

**CURRICULUM FRAMEWORK  
TWO-YEAR M.P.Ed. PROGRAMME**



**Banaras Hindu University, Varanasi, Uttar Pradesh**

## **GUIDELINES OF REGULATIONS AND STRUCTURE FOR TWO YEARS M. P. Ed. PROGRAMME (FOUR SEMESTER)**

### ***Important Note:***

- 1. The Banaras Hindu University is following choice based credit system, (CBCS) as approved and circulated by the UGC, the credit hours given in the following curriculum framework will be considered along with the hours of teaching mentioned for each paper/ activity / course.*

### **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.

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

The Intake, Eligibility and Admission Procedure is as per the NCTE norms and standards 2014-15 and regulation of the University.

### **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 four years from the date of admission to the programme.

### **M.P.Ed. 3. The CBCS System:**

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.

**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.

**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**
- **P r a c t i c u m**
  - **Compulsory Course**
  - **Elective Course**
  - **Teaching/Coaching Practices**

**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).

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

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

**M.P.Ed. 8. Examinations:**

- i. There shall be examinations at the end of each semester as per the rules of Banaras Hindu University.

- ii. A candidate should get enrolled /registered for the first semester examination. If enrollment/registration is not possible owing to shortage of attendance beyond condonation limit / rules prescribed OR belated joining OR on medical grounds, such candidates are not permitted to proceed to the next semester. Such candidates shall redo the semester in the subsequent term of that semester as a regular student; however, a student of first semester shall be admitted in the second semester, if he/she has successfully kept the term in first semester.

**M.P.Ed 9 Condonation:**

As per the Banaras Hindu University rule.

**M.P.Ed 10. Pattern of Question Papers:**

Question Papers shall have fourteen questions corresponding to five units of each theory course.

**M.P.Ed.: Format of Question Paper for 5 Units.**

Each question paper shall have fourteen questions. The pattern will be as follows:

Section	Description	Marks
A	Short Question (Each answer should be written within 50 to 60 words or 5 to 6 lines.) From all Units.	2 X 10 = 20
B	Long Question (Attempt all question. Each answer be in 250 words or 20 to 25 lines ) From all Units Question 11 or 11 Question 12 or 12	10 X 2 = 20
C	Long Question (Attempt all question. Each answer be in 500 words ) From all Units Question 13 or 13 Question 14 or 14	15 X 2 = 30
	Total	70

**M.P.Ed.11.****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.

**M.P.Ed 12 Minimum Passing Standard**

The minimum passing standard for CIA (Continuous Internal Assessment) and External Examinations shall be 40%, i.e. 12 marks out of 30 marks and 28 marks out of 70 marks respectively for practical and theory courses.

**M.P.Ed 13. 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. 16 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:

$$SGPA(S_i) = \frac{\sum(C_i \times G_i)}{\sum C_i}$$

$$CGPA = \frac{\sum(C_i \times S_i)}{\sum C_i}$$

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 the SGPA of Semester  $j$  and  $N$  numbers of semester. Thus CGPA is average of SGPA of all semesters starting from the first semester to the current semester.

#### **M.P.Ed. 14. Classification of Final Results:**

A candidate who has passed in all the courses of examinations of I, II, III and IV Semesters taken together will be declared as “Passed”. Such passed candidates may be awarded with the division according to the following criterion:

- (i) First Division with distinction ..... CGPA 8.5 and above.
- (ii) First Division .....CGPA 6.0 and above but below 8.5
- (iii) Second Division.....CGPA 5.0 and above but below 6.0
- (iv) Pass ..... CGPA 4.0 and above but below 5.0
- (v) Fail/Dropped ...Candidate who has not Passed will be categorized as Failed

#### **M.P.Ed.15. Award of the M.P.Ed Degree:**

A candidate shall be eligible for the award of the degree of the M.P.Ed. only if he/she has earned the minimum required credit.

#### **M.P.Ed.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 of 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	First Class
60-69.99	6.0-6.99	A	Very Good	
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	

### M.P.Ed.17. 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:

$$\text{CGP} = \frac{\sum(C_i \times G_i)}{\sum C_i}$$

#### Example – I

Marks obtained by Student in course MPCC101 = 65/100

Percentage of marks = 65 %

Grade from the conversion table is

$$= \text{A Grade Point} = 6.0 + 5 (0.99/9.99)$$

$$= 6.0 + 5 \times 0.1$$

$$= 6.0 + 0.5$$

$$= 6.5$$

The Course Credits = 03

$$\text{Credits Grade Point (CGP)} = 6.5 \times 03 = 19.5$$

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**

<b>Courses Code.</b>	<b>Credit</b>	<b>Marks out of 100 (%)</b>	<b>Grade</b>	<b>Grade Point</b>	<b>Credit Grade point</b>
<b>MPCC-101</b>	3	65	A	6.5	19.5
<b>MPCC-102</b>	3	60	A	6	18
<b>MPCC-103</b>	3	62	A	6.2	18.6
<b>MPEC-104/ MPEC-105</b>	3	57	B +	5.7	17.1
<b>MPPC-106</b>	3	55	B	5.5	16.5
<b>MPPC-107</b>	3	72	A	7.2	21.6
<b>MPPC-108</b>	3	66	A	6.6	19.8
<b>MPPC-109</b>	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**  $62 = 60 + 2 = 6.0 + 2 \times (0.99/9.99) = 6.0 + 2 \times 0.1 = 6.0 + 0.2 = 6.2$

**MPEC-104/**

**MPEC-105**  $57 = 55 + 2 = 5.5 + 2 \times (0.49 / 4.49) = 5.5 + 2 \times 0.1 = 5.5 + 0.2 = 5.7$

**MPPC-106**  $55 = 5.5$

**MPPC-107**  $72 = 70 + 2 = 7.0 + 2 \times (1.49 / 14.9) = 7.0 + 2 \times 0.1 = 7.0 + 0.2 = 7.2$

**MPPC-108**  $66 = 60 + 6 = 6.0 + 6 \times (0.99 / 9.99) = 6.0 + 6 \times 0.1 = 6.0 + 0.6 = 6.6$

**MPPC-109**  $72 = 70 + 2 = 7.0 + 2 \times (1.49 / 14.9) = 7.0 + 2 \times 0.1 = 7.0 + 0.2 = 7.2$

SEMESTER GRADE POINT AVERAGE (SGPA) = Total Credit Grade Points  
=  $152.7/24 = 6.3625$

SGPA Sem. I = 6.3625

At the end of Semester-1

Total SGPA = 6.3625

Cumulative Grade Point Average (CGPA) =  $6.3625/1 = 6.3625$

CGPA = 6.66875, Grade = A, Class = First Class



**SEMESTER-2**

<b>Courses No.</b>	<b>Credit</b>	<b>Marks out of 100</b>	<b>Grade</b>	<b>Grade Point</b>	<b>Credit Grade</b>
<b>MPCC-201</b>	3	76	A+	7.6	22.8
<b>MPCC-202</b>	3	64	A	6.4	19.2
<b>MPCC-203</b>	3	59	B+	5.9	17.7
<b>MPEC-204/MPEC-205</b>	3	80	A+	8	24
<b>MPPC-206</b>	3	49	C	4.9	14.7
<b>MPPC-207</b>	3	64	A	6.4	19.2
<b>MPPC-208</b>	3	55	B+	5.5	16.5
<b>MPPC-209</b>	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**

<b>Courses No.</b>	<b>Credit</b>	<b>Marks out of 100 (%)</b>	<b>Grade</b>	<b>Grade Point</b>	<b>Credit Grade point</b>
<b>MPCC-301</b>	3	64	A	6.4	19.2
<b>MPCC-302</b>	3	64	A	6.4	19.2
<b>MPCC-303</b>	3	59	B+	5.9	17.7
<b>MPEC-304/MPEC-305</b>	3	81	A+	8.1	24.3
<b>MPPC-306</b>	3	49	C	4.9	14.7
<b>MPPC-307</b>	3	64	A	6.4	19.2
<b>MPPC-308</b>	3	68	A	6.8	20.4
<b>MPPC-309</b>	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**

<b>Courses No.</b>	<b>Credit</b>	<b>Marks out of 100 (%)</b>	<b>Grade</b>	<b>Grade Point</b>	<b>Credit Grade point</b>
<b>MPCC-401</b>	3	83	A+	8.3	24.9
<b>MPCC-402</b>	3	76	A+	7.6	22.8
<b>MPCC-403</b>	3	59	B+	5.9	17.7
<b>MPEC-404/MPEC-405</b>	3	81	A+	8.1	24.3
<b>MPPC-406</b>	3	49	C	4.9	14.7
<b>MPPC-407</b>	3	78	A+	7.8	23.4
<b>MPPC-408</b>	3	81	A+	8.1	24.3
<b>MPPC-409</b>	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.P.Ed. Degree shall be awarded on the basis of last CGPA (grade) from one to four semester examinations

**Semester – I**

<b>Part - A : Theoretical Course</b>						
<b>Course Code</b>	<b>Title of the Papers</b>	<b>Total Hours /Week</b>	<b>Credit</b>	<b>Sessional Marks</b>	<b>Theory/ Practical Marks</b>	<b>Total Marks</b>
<b>Core Course</b>						
MPCC – 101	Research Process in Physical Education & Sports Sciences	3	3	30	70	100
MPCC – 102	Value and Environmental Education In Physical Education	3	3	30	70	100
MPCC – 103	Tests, Measurements and Evaluation in Physical Education	3	3	30	70	100
<b>Elective Course</b>						
MPEC – 104	Yogic Science	3	3	30	70	100
MPEC – 105	Sports Journalism and Mass Media					
<b>Part - B : Practical Course</b>						
MPPC – 106	Track & Field: All Track Events and Marathons	6	3	30	70	100
MPPC – 107	Sports Specialization – I (Skill Proficiency) Badminton/Basketball/Cricket/Football/Gymnastics/Handball/Hockey/Kabaddi&Kho-Kho/Lawn Tennis/Volleyball/Yoga (Any One)	6	3	30	70	100
MPPC – 108	Rules, Officiating & Project Book of Sports Specialization - I	6	3	30	70	100
MPPC – 109	Adventure Activities/ Educational Tour(Adventure Tour)/ Mass Demonstration Activities	6	3	30	70	100
<b>Total</b>		<b>36</b>	<b>24</b>	<b>240</b>	<b>560</b>	<b>800</b>
<p>Note: Total number of hours required to earn 3 credits for each theory course is 51-60 hours per semester whereas 102-120 hours for each practicum course.</p>						

**Semester - II**

Part - A : Theoretical Course						
Course Code	Title of the Papers	Total Hours /Week	Credit	Sessional Marks	Theory/ Practical Marks	Total Marks
<b>Core Course</b>						
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	Athletic Care & Rehabilitation	3	3	30	70	100
<b>Elective Course</b>						
MPEC -204	Sports Management and Curriculum Designs in Physical Education	3	3	30	70	100
MPEC – 205	Sports Technology					
<b>Part - B : Practical Course</b>						
MPPC – 206	Track & Field: All Field Events and Combined Events	6	3	30	70	100
MPPC – 207	Sports Specialization – I Badminton/Basketball/Cricket/ Football/Gymnastics/Handball/ Hockey/Kabaddi&Kho-Kho/Lawn Tennis/Volleyball/Yoga (Any One)	6	3	30	70	100
MPPC – 208	Teaching/Coaching Lessons Sports Specialization - I : 5 (4 Internal & 1 External )	6	3	30	70	100
MPPC – 209	Class room Teaching Lessons on Theory of different Sports & Games - 5 Lessons (4 Internal & 1 External)	6	3	30	70	100
Total		36	24	240	560	800
Note: Total number of hours required to earn 3 credits for each theory course is 51-60 hours per semester whereas 102-120 hours for each practicum course.						

**Semester - III**

<b>Part - A : Theoretical Course</b>						
<b>Course Code</b>	<b>Title of the Papers</b>	<b>Total Hours /Week</b>	<b>Credit</b>	<b>Sessional Marks</b>	<b>Theory/ Practical Marks</b>	<b>Total Marks</b>
<b>Core Course</b>						
MPCC – 301	Scientific Principles of Sports Training	3	3	30	70	100
MPCC – 302	Sports Medicine	3	3	30	70	100
MPCC – 303	Health Education and Sports Nutrition	3	3	30	70	100
<b>Elective Course</b>						
MPEC – 304	Education Technology in Physical Education	3	3	30	70	100
MPEC – 305	Sports Engineering					
<b>Part - B : Practical Course</b>						
MPPC – 306	Aerobics & Callisthenics	6	3	30	70	100
MPPC – 307	Sports Specialization – II (Skill Proficiency) Athletics/Badminton/Basketball/Cricket/ Football/Gymnastics/Handball/Hockey/ Kabaddi&Kho-Kho/Lawn Tennis/ Volleyball/Yoga (Any One)	6	3	30	70	100
MPPC – 308	Rules, Officiating & Project Book of Sports Specialization - II	6	3	30	70	100
MPPC – 309	Laboratory Practical: Sports Biomechanics & Kinesiology and Health Education( 4 Practical for Each Subject)	6	3	30	70	100
<b>Total</b>		<b>36</b>	<b>24</b>	<b>240</b>	<b>560</b>	<b>800</b>
Note: Total number of hours required to earn 3 credits for each theory course is 51-60 hours per semester whereas 102-120 hours for each practicum course.						

**Semester - IV**

Part - A : Theoretical Course						
Course Code	Title of the Papers	Total Hours /Week	Credit	Sessional Marks	Theory/ Practical Marks	Total Marks
<b>Core Course</b>						
MPCC -401	Sports Psychology	3	3	30	70	100
MPCC – 402	Physiology of Exercise	3	3	30	70	100
MPCC – 403	Information & Communication Technology (ICT) in Physical Education	3	3	30	70	100
<b>Elective Course</b>						
MPEC – 404	Dissertation	3	3	30	70	100
MPEC – 405	Physical Fitness and Wellness					
<b>Part - B : Practical Course</b>						
MPPC -406	Indigenous Activities & Self Defense Techniques	6	3	30	70	100
MPPC – 407	Sports Specialization – II (Skill Proficiency) Athletics/Badminton/Basketball/Cricket/ Football/Gymnastics/Handball/Hockey/ Kabaddi&Kho-Kho/Lawn Tennis/ Volleyball/Yoga (Any One)	6	3	30	70	100
MPPC – 408	Coaching Lessons of Sports Specialization – II: - 5 (4 Internal & 1 External)	6	3	30	70	100
MPPC – 409	Laboratory Practical: Sports Psychology, Physiology of Exercise (4 Practicals for each Subject)	6	3	30	70	100
Total		36	24	240	560	800
Note: Total number of hours required to earn 3 credits for each theory course is 51-60 hours per semester whereas 102-120 hours for each practicum course.						

**SCHEME OF EXAMINATION****SEMESTER – I**

<b>Part - A : Theoretical Course</b>				
<b>Course Code</b>	<b>Title of the Papers</b>	<b>Sessional Marks</b>	<b>Theory/ Practical Marks</b>	<b>Total Marks</b>
<b>Core Course</b>				
MPCC – 101	Research Process in Physical Education & Sports Sciences	30	70	100
MPCC – 102	Value and Environmental Education In Physical Education	30	70	100
MPCC – 103	Tests, Measurements and Evaluation in Physical Education	30	70	100
<b>Elective Course</b>				
MPEC – 104	Yogic Science	30	70	100
MPEC – 105	Sports Journalism and Mass Media			
<b>Part - B : Practical Course</b>				
MPPC – 106	Track & Field: All Track Events and Marathons	30	70	100
MPPC – 107	Sports Specialization – I (Skill Proficiency) Badminton/Basketball/Cricket/Football /Gymnastics/Handball/Hockey/Kabaddi&Kho-Kho/Lawn Tennis/Volleyball/Yoga (Any One)	30	70	100
MPPC – 108	Rules, Officiating & Project Book of Sports Specialization - I	30	70	100
MPPC – 109	Adventure Activities/ Educational Tour(Adventure Tour)/ Mass Demonstration Activities	30	70	100
Total		240	560	800

**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 -II**

Part - A : Theoretical Course				
Course Code	Title of the Papers	Sessional Marks	Theory/ Practical Marks	Total Marks
Core Course				
MPCC – 201	Applied Statistics in Physical Education & Sports	30	70	100
MPCC – 202	Sports Biomechanics & Kinesiology	30	70	100
MPCC – 203	Athletic Care & Rehabilitation	30	70	100
Elective Course				
MPEC – 204	Sports Management and Curriculum Designs in Physical Education	30	70	100
MPEC – 205	Sports Technology			
Part - B : Practical Course				
MPPC – 206	Track & Field: All Field Events and Combined Events	30	70	100
MPPC – 207	Sports Specialization – I Badminton/Basketball/Cricket/ Football/Gymnastics/Handball/ Hockey/Kabaddi&Kho-Kho/Lawn Tennis/Volleyball/Yoga (Any One)	30	70	100
MPPC – 208	Teaching/Coaching Lessons Sports Specialization - I : 5 (4 Internal & 1 External )	30	70	100
MPPC – 209	Class room Teaching Lessons on Theory of different Sports & Games - 5 Lessons (4 Internal & 1 External)	30	70	100
Total		240	560	800

**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**

<b>Part - A : Theoretical Course</b>				
<b>Course Code</b>	<b>Title of the Papers</b>	<b>Sessional Marks</b>	<b>Theory/ Practical Marks</b>	<b>Total Marks</b>
<b>Core Course</b>				
MPCC – 301	Scientific Principles of Sports Training	30	70	100
MPCC – 302	Sports Medicine	30	70	100
MPCC – 303	Health Education and Sports Nutrition	30	70	100
<b>Elective Course</b>				
MPEC – 304	Education Technology in Physical Education	30	70	100
MPEC – 305	Sports Engineering			
<b>Part - B : Practical Course</b>				
MPPC – 306	Aerobics & Callisthenics	30	70	100
MPPC – 307	Sports Specialization – II (Skill Proficiency) Athletics/Badminton/Basketball/Cricket/ Football/Gymnastics/Handball/Hockey/ Kabaddi&Kho-Kho/Lawn Tennis/ Volleyball/Yoga (Any One)	30	70	100
MPPC – 308	Rules, Officiating & Project Book of Sports Specialization - II	30	70	100
MPPC – 309	Laboratory Practical: Sports Biomechanics & Kinesiology and Health Education( 4 Practical for Each Subject)	30	70	100
Total		240	560	800

**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 –IV**

Part - A : Theoretical Course				
Course Code	Title of the Papers	Sessional Marks	Theory/ Practical Marks	Total Marks
<b>Core Course</b>				
MPCC – 401	Sports Psychology	30	70	100
MPCC – 402	Physiology of Exercise	30	70	100
MPCC – 403	Information & Communication Technology (ICT) in Physical Education	30	70	100
<b>Elective Course</b>				
MPEC – 404	Dissertation	30	70	100
MPEC – 405	Physical Fitness and Wellness			
<b>Part - B : Practical Course</b>				
MPPC – 406	Indigenous Activities & Self Defense Techniques	30	70	100
MPPC – 407	Sports Specialization – II (Skill Proficiency) Athletics/Badminton/Basketball/Cricket/ Football/Gymnastics/Handball/Hockey/ Kabaddi&Kho-Kho/Lawn Tennis/ Volleyball/Yoga (Any One)	30	70	100
MPPC – 408	Coaching Lessons of Sports Specialization – II: - 5 (4 Internal & 1 External)	30	70	100
MPPC – 409	Laboratory Practical: Sports Psychology, Physiology of Exercise (4 Practicals for each Subject)	30	70	100
Total		240	560	800

**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 SPORTS  
SCIENCES**

Hours/Week	Credit	Internal Assessment	Semester Exam	Total Marks
3	3	30	70	100

**Objectives of the Course:** This course will enable students to-

- Objectify their concept for future development in their profession.
- Increase the quest to understand the importance of subject in relation to physical education and sports.
- Develop good foundation of knowledge through research course that will make students confident while delivering the knowledge of physical education.
- Lay foundation of knowledge for further research work for proper growth in profession.

**Learning Outcomes:** After completing this course, the students will be able to-

- Enable students to develop their own understanding of scientific training plans for developing various components of fitness for better performance in future
- Develop a method of approaching competitions with the help of objectified plan based on scientific process
- Develop new theory and principles for scientific training

## COURSE CONTENT

### 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
- Review of Literature
- Qualities of a researcher.

### UNIT-II Methods of Research

- Descriptive Methods of Research
- Survey Study, Methods of Survey, Case study
- 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.

**UNITV- 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 Research Report,
- Method of writing abstract,
- Understanding Footnote and Bibliography.
- Method of writing a paper for presenting in a conference and to publish in journals

**References:**

- S. L. Gupta & Hitesh Gupta (2011), Research Methodology (Text and Cases with SPSS applications), International Book House Pvt. Ltd. Ansari Road, New Delhi.
- 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, Londonl Routledge Press
- Jerry R Thomas & Jack K Nelson (2000) Research Methods in Physical Activities; Illonosis; Human Kinetics;
- Kamlesh, M. L. (1999) Reserach Methodology in Physical Education and Sports, New Delhi
- Moses, A. K. (1995) Thesis Writing Format, Chennai; Poompugar, Pathippagam.
- Rothstain, 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, NewDelhi

**Semester I**  
**Theory Courses**  
**MPCC-102 VALUE AND ENVIRONMENTAL EDUCATION IN PHYSICAL**  
**EDUCATION**

Hours/Week	Credit	Internal Assessment	Semester Exam	Total Marks
3	3	30	70	100

**Objectives of the Course:** This course will enable students to-

- To provide theoretical and Practical inputs in order to provide an integrated and holistic understanding and developing positive attitude, values, skills and behaviour related to Value Education.
- To Provide theoretical and Practical inputs in order to provide an integrated and holistic understanding and developing positive attitude, Values, skill and Behaviour towards Environmental Education.

**Learning Outcomes:** After completing this course, the students will be able to-

- Learn and accept individual and collective responsibility for values which should be utilized at every step of life at home, college, university and in the community.
- Know important values and relevance in shaping the individuals.
- Create awareness among students about personal development through value education and the therapeutic measures to control his mind.
- Knows about the basic of environmental education (like scope, need and importance of environmental studies).
- Knows about the historical background of environmental education and historical development in the environmental studies, about the resources and effective ways to control the pollution.

**UNIT-I Concept of Human Values, Value Education towards Personal Development**

- Aim of education and value education; Evolution of value oriented education
- Concept of Human values; types of values; Components of value education, Judging Value System.
- **Personal Development**
  - Self-analysis and introspection; sensitization towards gender equality, physically challenged, intellectually challenged. Respect to - age, experience, maturity, family members, neighbours, co-workers.
- **Character Formation Towards Positive Personality:**
  - Truthfulness, Constructivity, Sacrifice, Sincerity, Self-Control, Altruism, Tolerance, Scientific Vision.

**UNIT-II Value Education towards National and Global Development National and International Values**

- **Constitutional or national values** - Democracy, socialism, secularism, equality, justice, liberty, freedom and fraternity.
- **Social Values** - Pity and probity, self-control, universal brotherhood.
- **Professional Values** - Knowledge thirst, sincerity in profession, regularity,

punctuality and faith.

- **Religious Values** - Tolerance, wisdom, character.
- **Aesthetic values** - Love and appreciation of literature and fine arts and respect for the same. National Integration and international understanding.

### **UNIT-III Therapeutic Measures**

- **Control of the mind through**
  - Simplified physical exercise
  - Meditation – Objectives, types, effect on body, mind and soul
  - Activities:
    - Moralisation of Desires
    - Neutralisation of Anger
    - Eradication of Worries
    - Benefits of Blessings

### **Unit-IV Environmental Education , Rural and Urban Sanitation**

- 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, sustainable development, Pollution free eco- system.
- Rural Health Problems, Causes of Rural Health Problems, Points to be kept in Mind for improvement of Rural Sanitation, Urban Health Problems, Slum Area, Sanitation at Fairs & Festivals, Mass Education for Sanitation.

### **Unit- V Natural Resources and Related Environmental Issues**

- Resources: - Water, food 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.

### **Practicum:**

- Judging the Personal Values.
- Meditation Techniques
- Plantation and its care.

### **References:**

- 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.

**E-References:**

- <https://www.epa.gov/education/what-environmental-education>
- <http://www.tnteu.ac.in/pdf/environmental.pdf>
- [https://postconflict.unep.ch/humanitarianaction/documents/02\\_04-01.pdf](https://postconflict.unep.ch/humanitarianaction/documents/02_04-01.pdf)
- [https://www.geo.lu.lv/fileadmin/user\\_upload/lu\\_portal/projekti/gzzf/Vides\\_zinatne\\_kursi/16.LECTURE-Environmental\\_policy.pdf](https://www.geo.lu.lv/fileadmin/user_upload/lu_portal/projekti/gzzf/Vides_zinatne_kursi/16.LECTURE-Environmental_policy.pdf)

**Semester I**  
**Theory Courses**  
**MPCC-103 TESTS, MEASUREMENT AND EVALUATION IN PHYSICAL**  
**EDUCATION**

Hours/Week	Credit	Internal Assessment	Semester Exam	Total Marks
3	3	30	70	100

**Objectives of the Course:** This course will enable students to-

- Introduce the students with advance concepts of Test & Measurement & Evaluation.
- Make the students understand in depth the Criterion, and Administration of Test.
- Practical Exposure to some Physical Fitness, Motor Fitness and Sports Skill Tests.

**Learning Outcomes:** After completing this course, the students will be able to-

- Understand the advance concepts of Test & Measurement & Evaluation.
- Get equipped with the knowledge in depth about Criterion, and Administration of Test.
- Practical Experience of Physical Fitness, Motor Fitness and Sports Skill Tests.

### COURSE CONTENT

#### 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 – Physical Fitness

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

#### Unit-III Motor Fitness Test

- 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-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, Vertical Jump Anthropometric Measurements: Method of Measuring Height: Standing Height, Sitting Height. Method of measuring Circumference: Arm, Waist, Hip, Thigh. Method of Measuring Skinfolts: Triceps, Subscapular, Suprailiac.



**Unit-V Skill Tests**

- Specific Spots 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: Johnson Soccer Test, McDonald Volley Soccer Test. Tennis: Dyer Tennis Test.

**Practicum:**

- Practical Exposure to Any Two Physical Fitness Test
- Two Motor Fitness Test
- Aerobic & Anaerobic Test
- Anthropometric Measurements
- Sports Skill Test

**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:ScarecrowPress
- 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 Rand Cynthia, 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
- Viyian H. Heyward (2005) Advance Fitness Assessment and Exercise Prescription, 3<sup>rd</sup> Edition, Dallas TX: The Cooper Institute for Aerobics Research
- Yobu, A (2010), Test, Measurement and Evaluation in Physical Education in Physical Education and Sports. New Delhi; Friends Publications

**Semester I**  
**Theory Courses**  
**MPEC-104 Yogic Science (Elective)**

Hours/Week	Credit	Internal Assessment	Semester Exam	Total Marks
3	3	30	70	100

**Objectives of the Course:** This course will enable students to-

- This course will enable students to understand the basic principles of Yogic Science
- The basics knowledge of yogic science will develop the foundation to understand the yoga therapies

**Learning Outcomes:** After completing this course, the students will be able to-

- Apply the principle of yoga for developing Holistic Health
- Prepare the basic package of Yogasanas
- Prepare for yoga therapy exam conducted by Yoga Certification Exam Level
- Understand the management of basic disorders.

### COURSE CONTENT

#### Unit-I Introduction

- Yogic Concept of Health: Meaning and definitions
- Personal and Social Discipline through five Yamas (don'ts) and five Niyama (do's).
- Alternative Therapy: Basic principles of Ayurveda, Naturopathy.
- Therapeutic importance of Dincharya and Ritucarya,
- Concept of Aahara, Vihara, Aacharan and Vichara

#### Unit-II Scientific aspect

- Significance of Yogasana & Pranayama
- Basics of Therapeutic approaches of Hatha Yoga Practices given in different Hatha Yoga Texts (Hathapradipika, Gheranda Samhita, Shiva Samhita and Vasistha Samhita)
- Intermediate and Advance Group of Asanas: Types , Techniques & Benefit
- Pranayama, Nadi & Chakras: Types- Methods and benefits.
- Knowledge of vital parameters to assess general state: Measurement of Blood
- Pressure, Respiratory Rate, Pulse Rate and Body Temperature

#### Unit-III Yogic Concept for Management of Diseases

- Musculo-Skeletal Disorders
- Respiratory Disorders
- Cardiovascular Disorders
- Endocrine & Metabolic Disorders:
- Psychological and Psychiatric Disorder

## Unit-V Yogic Diet

- Concept of diet in Traditional Yogic Texts
- Types of diet in Traditional Yogic Text
- Role of Yogic diet in health and disease.
- Preparation of Therapeutic charts
- Assessment of Nutritional status

### References:

- Basavaraddi, I. V. & others : Yoga Teachers Manual for School Teachers, MDNIY, New Delhi, 2010
- Basavaraddi, I.V. & Bharti Swami Anant : Pratah Smarana MDNIY, New Delhi, 2016
- Basavaraddi, I.V. : A Monograph on Pranayama, MDNIY, New Delhi, 2016
- Basavaraddi, I.V. : A Monograph on Shatakarma, MDNIY, New Delhi, 2016
- Basavaraddi, I.V. : A Monograph on Yogasana, MDNIY, New Delhi, 2016
- Basavaraddi, I.V. : A Monograph on Yogic Suksma Vyayama, MDNIY, New Delhi, 2016
- Basavaraddi, I.V. : How to manage Stress through Yoga MDNIY, New Delhi
- Bhogal, R. S. : Yoga & Mental Health and beyond, ACE Enterprises, Madhu Rajnagar, Pune Road, Pune, 2010
- Brahmachari Swami Dharendra : Yogic Suksma Vyayama, Dharendra Yoga Publications, New Delhi
- Coulter, H. D. (2012). Anatomy of Hatha Yoga: a manual for students, teachers, and practitioners. Body and Breath.
- George Feuerstein, (1975). Text Book of Yoga. London: Motilal Bansaridass Publishers (P) Ltd.
- Gharote, M.L. : Teaching Methods for Yogic practices, Kaivalyadhama Ashram, Lonavla
- 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. : Light on Yoga, Harper Collins Publisher, New Delhi, 2005
- Iyengar, B.K.S : Yoga Shastra (Vol-I & II) Ramamani Iyenger Memorial Yoga, Institute, Pune YOG, Mumbai
- Iyengar, B.K.S. (2000), Light on Yoga. New Delhi: Harper Collins Publishers.
- Joshi K.S. : Yogic Pranayama Orient Paperbacks, New Delhi 2009
- Kaminoff, L., Matthews, A., & Ellis, S. (2007). Yoga anatomy. Champaign, IL: Human Kinetics.
- 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.
- Kuvalyananada Swami & S.L. Vinekar, (1963), Yogic Therapy – Basic Principles and Methods. New Delhi: Govt. of India, Central Health Education and Bureau.
- MDNIY : Yoga Module for Wellness Series (1 to 10) MDNIY, New Delhi 2011
- Moorthy A.M. & Alagesan. S. (2004) Yoga Therapy. Coimbatore: Teachers Publication House.
- Muktibodhananda, S., Satyananda, S., & Svātmārāma, . (1998). Hatha yoga pradipika =: Light on hatha yoga : including the original Sanskrit text of the

Hatha yoga pradipika with translation in English. Munger, Bihar, India: Yoga Publications Trust.

- Quality Council of India (QCI) : Yoga professionals Official Guidebook for level 2 Excel Books, New Delhi 2016
- Saraswati, S. (2013). Asana pranayama mudra bandha. Bihar, India: Yoga Publications Trust
- Saraswati, S. N. (2012). Gheranda Samhita/Commentary on the Yoga Teachings of Maharshi Gheranda (1st Edition). Yoga Publications Trust/Munger/India.
- Saraswati, S. S. (1976). Yoga Nidra/2009 Re-print (6th Edition,8 times reprinted ed.). Yoga Publications Trust/Munger/India.
- Saraswati, Swami Satyananda (1984) Yoga and Cardiovascular Management.
- Saraswati, Swami Satyananda : Suryanamashkara Bihar School of Yoga, Munger, 2006
- Satyananda, S. (1996). Asana pranayama mudra bandha. Bihar: Yoga Publications Trust
- Swami Karmananda : Management of Common Diseases, Bihar Yoga Publication Trust, 2006, Munger
- Swami Kuvalyananda : Pranayama, Kaivalyadhama, Lonavla, 1992
- Tiwari O.P. : Asana Why & How ? Kaivalyadhama, SMYM Samiti, Lonavla

**Semester I**  
**Theory Courses**  
**MPEC-105 SPORTS JOURNALISM AND MASS MEDIA (Elective)**

Hours/Week	Credit	Internal Assessment	Semester Exam	Total Marks
3	3	30	70	100

**Objectives of the Course:** This course will enable students to-

- Provide knowledge of ethics of journalism
- Describe structure of sports bulletin
- Ensure role and responsibility of mass media in sports
- Demonstrate sports reporting and evaluation

**Learning Outcomes:** After completing this course, the students will be able to-

- Understand the canons and agencies of journalism
- Understand the difference between general news reporting and sports reporting
- Use proper practices of editing and publishing.
- Acquire the skill of report writing on sports

### COURSE CONTENT

#### 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.

**Practicum:**

- Preparation of Album of news paper cuttings of sports news
- Assignments to observe the live matches and prepare headlines, report, photographs and news of the same
- Review article of tournament/championship and prepare report and news of the same with detailed sources
- Visit to News Paper office and TV Centre to know various departments and their working

**References:**

- Ahiya B.N. (1988) *Theory and Practice of Journalism: Set to Indian context Ed 3*. 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
- Dennis, M.Q. (2012). *Mass Communication Theory*, 6<sup>th</sup> South Asian Edition, Sage.
- Dhananjay Joshi (2010) *Value Education in Global Perspective*. New Delhi: Lotus Press
- Itule & Anderson (2002). *News Writing and reporting for today's media*, McGraw Hill Publication.
- Kannan K (2009) *Soft Skills*, Madurai: Madurai: Yadava College Publication
- Mohit Chakrabarti (2008): *Value Education: Changing Perspective*, New Delhi: Kanishka Publication.
- Natarajan, J. (2000). *History of Indian Press*, Publications Division.
- Padmanabhan. A & Perumal A (2009), *Science and Art of Living*, Madurai: Pakavathi Publication
- Prasad, S. (1993). *Editors on Editing/HY*, National Book Trust. Rao, M. C. (1974). *The Press*, National Book Trust.
- Schramm, W. & Roberts, D. F. (1971). *The Process and Effects of Mass Communication*, Urbana, IL: University of Illinois Press.
- Schmidt, E. & Cohen, J. (2013). *The New Digital Age*, John Murray.
- Wimmer, R.D. and Dominick, J.R. (2005). *Mass Media Research*, Wadsworth Publishing: London.
- Yadava, J. S. (1998). *Communication Research: Some Reflections*, IIMC (Mimeo), Itule & Anderson (2002). *News Writing and reporting for today's media*, McGraw Hill Publication.

**E-References:**

- <http://keralamediaacademy.org/wp-content/uploads/2015/02/Handbook-of-Journalism-Studies.pdf>
- <https://hostnezt.com/cssfiles/journalism/Introduction%20to%20Journalism%20By%20Richard%20Rudin.pdf>
- <http://www.nraismc.com/wp-content/uploads/2017/03/104-REPORTING-EDITING.pdf>
- <http://pjnet.org/wp-content/uploads/2008/02/featurewriting.pdf>
- <http://uilis.unsyiah.ac.id/oer/files/original/8efede9fab3616f44809661ebb1c2588.pdf>
- <http://ptgmedia.pearsoncmg.com/images/9780321885708/samplepages/0321885708.pdf>
- <http://mpi.my/wp/wp-content/uploads/2012/03/T-Selva-Interview-techniques-for-journalists.pdf>
- <https://www.scientificadvertising.com/ScientificAdvertising.pdf>

**Semester II**  
**Theory Courses**  
**MPCC-201 APPLIED STATISTICS IN PHYSICAL EDUCATION AND SPORTS**

Hours/Week	Credit	Internal Assessment	Semester Exam	Total Marks
3	3	30	70	100

**Objectives of the Course:** This course will enable students to-

- Prepare students for future development in the profession with scientific approach.
- Increase the quest to understand the importance of subject in relation to physical education and sports.
- Develop good foundation of knowledge through testing fitness components and analyze the motor skill for development in performance.
- Lay strong foundation of knowledge for further testing and analysis of growth of physical education students.
- Enable students to understand the concept and methodology of testing and training in physical education.

**Learning Outcomes:** After completing this course, the students will be able to-

- Understand and to imply the testing procedure through field training in various sports and games.
- Get equipped with the testing and analyzing skill of various motor qualities and to gain improvement.
- Understand and to imply the testing procedure of sports skills as well as fitness demands of sportsmen for better performance during competitions.
- Prepare standard norms and help in development of research in physical education and sports.

### COURSE CONTENT

#### **UNIT I – Introduction**

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

#### **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 Scale**

- Meaning, Purpose, Calculation of Range, Quartile deviation, Mean Deviation, Standard Deviation,
- Meaning, Purpose, Calculation and advantages of scoring scales; Sigma scale, Z Scale, t. scale etc.

**UNIT-IV Probability Distributions and Graphs**

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

**UNIT V – Inferential and Comparative Statistics**

- Tests of significance; Sample t. Test, 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.
- Concept of ANOVA and ANCOVA.

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

**References:**

- J.P.Verma, (2011), Statistical Methods for Sports and Physical Education, Tata McGraw Hill Education private Limited, New Delhi.
- S. L. Gupta & Hitesh Gupta (2011), Research Methodology (Text and Cases with SPSS applications) International Book House Pvt. Ltd. Ansari Road, New Delhi.
- 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, Englewood Cliffs, Prentice Hall, Inc.
- Jerry R Thomas & Jack K Nelson (2000) Research Methods in Physical Activities; Illonosis; Human Kinetics
- Kamlesh, M. L. (1999) Reserach Methodology in Physical Education and Sports, New Delhi
- Rothstain A (1985) Research Design and Statistics for Physical Education, Englewood Cliffs: Prentice Hall, Inc
- Sivaramakrishnan. S. (2006) Statistics for Physical Education, Delhi; Friends Publication
- Thirumalaisamy (1998), Statistics in Physical Education, Karaikudi, Senthilkumar Publications



**Semester II**  
**Theory Courses**  
**MPCC-202 SPORTS BIOMECHANICS AND KINSESIOLGY**

Hours/Week	Credit	Internal Assessment	Semester Exam	Total Marks
3	3	30	70	100

**Objectives of the Course:** This course will enable students to-

- Gain the knowledge of Biomechanical and Kinesiological Model
- Able to apply the knowledge of Movement Analysis
- Gain the Knowledge and application of Photography in Sports.
- Develop an Understanding of Various types of Analysis and their application
- Able to demonstrate and apply basic mechanical and physics principles to human movements
- Develop the knowledge of electromyography to describe the sports skill related to mechanics.
- Analyze the skill elaborately to enhance the efficiency as well as performance.

**Learning Outcomes:** After completing this course, the students will be able to-

- To understand about the Qualitative and Quantitative model in sports and games
- Students will be able to calculate the C.G. by segmentation and suspension methods
- Students will be able to find out the location of point related to origin and insertion of the muscle
- Students will be learned about the electromyography analysis of various sports skills.

### COURSE CONTENT

#### UNIT-I Introduction

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

#### 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, Concept of stability, Equilibrium and balance, Principle of Equilibrium, 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, Mechanical Advantage of Lever. Water resistance - Air resistance -Aerodynamics.

### UNIT-V Movement Analyst

- **Analysis of Movement:** Types of analysis: Kinesiological, Biomechanical and Mechanical. **Cinematographic. Methods** of analysis — Qualitative (Pre Requisite Information Basic Step, Observation Method, Identification of Faults, Instructions), Quantitative (Creation of Model, Video Recording with accuracy, Experimental Videography Procedure (Two dimensional recording procedure), Vertex Digitization, Draw Trajectory of Vertex, Stick Figure), Predictive

#### Practicum:

- Calculation of Center of Gravity by Segmentation Method
- Surface Marking of origin and insertion of Major muscles of the body
- Identification of Joint of Upper and Lower Extremity by Palpation Method
- Use of Reflective markers, Location of Joint for placing markers
- Biomechanical analysis of a Sports technique. )Qualitative(
- Electromyography Procedure for Static Movement
- Calculation of Force using Force platform

**Note: - (The practical will be done on availability of instrument in the Lab)**

#### References:

- Deshpande S.H.(2002). Manav Kriya Vigyan — Kinesiology (Hindi Edition) Aniravati: Hanuman Vyayam Prasarak Mandal.
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- Steven Roy..& Richard Irvin. (1983) Sports Medicine. New Prentice hall.
- Thomas. (2001). Manual of structural Kinesiology, New York: Mc Graw Hill.
- ppal A.K. Lawrence MamtaMP Kinesiology(Friends Publication India
- Rai Ramesh, Biomechanics – Mechanical Aspects of human motion (Mohali Punjab :Agrim Publication, 2003)
- Robertson, D. Gordon E. et. Al. Research Methods in Biomechanics. (Champaign etc: Human kinetics publishers, 2004)
- Arther E. Chapman, PhD, DLC & Simon Fraser “Biomechanical Analysis of fundamental human moments.

#### E-References:

- <https://digilibraries.com/search/Sports+biomechanics>
- <https://archive.org/details/texts?query=Sports+biomechanics&sin=>
- <https://www.britannica.com/science/biomechanics-science>
- <https://us.humankinetics.com/blogs/excerpt/body-mechanics-matching-movement-to-muscles-and-bones>
- <https://courses.lumenlearning.com/ap1/chapter/types-of-body-movements/>

**Semester II**  
**Theory Courses**  
**MPCC-203 ATHLETIC CARE AND REHABILITATION**

Hours/Week	Credit	Internal Assessment	Semester Exam	Total Marks
3	3	30	70	100

**Objectives of the Course:** This course will enable students to-

- To provide theoretical and practical input about the care of athletes.
- To provide theoretical and practical input about the preventive aspects of sports injuries.
- Provide knowledge of rehabilitation of athletes.
- To provide theoretical and practical input about various therapeutic modalities.
- To provide knowledge about different therapeutic exercises.

**Learning Outcomes:** After completing this course, the students will be able to-

- The student will learn and understand about preventive aspects of sports injuries.
- The student will gain practical as well as theoretical knowledge about care of athletes.
- The student will gain knowledge and practical about therapeutic modalities which helps in rehabilitation process.
- The student will learn about different types of corrective exercises for the athletes rehabilitation.

### COURSE CONTENT

#### **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/Contraindication 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, Contrast Bath, Paraffin Bath.

#### **Practicum:**

- The student will practice massage techniques in the laboratories.
- The student will practice different strapping techniques.
- Student will practice First Aid and PRICE.
- Each student shall submit Physiotherapy record of attending the Clinic and observing the cases of athletic injuries and their treatment procedure. (To be assessed internally)

#### **References:**

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

#### **E-References:**

- <https://jamanetwork.com/journals/jama/article-abstract/253556>
- [https://www.jstor.org/stable/3456425?seq=2#metadata\\_info\\_tab\\_contents](https://www.jstor.org/stable/3456425?seq=2#metadata_info_tab_contents)
- <https://www.physio-pedia.com/Posture>
- <https://medlineplus.gov/guidetogoodposture.html>
- <https://en.wikipedia.org/wiki/Massage>
- <https://www.groupon.com/articles/types-of-massage>

**Semester II**  
**Theory Courses**  
**MPEC-204 SPORTS MANAGEMENT AND CURRICULUM DESIGN IN**  
**PHYSICAL EDUCATION (Elective)**

Hours/Week	Credit	Internal Assessment	Semester Exam	Total Marks
3	3	30	70	100

**Objectives of the Course:** This course will enable students to-

- Know the concept of Sports Management and Curriculum
- Able to understand the mechanics of curriculum Designing

**Learning Outcome:** After completing this course, the students will be able to-

- Understand the sports management and to implement the curriculum
- To enhance the knowledge of basic guideline for curriculum
- To understand the mechanics of curriculum planning

### COURSE CONTENT

#### **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 Programme and Event Management**

- Importance of Programme development and the role of management, Factors influencing programme development. Steps in programme development, Major Professional Steps for Event management, 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 Facility Management, Equipments and Public Relation and Sports marketing**

- Management guidelines and principles for Facility Planning and Design, Administration, Operations, Marketing, Budgeting, Legally approach, and final Processing.
- 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 Facility Management – Principles of Public Relation – Public Relations in School and Communities – Public Relation and the Media.
- Sports marketing- Steps in strategic marketing management, various career paths under sports marketing –Sports agent, Sports Marketing Project manager, Sports Good sales Representative.

## UNIT-IV Curriculum

- Meaning and Definition of Curriculum. The role of teacher in curriculum development. Principles of Curriculum Construction: Students centered, Activity centered, Community centered, 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, Principles of curriculum Planning. Physical Education Curriculum Models- The Developmental Model, The Movement Education model, The Fitness Model, the Academic Discipline Model, The Personal-Social development Model, The Sports Education Model, The Adventure Education Model, The Multi-Activity Model, The Game for Understanding Model, and The Eclectic Model.

## UNIT-V Curriculum Sources

- Factors that affecting curriculum: Sources of Curriculum materials – text books – Journals – Dictionaries, Encyclopedias, 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 and follow-up. Classification of Activities in Physical Education.

## References:

- Aggarwal, J.C (1990). Curriculum Reform in India – World overviews, Doaba World
- Bucher A. Charles, & Krotee L. March (2010) Management of Physical Education and Sports (Thirteenth ed.,) St.Louis: Mobsy Publishing Company. Re printed and Published by Tata Mc Graw-Hill Edition.
- Chakraborty & Samiran. (1998). Sports Management. New Delhi: Sports Publication.
- Chelladurai, P. (1999). Human Resources Management in Sports and Recreation. Human Kinetics.
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- 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. Yadvnider Singh. Sports Management, New Delhi: Lakshay Publication.
- Jim L. Stillwell & Carl Willgoose (1996) The Physical Education Curriculum, 5<sup>th</sup> ed. USA, A Viacom Company, 160 Gould Street, Needham Heights, MA 02194, Boston, Interne: WWW.abacon.com, America Online: Keyword: College Online.

**Semester II**  
**Theory Courses**  
**MPEC-205 SPORTS TECHNOLOGY (Elective)**

Hours/Week	Credit	Internal Assessment	Semester Exam	Total Marks
3	3	30	70	100

**Objectives of the Course:** This course will enable students to-

- This course will enable students to understand the basic Sports Technology.
- Knowledge of different materials and playfield surfaces
- Knowledge of equipments and training gadget

**Learning Outcome:** After completing this course, the students will be able to-

- Apply the basic knowledge to design basic sports equipments
- Knowledge to Purchase training gadgets
- Analyse the sports good materials

### COURSE CONTENT

#### Unit-I SportsTechnology

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

#### Unit-II Science of Sports Materials

- Adhesives Nanoglue, nanomoulding technology, Nanoturf. Footwear production, Factors and application in sports, constraints. Foams-Polyurethane, Polystyrene, Styrofoam, closed- cell and open-cellfoams, Neoprene, Foam. Smart Materials–Shape Memory Alloy (SMA), Thermo chromic film, High-density modeling 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 nanotechnology, 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.

**Practicum:**

- Students should be encouraged to design and manufacture improvised sports testing equipment in the laboratory/workshop
- Visit sports technology factory/ sports goods manufactures.

**References:**

- 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: Greenwood 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



**Semester - III**  
**Theory Course**  
**MPCC-301 SCIENTIFIC PRINCIPLES OF SPORTS TRAINING**

Hours/Week	Credit	Internal Assessment	Semester Exam	Total Marks
3	3	30	70	100

**Objectives of the Course:** This course will enable students to-

- This course will enable students to understand the concept of theory and methodology of sports training.
- Provide the knowledge about different factors of sports performance and their developmental mechanisms.
- Enable students to learn about formulation and regulation of training plan on the scientific basis.
- Provide the knowledge about overall implementation process of sports training.

**Learning Outcome:** After completing this course, the students will be able to-

- Understand the nature and role of sports training.
- Get skilled for training of all the performance factors following scientific methodology.
- Get skilled about formulating training plan.
- Develop ability to handle sports teams of different games in training as well as in competition.

### COURSE CONTENT

#### Unit-I Introduction

- **Sports Training:** Definition – Aim and Objectives, Characteristics, Principles of Sports Training, Training Means and its types
- **Load:** Definition, Features of Training Load, Principles of Load, Judgement of Load, Adoption Process and Condition of Adoption, Super Compensation, Overload – Causes and Symptoms, Tackling of Overload

#### Unit-II Components of Physical Fitness

- **Strength:** Forms and Characteristics of Strength, Factors Determining Strength, Means, Methods and Principles of Strength training, Strength training for Women and Children.
- **Speed:** Forms and Characteristics of Speed, Factors Determining Speed, Means, Methods and Principles of Speed training.
- **Endurance:** Forms and Characteristics of Endurance, Factors Determining Endurance, Means, Methods and Principles of Endurance training.
- **Flexibility:** Forms and Characteristics of Flexibility, Factors Determining Flexibility, Means, Methods and Principles of Flexibility training.
- **Coordinative Abilities:** Characteristics, Classification and Importance of Coordinative abilities, Training Means and Methods.

### Unit III Technique and Tactics Training

- **Technique:** Definition of Technique, Skill and Style, Aim of Technique, Rational Technique, Characteristics of Technique, Motor learning and different Phases of skill acquisition, Interference and transfer in motor learning, Methods of technique training, causes and correction of faults.
- **Tactics:** Definition of tactics and strategy, Basic Tactical concepts – Offensive, Defensive and High Performance, Methods of Tactical Training, Control of tactical knowledge.

### Unit IV: - Planning and Organization of training

- **Planning:** Meaning, Importance and Principles of Planning, Systems of Planning, Types of Training Plans, Top Form, Periodisation and its types, Contents for various periods of training and formulation of training plan, Training Session and its structure. Preparation of training plan.
- **Competition Planning and Preparation:** Importance of competitions, Competition frequency, Types of Competitions, Main and Build-up Competitions, Direct Preparation for an important competition, Psychological preparation of sportsman for competition, preparation of competition plan.

### Unit V: Regulation of Training and Doping

- **Regulation of Training:** Contents of evaluation program, Teas and Control – Sports and Motor (Strength, Speed, Endurance, Flexibility & Coordination) tests, Performance and development documents.
- **Doping:** Definition, Classes and Methods of Doping, Side effects of drugs, IOC List of drugs, Dope testing programs and procedures, Blood Doping

### Practicum:

- Practice of different types of Exercises (for all motor components)
- Resistance Exercises
- Formulation and control of training plan (with the help of different documents)
- Handling of Teams
- Sample collection procedure for Dope Testing

### References:

- Beotra Alka, Drug Education Handbook on Drug Abuse in Sports (Delhi: Sports Authority of India, 2000)
- Bompa T. O. & Buzzichelli C. A. Periodization: Theory and Methodology of Training. Sixth Edition. Human Kinetics Publication, USA.
- Bunn, J.W: Scientific Principles of Coaching.
- Cart, E. Klafs & Daniel, D. Arnhem, Modern Principles of Athletic Training, (St.Louis C.V. Mosphe Company, 1999)
- Cratty, J. Brayant Perceptual and Motor Development in Infants and Children (N.J.: Englewood Cliffs, Prentice Hall, Inc. 1979).
- David, R. Mottram, Drugs in Sports, (School of Pharmacy, Liverpool: John Moore University, 1996)
- Dick W. Frank. Sports Training Principles (London: Lepus Books, 1980).
- Haff G. G., & Triplett N. T. Essentials of Strength and Conditioning, 4<sup>th</sup> Edition,

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- Harre, Dietrich, Principles of Sports Training (Berlin: Sporulated, 1982).
- Jensen, R. Clayne, and Fisher A.G. Scientific Basis of Athletic conditioning(Philadelphia: Lea and Fibiger 1979), 2<sup>nd</sup> Edn.
- Laursen P. & Buchheit M. Science and Applications of High-Intensity Interval Training. Human Kinetics Publications, USA
- Matvyew, L.P. Fundamental of sports Training (Moscow: Progress Publishers, 1981).
- Morehouse and Rash: Scientific Basis of Athletic-Training.
- Schmidt R. A. & Lee T. D. Motor Learning and Performance (from Principles of Adaptation) Sixth Edition, Human Kinetics Publication, USA.
- Singh, H. Sports Training, General Theory and methods (Patiala: NSNIS, 1984).

**Semester III**  
**Theory Courses**  
**MPCC-302 SPORTS MEDICINE**

Hours/Week	Credit	Internal Assessment	Semester Exam	Total Marks
3	3	30	70	100

**Objectives of the Course:** This course will enable students to-

- Provide knowledge about sports medicine.
- Provide knowledge of various sports injuries.
- Provide theoretical and practical input about rehabilitation.
- Provide knowledge about different therapeutic exercises.
- Provide knowledge about treatment of sports injuries.

**Learning Outcome:** After completing this course, the students will be able to-

- Learn and gain knowledge about sports medicine.
- Gain knowledge about various types of sports injuries.
- Gain practical knowledge about sports injuries rehabilitation.
- Learn about use of first aid.

### COURSE CONTENT

#### 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, and 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.

#### **Practicum:**

- The student will practice various corrective exercises for rehabilitation.
- The student will practice on various physiotherapeutic equipments in the laboratory.
- 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 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
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- Brukner, P. (2012). Brukner & Khan's clinical sports medicine. North Ryde: McGraw-Hill.Australia
- Haupt, H. A. (2001). Upper extremity injuries associated with strength training. Clinics in sports medicine, 20(3), 481-490.

#### **E-References:**

- [https://www.physio-pedia.com/Rehabilitation\\_in\\_Sport](https://www.physio-pedia.com/Rehabilitation_in_Sport)
- <https://www.sciencedirect.com/science/article/pii/S2255497115302809>
- [https://www.medicinenet.com/sprained\\_ankle/article.htm](https://www.medicinenet.com/sprained_ankle/article.htm)
- [https://www.health.harvard.edu/a\\_to\\_z/shoulder-sprain-a-to-z](https://www.health.harvard.edu/a_to_z/shoulder-sprain-a-to-z)

**Semester III**  
**Theory Courses**  
**MPCC-303 HEALTH EDUCATION AND SPORTS NURTITION**

Hours/Week	Credit	Internal Assessment	Semester Exam	Total Marks
3	3	30	70	100

**Objectives of the Course:** This course will enable students to-

- Provide theoretical and Practical inputs in order to provide an integrated and holistic understanding and developing positive attitude, values, skills and behaviour related to health Education.
- Provide theoretical and Practical inputs in order to provide an integrated and holistic understanding and developing positive attitude, skill to develop Nutritional schedule for individuals.

**Learning Outcome:** After completing this course, the students will be able to-

- learn and accept individual and collective responsibility for healthy living at home , college , university and in the community.
- help students know their health status.
- create awareness among students about safety Measures. To acquaint them with first Aids Measures about common sickness and injuries.
- knows about the Abuse of Drugs and its adverse effect of body and mind.
- knows about the Management of life style, Hyper tension, Obesity and Stress.
- knows about sports Nutrition and it energy Metabolism.
- knows about diet plan and preparation of diet Plan.

### COURSE CONTENT

#### 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, instruction in personal hygiene and Environmental hygiene

#### Unit -II Health Problems in India

- Communicable and Non Communicable Diseases, History of 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 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, 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, energy metabolism (Carbohydrate, Protein and Fat), Role of carbohydrates, Fat and protein during exercise. Role of Vitamins and Minerals.

**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.

**Practicum:**

- First Aid for Injuries
- BMI Calculation
- Schedule for diet plan

**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.
- J.E & Park. K. (2007) Preventive and Social Medicine ; Banarsidas Bhanot-Jabalpur M.P.

**Semester III**  
**Theory Courses**  
**MPEC-304 EDUCATION TECHNOLOGY IN PHYSICAL EDUCATION AND**  
**SPORTS (Elective)**

Hours/Week	Credit	Internal Assessment	Semester Exam	Total Marks
3	3	30	70	100

**Objectives of the Course:** This course will enable students to-

- To acquaint students with theoretical & practical knowledge of methods of teaching, Use of technological tools for imparting education in Physical Education & Sports.
- This course introduces both traditional and innovative technologies to facilitate and foster meaningful and effective learning of the nature, application and production of the various types of educational technologies.

**Learning Outcome:** After completing this course, the students will be able to-

- Understand the use of various methods in teaching & coaching in the field of physical education & sports.
- Become acquainted with the knowledge and skills on technology integration in instruction to learners.
- Learn to use and evaluate computer-based educational resources.
- Explain the theories and principles of selecting, producing and utilizing instructional materials;
- Plan, design and implement classroom activities using appropriate instructional materials.
- Verify through field observations the theories as applied in the actual classroom context of the basic educational classes (public and private)
- Create a technology-inspired instructional material.

### COURSE CONTENT

#### **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.

### Practicum:

- Create and implement Innovative lessons
- Analyzing progression of lesson plans and assessment of performance of students

### References:

- Alliance, A. (1999). Physical Best Activity Guide, New Delhi,
- Capel, S. et al Editors (2006). A Practical Guide to Teaching Physical Education. Routledge Publishers, USA.
- Dheer, S. and Radhika. (1991). Organisation and Administration of Physical Edu., ND: Friends Pub.Frost, R.B. and Others. (1992). Administration of Physical Education and Athletics, Delhi: Universal Book.
- Gupta R. Kumar P. & Sharma D.P. (1999). Lesson Plan in Physical Education & Sports. R.D.P. Publication. New Delhi.
- Gupta R. Kumar P. & Sharma. D.P.S. (2004). Sharirik Shiksha Mein Path Yojna. Sahyog Prakashan. New Delhi.
- Gupta R. Kumar P. & Tyagi S. (2008) Textbook on Teaching Skill & Prowess. Part I & II. Friends Publication. India. New Delhi.
- Kamlesh ML (2005). Methods in Physical Education. Friends Publication. Delhi.
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**Semester III**  
**Theory Courses**  
**MPEC-305 SPORTS ENGINEERING (Elective)**

Hours/Week	Credit	Internal Assessment	Semester Exam	Total Marks
3	3	30	70	100

**Objectives of the Course:** This course will enable students to-

- This course will enable students to understand the basic Sports Engineering and Technology.
- Material used in the sports and its dynamic

**Learning Outcome:** After completing this course, the students will be able to-

- Apply the basic knowledge to design basic sports equipments

### COURSE CONTENT

#### **Unit-I Introduction to Sports Engineering and Technology**

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

#### **Unit- II Mechanics of engineering materials**

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

#### **Unit- III Sports Dynamics**

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

#### **Unit- IV Building and Maintenance:**

- **Sports Infrastructure**-Gymnasium, Pavilion, Swimming Pool, Indoor Stadium, Out-door Stadium, Play Park, Academic Block, Administrative Block, Research Block, Library, Sports Hostels, etc.
- **Requirements:** Air ventilation, Daylight, Lighting arrangement, Galleries, Store rooms, Office, Toilet Blocks (M/F), Drinking Water, Sewage and Waste Water disposal system, Changing Rooms (M/F), Sound System (echo-free), Internal arrangement according to need and nature of activity to be performed, Corridors and Gates for free movement of people, Emergency provisions of lighting, fire and exits, Eco-friendly outer surrounding. Maintenance staff, financial consideration.

- **Building process-** design phase (including brief documentation), construction phase functional (occupational) life, Re-evaluation, refurbish, demolish.
- **Maintenance policy,** preventive maintenance, corrective maintenance, record and register for maintenance.

#### **Unit–V Facility life cycle costing**

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

#### **Practicum:**

- Students should be encouraged to design and manufacture improvised sports equipment prototype in the laboratory/workshop

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

**Semester - IV**  
**Theory Course**  
**MPCC-401 Sports Psychology**

Hours/Week	Credit	Internal Assessment	Semester Exam	Total Marks
3	3	30	70	100

**Objectives of the Course:** This course will enable students to-

- Understand the concept basics theory and methodology of sports psychology and sociology as well.
- Establish the foundation from which Mental Training and Mental Readiness can be developed among Athletes.
- Focuses on applied aspect of mental health or psychopathology which also provides scientific approach that guide the athletes to give good performance.

**Learning Outcome:** After completing this course, the students will be able to-

- apply on athletes that enhance their motor skills and learning processes, help them cope better with competitive pressure and anxiety, fine-tune the level of awareness that they need for optimal performance and to not lose focus amidst distractions and in a competitive environment.
- Understand and to imply the concepts of sports psychology and sociology in various sports and games.
- Get equipped with the knowledge of various psychological skills in improvement of performance.

### COURSE CONTENT

**Unit –I Introduction to Sports Psychology:**

- Meaning, History, Scope, Need and Importance of Sports Psychology.
- Present status of Sports Psychology in India.
- Relationship of Sports Psychology with other Sports Sciences.
- **Personality:** Meaning and definition of personality.
  - Personality traits of sportspersons.
  - Effect of personality on Sports Performance
  - Personality differences among various sports group.

**Unit –II Cognitive Process and Motor Learning**

- **Cognitive Process:** Meaning and Characteristics of Cognitive process in sports. Sensation, Perception, Thinking, Imagination, Memory.
- Attention-
  - Dimensions of Attention,
  - Distractibility in Attention,
  - Strategies to develop Attention.
- **Motor Learning:** Meaning of Motor Learning.
  - Factors Affecting Motor Learning.
  - Motor development in various periods of childhood and adolescence.

**Unit - III Psychological Consideration of Young Athletes**

- Psychological peculiarities of young athletes with reference to pre– adolescence and adolescence –Psychomotor, Cognitive and Social Dimension.

- Interplay of Heredity and Environment with sports performance, Heredity Principles and Environment.
- Role of Family, School and Society in Participation of children in sports.
- Psychological problems of Young Athletes.
- Individual differences and their implications in sports.

#### **Unit- IV Motivation and Emotion in Physical Activities**

- **Motivation:** Meaning and definition of Motivation–Motive, Need and Drive.
  - Types of Motivation, Relationship between intrinsic and extrinsic motivation, Technique of Motivation.
  - Role of Motivation in Sports Performance, Achievement Motivation.
- **Emotions:** Meaning and definition of Emotion.
  - Types of emotion.
  - Influence of Emotion on Sports Performance, Anxiety, Fear and Aggression.

#### **Unit- V Psychological Preparation and Evaluation Process**

- **Psychological Aspects of Competition:**
  - Definition of Competition.
  - Psychological aspects of Long and Short term preparation for competition.
  - Characteristics of Pre-competition and post competition states.
  - Selected psycho-regulative techniques for relaxation and activation, Action Regulations, Psychological care of injured sportsperson and rehabilitation.
  - Effect of audience on sports performance.
- **Evaluation Process in Sports Psychology:**
  - Various Methods used in Sports Psychology.
  - Psychological Tests– Visual Perception Test:- Muller Lyer, Mirror Drawing, Depth Perception, E.P.Q:- Thakur & Thakur, Competitive Behaviour Scale:-R. K. Yadav

#### **Practicum:**

- Concept of Bio Feedback and Neuro Feedback
- Audio Visual Reaction Time Test
- Digital Vision Angel Test
- Electronic Depth Perception Test
- Mirror Drawing Test.

#### **References:**

- Alderman, R.B. *Psychological Behaviour in sports*. (Philadelphia: London, Saunders Company, 1974).
- ButSusan Dorcas, *Psychology of Sports* (Network: Van Nastr and Reinhold Company) Edn. 2
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**Semester IV**  
**Theory Courses**  
**MPCC-402 PHYSIOLOGY OF EXERCISE**

Hours/Week	Credit	Internal Assessment	Semester Exam	Total Marks
3	3	30	70	100

**Objectives of the Course:** This course will enable students to-

- To provide understanding about the physiological basis of exercise and human performance.

**Learning Outcome:** After completing this course, the students will be able to-

- Understand the meaning and importance of exercise physiology.
- Learn the basic terminology of bioenergetics and metabolism related to exercise and training.
- Understand the mechanism of muscle contraction
- Have knowledge about the neural control of muscular activity
- Understand and identify the physiological response of exercise on different body system.
- Get an insight into the influence of environment factors on performance
- Concept of sports nutrition and obesity

### COURSE CONTENT

#### Unit-I Introduction

- Definition of Physiology and Exercise Physiology
- Need and importance of Exercise Physiology in the field of Physical Education and sports.
- Scope of Exercise Physiology

#### Unit-II Bioenergetics of Muscle Contraction

- Energy production, structure and function of ATP.
- Meaning and concept of Aerobic and Anaerobic Energy Metabolism.
- Chemical composition of skeletal muscle, Microscopic structure of skeletal muscles, muscle fiber types
- Sliding filament theory of Muscle contraction.

#### Unit-III Neuro-muscular junction and Co-ordination of Muscular Activity

- Neuron , Motor unit, Synapse, Bio-electric potentials
- Neuro-muscular junction and transmission of nerve impulse across it.

#### Unit-IV Work & Environment; Physiological changes due to Exercise

- Work capacity under different environmental conditions (Hot, Humid, Cold and High Altitude).
- Effect of exercise/trainng on various systems of body: Cardio-respiratory, muscular and thermo-regulatory systems
- Oxygen Debt, Second Wind.



### Unit-V Sports Nutrition, Obesity and Weight control

- Basic concept of a balanced diet, appropriate diet before, during and after athletic performance.
- Ergogenic aids and Doping in sports
- Definition of obesity, measurement of body fat by various methods, Body weight control.

#### Practicum:

- Measurement of Heart rate: Radial pulse, Basal and post exercise.
- Measurement of Target heart rate
- Measuring Body Mass Index
- Assessment of body composition using skin fold measurement
- Assessment of Anthropometric measurements ( skin fold, girth, width etc.)

#### References:

- Benson, R., & Connolly, D. (2011). Heart rate Training. USA: Human Kinetics.
- Beotra Alka, (2000) Drug Education Handbook on Drug Abuse in Sports: Sports Authority of India Delhi.
- Bowers, R. W., Foss, M. M., & Fox, E. (1998). Physiological basis of Exercise and Sports(6<sup>th</sup> ed.). USA: McGraw-Hill Publisher.
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**Semester IV**  
**Theory Courses**  
**MPCC-403 INFORMATION & COMMUNICATION TECHNOLOGY (ICT)**  
**IN PHYSICAL EDUCATION**

Hours/Week	Credit	Internal Assessment	Semester Exam	Total Marks
3	3	30	70	100

**Objectives of the Course:** This course will enable students to-

- Combines theoretical and practical studies focusing to understand the importance of information and communication technology (ICT).
- Develop understanding about the components of computer, application software used in Physical Education and sports, including word processors, spreadsheets, databases, interactive presentation software, e-mail and web browsers.
- Provides an adequate opportunity for hands-on learning of ICT applications in teaching and learning.
- Learn the skills which will be useful to them in their work across the curriculum, and will prepare them for future employment.

**Learning Outcome:** After completing this course, the students will be able to-

- Describe the importance of information and communication technology (ICT)
- Effectively use appropriate ICT tools, software applications and digital resources in physical education and sports
- Practice word processors, spreadsheets, databases, presentation software, e-mail and web browsers
- Recognize and use application software used in Physical Education and sports
- Search and find required digital resources, organize and integrate in teaching-learning process
- Use ICT for making classroom processes more interactive, inclusive to address multiple learning abilities

### COURSE CONTENT

#### **Unit-I Understanding ICT in Physical Education**

- Concept, Elements, Process & Types of Communication
- Concept, Meaning and Characteristics of ICT in Physical Education
- Need and Importance of ICT in Physical Education
- Scope of ICT in Physical Education: Teaching Learning Process, Publication, Evaluation, dissemination, Research and Administration
- Opportunities and Challenges in Integrating ICT in Physical Education
- Transformation of Education due to ICT based Teaching Learning Process in context to Curriculum, Role of Teacher, Role of Student, Methods of Teaching, Classroom Environment (Infrastructure and Resources) and Assessment

#### **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
- Computer Viruses & its Management
- Concept, Types & Functions of Computer Networks Internet and its Applications
- Web Browsers & Search Engines
- Legal & Ethical Issues of ICT

### **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, 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 Integrate ICT in Teaching Learning Process
- Project Based Learning
- Co-Operative Learning
- Collaborative Learning
- ICT and Constructivism: A Pedagogical Dimension

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

- E-Learning, Mobile Learning, Online Learning
- Web Based Learning
- Visual Classroom, Smart Classroom
- Flipped Classroom

### **Practicum**

- Hands on experience in setting up a desktop PC and working with various input devices, output devices, storage devices, and display devices
- Practicing Various Microsoft Office applications
- Locating internet resources-navigating, searching, selecting, saving and evaluating
- Enrolling and completing some MOOC courses of interest
- Practicing various statistical software's

### **References:**

- Bharihok, D. (2000). *Fundamentals of Information Technology*. Pentagon Press: New Delhi.
- CEMCA (2014). *Technology Tools for Teachers, Commonwealth Educational Media*, Center for Asia, New Delhi.
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- MHRD-GOI (2012). *National Mission on Education through ICTs (NME-ICT)*, Department of Higher Education, MHRD, Govt. of India, New Delhi
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- Roblyer, M. D., & Doering, Aaron H. (2014). *Integrating educational technology into teaching: Pearson new international edition* (6th ed.). Pearson Higher Ed.
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**Semester IV**  
**Theory Course (Elective)**  
**MPEC-404 DISSERTATION**

<b>Hours/Week</b>	<b>Credit</b>	<b>Internal Assessment</b>	<b>Semester Exam</b>	<b>Total Marks</b>
<b>3</b>	<b>3</b>	<b>30</b>	<b>70</b>	<b>100</b>

- 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).
- 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.
- The candidate has to face the Viva-Voce conducted by External Examiner.

**Semester IV**  
**Theory Course**  
**MPEC-405 PHYSICAL FITNESS AND WELLNESS (Elective)**

Hours/Week	Credit	Internal Assessment	Semester Exam	Total Marks
3	3	30	70	100

**Objectives of the Course:** This course will enable students to-

- To provide concepts and trends of health, fitness, and lifelong wellness
- To describe food guide pyramid, eating disorders, nutritional supplements
- To demonstrate proper aerobic, resistance, and flexibility training exercises and movements with safety
- To demonstrate relaxation and breathing techniques

**Learning Outcome:** After completing this course, the students will be able to-

- Understand relationship between total health fitness, physical activity and wellness
- Implement correct dietary and nutritional practices in one's daily life to improve quality
- Use and implement correct and scientific based exercise practices to overcome the barriers
- Acquire proper relaxation and breathing techniques to meet state of relax

## COURSE CONTENT

### 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 Exercises

- 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.

#### Practicum:

- Construction of Indian food choices menu (based categories - local food choices, social food choices, economic food choices, and cultural food choices)
- Structure of warm-up, cool and limbering down
- Aerobic and resistance exercise techniques and safety measures
- Core training and relaxation techniques (stretching and breathing)

#### References:

- A.K. Uppal, Physical Fitness, Friends Publications (India), 1992.
- Corbin, C. (2011). Concepts of physical fitness. New York: McGraw-Hill Higher Education. ISBN-10: 9780073523828 ISBN-13: 978-0073523828
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- Lawrence, Debbie, Exercise to Music. A & C Black Publishers Ltd. 37, Sohe Square, London, 1999
- Mc. Ginnis, Peter M. **Biomechanics of Sport and Exercise**, Second Edition (Champaign : Human kinetics publishers, 2005)
- Warner W.K. Oeger & Sharon A. Hoeger, Fitness and Wellness, Morton Publishing Company, 1990

**E-References:**

- <https://www.uakron.edu/armyrotc/MS1/15.pdf>
- <https://fliphtml5.com/riqf/wxuz/basic>
- <https://www.clemson.edu/business/departments/army-rotc/documents/fitness-handbook.pdf>
- <https://www.nin.res.in/downloads/DietaryGuidelinesforNINwebsite.pdf>
- [https://www.sbu.se/contentassets/d817cdf17237414ebcf943182f2d1e4a/dietary\\_treatment\\_of\\_obesity.pdf](https://www.sbu.se/contentassets/d817cdf17237414ebcf943182f2d1e4a/dietary_treatment_of_obesity.pdf)
- <http://www.campuskids.com/ckstaffactivities/pdfs/100-workouts-vol1.pdf>
- [https://www.nasca.com/contentassets/116c55d64e1343d2b264e05aaf158a91/basics\\_of\\_strength\\_and\\_conditioning\\_manual.pdf](https://www.nasca.com/contentassets/116c55d64e1343d2b264e05aaf158a91/basics_of_strength_and_conditioning_manual.pdf)
- <http://nitayoga.com/wp-content/uploads/2013/08/Stretching-Anatomy.pdf>
- <https://medicine.umich.edu/sites/default/files/content/downloads/Relaxation-Skills-for-Anxiety.pdf>
- <https://www.stress.org/wp-content/uploads/Newsletter/Contentment%20June%202018/content/Contentment%20June%202018.pdf>



**Semester I  
Practicum Course**

**MPPC- 106 TRACK AND FIELD: ALL TRACK EVENTS &  
MARATHON**

Hours/Week	Credit	Internal Assessment	Semester Exam	Total Marks
6	3	30	70	100

**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 skill practice**

**RELAYS: FUNDAMENTAL SKILLS;** various Pattern of baton Exchange  
Understanding of relay Zones.

**Relay races**

1. Visual and non-visual methods
2. Methods of holding the baton
3. Passing the baton
4. Arrangement of runners
5. Responsibilities of receiver and passer

**Road running/cross country running**

1. Dress and Personal equipment.
2. Start
3. Strides and body posit on and finish

**References:**

1. IAAF Competition Rules.
2. Track and Field Events Layout and Marking by George Emmanuel
3. Track and Field by Gerhardt Schmolinsky.

**Practicum course**  
**MPPC-107 SPORTS SPECIALIZATION – I**

Hours/Week	Credit	Internal Assessment	Semester Exam	Total Marks
6	3	30	70	100

The Candidate has choice to select any ONE of the following games as the Specialization. (Badminton/Basketball/ Cricket/ football/ Handball/ Hockey/ Kabaddi, Kho-kho/lawn Tennis/Volleyball/YOGA) (*Any ONE Game*)

**Semester I**  
**Practicum Course**

**MPPC- 108 RULES OFFICIATING AND PROJECT BOOK OF SPORTS**  
**SPECIALIZATION – I**

Hours/Week	Credit	Internal Assessment	Semester Exam	Total Marks
6	3	30	70	100

Candidates will taught about the rules, mechanism of officiating, interpretation of rules of the sports event chosen as specialization in this course.

**Semester I**  
**Practicum Course**

**MPCC-109 ADVENTURE ACTIVITIES/ MASS DEMONSTRATION**  
**ACTIVITIES- LEZIM, DUMB-BELL, UMBRELLA, TIPRI, WANDS, HOOPS/**  
**MALKHAMBH**

Hours/Week	Credit	Internal Assessment	Semester Exam	Total Marks
6	3	30	70	100

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

**MASS DEMONSTRATION ACTIVITIES-** lezium, dumb-bell, umbrella, tipri, wands, hoops, free arms drill, folk dances, etc. (*Students will be trained to organize mass drill in school situation*)

- Apparatus/Light apparatus Grip
- Attention with apparatus/ Light apparatus
- Stand-at-ease with apparatus /light apparatus
- Exercise with verbal command, drum, whistle and music- two count, four count,

Eight count and sixteen count.

- Standing Exercise
- Jumping Exercise
- Moving Exercise
- Combination of above all

**MALKHAMB: All the Malkhamb exercises will be the part of teaching .**

**Semester II**  
**Practicum Course**  
**MPPC- 206 TRACK AND FIELD: ALL FIELD EVENTS & COMBINED EVENTS**

Hours/Week	Credit	Internal Assessment	Semester Exam	Total Marks
6	3	30	70	100

**COURSE CONTENTS:**

Historical development of the jumping and throwing events at national and international levels.

**Jumps**

- A. High jump Western and Straddle rule
  1. Approach run
  2. Take off
  3. cross bar clearance
  4. Landing
- B. Long Jump (Sale, Hang and Hitch-Rick styles)
  1. Approach run
  2. Take off.
  3. flight and landing.
- C. Triple jump
  1. Approach run.
  2. Take off.
  3. Landing of all the three Phase-Hop, Step and Jump.
- D. Pole vault
  1. Hand hold
  2. Pole carry
  3. Pole Planting
  4. Swing up
  5. Pull up
  6. Body turn
  7. Cross bar clearance
  8. Landing

**Combined Events:**

- Rules pertaining to combined events
- Start rules of combined events
- Breaking of tie in combined events

➤ Introduction to combined events scoring table

**Hurdles races (100 M., 110 M. and 400 M.)**

1. Start
2. strides to the first hurdle
3. Strides between hurdles and finish)
4. hurdle clearance

**Steeple-chase: Measurement** of steeple chase water jump and hurdle jump.

Rules of steeple chase and hurdle jump.

**Throwing events**

A. Shot-hold and Put

1. Hand hold
2. Placement of shot
3. Initial stance
4. Glide
5. Delivery stance
6. Delivery action and body position
7. Reverse and body position

B. Throwing the discuss

1. Hand hold.
2. Stance.
3. Preliminary swings.
4. Turn.
5. Delivery stance.
6. Delivery action.
7. Reverse

C. Throwing the javelin

2. Grip
3. Carrying the Javelin
4. Getting ready to throw
5. Delivery stance
6. Delivery action
7. Reverse

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**References:**

1. IAAF Competition Rules.
2. Track and Field Events Layout and Marking by George Emmanuel
3. Track and Field by Gerhardt Schmolinsky.

**Semester II**  
**Practicum Course**  
**MPPC-207 SPORTS SPECIALIZATION – I**

Hours/Week	Credit	Internal Assessment	Semester Exam	Total Marks
6	3	30	70	100

**The Candidate will be trained for skill proficiency of sports specialization, the sports event chosen in semester-I (Badminton/Basketball/ Cricket/ football/ Handball/ Hockey/ Kabaddi, Kho-kho/lawn Tennis/Volleyball/YOGA) (Any ONE Game)**

**Unit-I**

- Introduction and Historical Development of games with special reference to India.
- Important Tournaments held at National and International Levels.
- National sports Awardees related to the game.

**Unit-II**

- Organizational set-up at national and International level (governing Bodies)
- Measurement and Markings of concern game.
- Facilities and Equipment of games.

**Unit-III**

- Training and development of fundamental skill and techniques of the game.
- Training and development of advance techniques of the game.
- Implementation of drills for the technical Training.

**Unit-IV**

- Strategy and tactics of the game
- Training and development of Basic tactics.
- Training and development of Advance Tactics.

**Unit-V**

- Rules and their interpretation of concern game.
- Duties and responsibilities of the Technical Officials.
- Training / coaching Lesson plan of the game.

**Semester II**  
**Practicum Course**

**MPPC-208 TRAINING COACHING LESSON OF SPORTS SPECIALIZATION-I:  
5 (4 INTERNAL & 1 EXTERNAL)**

<b>Hours/Week</b>	<b>Credit</b>	<b>Internal Assessment</b>	<b>Semester Exam</b>	<b>Total Marks</b>
<b>6</b>	<b>3</b>	<b>30</b>	<b>70</b>	<b>100</b>

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-209 CLASS ROOM TEACHING LESSONS ON THEORY OF DIFFERENT**  
**SPORTS & GAMES: 5 (4 INTERNAL & 1 EXTERNAL)**

<b>Hours/Week</b>	<b>Credit</b>	<b>Internal Assessment</b>	<b>Semester Exam</b>	<b>Total Marks</b>
<b>6</b>	<b>3</b>	<b>30</b>	<b>70</b>	<b>100</b>

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- 306 AEROBICS & CALLISTHENICS**

Hours/Week	Credit	Internal Assessment	Semester Exam	Total Marks
<b>6</b>	<b>3</b>	<b>30</b>	<b>70</b>	<b>100</b>

**AEROBICS**

Rhythmic Aerobics – Music and Beat Counts, over the top, **Low Impact Aerobics:** Marching Basics (leg curl, toe touch, heel touch, in and out, side touch), Steps - single step touch, 'V' shape, 'A' shape, 'L' shape, 'Z', shape, 'Square' shape, double side to side step touch, grapevine, Dance (Mambo-Chacha, Twisting) **High Impact Aerobics:** Step foot placement and Basics (toe touch & heel touch on step), 'V' shape, 'A' shape, 'L' shape, double side to side step touch, grapevine, Turning on step, Dance (Mambo-Chacha, Twisting)

**Semester III**  
**Practicum Course**  
**MPPC-307 SPORTS SPECIALIZATION – II (SKILL PROFICIENCY)**

Hours/Week	Credit	Internal Assessment	Semester Exam	Total Marks
<b>6</b>	<b>3</b>	<b>30</b>	<b>70</b>	<b>100</b>

**The Candidate has choice to select any ONE of the following games as his/her second sports Specialization. (Athletics/Badminton/Basketball/ Cricket/ football/ Handball/ Hockey/ Kabaddi, Kho-kho/lawn Tennis/Volleyball/YOGA) (*Any ONE Game*).**

**The descriptive syllabus will be provided by the teacher concern.**

**Semester III  
Practicum  
Course**

**MPPC-308 RULES, OFFICIATING & PROJECT BOOK OF SPORTS  
SPECIALISATION – II**

Hours/Week	Credit	Internal Assessment	Semester Exam	Total Marks
6	3	30	70	100

Candidates will teach about the rules, mechanism of officiating, and interpretation of rules of the sports event chosen as specialization in this course.

**Semester III  
Practicum Course**

**MPPC-309 LABORATORY PRACTICALS: SPORTS BIOMECHANICS &  
KINESIOLOGY AND HEALTH EDUCATION  
(4 PRACTICALS FOR EACH SUBJECT)**

Hours/Week	Credit	Internal Assessment	Semester Exam	Total Marks
6	3	30	70	100

The detailed curriculum of the practicals will be provided by the concerned teacher.

**Semester IV  
Practicum Course**

**MPPC- 406 INDIGENIUS ACTIVITIES & SELF DEFENSE TECHNIQUES**

Hours/Week	Credit	Internal Assessment	Semester Exam	Total Marks
6	3	30	70	100

Self Defence Techniques- Martial Arts, Taekwondo/ Shooting/ Archery. The Fundamental And Advance Skills And Techniques Will Be Covered.

**Semester IV**  
**Practicum Course**  
**MPPC-407 SPORTS SPECIALIZATION – II (SKILL PROFICIENCY)**

Hours/Week	Credit	Internal Assessment	Semester Exam	Total Marks
6	3	30	70	100

The Candidate will be trained for skill proficiency of sports specialization, the sports event chosen in semester-III (Athletics/Badminton/Basketball/ Cricket/ football/ Handball/ Hockey/ Kabaddi, Kho-kho/lawn Tennis/Volleyball/YOGA) (*Any ONE Game*).

**Semester IV**  
**Practicum**  
**Course**

**MPPC-408 COACHING LESSONS OF SPORTS SPECIALIZATION – II:**  
**5 (4 INTERNAL & 1 EXTERNAL)**

Hours/Week	Credit	Internal Assessment	Semester Exam	Total Marks
6	3	30	70	100

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 IV**  
**Practicum Course**

**MPPC-409 LABORATORY PRACTICALS: SPORTS PSYCHOLOGY,  
PHYSIOLOGY OF EXERCISE (4 PRACTICALS FOR EACH SUBJECT)**

<b>Hours/Week</b>	<b>Credit</b>	<b>Internal Assessment</b>	<b>Semester Exam</b>	<b>Total Marks</b>
<b>6</b>	<b>3</b>	<b>30</b>	<b>70</b>	<b>100</b>

**Table – 1: Semester wise distribution of hours per week**

<b>Semester</b>	<b>Theory</b>	<b>Practicum</b>	<b>Teaching practice</b>	<b>Total</b>
<i>I</i>	12	18	6	36
<i>II</i>	12	12	12	36
<i>III</i>	12	12	12	36
<i>IV</i>	12	12	12	36
<i>Total</i>	48	54	42	144
<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**

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