the third world countries and pointers for, India with reference to Physical education. Recent trends of Research in Educational Technology and its future with reference to education.

REFERENCE:

- Amita Bhardwaj, New Media of Educational Planning”.Sarup of Sons, New Delhi-2003
- Bhatia and Bhatia. The Principles and Methods of Teaching (New Delhi : Doaba House),1959.
- Communication and Education, D. N. Dasgupta, Pointer Publishers
- Education and Communication for development, O. P. Dahama, O. P. Bhatnagar, OxfordPage 68 of 71 IBH Publishing company, New Delhi
- Essentials of Educational Technology, Madan Lal, Anmol Publications
- K. Sampath, A. Pannirselvam and S. Santhanam. Introduction to Educational Technology(New Delhi: Sterling Publishers Pvt. Ltd.) : 1981.
- Kochar, S.K. Methods and Techniques of Teaching (New Delhi, Jalandhar, SterlingPublishers Pvt. Ltd.), 1982
- Kozman, Cassidy and kJackson. Methods in Physical Education (W.B. SaundersCompany,Philadelphia and London), 1952.

Semester IV

MPPC- 401 TRACK AND FIELD III: COMBINED EVENTS

(Course contents in combined events should be chalked out internally considering advance level of students and suitable to their age and gender. Practical Skill Test any one out of these after completion of syllabus)

MPPC-402 GAMES OF SPECIALIZATION-II

(Course contents in game or sport of specialization should be chalked out internally considering advance level of students and suitable to their age and gender .Practical skill test- any two)

MPPC-403 LABORATORY PRACTICAL: BIOMECHANICS KINESIOLOGY AND SPORTS PSYCHOLOGY

Cognitive Skill- Muller Iyer illusion board- measuring- optical illusion, Techistoscope-Span of attention, Memory dream- Memory capacity, Division of attention board-attention, Revised Batic battery of performance intelligence test- Intelligence.

Psychomotor Skill- Kinesthetic meter board- Kinesthetic sense, Herman moze-Learning conditioning, Depth Perception Box- Depth Perception, Chronoscope-Reaction time, Mirror Drawing apparatus- Eye hand coordination, Steadiness- Hand steadiness, T- maze- Learning conditioning.

Psychological Tools- Flow state scale- Jackson & marsh (1996), Mental Toughness Questionnaires- Loehr etal (1992), Sport Imagery Questionnaires - Rodger and Barr (1990), Athletic coping skills inventory- Smith R.E, Smoll, F.C (1996), Exercise motwastion inventory- EMI-2- Markland D and Hardy (1993), The performance failure appraisal inventory- (PFAI)- David E. Conroy, Sports Anxiety scale - Frank L. Soml and Robert W. Schutz, Competitive state anxiety inventory- form-2- Rainers Martens, Sports achievement motivation- M.C. Kamlesh, 16 perfonality factor- R.B. Cattell, Eysenck personality inventory- ESI- H.J. Eysenck, Socio- Economic status scale- R.C. Bharadwaj.

MPPC-404 OFFICIATING LESSONS OF SPORTS & GAME SPECIALIZATIONS

The students of M.P.Ed – IV Semester need to be develop proficiency in taking officiating lesson on selected game specialization. In view of this, the students shall be provided with advance mechanism of officiating in selected game specialization. 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 time the y 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 fourth 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 officiating lessons, the duration should slowly increase and all the parts of the lesson covered progressively.

Note: Where ever details of any activities are not mentioned, it is expected to elaborate skills by the competent bodies of local Universities/ Autonomous Colleges.

Table – 1: Semester wise distribution of hours per week

Semester	Theory	Practicum	Teaching	Total
I	12	18	6	36
II	12	12	12	36
III	12	12	12	36
IV	12	12	12	36
Total	48	54	42	144
Minimum of 36 teaching hours per week is required in five or six days in a				

Table – 2: Number of credits per semester

Semester	Theory	Practicum	Teaching	Total
I	12	09	03	24
II	12	06	06	24
III	12	06	06	24
IV	12	06	06	24
Total	48	27	21	96
Minimum of 36 teaching hours per week is required in five or six days in a				