

# **CURRICULUM FRAMEWORK: TWO-YEAR M.P.ED. PROGRAMME**



**NATIONAL COUNCIL FOR TEACHER EDUCATION**

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## GUIDELINES OF REGULATIONS AND MODEL SYLLABUS STRUCTURE

### FOR TWO YEARS M. P. Ed. PROGRAMME (FOUR SEMESTERS) (CBCS)

#### **Important Note:**

1. If the University or affiliating body is following choice based credit system, (CBCS) as approved and circulated by the UGC, the credit hours given in the following curriculum framework need to be considered along with the hours of teaching mentioned for each paper/ activity / course.
2. If the University or affiliating bodies have yet to adopt CBCS, only the hours of teaching mentioned for each paper/ activity / course will be considered, the credit in teaching hours may be ignored.

#### **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.

The M.P.Ed. programme is designed to integrate the study of childhood, social context of Physical Education, subject knowledge, pedagogical knowledge, aim of Physical Education and communication skills. The programme comprise of compulsory and optional theory as well as practical courses and compulsory school internship in School/ College/Sports Organizations/Sports Academy/Sports Club.

#### **R.M.P.Ed.1.Intake, Eligibility and Admission Procedure:**

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

#### **R. M.P.Ed. 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.

#### **R. M.P.Ed. 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.

#### **R. M.P.Ed. 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.

#### **R. M.P.Ed.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)**
  - **Elective Course**
  - **Teaching/Coaching Practices**
  - **Internship**

#### **R. M.P.Ed.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 May/June to November/December and even semester from November / December to May/June. The institution shall work for a minimum of 36 working hours in a week (five or six days a week).

#### **R. M.P.Ed.7. Working days:**

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

#### **R. M.P.Ed. 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.

**Provision of Bonus Credits Maximum 06 Credits in each Semester**

Sr. No.	Special Credits forte Extra Co-curricular Activities	Credit
1	Sports Achievement at State level Competition (Medal Winner)	1
	Sports Achievement National level Competition (Medal Winner)	2
	Sports participation International level Competition	4
2	Inter Uni. Participation (Any one game)	2
3	Inter College Participation (min. two games)	1
4	National Cadet Corps / National Service Scheme	2
5	Blood donation / Cleanliness drive / Community services /	2
6	Mountaineering – Basic Camp, Advance Camp / Adventure Activities	2
8	News Reporting / Article Writing / book writing / progress report writing	1

Students can earn maximum 06 Bonus credits in each semester by his/her participation in the above mentioned activities duly certified by the Head of the institution / Department. This Bonus credit will be used only to compensate loss of credits in academic activities.

**R. M.P.Ed. 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;

One Test	15 Marks
Assignments / Lab Practical	10 Marks
Attendance	5 Marks
Total	30 Marks

Attendance shall be taken as a component of continuous assessment, although 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 30:70. The evaluation of practical work, wherever applicable, will also be based on continuous internal assessment and on an end-semester practical examination.

**R. B.P.Ed 10. Grading:**

Once the marks of the CIA (Continues Internal Assessment) and SEA (Semester End Assessment) for each of the courses are available, both (CIA and SEA) will be added. The marks thus obtained for each of the courses will then be graded as per details provided in R. M.P.Ed. 12 from the first semester onwards the average performance within any semester from the first semester is indicated by Semester Grade Point Average (SGPA) while continuous performance (including the performance of the previous semesters also) starting from the first semester is indicated by Cumulative Grade Point Average (CGPA). These two are calculated by the following formula:

$$= \frac{\sum}{\sum}$$

$$= \frac{\sum}{\sum}$$

Where  $C_i$  is the Credit earned for the course in any semester;  $G_i$  is the Grade point obtained by the student for the course and  $n$  number of courses obtained in that semester; is SGPA of semester  $j$  and  $N$  number of semester. Thus CGPA is average of SGPA of all the semesters starting from the first semester to the current semester.

**R. M.P.Ed. 11. Classification of Final Results:**

For the purpose of declaring a candidate to have qualified for the Degree of Bachelor 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.

**R. M.P.Ed.12. Letter Grades and Grade Points:**

- i. Two methods-relative grading or absolute grading– have been in vogue for awarding grades in a course. The relative grading is based on the distribution (usually normal distribution) of marks obtained by all the students in the course and the grades are awarded based on a cut-off mark or percentile. Under the absolute grading, the marks are converted to grades based on pre-determined class intervals. To implement the following grading system, the colleges and universities can use any one of the above methods.
- ii. The grades for each course would be decided on the basis of the percentage marks obtained at the end-semester external and internal examinations as per following table:

Percentage	Grade Point	Latter Grade	Description	Classification of final result
85 & above	8.5-10.0	O	Outstanding	First class with Distinction
70-84.99	7.0-8.49	A <sup>+</sup>	Excellent	
60-69.99	6.0-6.99	A	Very Good	First Class
55-59.99	5.5-5.99	B+	Good	Higher Second Class
50-54.99	5.0-5.49	B	Above Average	Second Class
40-49.99	4.0-4.99	C	Average	Pass Class
Below 40	0.0	F	Fail/ Dropped	Dropped
	0	AB	Absent	

**R. M.P.Ed.13. Grade Point Calculation**

Calculation of **Semester Grade Point Average (SGPA)** and **Credit Grade Point (CGP)** and declaration of class for M. P. Ed. Programme.

The credit grade points are to be calculated on the following basis:

$$= \frac{\sum}{\sum}$$

**Example – I**

Marks obtained by Student in course MPCC101 = 65/100 Percentage of marks = 65 %

Grade from the conversion table is = A Grade Point = 6.0 + 5 (0.99/9.99),  
= 6.0 + 5x0.1, = 6.0+ 0.5, = 6.5

The Course Credits = 03

Credits Grade Point (CGP) = 6.5 × 03 = 19.5

The semester grade point average (SGPA) will be calculated as a weighted average of all the grade point of the semester courses. That is Semester grade point average (SGPA) = (sum of grade points of all eight courses of the semester) / total credit of the semester as per example given below:

**SEMESTER-1**

Courses Code	Credit	Marksout of 100 (%)	Grade	Grade Point	Credit Grade point
MPCC-101	3	65	A	6.5	19.5
MPCC-102	3	60	A	6	18
MPCC-103	3	62	A	6.2	18.6
MPEC-101/MPEC-102	3	57	B+	5.7	17.1
MPPC-101	3	55	B+	5.5	16.5
MPPC-102	3	72	A+	7.2	21.6
MPPC-103	3	66	A	6.6	19.8
MPPC - 104	3	72	A+	7.2	21.6
	24				152.7

**Examples: Conversion of marks into grade points**

$$\text{MPCC-101 } 65 = 60 + 5 = 6.0 + 5 \times (0.99 / 9.99) = 6.0 + 5 \times 0.1 = 6.0 + 0.5 = 6.5$$

$$\text{MPCC-102 } 60 = 6.0$$

$$\text{MPCC-103 } 62 = 60 + 2 = 6.0 + 2 \times (0.99/9.99) = 6.0 + 2 \times 0.1 = 6.0 + 0.2 = 6.2$$

$$\text{MPEC-101/MPEC-102 } 57 = 55 + 2 = 5.5 + 2 \times (0.49 / 4.99) = 5.5 + 2 \times 0.1 = 5.5 + 0.2 = 5.7$$

$$\text{MPPC-101 } 55 = 5.5$$

$$\text{MPPC-102 } 72 = 70 + 2 = 7.0 + 2 \times (1.49 / 14.99) = 7.0 + 2 \times 0.1 = 7.0 + 0.2 = 7.2$$

$$\text{MPPC-103 } 66 = 60 + 6 = 6.0 + 6 \times (0.99 / 9.99) = 6.0 + 6 \times 0.1 = 6.0 + 0.6 = 6.6$$

$$\text{MPPC - 104 } 72 = 70 + 2 = 7.0 + 2 \times (1.49 / 14.99) = 7.0 + 2 \times 0.1 = 7.0 + 0.2 = 7.2$$

$$\text{SEMESTER GRADE POINT AVERAGE (SGPA) = Total Credit Grade Points}$$

$$= 152.7/24 = 6.3625$$

$$\text{SGPA Sem. I} = 6.3625$$

At the end of Semester-I Total

$$\text{SGPA} = 6.3625$$

$$\text{Cumulative Grade Point Average (CGPA) = } 6.3625/1 = 6.3625 \text{ CGPA} =$$

$$6.66875, \text{ Grade} = \text{A, Class} = \text{First Class}$$

**SEMESTER-2**

Courses No.	Credit	Marks out of 100 (%)	Grade	Grade Point	Credit Grade point
MPCC-201	3	76	A+	7.6	22.8
MPCC-202	3	64	A	6.4	19.2
MPCC-203	3	59	B+	5.9	17.7
MPEC-201/MPEC-202	3	80	A+	8	24
MPPC-201	3	49	C	4.9	14.7
MPPC-202	3	64	A	6.4	19.2
MPPC-203	3	55	B+	5.5	16.5
MPPC - 204	3	72	A+	7.2	21.6
	24				155.7

$$\text{SGPA Sem. II} = 6.4875$$

At the end of Semester-2

$$\text{Total SGPA for two Semesters} = 12.85$$

$$\text{Cumulative Grade Point Average (CGPA) = } 12.85/2 = 6.425$$

$$\text{CGPA} = 6.66875, \text{ Grade} = \text{A, Class} = \text{First Class}$$

**SEMESTER-3**

Courses No.	Credit	Marks out of 100 (%)	Grade	Grade Point	Credit Grade point
MPCC-301	3	64	A	6.4	19.2
MPCC-302	3	64	A	6.4	19.2
MPCC-303	3	59	B+	5.9	17.7
MPEC-301/MPEC-302	3	81	A+	8.1	24.3
MPPC-301	3	49	C	4.9	14.7
MPPC-302	3	64	A	6.4	19.2
MPPC-303	3	68	A	6.8	20.4
MPPC - 304	3	75	A+	7.5	22.5
	24				157.2

$$\text{SGPA Sem. III} = 6.55$$

At the end of Semester-3

$$\text{Total SGPA for three Semesters} = 19.4$$

$$\text{Cumulative Grade Point Average (CGPA) = } 19.4/3 = 6.466667$$

$$\text{CGPA} = 6.66875, \text{ Grade} = \text{A, Class} = \text{First Class}$$

**SEMESTER-4**

Courses No.	Credit	Marks out of 100 (%)	Grade	Grade Point	Credit Grade point
MPCC-401	3	83	A+	8.3	24.9
MPCC-402	3	76	A+	7.6	22.8
MPCC-403	3	59	B+	5.9	17.7
MPEC-401/MPEC-402	3	81	A+	8.1	24.3
MPPC-401	3	49	C	4.9	14.7
MPPC-402	3	78	A+	7.8	23.4
MPPC-403	3	81	A+	8.1	24.3
MPPC-404	3	75	A+	7.5	22.5
	24				174.6

SGPA Sem. IV = 7.275

At the end of Semester-4

Total SGPA for all the four semesters = 26.675

Cumulative Grade Point Average (CGPA) =  $26.675 / 4 = 6.66875$  CGPA = 6.66875, Grade = A, Class = First Class

**Note:**

- (1) SGPA is calculated only if the candidate passes in all the courses i.e. get minimum Cgrade in all the courses.
- (2) CGPA is calculated only when the candidate passes in all the courses of all the previous and current semesters.
- (3) The cumulative grade point average will be calculated as the average of the SGPA of all the semesters continuously, as shown above.
- (4) For the award of the class, CGPA shall be calculated on the basis of:
  - (a) Marks of each Semester End Assessment And
  - (b) Marks of each Semester Continuous Internal Assessment for each course. The final Class for M.P.Ed. Degree shall be awarded on the basis of last CGPA (grade) from one to four semester examinations.

**R. M.P.Ed.14. Grievance Redressal Committee:**

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

**R. M.P.Ed.15. Revision of Syllabi:**

1. Syllabi of every course should be revised according to the NCTE.
2. Revised Syllabi of each semester should be implemented in a sequential way.
3. In courses, where units / topics related to governmental provisions, regulations or laws, that change to accommodate the latest developments, changes or corrections are to be made consequentially as recommended by the Academic Council.
4. All formalities for revisions in the syllabi should be completed before the end of the semester for implementation of the revised syllabi in the next academic year.
5. During every revision, up to twenty percent of the syllabi of each course should be changed so as to ensure the appearance of the students who have studied the old (unrevised) syllabi without any difficulties in the examinations of revised syllabi.
6. In case, the syllabus of any course is carried forward without any revision, it shall also be counted as revised in the revised syllabi.

**SCHEME OF EXAMINATION**  
**(SEMESTER – I)**

Paper	Subject	Total Hours	Credits	Internal	External	Total Marks
	<b><u>THEORY (400)</u></b>					
MPCC-101	Research Process in Physical Education & Sports Sciences	3	3	30	70	100
MPCC-102	Physiology of Exercises (Lab Practical's)	3	3	30	70	100
MPCC-103	Yogic Sciences	3	3	30	70	100
MPEC-101/ 102	Tests, Measurement and Evaluation in Physical Education (Field Practical's) OR Sports Technology (Elective)	3	3	30	70	100
	<b><u>PRACTICAL (400)</u></b>					
MPPC-101	Track and Field I: Sprint, Middle and Long Distance Running, Long Jump, High Jump (Performance in any one from running + 2 jumping events.)	6	3	30	70	100
MPPC-102	Games Specialization- I (Second Best) (Individual skills, game situation, officiating, lead-up games)	6	3	30	70	100
MPPC-103	Yoga (Performance in Asanas, Kriyas, Bandhas & Pranayama.)	6	3	30	70	100
MPPC-104	Class Room Teaching Lessons	6	3	30	70	100
	<b>Total</b>	36	24	240	560	<b>800</b>

**SEMESTER -II**

Paper	Subject	Total Hours	Credits	Internal	External	Total Marks
	<b><u>THEORY (400)</u></b>					
MPCC-201	Applied Statistics in Physical Education & Sports	3	3	30	70	100
MPCC-202	Sports Biomechanics & Kinesiology (Lab Practical's)	3	3	30	70	100
MPCC-203	Athletic Care and Rehabilitation	3	3	30	70	100
MPEC-201/202	1. Sports Journalism and Mass Media. OR 2. Sports Management and Curriculum Designs in Physical Education (Elective)- Any one.	3	3	30	70	100
	<b><u>PRACTICAL (400)</u></b>					
MPPC-201	Track and Field II: Shot Put, Discus Throw, Javelin Throw (Performance in any two events)	6	3	30	70	100
MPPC-202	Games Specialization- II (Second Best) Individual skills, game situation, officiating, lead-up games)	6	3	30	70	100
MPPC-203	Teaching Lessons of Track and Field	6	3	30	70	100
MPPC-204	Teaching Lessons of Game Specializations	6	3	30	70	100
	<b>Total</b>	36	24	240	560	<b>800</b>

**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 -III**

Paper	Subject	Total Hours	Credits	Internal	External	Total Marks
	<b><u>THEORY (400)</u></b>					
MPCC-301	Scientific Principles of Sports Training (Lab. Practicals – Tread mill, Bicycle ergometer, strength,endurance & fitness testing.)- Internal.	3	3	30	70	100
MPCC-302	Sports Medicine (Lab Practicals)	3	3	30	70	100
MPCC-303	Health Education and Sports Nutrition	3	3	30	70	100
MPEC-301/302	Sociology of Sports OR Physical Fitness and Wellness (Elective)	3	3	30	70	100
	<b><u>PRACTICAL (400)</u></b>					
MPPC-301	Track and Field III: Relay, Triple Jump, Pole Vault (Performance in any two events)	6	3	30	70	100
MPPC-302	Games Specialization- III (First Best) Individual skills, game situation, officiating, lead-up games)	6	3	30	70	100
MPPC-303	Officiating Lessons of Track and Field; Game Specializations	6	3	30	70	100
MPPC-304	Internship	6	3	30	70	100
	<b>Total</b>	36	24	240	560	<b>800</b>

**SEMESTER -IV**

Paper	Subject	Total Hours	Credits	Internal	External	Total Marks
	<b><u>THEORY (400)</u></b>					
MPCC-401	Information & Communication Technology (ICT) in Physical Education (Lab Practical's)	3	3	30	70	100
MPCC-402	Sports Psychology (Lab Practical's)	3	3	30	70	100
MPCC-403	Dissertation	3	3	30	70	100
MPEC-401/402	Value and Environmental Education. OR Education Technology In Physical Education (Elective)	3	3	30	70	100
	<b><u>PRACTICAL (400)</u></b>					
MPPC-401	Track and Field IV: Javelin Throw, Hammer Throw, Hurdles (Performance in any two events)	6	3	30	70	100
MPPC-402	Games Specialization- IV (First Best) (Individual skills, game situation, officiating, lead-up games)	6	3	30	70	100
MPPC-403	Coaching Lessons of Track and Field	6	3	30	70	100
MPPC-404	Coaching Lessons of Game Specializations	6	3	30	70	100
	<b>Total</b>	36	24	240	560	<b>800</b>

**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 RESEARCH PROCESS IN PHYSICAL EDUCATION AND SPORTSSCIENCES**

**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
- Rothstein, A (1985) Research Design and Statistics for Physical Education, Englewood Cliffs: 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, New Delhi

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**Semester I**  
**Theory Courses**

**MPCC-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:**

- 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). Elementary Physiology. Hyderabad: Sports Publication.
- William, D. Mc Aradle. (1996). Exercise Physiology, Energy, Nutrition and Human Performance. Philadelphia: Lippincott Williams and Wilkins Company.

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## Semester I Theory Courses

### MPCC-103 Yogic Sciences

#### 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 – Dhauti – Kapalabhati- 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, 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: 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 Prakashan.
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- Iyengar, B.K.S. (2000), Light on Yoga. New Delhi: Harper Collins Publishers.
- Karbelkar N.V. (1993) Patanjali Yogasutra Bhashya (Marathi Edition) Amravati: Hanuman Vyayam Prasarak Mandal
- Kenghe. C.T. (1976). Yoga as Depth-Psychology and para-Psychology (Vol-I): Historical Background, Varanasi: Bharata Manishai.
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- 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 Sarasvathi. (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.

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**Semester I  
Theory Courses**

**MPEC-101**

**TEST, MEASUREMENT AND EVALUATION IN PHYSICAL EDUCATION  
(Elective)**

**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: Sutcliffe 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, Mc-Donald Volley Soccer Test. Tennis: Dyer Tennis Test.

*Note: Practicals of indoor 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 (2<sup>nd</sup> 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, 2<sup>nd</sup> 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, 3<sup>rd</sup> Edition, Dallas TX: The Cooper Institute for Aerobics Research
- Wilmore JH and Costill DL. (2005) Physiology of Sport and Exercise: 3<sup>rd</sup> Edition. Champaign IL: Human Kinetics
- Yobu, A (2010), Test, Measurement and Evaluation in Physical Education in Physical Education and Sports. New Delhi; Friends Publications.

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**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, 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: Jaico Publisher.
- 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.), 1982
- Kozman, Cassidy and Jackson. Methods in Physical Education (W.B. Saunders Company, Philadelphia and London), 1952.

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**Semester II**  
**Theory Courses**

**MPCC-201 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 2<sup>nd</sup> 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) Research 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.

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**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.

**UNIT-V: Movement Analysis**

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

**Note: Laboratory practical's 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 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 Kinesiology (Friends Publication India 2004)
- Uppal, A (2004), Kinesiology in Physical Education and Exercise Science, Delhi Friendspublications.
- Williams M (1982) Biomechanics of Human Motion, Philadelphia; Saunders Co.

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**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. Webb, Moder D (2000) Track & Field, Englewood Cliffs, Prentice Hall 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.
- Rathbome, J.I. (1965) Corrective Physical education, London: W.B. Saunders & Co.
- Stafford and Kelly, (1968) Preventive and Corrective Physical Education, New York.

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## 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
- Mohit Chakrabarti (2008): Value Education: Changing Perspective, New Delhi: Kanishka Publication,.
- Padmanabhan. A & Perumal A (2009), Science and Art of Living, Madurai: Pakavathi Publication
- 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.

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**Semester II**  
**Theory Courses**

**MPEC-202 SPORTS MANAGEMENT AND CURRICULUM DESIGN IN PHYSICAL  
EDUCATION (Elective)**

**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:**

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

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**Semester III**  
**Theory Courses**

**MPCC-301 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:**

- Beotra Alka, (2000), Drug Education Handbook on Drug Abuse in Sports. Delhi: Sports Authority of India.
- Bunn, J.N. (1998) Scientific Principles of Coaching, New Jersey Engle Wood Cliffs, Prentice Hall Inc.
- Cart, E. Klafs & Daniel, D. Arnheim (1999) Modern Principles of Athletic Training St. Louis C. V. Mosphy Company
- Daniel, D. Arnheim (1991) Principles of Athletic Training, St. Luis, Mosby Year Book
- David R. Mottram (1996) Drugs in Sport, School of Pharmacy, Liverpool: John MooreUniversity
- Gary, T. Moran (1997) – Cross Training for Sports, Canada: Human Kinetics
- Hardayal Singh (1991) Science of Sports Training, New Delhi, DVS Publications
- Jensen, C.R. & Fisher A.G. (2000) Scientific Basic of Athletic Conditioning, Philadelphia
- Ronald, P. Pfeiffer (1998) Concepts of Athletics Training 2<sup>nd</sup> Edition, London: Jones and Bartlett Publications
- Yograj Thani (2003), Sports Training, Delhi: Sports Publications

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**Semester III**  
**Theory Courses**

**MPCC-302 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 injures.

*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 Injures 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.

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**Semester III**  
**Theory Courses**

**MPCC-303 HEALTH EDUCATION AND SPORTS NUTRITION**

**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.

**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 of diet and exercise in weight management, Design diet plan and exercise schedule for weight gain and loss.

**References:**

- Bucher, Charles A. "Administration of Health and Physical Education Programme". 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".
- 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.
- Boyd-Eaton S. et al (1989) The Stone Age Health Programme: Diet and Exercise as Nature Intended. 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.

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**Semester III**  
**Theory Courses**

**MPEC-301 SOCIOLOGY OF SPORTS (SOS) (Elective)**

**UNIT-I: Introduction**

- a) Meaning, Definition, Nature of Sociology-
- b) Key Concepts - Society, social institution, Social process, Social group, culture, social interaction, structure
- c) Subject matter of sociology - Field of Sociology in the 21st Century
- d) Importance of studying sports in society

**UNIT-II: Major sociological theories & Sports:**

- a) The functional theory
- b) The Conflict theory
- c) The interactionism theory
- d) The feminist theory

**UNIT-III: Some Key Topics**

- a) Concept of gender, Sexism, Homosexuality and Homophobia –
  - Fairness and Equity Issues
  - Ideology and Power Issues
- b) Deviance in Sports; Types, approaches to studying deviance and sports ethics and deviance–
- c) Sports and politics:
  - The Sports–Government Connection –
  - Sports and Global Political Processes-
- d) Sports, Social class and class relation-

**UNIT-IV: Some Post Modern themes in Sports sociology**

- a) Sports and the Body: Bodies as a biological, social and cultural construction, Body & consumer culture
- b) Sports and Economy:
  - Emergence and growth of commercial sports –
  - Characteristics of commercial sports–
- c) Sports and Media; two way relationship, the media construction of sports-
- d) Modern social theorists –
  - Pierre Bourdieu – Habitus, Capital, Field (sports)
  - Michael Foucault – studies of power and sports

**UNIT-V: Research in Sociology of sports**

- a) Research paradigms – Neo-positivist, Interpretivist, Critical realist
- b) Logic of Inquiry in research: Inductive, deductive, Abductive & Retroductive
- c) Process of producing knowledge in sociology of sports
- d) Methods of data collection and the use of critical approach in studying sports

**REFERENCE:**

- Anthony Giddens and Philip W. Sutton. (2021). *Sociology*. Cambridge CB2 1UR, UK: Polity Press.
- Coakley, J. (2009). *Sports in Society*. New York: Mc Graw Hill.
- Craig, P. (2016). *Sports Sociology*. New Delhi: Sage Publications India Pvt Ltd.
- Giulianotti, R. (2016). *Sports: A Critical Sociology*. Cambridge, UK: Polity Press.
- Jarvie, G. (2006). *Sports, Culture and Society*. eBook: Routledge.
- Jay Coakley & Eric Dunning. (2000). *Handbook of Sports Studies*. New Delhi: Sage publication Ltd.
- Singh, B. (2004). *Sports Sociology*. New Delhi: Friends Publications.

### Semester III Theory Courses

#### MPEC-302 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

##### **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.

##### **Reference:**

- David K. Miller & T. Earl Allen, Fitness, A life time commitment, Surjeet Publication Delhi 1989.
- Difcore 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

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**Semester IV**  
**Theory Courses**

**MPCC-401 INFORMATION & COMMUNICATION TECHNOLOGY (ICT) IN  
PHYSICAL EDUCATION**

**Unit-I: Communication & Classroom Interaction**

Concept, Elements, Process & Types of 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

**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

**Unit-V: E-Learning & Web Based Learning**

E-Learning  
Web Based Learning  
Visual Classroom

**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

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**Semester IV**  
**Theory Courses**

**MPCC-402 SPORTS PSYCHOLOGY**

**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**

Meaning and Definition – Sports and Socialization of Individual Sports as Social Institution. 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, Groups on Composition, Group Cohesion, Group Interaction, Group Dynamics. Current Problems in Sports and Future Directions – Sports Social Crisis Management – Women in Sports: Sports Women in our Society, Participation pattern among Women, Gender inequalities in Sports.

**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.
- 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: Prenticce Hall Inc.
- John D. Lauther (1998) Sports Psychology. Englewood, Prentice Hall Inc.
- Mirosław 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) Personality and Performance in Physical Education and Sports. London: Hendry Kimpton Publishers.

**Semester IV  
Theory Courses**

**MPCC-403 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 IV<sup>th</sup> Semester Examination.
3. The candidate has to face the Viva-Voce conducted by DRC.

**Semester IV  
Theory Courses**

**MPEC-401 VALUE AND ENVIRONMENTAL EDUCATION**

**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:**

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

**Semester IV**  
**Theory Courses**

**MPEC-402 EDUCATION TECHNOLOGY IN PHYSICAL EDUCATION ANDSPORTS**

**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. Saunders Company, Philadelphia and London), 1952.

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**Semester I  
Practicum Course**

**MPPC- 101 TRACK AND FIELD I: RUNNING EVENTS / GYMNASTICS/  
SWIMMING.**

**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

**Semester I  
Practicum Course**

**MPPC- 102 FLAG HOISTING, MARCH PAST, CEREMONIES LIKE OPENING, CLOSING,  
VICTORY, (DURING INTRA MURALS COMPETITIONS) OF DIFFERENT SPORTS AND  
GAMES/ LEAD UP GAMES/ MINOR GAMES/ RELAYGAMES**

**National Flag:** Meaning, concept and significance of National Flag, Symbolism of Tri-colour and Wheel. Code of hoisting or lowering of Flag, Dimensions of the Flag & tri-colour proportions. Honour of the Flag and its use. Penalty of misusing or dishonouring the Flag.

Opening and Closing Ceremonies: Schedule and formality of Opening Ceremony- Unfurling of Flag, Flame igniting, Oath, March-Past of players/teams, Salutation, Declaration of Opening of the Meet, brief address by the guests, announcement of beginning of competition Victory & Prize distribution Ceremony- Planning of schedule for victory ceremony.

Closing Ceremony: Assembly of sports-persons, March-Past, Salutation, re-assembly, brief address of the guests, Declaration of results and distribution of Prizes/ Certificates, Vote of thanks, Ceremonial Flag-lowering, Flame extinguishing, Declaration of Closing of the Meet.

Practical of the organization of Sports / Athletic Meet during Intramural Programme should be arranged as a project by the students under the supervision of the faculty. Organization of Sports Festival, Play Day, Social Party games, etc. should be encouraged.

**Semester I  
Practicum Course**

**MPPC- 103 YOGA/ AEROBICS/ SELF DEFENCE TECHNIQUES-MARTIAL ARTS, TAEK-  
WON-DO/ SHOOTING/ ARCHERY**

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

**AEROBICS:** Rhythmic Aerobics, dance, Low impact aerobics, High impact aerobics Aerobics kick boxing Moves: March single, basics, side to side alternate, turn s/a, double side to side, step touch, grapevine, knee up, leg curl, kick front, toe touch, kick side, side lunge, over the top, back lunge, straddle, kick front, travel. kick side, corner, heel to left, shape, 'e' shape, 'w' shape, repeater left mode, Warm up and cool down

Being successful in exercise and adaptation to aerobic workout.

**SELF DEFENCE TECHNIQUES-MARTIAL ARTS, TAEK-WON-DO/ SHOOTING/ARCHERY**

**Semester I  
Practicum**

**MPCC-104 ADVENTURE ACTIVITIES/ MASS DEMONSTRATION ACTIVITIES-LEZIM,  
DUMB-BELL, UMBRELLA, TIPRI, WANDS, HOOPS/ MALKHAMBH**

**ADVENTURE ACTIVITIES:** Trekking, Wall climbing, River crossing, Mountaineering, etc

**MASS DEMONSTRATION ACTIVITIES-** lezim, dumb-bell, umbrella, tipri, wands, hoops, free arms drill, folk dances, etc. (Students are expected to learn and organize mass drill in school situation)

- o Apparatus/ Light apparatus Grip, Attention with apparatus/ Light apparatus, Stand – at – ease with apparatus/ light apparatus
- o Exercise with verbal command, drum, whistle and music – Two, Four, Eight and Sixteen counts.
- o Standing Exercise, Jumping Exercise, Moving Exercise and 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.

#### **Semester II**

##### **Practicum Course**

#### **MPPC- 201 TRACK AND FIELD II: JUMPING EVENTS**

##### **/ SWIMMING / GYMNASTICS**

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

#### **Semester II**

##### **Practicum Course**

#### **MPPC-202 GAMES SPECIALIZATION II**

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

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

#### **Semester II**

##### **Practicum Course**

#### **MPPC-203 TEACHING LESSONS OF INDIGENIOUS ACTIVITIES AND SPORTS**

The students of M.P.Ed–II Semester need to develop proficiency in taking teaching classes in indigenous activities and sport 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 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 lessons, the duration should slowly increase and all the parts of the lesson covered progressively.

#### **Semester II Practicum Course MPPC-204 CLASS ROOM TEACHING**

##### **(LESSONS ON THEORY OF DIFFERENT SPORTS & GAMES)**

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**

##### **Practicum Course**

#### **MPPC- 301 TRACK AND FIELD III: THROWING EVENTS/ GYMNASTICS/SWIMMING**

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

**Semester III  
Practicum Course**

**MPPC-302 GAMES SPECIALIZATION- III BOXING/ FENCING/ JUDO/ KARATE/  
WRESTLING/ WUSHU**

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

**Semester III  
Practicum Course**

**MPPC-303 COACHING LESSONS OF TRACK AND FIELD/ GYMNASTICS/SWIMMING**

The students of M.P.Ed – III Semester need to develop proficiency in taking coaching lesson on above mentioned selected discipline. In view of this, the students shall be provided with advance training and coaching in selected discipline. 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 third 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 coaching lessons, the duration should slowly increase and all the parts of the lesson covered progressively.

**Semester III  
Practicum Course**

**MPPC-304 COACHING LESSONS OF GAME SPECIALIZATIONS**

The students of M.P.Ed – III Semester need to be develop proficiency in taking coaching lesson in selected game discipline. In view of this, the students shall be provided with advance training and coaching in selected discipline. 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 third 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 coaching lessons, the duration should slowly increase and all the parts of the lesson covered progressively.

**Semester IV  
Practicum Course**

**MPPC- 401 TRACK AND FIELD/ SWIMMING/ GYMNASTICS**

*(Course contents in Gymnastics and Swimming 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)*

**Semester IV  
Practicum Course**

**MPPC-402 GAMES SPECIALIZATION**

*(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)*

**Semester IV  
Practicum Course**

**MPPC-403 OFFICIATING LESSONS OF TRACK AND FIELD/ GYMNASTICS/SWIMMING**

The students of M.P.Ed – IV Semester need to develop proficiency in taking officiating lesson on selected above discipline. In view of this, the students shall be provided with advance mechanism of officiating in selected discipline. 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 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.

**Semester IV  
Practicum Course**

**MPPC-404 OFFICIATING LESSONS OF GAME SPECIALIZATIONS**

The students of M.P.Ed – IV Semester need to 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 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 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*

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

*Table – 2: Number of credits per semester*

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