

**RADHA GOVIND UNIVERSITY**  
**RAMGARH, JHARKHAND**



**SYLLABUS FOR M.A IN PHYSICAL EDUCATION**  
**(Two Years Course)**

**FACULTY OF PHYSICAL EDUCATION**  
**RADHA GOVIND UNIVERSITY**  
**RAMGARH, JHARKHAND**

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**TWO YEARS M.A.( Physical Education) PROGRAMME (FOUR SEMESTER)**

**1.Eligibility and Admission Procedure:**

A candidate for the admission of programme at M.A. in Physical Education must fulfill the eligibility criteria (norms & standards) directed by the NCTE, University and the directives of the Government of Jharkhand which may changes from time to time. However, a candidate passing Under Graduate Degree (i.e. B.P.E. 3yrs) and who was admitted in the course prior to this Regulation also eligible for admission of this degree course programe.

2.Duration:

The M.A.(Physical Education) 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.A.( Physical Education) programmeconsists 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.A(Physical Education) Programme.

- Theory
- Core Course
- Practicum
- Compulsory Course (Track and Field)
- 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. The institution shall work for a minimum of 40working hours in a week (five or six days a week).

7. Working days:

There shall be working days as per university rule and regulation.

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 two hours of practical work/field work per week. The term 'Credit' refers to the weight givento a course, usually in relation to the instructional hours assigned to it. The total minimum credits, required for completing M.A. (Physical Education) 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.

**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.

The student must apply to Head of the Institution giving the reason(s) for absence within 8 days of the conduct of the examination along with the necessary documents and testimonials.

**11.     Pattern of Question Papers and its Nature:**

**A) Format of Question Paper for 5 Units -**

Each Course Papers shall have five compulsory questions (with internal choice for each question) corresponding to five units of each theory course.

**B) Nature of Semester End Examination -**

- For each Course - 70 Marks
- Duration – 3.00 Hours
- Syllabus is framed into 5 units for each theory course.
- On each unit there shall be a question either long or short or Write notes type answer.
- Number of Questions to be set in each paper shall be in accordance with above information.
- Each theory paper shall have five compulsory questions with its internal choice.
- All the five questions shall have an alternative choice from the same unit in terms of Long or Short or Write notes type answer. However, there is no choice in a separated question.
- Division of marks between long and short answer type question shall be in ratio of 70:30.
- In case of write notes type question, division of marks may distribute equally.

**12.     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	10 Marks
Seminar	5 Marks
Assignments	5 Marks
Attendance	10 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.

**13.     Minimum Standard of Passing Examinations:**

The minimum passing standard for the CIA (Continuous-Internal-Assessment) & External examinations shall be 40%, i.e. 12 marks out of 30 marks and 28 marks out of 70 respectively for the theory courses. The minimum passing for both CIA and External examinations shall be 50%, i.e. 15 marks out of 30 and 35 marks out of 70 marks for the practical courses.

14. 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.A.(Physical Education) 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:

$$SGPA = \frac{\sum_{i=1}^n C_i G_i}{\sum_{i=1}^n C_i}$$
$$CGPA = \frac{\sum_{j=1}^N SGPA_j}{N}$$

Where  $C_i$  is the Credit earned for the course is 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;  $SGPA_j$  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.

15. 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.

16. 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	ssification of finalresult
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 <sup>+</sup>	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	

17. Grade Point Calculation

Calculation of Semester Grade Point Average (SGPA) and Credit Grade Point(CGP) and declaration of class for M. A. (Physical Education) Programme.

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

$$SGPA = \frac{\sum_{i=1}^n C_i G_i}{\sum_{i=1}^n C_i}$$

Example – I

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

Grade from the conversion table is = AGrade 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	Marks out 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
MPCC- 104	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

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

MPCC-102  $60 = 6.0$

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

MPCC-104  $57 = 55 + 2 = 5.5 + 2 \times (0.49 / 4.99) = 5.5 + 2 \times 0.1 = 5.5 + 0.2 = 5.7$

MPPC-101  $55 = 5.5$

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

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

MPPC – 104  $72 = 70 + 2 = 7.0 + 2 \times (1.49 / 14.99) = 7.0 + 2 \times 0.1 = 7.0 + 0.2 = 7.2$

SEMESTER GRADE POINT AVERAGE (SGPA) = Total Credit Grade Points

$= 152.7/24 = 6.3625$

SGPA Sem. I = 6.3625

At the end of Semester-1Total SGPA = 6.3625

Cumulative Grade Point Average (CGPA) =  $6.3625/1 = 6.3625$ CGPA = 6.66875, Grade = A, Class = First Class

SEMESTER-2

Courses No.	Credit	Marks out of 100(%)	Grade	GradePoint	Credit Gradepoint
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
MPCC-204	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

SGPA Sem. II = 6.4875

At the end of Semester-2

Total SGPA for two Semesters = 12.85

Cumulative Grade Point Average (CGPA) =  $12.85/2 = 6.425$ CGPA = 6.66875, Grade = A, Class = 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-304	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

SGPA Sem. III = 6.55

At the end of Semester-3

Total SGPA for three Semesters = 19.4

Cumulative Grade Point Average (CGPA) =  $19.4/3 = 6.466667$  CGPA = 6.66875, Grade = A, Class = 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-404	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 C grade 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.A.(Physical education) Degree shall be awarded on the basis of last CGPA (grade) from one to four semester examinations.

#### 18. 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.

#### OBJECTIVES OF THE M. A. (Physical Education) PROGRAMME

1. To enable the Pupil-Teachers to understand the nature, purpose and philosophy of education and physical education at the higher secondary stage.
2. To prepare teachers of Physical Education with higher educational perspective.
3. To develop personnel, Professionals and Social competencies required in teaching profession of physical education at matured aged/gender.
4. To develop potential for planning and organizing Physical Education programmes and other play-activities for higher level students.
5. To empower Pupil-Teachers to inspire their students to actively participate in Physical and Yogic Exercises, Games and Sports with advance thoughts.
6. To enable teachers to develop personality, character, will power, and positive attitude towards life among their students through Physical Education and Sports sciences.
7. To make teachers capable of imparting basic knowledge about Health, Hygiene, Nutrition and Physical Fitness.
8. To develop skills and competencies to organize school and community games and sports.
9. To promote mental health, power of self-decision and self-control, correct judgment and action, emotional stability, respect for other and acceptance of the authority and rules.
10. To promote appreciation and interest for indigenous games, sports and yogic practices among Pupil-Teacher.

Ist SEMESTER

M. A.(Physical Education) PART-IExaminationTHEORY

Sr.No	Subject	External Marks	Internal Assessment	Total	Minimum Passing Marks
1.	Physical Fitness and Wellness	70	30	100	40
2.	Physiology of Exercise	70	30	100	40
3.	Yogic Science	70	30	100	40
4.	Tests, Measurement & Evaluation in Physical Education	70	30	100	40

Ist Semester

PART-I Examination  
Practical Work

Course Code	Title of the Paper	Total Hours	Credit	Internal Marks	External Marks	Total Marks
PPC-101	<b>Track &amp; Field (Track event Performance)</b> 1. Running Events – 100 Mts./200 Mts./400 Mts./800Mts. Run Hurdles/ Relay race Long Distance Running Walking events( <b>Any Two</b> )	3	3	30	70	100
MPPC-102	<b>Specialization in Indigenous Games:</b> Kabaddi Kho-kho Malkhamb( <b>Any One</b> )	3	3	30	70	100
PPC-103	<b>Yoga</b>  Asana Suryanamaskar Kriya*/Pranayama*/Aerobics*/ Mudra*/Bandha* ( <b>*Any One</b> )	3	3	30	70	100
PPC-104	<b>Teaching/Coaching LessonAthletics (Track Event)</b>  5 Lessons  (4 Internal and 1 External)	3	3	30	70	100

IInd SEMESTER

PART-I Examination  
THEORY

Sr.No	Subject	ExternalMarks	Internal Assessment	Total	MinimumPassing Marks
1.	Applied Statistics inPhysical Education	70	30	100	40
2.	Sports Biomechanical& Kinesiology	70	30	100	40
3.	Information and communication technology (ICT) inphysical education	70	30	100	40
4.	Sports Management and Curriculum Design in Physical Education	70	30	100	40



IIInd Semester

PART-I Examination  
Practical Work

Course Code	Title of the Paper	Total Hours	Credit	Internal Marks	External Marks	Total Marks
PPC-201	<b>Track &amp; Field (Field Event Performance)</b> Jumping Events (High Jump/Long Jump/Triple Jump) Throwing Events (Shot-put/Discuss/Javelin/Hammer Throw)s (Any One from EachGroup)	3	3	30	70	100
PPC-202	<b>Team Games Specialization (Any One Game)</b> Foreign Games: Volleyball, Base Ball, Basketball, Football, Handball, Hockey, Cricket, Soft Ball.	3	3	30	70	100
PPC-203	Practical (ICT)	3	3	30	70	100
PPC-204	<b>Teaching/Coaching Lesson Athletics(Field Event) 5 Lessons(4 Internal and 1 External)</b>	3	3	30	70	100

IIIrd SEMESTER

PART-II Examination  
THEORY

Sr.No	Subject	External Marks	Internal Assessment	Total	Minimum Passing Marks
1.	Scientific Principles of Sports Training	70	30	100	40
2.	Sports Medicine	70	30	100	40
3.	Health Education and Sports Nutrition	70	30	100	40
4.	Research Process in Physical Education & Sports	70	30	100	40

IIIrd Semester

PART-II Examination  
Practical Work

Course Code	Title of the Paper	Total Hours	Credit	nternal Marks	xternal Marks	Total Marks
PPC-301	<b>Individual Game Specialization</b> Badminton, Archery, Table Tennis, Lawn Tennis, Judo, Karate, Boxing, Wrestling, Swimming.	3	3	30	70	100
PPC-302	<b>Coaching Lesson</b> Indigenous Activity and Yoga. 5 Lessons (4 Internal, 1 Externa)	3	3	30	70	100
PPC-303	<b>Classroom Teaching Lesson</b> Lesson on theory of different Indigenous Activity and Yoga.5 Lessons ( <b>4 Internal and 1 External</b> )	3	3	30	70	100
PPC-304	<b>Internship</b>	3	3	30	70	100

IVth SEMESTER

PART-II Examination  
THEORY

Sr.No	Subject	External Marks	Internal Assessment	Total	Minimum PassingMarks
1.	Athletic Care and Rehabilitation	70	30	100	40
2.	Sports Psychology	70	30	100	40
3.	Value of Environmental education	70	30	100	40
4.	Dissertation	70	30	100	40

IVth Semester  
PART-II Examination  
Practical Work

Course Code	Title of the Paper	Total Hours	Credit	Internal Marks	External Marks	Total Marks
PPC-401	<b><u>Laboratory Practical</u></b> Sports Psychology Physiology of Exercise 3. Sports Biomechanics and Kinesiology (Two Practical for each subjects)	3	3	30	70	100
PPC-402	<b><u>Project Practical (Management and Organization)</u></b> Seminar, Conference, Debate, Class Formation, Flag hosting, Tournament, Play day, Exhibition,Demonstration, Clinic, Time table, Picnic, Tour. (Note Book of Any Five and Conduct any one for Examination)	33	30	70	100	
PPC-403	<b><u>Coaching Lesson</u></b> Foreign Game. 5 Lessons (4 Internal and 1 External)	33	30	70	100	
PPC-404	<b><u>Class Room Teaching Lesson</u></b> Lesson on theory of different Foreign games and sports.5 Lessons (4 Internal and 1 External)	33	30	70	100	

**Semester – I**

Part A: Theoretical Course						
CourseCode	Title of the Papers	TotalHours	Credit	Internal Marks	External Marks	Total Marks
Core Course						
MPCC-101	Physical Fitness and Wellness	3	3	30	70	100
MPCC-102	Physiology of Exercise.	3	3	30	70	100
MPCC-103	Yogic Sciences	3	3	30	70	100
MPCC-104	Tests, Measurement and Evaluation in Physical Education	3	3	30	70	100
Part–B Practical Course						
MPPC-101	<b><u>Track and Field</u></b> 1. Running Events – 2. 100 Mts./200 Mts./400 Mts./800 Mts. Ru Hurdles/ Relay race Long Distance Running Walking events( <b>Any Two</b> )	6	3	30	70	100
MPPC-102	<b><u>Specialization in Indian Games:</u></b> Kabaddi Kho-kho 3. Malkhamb( <b>Any One</b> )	6	3	30	70	100
MPPC-103	<b><u>Yoga</u></b> Asana 2. Suryanamaskar 3.Kriya*/Pranayama*/Aerobic s*/Mudra*/Bandha* (* <b>Any One</b> )	6	3	30	70	100
MPPC-104	<b><u>Teaching/Coaching Lesson Athletics (Track Event)</u></b> 5 Lessons (4 Internal and 1 External)	6	3	30	70	100
<b>Total</b>		36	24	240	560	800

**Note:** Total number of hours required to earn 3 credits for eachtheory course are 51-60 hours persemester whereas 102-120 hours for eachpracticum course.

**Semester – II**

PartA:TheoreticalCourse						
Course Code	Title of the Papers	Total Hours	Credit	Internal Marks	External Marks	Total Marks
Core Course						
MPCC-201	Applied Statistics in Physical Education & Sports	3	3	30	70	100
MPCC-202	Sports Biomechanics & Kinesiology	3	3	30	70	100
MPCC-203	Information& Communication Technology (ICT) in Physical Education	3	3	30	70	100

<b>MPCC-204</b>	Sports Management and Curriculum Designs in Physical Education	3	3	30	70	100
<b>Part-B Practical Course Part–B Practical Course</b>						
<b>MPPC-201</b>	<b>Track and Field</b> Jumping Events (High Jump/Long Jump/Triple Jump) <b>2. Throwing Events</b> (Shot-put/Discuss/ Javelin/Hammer Throw) <b>(Any One from Each Group)</b>	6	3	30	70	100
<b>MPPC-202</b>	<b>Games Specialization Foreign Games:</b> Volleyball,BaseBall,Basketball, Football,Handball,Hockey, Cricket, Soft Ball <b>(Any One Game)</b>	6	3	30	70	100
<b>MPPC-203</b>	<b>Practical ICT</b>	6	3	30	70	100
<b>MPPC-204</b>	<b>Teaching/Coaching Lesson</b>	6	3	30	70	100
	<b>Athletics (Field Event)</b> 5 Lessons(4 Internal and 1 External)					
<b>Total</b>		36	24	240	560	800

**Note:** Total number of hours required to earn 3 credits for each theory course are 51-60 hours persemester whereas 102-120 hours for each practicum course

**Semester – III**

<b>PartA:TheoreticalCourse</b>						
Course Code	Title of the Papers	Total Hours	Credit	Internal Marks	External Marks	Total Marks
<b>Core Course</b>						
<b>MPCC-301</b>	Scientific Principles of Sports Training	3	3	30	70	100
<b>MPCC-302</b>	Sports Medicine	3	3	30	70	100
<b>MPCC-303</b>	Health Education and Sports Nutrition	3	3	30	70	100
<b>MPCC-304</b>	Research Process in Physical Education & Sports	3	3	30	70	100
<b>Part-B Practical Cours Part–B PracticalCourse</b>						
<b>Part-B Practical Course</b>						
<b>MPPC-301</b>	<b>Individual Game Specialization</b> Badminton, Archery, Table Tennis, Lawn Tennis, Judo, Karate, Boxing, Wrestling, Swimming.	6	3	30	70	100
<b>MPPC-302</b>	<b>Coaching Lesson</b> Indigenous Activity and Yoga. 5Lessons (4Internal,1External)	6	3	30	70	100

<b>MPPC-303</b>	<b><u>Classroom Teaching Lesson</u></b> Lesson on theory of different Indigenous Activity and Yoga. 5 Lessons ( <b>4 Internal and 1 External</b> )	6	3	30	70	100
<b>MPPC-304</b>	<b><u>Internship</u></b>	6	3	30	70	100
<b>Total</b>		36	24	240	560	800

**Note:** Total number of hours required to earn 3 credits for each theory course are 51-60 hours persemester whereas 102-120 hours for each practicum course.

**Semester - IV**

<b>PartA:TheoreticalCourse</b>						
<b>Course Code</b>	<b>TitleofthePapers</b>	<b>Total Hours</b>	<b>Credit</b>	<b>Internal Marks</b>	<b>External Marks</b>	<b>Total Marks</b>
<b>Core Course</b>						
<b>MPCC-</b>	Athletic Care and	3	3	30	70	100
<b>MPCC-</b>	Sports Psychology	3	3	30	70	100
<b>MPCC</b>	Value and Environmental Education	3	3	30	70	100
<b>MPCC-</b>	Dissertation	3	3	30	70	100
<b>Part–B PracticalCourse</b>						
<b>MPPC-401</b>	<b><u>Laboratory Practical</u></b> Sports Psychology 2. Physiology of Exercise 3.Sports Biomechanics andKinesiology (Two Practical for eachsubjects)	6	3	30	70	100
<b>MPPC-402</b>	<b><u>Project Practical (Management and Organization)</u></b> Seminar, Conference, Debate, Class Formation, Flag hosting, Tournament, Play day, Exhibition, Demonstration, Clinic, Time table, Picnic, Tour. (Note Book of Any Five and Conduct any one for Examination)	6	3	30	70	100
<b>MPPC-403</b>	<b><u>Coaching Lesson</u></b> Foreign Game. 5 Lessons ( <b>4 Internal and 1 External</b> )	6	3	30	70	100
<b>MPPC-404</b>	<b><u>Class Room Teaching Lesson</u></b> Lesson on theory of different Foreign games and sports.5Lessons (4 Internal and 1 External)	6	3	30	70	100
<b>Total</b>		36	24	240	560	800
		144	96	960	2240	3200

**Note:** Total number of hours required to earn 3 credits for each theory course are 51-60 hours persemester whereas 102-120 hours for each practicum course.**SCHEME OF EXAMINATION**

**(SEMESTER – I)**

<b>Paper</b>	<b>Subject</b>	<b>Internal</b>	<b>External</b>	<b>Total Marks</b>
	<b><u>THEORY (400)</u></b>			
MPCC-101	Physical Fitness and Wellness	30	70	100
MPCC-102	Physiology of Exercises	30	70	100
MPCC-103	Yogic Sciences	30	70	100
MPCC-104	Tests, Measurement and Evaluation in Physical Education	30	70	100
	<b><u>PRACTICAL (400)</u></b>			
MPPC-101	<b>Track and Field</b> 1. Running Events – 2. 100 Mts./200 Mts./400 Mts./800 Mts. Run 3. Hurdles/ Relay race 4. Long Distance Running 5. Walking events <b>(Any Two)</b>	30	70	100
MPPC-102	<b>Specialization in Indian Games:</b> Kabaddi Kho-kho <b>(Any One)</b>	30	70	100
MPPC-103	<b>Yoga</b> Asana Suryanamaskar 3.Kriya*/Pranayama*/Aerobics*/Mudra* <b>(*Any One)</b>	30	70	100
PPC-104	<b><u>Teaching/Coaching Lesson Athletics (Track Event)</u></b> 5 Lessons (4 Internal and 1 External)	30	70	100
	<b>Total</b>	240	560	<b>800</b>

**SEMESTER -II**

<b>Paper</b>	<b>Subject</b>	<b>Internal</b>	<b>External</b>	<b>Total Marks</b>
	<b><u>THEORY (400)</u></b>			
MPCC-201	Applied Statistics in Physical Education & Sports	30	70	100
MPCC-202	Sports Biomechanics & Kinesiology	30	70	100
MPCC-203	Information& Communication Technology (ICT) in Physical Education	30	70	100
MPCC-204	Sports Management and Curriculum Designs in Physical Education	30	70	100
	<b><u>PRACTICAL (400)</u></b>			
MPPC-201	<b>Track and Field</b> <b>1.</b> Jumping Events (High Jump/Long Jump/Triple Jump) <b>2.</b> Throwing Events (Shot-put/Discuss/ Javelin/Hammer Throw) <b>(Any One from Each Group)</b>	30	70	100
MPPC-202	<b>Games Specialization (First Best)</b> Foreign Games: Volleyball, Base Ball, Basketball, Football, Handball, Hockey, Cricket, Soft Ball <b>(Any One Game)</b>	30	70	100
MPPC-203	<b>Practical ICT</b>	30	70	100
MPPC-204	<b><u>Teaching/Coaching Lesson Athletics(Field Event)</u></b> 5 Lessons(4 Internal and 1 External)	30	70	100
	<b>Total</b>	240	560	<b>800</b>

**SEMESTER –III**

Paper	Subject	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.	30	70	100
MPCC-302	Sports Medicine (Lab Practicals)-Internal	30	70	100
MPCC-303	Health Education and Sports Nutrition	30	70	100
MPCC-304	Research Process in Physical Education & Sports Sciences	30	70	100
	<b><u>PRACTICAL (400)</u></b>			
MPPC-301	<b>Individual Game Specialization</b> Badminton, Archery, Table Tennis, Lawn Tennis, Judo, Karate, Boxing, Wrestling, Swimming.	30	70	100
MPPC-302	<b>Coaching Lesson</b> Indigenous Activity and Yoga. 5 Lessons (4 Internal, 1 External)	30	70	100
MPPC-303	<b>Classroom Teaching Lesson</b> Lesson on theory of different Indigenous Activity and Yoga. 5 Lessons ( <b>4 Internal and 1 External</b> )	30	70	100
MPPC-304	<b>Internship</b>	30	70	100
	<b>Total</b>	240	560	<b>800</b>

**SEMESTER –IV**

Paper	Subject	Internal	External	Total Marks
	<b><u>THEORY (400)</u></b>			
MPCC-401	Athletic Care and Rehabilitation	30	70	100
MPCC-402	Sports Psychology	30	70	100
MPCC-403	Value and Environmental Education.OR	30	70	100
MPCC-404	Dissertation	30	70	100
	<b><u>PRACTICAL (400)</u></b>			
MPPC-401	<b>Laboratory Practical</b> Sports Psychology Physiology of Exercise <b>3. Sports Biomechanics and Kinesiology(Two Practical for each subjects)</b>	30	70	100
MPPC-402	<b>Project Practical (Management and Organization)</b> Seminar, Conference, Debate, Class Formation, Flag hosting, Tournament, Play day, Exhibition, Demonstration, Clinic, Time table, Picnic, Tour. <b>(NoteBook of Any Five and Conduct any one for Examination)</b>	30	70	100
MPPC-403	<b>Coaching Lesson</b> Foreign Game. 5 Lessons ( <b>4 Internal and 1 External</b> )	30	70	100
MPPC-404	<b>Class Room Teaching Lesson</b> Lesson on theory of different Foreign games and sports.5 Lessons (4 Internal and 1 External)	30	70	100
	<b>Total</b>	240	560	<b>800</b>

## **Syllabus prescribed for M.A. (Physical Education) Semester-I to IV**

### **Semester I Theory Courses**

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

##### **MPCC-101 PHYSICAL FITNESS AND WELLNESS**

###### **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.

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.

##### **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 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.

*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 Ardle. (1996). Exercise Physiology, Energy, Nutrition and Human Performance. Philadelphia: Lippincott Williams and Wilkins Company.

### **Semester I Theory Courses MPCC-103 Yogic Sciences**

#### **Unit I – Introduction**

Meaning and Definition of Yoga. Astanga Yoga: Yama, Niyama, Asana, 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 – 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 Jalandhara Bandha, Jihva Bandha, Uddiyana Bandha, Mula Bandha.

#### **Unit IV – Mudras**

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

#### **Unit V – Yoga and Sports**

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

*Note: 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.  
Helen Purperhart (2004), The Yoga Adventure for Children. Netherlands: A Hunter House book.  
Iyengar, B.K.S. (2000), Light on Yoga. New Delhi: Harper Collins Publishers.  
Karbelkar N.V. (1993) 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.  
Kuvallyananda 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 Kuvallyanda, (1998), Asanas. Lonavata: Kaivalyadhama.  
Swami Satyananda 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.

## **Semester I Theory Courses**

### **MPCC-104**

#### **TEST, MEASUREMENT AND EVALUATION IN PHYSICAL EDUCATION**

##### **UNIT I – Introduction**

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

##### **UNIT II – Motor Fitness Tests**

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

##### **UNIT III – Physical Fitness Tests**

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

##### **UNIT IV – Anthropometric and Aerobic-Anaerobic Tests**

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

##### **UNIT V – Skill Tests**

Specific Sports Skill Test: Badminton: Miller Wall Volley Test. Basketball: Johnson Basketball Test, Harrison Basketball Ability 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: DVSPublications

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

## **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; Illinois; Human Kinetics;  
Kamlesh, M. L. (1999) Research Methodology in Physical Education and Sports, New Delhi Rothstein 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.

## **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. Guiding principles of 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 -friction, Spin - Centripetal force - Centrifugal force.

#### **UNIT IV – Projectile and Lever**

Freely falling bodies -Projectiles -Equation of projectiles stability Factors influencing equilibrium - Guiding principles for stability -static and dynamic stability. Meaning of work, power, energy, kinetic energy and potential energy. Leverage -classes of lever - practical application. Water resistance - Air resistance  
-Aerodynamics.

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

## **UNIT V – Movement Analysis**

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

Mechanical analysis of track and field events. **REFERENCE:**

Deshpande S.H.(2002). ManavKriyaVigyan – Kinesiology (Hindi Edition)Amravati :HanumanVyayamPrasarak 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.

## **Semester II Theory Courses**

### **MPCC-203 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

#### **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

## **Semester II Theory Courses**

### **MPCC-204 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:**

- Aggarwal, J.C (1990). Curriculum Reform in India – World overviews, Doaba World Education Series – 3 Delhi: Doaba House, Book seller and Publisher.
- Arora, G.L. (1984): Reflections on Curriculum, New Delhi: NCERT.
- 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 (2000). National Curriculum Framework for School Education, New Delhi: NCERT.
- 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. Yadvinder Singh. Sports Management, New Delhi: Lakshay Publication.

## **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 :**

BeotraAlka, (2000), Drug Education Handbook on Drug Abuse in Sports. Delhi: SportsAuthority of India.  
Bunn, J.N. (1998) Scientific Principles of Coaching, New Jersey Engle Wood Cliffs, PrenticeHall Inc.  
Cart, E. Klafs&Daniel, D. Arnheim (1999) Modern Principles of Athletic Training St. Louis C. V. Mosby 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  
YograjThani (2003), Sports Training, Delhi : Sports Publications

## **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, Mobilizationexercise, 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. MosbyCompany.  
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,

## **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.

## **Semester III Theory Courses**

### **MPCC-304 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, Meaning of Survey, Tools of Survey Research, Questionnaire, Construction of Questionnaire, Interview, Procedure of conducting interview, 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**

Chapterization 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

## **Semester IV Theory Courses**

### **MPCC-401 ATHLETIC CARE AND REHABILITATION**

#### **Unit I – Corrective Physical Education**

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

#### **Unit II – Posture**

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

#### **Unit III – Rehabilitation Exercises**

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

#### **Unit IV – Massage**

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

#### **Unit V – Sports Injuries Care, Treatment and Support**

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

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

## **REFERENCES:**

Doherty. J. Meno. Wetb, Moder D (2000) Track & Field, Englewood Cliffs, Prentice 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: Febr and Febr 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 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. Concept and causes of aggression in sports, Role of aggression in sports performance, Methods of controlling aggression.

## **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.

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 SahetyKendre Publishers.

Jay Coakley. (2001) Sports in Society – Issues and Controversies in International Education, Mc-Craw Seventh Ed.

John D Lauther (2000) Psychology of Coaching. NerJersy: Prenticce Hall Inc. John D. Lauther (1998) Sports Psychology. Englewood, Prentice Hall Inc.

MiroslawVauks& Bryant Cratty (1999). Psychology and the Superior Athlete. London: TheMacmillan Co.

Richard, J. Crisp. (2000). Essential Social Psychology. Sage Publications.

Robert N. Singer (2001). Motor Learning and Human Performance. New York: TheMacmillan Co.

Robert N. Singer. (1989) The Psychology Domain Movement Behaviour. Philadelphia: Leaand 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 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 (Blackwell 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.  
McKinney, M.L. and Schoel, R.M. Environmental Science System and Solution (Web enhanced Ed.) 1996.  
Miller T.G. Jr., Environmental Science (Wadsworth Publishing Co.)

**Semester IV Theory Courses****MPCC-404 DISSERTATION**

1. A candidate shall have dissertation for M.A.(Physical Education) – 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 must submit his/her dissertation the beginning of the IV<sup>th</sup> Semester Examination.
3. The candidate has to face the Viva-Voce conducted by DRC.

Semester I Practicum Course

MPPC- 101 TRACK AND FIELD (TRACK EVENTS PERFORMANCE)

1. Running Events – 100 Mts./200 Mts./400 Mts./800 Mts. Run
2. Hurdles/ Relay race
3. Long Distance Running
4. Walking events(Any Two)

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 andat finish.
- Advanced Skills

Various techniques of sprint start: Bullet start, standing start,
- Active game practice
- Distribution of marks for game Examination is given below:

Performance of any two track events

Sl. No.	Roll No.	Event 1		Event 2		Project Report	Viva Voce	Total
		Performance	Style/ Technique	Performance	Style/ Technique			
		10	10	10	10			

(The performance table is given in appendix.)

Athletic Project report on **Track Events** Must be written by own handwriting (Details regarding all track events, various styles and techniques of each event.)  
Tournaments held at National and International levels, Distinguished sports awards and personalities related to the events. Warming-up- General free hand exercises, specific work out, 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 I Practicum Course

MPPC- 102 SPECIALIZATIONS IN INDIGENOUS GAME (INDIAN GAME)

The Candidate has choice to select any one of the following games as the IndianGame Specialization in 1<sup>st</sup>Semester.

(Kabaddi, Kho-Kho, Malkhamb)

Distribution of marks for game Examination is given below:

Sl. No.	Knowledge of fundamental skills	Playing efficiency	Officiatingof the game	Project Report	Viva voce	Total
	20	20	10	10	10	70

History of the game, Measurement and Preparation of the Fields, Equipments and materials required, Fundamental skill, Lead up games, Techniques, Tactics, system of play, rules and regulations of game, Methods of coaching, Officials and their signals, Modern trends in the game, latest record of the game awards.  
The student will submit the project report in own handwriting at the time of exam.

## Semester I Practicum Course

### MPPC-103 YOGA

**Yoga Asanas (Sitting, Standing and Laying Asanas)Suryanamaskar (12 count)**

**Kriyas** (ShudhiKriyas,Shatkriya,Jalneti, Sutraneti, Dugdhaneti, Kunjal, Nauli)**Pranayam** (Bhastika, Pranayams, Anulom-vilom, Kapalbhati)

**Aerobics** (Rhythmic Aerobics – dance, Low impact aerobics, High impact aerobics, beingsuccessful in exercise and adaptation to aerobic workout.)

**Mudras** (Eight types of Mudra) **Bandha**

Distribution of marks for Examination is given below:

Sl. No.	Yoga-asana (Two student choice & two examiner choice)	Suryanamaskar	Kriya* /Pranayama* /Aerobics*/Mudras*/Band ha* (Any One)	Project Report	Total
	40	10	10	10	70

## Semester I PracticumCourse

### MPPC-104 TEACHING/COACHING LESSON ATHLETICS (TRACK EVENTS)

The students need to develop proficiency in takingteaching classes inTrack events under school situation. In view of this, the students shall be provided with teaching experience. The duration of the lesson to be conducted by these students shall be in the range of 30 to 40 minutes depending on the class they are going to handle at school and college level.

Each student teacher is expected to take at least five lessons during the course of the first semester. The lessons will be supervised by the faculty members and experts who would discuss the merits and demerits of the concerned lesson and guide them for the future. In these lessons, the duration should slowly increase and all the parts of the lesson covered progressively.

Sl. No.	Lesson plan	Knowledge of subject	Teaching aptitude	Use of audio- visual aids	Class Control (Student Creativity/Ability)	Total
	10	20	20	10	10	70

## Semester II Practicum Course

### MPPC- 201 TRACK AND FIELD (FIELD EVENTS PERFORMANCE)

1. Jumping Events(High Jump/Long Jump/Triple Jump)
2. Throwing Events(Shot-put/Discuss/ Javelin/Hammer Throw)

(Any One from Each Group)

Sl. No.	Roll No.	Event 1(Jumping)		Event 2(Throwing)		Project Report	Viva Voce	Total
		Performance	Style/ Technique	Performance	Style/ Technique			
		10	10	10	10			

(The performance table is given in appendix.)

Athletic Project report on **Field Events** Must be written by own handwriting (Details regarding all Field events, various styles and techniques of each event.)

Tournaments held at National and International levels, Distinguished sports awards and personalities related to the events. Warming-up- General free hand exercises, specific work out, 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-202 TEAM GAMES SPECIALIZATION

The Candidate has choice to select any one of the following games as the Specialization in 2nd Semester.

(Baseball/ Volleyball/ Basketball/ Cricket/ Football/ Handball/ Hockey/ Softball) Distribution of marks for game Examination is given below:

Sl. No.	Knowledge of fundamental skills	Playing efficiency	Officiating of the game	Project Report	Viva voce	Total
	20	20	10	10	10	70

History of the game, Measurement and Preparation of the Fields, Equipments and materials required, Fundamental skill, Lead up games, Techniques, Tactics, system of play, rules and regulations of game, Methods of coaching, Officials and their signals, Modern trends in the game, latest record of the game awards.

The student will submit the project report in own handwriting at the time of exam.

## Semester II Practicum Course

### MPPC-203 Practical (ICT) Practical Examination(Computer)

The Examination will be conducted in any two items selected by examiner and any two choice items of the examinee from the following contents.

The contents of the computer practical as follows:

**M.S. Word:** Copy file & paste, Create file, Create folder. File open, Front size & styles create table.

**M.S. Excel :** Create table, insert border. Ascending and descending number. Sum, average & percentage.

**M.S. PowerPoint:** Create slides, background colour, slide effects, hide slide. Presentation E-mail: Create E-mail address, send E-mail, receive E-mail ID

Internet: Searching Web, side, download Distribution of Marks:

Sl. No.	her Choice (2Items)	idates Choice(2Items)	Total
	40	30	70

### MPPC-204 TEACHING/COACHING LESSON ATHLETICS (FIELD EVENTS)

The students need to develop proficiency in taking teaching classes in field events 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.

Sl. No.	Lesson plan	Knowledge of subject	Teaching aptitude	Use of audio-visual aids	Class Control (Student Creativity/Ability)	Total
	10	20	20	10	10	70

### Semester III Practicum Course

#### MPPC- 301 INDIVIDUAL GAME SPECIALIZATION

The Candidate has choice to select any one of the following games as the Specialization in 3<sup>rd</sup>Semester(Badminton, Archery, Table Tennis, Lawn Tennis, Judo, Karate, Boxing, Wrestling,Swimming.)

Distribution of marks for game Examination is given below:

Sl. No.	Knowledge of fundamental skills	Playing efficiency	Officiating of the game	Project Report	Viva voce	Total
	20	20	10	10	10	70

### Semester III Practicum Course

#### MPPC-302COACHING LESSON (INDIGENOUS GAME)

The students need to develop proficiency in takingcoaching classes inIndigenous games under school situation. In view of this, the students shall be provided with coaching 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 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 lessons, the duration should slowly increase and all the parts of the lesson covered progressively.

Sl. No.	Lesson plan	Knowledge of subject	Teaching aptitude	Use of audio-visualaids	Class Control (Student Creativity/Ability)	Total
	10	20	20	10	10	70

### Semester III Practicum Course

#### MPPC-303 CLASS ROOM TEACHING LESSON (LESSONS ON THEORY OFDIFFERENT INDIGENOUS SPORTS & GAMES)

The students need to develop proficiency in taking teaching lessons as per selected Indigenous games and sport or game specialization. In view of this, the students shall beprovided with selected or specialized game teaching experience. The duration of the lesson to beconducted by these students shall be in the range of 30 to 40 minutes depending on the class timethey are going to handle at school and college level.

Each student teacher is expected to take at least five lessons (Four internal and one external) 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 teaching lessons, the duration should slowly increase and all the parts of the lesson covered progressively.

Distribution of marks for Lesson Examination is given below:

Sl. No.	Lesson plan	Knowledge of subject	Teaching aptitude	Use of audio-visualaids	Class Control (Student Creativity/Ability)	Total
	10	20	20	10	10	70

## Semester III Practicum Course

### MPPC-304 INTERNSHIP

The students need to be develop proficiency in taking coaching/teaching/officiating lessonsat school/college/club/organization level. He/She must able to organize/conduct/manage/administrate sports tournaments and various sports activities at different level.

## Semester IV Practicum Course

### MPPC- 401 Laboratory Practical

#### Sports Psychology

Psychological Tests: Types of Psychological Test: Instrument based tests: Reaction timer, Finger dexterity board, Depth perception box. Questionnaire: Sports Achievement Motivation, Sports Competition Anxiety, Personality Profile test, I.Q.test, Attitude test, Reaction time, hand eye coordination test.

#### Physiology of Exercise

Pulse rate, Heart rate, Blood pressure, Haemoglobin, Vital Capacity.

#### Sports Biomechanics and Kinesiology

Anthropometry measurements, Mechanical analysis, Study of two injury cases.

**Distribution of marks for Practical Examination is given below:**

Sl. No.	Sports Psychology	Physiology of Exercise	Sports Biomechanics and Kinesiology	Project Report	Viva-voce	Total
	20	20	10	10	10	70

## Semester IV Practicum Course

### MPPC-402 PROJECT PRACTICAL(Management and Organization)

**Seminar, Conference, Debate, Class Formation, Flag hosting, Tournament, Play day, Exhibition, Demonstration, Clinic, Time table, Picnic, Tour. (Note Book of Any Five and Conduct any one for Examination)**

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, Seminar, Conference, Debate, Class Formation, Tournament, Exhibition, Demonstration, Clinic, Time table, Picnic, Tour, Organization of Sports Festival, Play Day, Social Party games, etc. should be organized.



Distribution of marks for game Examination is given below:

Sl. No.	Practical Note Book	Actual Organization of Event	Event Conducting Ability	Viva-Voce	Total
	20	20	20	10	70

Semester IV Practicum Course

MPPC-403 COACHING LESSON (FOREIGN GAME)

The students need to develop proficiency in taking coaching classes in foreign games under school situation. In view of this, the students shall be provided with coaching 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 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 lessons, the duration should slowly increase and all the parts of the lesson covered progressively.

Sl. No.	Lesson plan	Knowledge of subject	Teaching aptitude	Use of audio- visualaids	Class Control (Student Creativity/Ability)	Total
	10	20	20	10	10	70

Semester IV Practicum Course

MPPC-404 CLASS ROOM TEACHING LESSON (LESSONS ON THEORY OF DIFFERENT FOREIGN SPORTS & GAMES)

The students need to develop proficiency in taking teaching lessons as per selected foreigngames 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 timethey are going to handle at school and college level.

Each student teacher is expected to take at least five lessons (Four internal and one external) 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 teaching lessons, the duration should slowly increase and all the parts of the lesson covered progressively.

Distribution of marks for Lesson Examination is given below:

Sl. No.	essonplan	Knowledgeof subject	Teaching aptitude	Use of audio- visualaids	Class Control (Student Creativity/Ability)	Total
	10	20	20	10	10	70

Note:

- i. Where ever details of any activities are not mentioned, it is expected to elaborate skillsby the competent bodies of local Universities/ Autonomous Colleges.
- ii. Practical Examination shall be conducted by internal and external examiners.

Athletic Performance Conversion Scoring Table (Men) Running Events

Marks	100 Mtrs. InSeconds	200 Mtrs. in Seconds	800 Mtrs. in Minutes & Seconds	1500 Mtrs. in Minutes & Seconds	110 Mtrs. & Hurdle in Seconds
10	12.5	26.5	2.40	4.50	17.5
9.5	12.7	26.7	2.42	4.53	17.6
9	12.9	26.9	2.44	4.56	17.7
8.5	13.1	27.1	2.46	4.59	17.8
8	13.3	27.3	2.48	5.02	17:9
7.5	13.5	27.5	2.50	5.03	18.0
7	13.7	27.7	2.52	5.08	18.2
6.5	13.9	27.9	2.54	5.11	18.4
6	14.1	28.1	2.56	5.14	18.6
5.5	14.3	28.3	2.58	5.17	18.8
5	14.5	28.5	3.00	5.20	19.0
4.5	14.6	28.7	3.02	5.23	19.1
4	14.7	28.9	3.04	5.26	19.2
3.5	14.8	29.1	3.06	5.29	19.3
3	14.9	29.3	3.08	5.32	19.4
2.5	15.0	29.5	3.10	5.35	19.5
2	15.1	29.7	3.12	5.38	19.6
1.5	15.2	29.8	3.14	5.41	19.7
1	15.3	29.9	3.16	5.42	19.8
0.5	15.4	30.0	3.18	5.47	19.9
0	15.5	30.1	3:20	5:50	20.0

APPENDIX -II

Athletic Performance Conversion Scoring Table (Women) Running Events

	Marks	100 Mtrs. in Seconds	200 Mtrs. in Seconds	800 Mtrs.in Min.& seconds	100 Mtrs. Hurdle in Seconds
	10	15.0	31.5	3.00	19.5
	9.5	15.2	31.7	3.03	19.6
	9	15.4	31.9	3.06	19.7
	8.5	15.6	32.1	3.09	19.8
	8	15.8	32.3	3.12	20.0
	7.5	16.0	32.5	3.15	20.2
	7	16.2	32.7	3.18	20.4
	6.5	16.4	32.9	3.21	20.7
	6	16.6	33.0	3.24	21.0
	5.5	16.8	33.5	3.37	21.5
	5	17.0	33.8	3.30	22.0
	4.5	17.2	34.0	3.33	22.2
	4	17.4	34.2	3.36	22.4
	3.5	17.6	34.4	3.34	22.6
	3	17.8	34.6	3.42	22.8
	2.5	18.0	34.8	3.45	23.0
	2	18.2	34.0	3.48	23.2
	1.5	18.3	34.2	3.52	23.4
	1	18.4	34.4	3.55	23.6
	0.5	18.5	34.6	3.58	23.8
	0	18.6	34.7	4:00	24.5

APPENDIX -III

Athletic Performance Conversion Scoring Table (Men) Throwing Events				
Marks	Shot Put (7Kg. 260 Gram) in M.	Hammer in Meters	Discus in Meters	Javelin in Meters
10	8.60	35.00	33.00	55.00
9.5	8.40	34.00	32.00	48.00
9	8.10	33.00	31.00	46.00
8.5	7.90	32.00	30.00	44.00
8	7.50	31.00	29.00	42.00
7.5	7.20	30.00	27.50	40.00
7	6.80	29.00	26.00	37.00
6.5	6.40	28.00	24.50	34.00
6	6.00	26.50	23.00	31.00
5.5	5.90	25.00	21.50	28.00
5	5.80	23.50	20.00	25.00
4.5	5.70	22.00	19.00	24.50
4	5.60	21.00	18.00	24.00
3.5	5.50	20.00	17.00	23.50
3	5.40	19.00	16.00	23.50
2.5	5.35	18.00	14.00	22.50
2	5.30	17.00	13.00	22.06
1.5	5.25	16.00	12.50	21.50
1	5.20	15.00	12.00	21.00
0.5	5.15	14.50	11.50	20.50
0	5.10	14.00	11.00	20.00

APPENDIX–

IV

Athletic Performance Conversion Scoring Table (Women) Throwing and Jumping Events

Marks	Shot put in Meters	Discus in Mtrs.	Javelin in meters	Long Jump in Meters	High jump(4Kg)
10	8.50	30.00	35.00	4.00	1.30
9.5	8.30	29.00	33.50	3.90	1.28
9	8.10	28.00	32.00	3.80	1.26
8.5	7.80	26.50	30.50	3.70	1.24
8	7.50	25.00	29.00	3.60	1.22
7.5	7.20	23.50	27.50	3.50	1.20
7	6.80	22.00	26.00	3.40	1.18
6.5	6.40	20.50	24.50	3.30	1.15
6	6.00	19.00	23.00	3.20	1.10
5.5	5.60	17.50.	21.50	3.10	1.05
5	5.20	16.00	20.00	3.00	1.00
4.5	5.05	15.00	19.00	2.95	0.95
4	4.90	14.50	18.00	2.90	0.90
3.5	4.75	14.00	17.00	2.85	0.85
3	4.60	13.50	16.00	2.80	0.80
2.5	4.45	13.00	15.50	2.75	18.5
2	4.30	12.50	15.00	2.70	0.76
1.5	4.20	12.00	14.50	2.65	0.74
1	4.10	11.50	14.00	2.60	0.72
0.5	4.00	11.00	13.50	2.55	0.70
0	3.90	10.90	13.00	2.50	0.68

Athletic Performance Conversion Scoring Table (Men) Jumping Events				
Marks	Long Jump in Meters	Hop Step Jump in Meters	High Jump in Meters	Pole Vault in Meters
10	6.00	13.60	1.50	3.40
9.5	5.90	13.40	1.48	3.37
9	5.80	13.20	1.46	3.34
8.5	5.70	13.00	1.44	3.30
8	5.60	12.80	1.42	3.25
7.5	5.50	12.60	1.40	3.20
7	5.40	12.40	1.38	3.15
6.5	5.30	12.20	1.36	3.10
6	5.20	12.00	1.34	3.05
5.5	5.10	11.80	1.32	3.00
5	5.00	11.60	1.30	2.90
4.5	4.95	11.50	1.28	2.85
4	4.90	11.40	1.26	2.80
3.5	4.85	11.30	1.24	2.75
3	4.80	11.20	1.22	2.70
2.5	4.75	11.10	1.20	2.65
2	4.70	11.00	1.18	2.60
1.5	4.65	10.90	1.16	2.55
1	4.60	10.80	1.15	2.50
0.5	4.55	10.70	1.14	2.45
0	4.50	10.60	1.13	2.40

Table – 1: Semester wise distribution of hours per week

Semester	Theory	Practicum	Teaching practice	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 week				

Table – 2: Number of credits per semester

Semester	Theory	Practicum	Teaching practice	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 week				