CURRICULUMFRAMEWORK:
TWO-YEARB.P.ED.PROGRAMME

Revised Curriculum as per the NCTE New Regulations 2014 for two Year B.P.Ed. Programme as adopted in the Workshop Organised by the Deptt. of Physical Education, Jadavpur University held on 15th to 17th June, 2016 in collaboration with the West Bengal Committee of the Institutes of Physical Education (WBCIPE), West Bengal University of Teachers' Training, Education Planning and Administration (WBUTTEPA) and the Department of Higher education Govt. of West Bengal.

GUIDELINES OF REGULATIONS AND MODEL SYLLABUS STRUCTURE FOR B.P.ED.TWO YEARS PROGRAMME (FOUR SEMESTERS) (CBCS)

(If the University or affiliating body is following choice based credit system, (CBCS) as approved and Circulated by the UGC, the credit hours given in the following curriculum framework need to be considered along with the hours of teaching mentioned for each paper/ activity / course)

(If the University or affiliating body is yet to adopt CBCS, only the hours of teaching mentioned for each paper /activity/ course will be considered, the credit in teaching hours maybe ignored)

Preamble: Bachelor of Physical Education (B.P.Ed.) two years (Four Semesters Choice Based Credit System) programme is a professional programme meant for preparing teachers of physical education in classes VI to X and for conducting physical education and sports activities in classes XI and XII.

B.P.Ed. programme shall be designed to integrate the study of childhood, social context of Physical Education, subject knowledge, pedagogical knowledge, and aim of Physical Education and communication skills .The programme comprises of compulsory and optional theory as well as practical courses and compulsory school internship.

R.B.P.Ed.1.Eligibility

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

R.B.P.Ed.2.Duration:

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

R.B.P.Ed.3.The CBCS System:

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

R.B.P.Ed4. Course:

The term course usually referred to, as 'papers' is a component of a programme. All courses need not carry the same weight. The courses should define learning objectives and learning outcomes. A course may be designed to comprise Lectures/ tutorials/ laboratory work/ field work/ outreach activities/ project work/ vocational training/ viva/ seminars/ term papers/ assignments/ presentations/ self-study etc. or a combination of some of these.

R.B.P.Ed.5.CoursesofProgramme:

The B.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 B.P.Ed. Programme.

Theory:

Core Course:

Elective Course:

Practicum:

Teaching

Practices:

R.B.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 maybe scheduled from May/June to November/December and even semester from November/December to May/June. The institution shall work for a minimum of 36 working hours in a week (five or six days a week).

R.B.P.Ed.7.Workingdays:

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

R.B.P.Ed 8. Credits:

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

Provision of Bonus Credits Maximum 06 Credits in each Semester

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

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

R. B.P.Ed.9.Examinations:

i. There shall be examinations attend of each semester, for first semester in the month of November/December: for second semester in the month of May/June. A candidate who does not pass the examination in any course(s) shall be permitted to appearing such failed course(s) in the subsequent examinations to be held in November/December or May/June.

ii. A candidate should get enrolled/ registered for the first semester examination. If enrollment/ registration is not possible owing to shortage of attendance beyond condo nation 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 students of first semester shall be admitted in the second semester, if he/she has successfully kept the term in first semester.

R.B.P.Ed10Condonation:

Student must have75% of attendance in each course for appearing the examination. Students who have 74% to 65% of attendance shall apply for condo nation in the prescribed form with the prescribed fee. Students who have 64% to 50% of attendance shall apply for

Condo nation in prescribed form with the prescribed fee along with the Medical Certificate. Students who have below 50% of attendance are not eligible to appear for the examination.

R. B.P.Ed 11.Pattern of Question Papers:

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

B.P.Ed.: Format of Question Paper for 4 Units.

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

Question No.	Description	Marks
1	Answer in detail (Long Question) Or Answer in detail (Long Question) (Form Unit 1)	15
2	Answer in detail (Long Question) Or Answer in detail (Long Question) (Form Unit 2)	15
3	Answer in detail (Long Question) Or Answer in detail (Long Question) (Form Unit 3)	15
4	Write short notes: any two out of our (Form Unit 4)	15
5	M.C.Q. Type Questions (10 out of 12Que.) (3 Questions. From each unit)	10
	Total	**70**

R. B.P.Ed. 12. Evaluation:

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

One Test	15Marks
Seminar/Quiz	5Marks
Assignments	5Marks
Attendance	5Marks
Total	30Marks

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 for man 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.

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R. B.P.Ed. 13. 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 the or y courses. The minimum passing for both CIA & external examination shall be 50%, i.e. 15 marks out of 30 and 35 marks out of 70 marks for the practical courses.

R. B.P.Ed 14. Grading:

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

$$1111 = \frac{\sum_{11\,1}^{1} 1_1 1_1}{\sum_{11\,1}^{1} 1_1}$$

$$1111 = \frac{\sum_{11\,1}^{1} 1111_1}{1}$$

Where C*r*istae Credit earned for the course is in any semester; G*r*istle Grade point obtained by the student for the course*/* and *number* of courses obtained in that semester; 11111 is SGPA of semester */*and *N*umber of semester. Thus CGPA is average of SGPA of all the semester starting from the first semester to the current semester.

R. B.P.Ed. 15. Classification of Final Results:

For the purpose of declaring a candidate to have qualified for the Degree of Bachelor of Physical Education in the First class/ Second class /Pass class or First class with Distinction, the

Marks and the corresponding CGPA earned by the candidate in Core Courses will be the criterion. It is further provided that the candidate should haves cored the First /Second Class separately in both the grand total and end Semester (External) examinations.

R. B.P.Ed. 16. Award of the B.P.Ed. Degree:

A candidate shall be eligible for the award of the degree of the B.P.Ed. only if he/she has earned the minimum required credit including Bonus Credits of the programme prescribed above.

R. B.P.Ed.17. Letter Grades and Grade Points:

i. Two methods- relative grading or absolute grading– have been in vogue for a warding grades in a course. The relative grading is based on the distribution (usually normal distribution) of marks obtained by all the students in the course and the grades are Awarded based on a cut-off mark or percentile. Under the absolute grading, the marks are converted to grades based on pre-determined class intervals. To implement the following grading system, the colleges and universities can use any one of the above methods.

ii. The grades for each course would be decided on the basis of the percentage marks obtained at the end- semester external and internal examinations as per following table:

Percentage	Grade Point	Latter Grade	Description	Classification of final result
85&above	8.5-10.0	O	Outstanding	First class with Distinction
70-84.99	7.0-8.49	A^+	Excellent	
60-69.99	6.0-6.99	A	Very Good	First Class
55-59.99	5.5-5.99	B+	Good	Higher Second Class
50-54.99	5.0-5.49	B	Above Average	Second Class
40-49.99	4.0-4.99	C	Average	Pass Class
Below40	0.0	F	Fail/Dropped	Dropped
	0	AB	Absent	

R. B.P.Ed.18.GradePointCalculation:

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

The credit grade point aerobe calculated on the following basis:

$$1\,1\,1\,1 = \frac{\sum_{11\,1}^{1} 1_1 1_1 1_1}{\sum_{11\,1}^{1} 1_1}$$

Example–I

Marks obtained by Student in course CC101=5/100

Percentage of marks=65%

Grade from the conversion table is =A

Grade Point=6.0+5(0.99/9.99)
=6.0 + 5x0.1
=6.0+0.5
=6.5
The Course Credits= 04
Credits Grade Point (CGP) = 6.5×04=26

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

SEMESTER-1

Courses No.	Credit	Marks out o f 100 (%)	Grade	Grade Point	Credit Grade point
CC-101	4	65	A	6.5	26
CC-102	4	60	A	6	24
CC-103	4	62	A	6.2	24.8
EC-101/EC-102	4	57	B+	5.7	22.8
PC-101	4	55	B+	5.5	22
PC-102	4	72	A+	7.2	28.8
PC-103	4	66	A	6.6	26.4
PC-104	4	72	A+	7.2	28.8
	32				203.6

Examples: Conversion of marks in to grade points

CC-10165 =60+5 =6.0+5x (0.99/9.99)=6.0+5 x0.1 =6.0+0.5= 6.5
CC-10260 = 6.0

CC-10362 =60+2 =6.0 +2x (0.99/9.99)=6.0 +2x0.1 =6.0 +0.2=6.2
EC-101/EC-10257=55+2=5.5+2x (0.49/4.99)= 5.5 +2x0.1=5.5+ 0.2 = 5.7
PC-10155 = 5.5

PC-10272 =70 +2=7.0+2 x (1.49/14.99)=7.0+2 x0.1=7.0+0.2 =7.2
PC-10366 =60 +6=6.0+6x (0.99/9.99)=6.0+6 x0.1 =6.0+0.6= 6.6
PC– 10472 =70 +2 = 7.0+ 2x (1.49/14.99)=7.0+2 x0.1=7.0 +0.2= 7.2

SEMESTER GRADE POINT AVERAGE (SGPA) =Total Credit Grade Points
=203.6/32=6.3625
SGPA Sem. I=6.3625
At the end of Semester-
1Total SGPA= 6.3625
Cumulative Grade Point Average (CGPA)=6.3625/1=6.362

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

SEMESTER-2

Courses No.	Credit	Marks out o f 100 (%)	Grade	Grade Point	Credit Grade point
CC-201	4	76	A+	7.6	30.4
CC-202	4	64	A	6.4	25.6
CC-203	4	59	B+	5.9	23.6
EC-201/EC-202	4	80	A+	8	32
PC-201	4	49	C	4.9	19.6
PC-202	4	64	A	6.4	25.6
PC-203	4	55	B+	5.5	22
TP-201	4	72	A+	7.2	28.8
	32				207.6

SGPA Sem. II =6.4875

At the end of Semester-2

Total SGPA for two Semesters= 12.85
Cumulative Grade Point Average (CGPA) =12.85/2=6.425
CGPA=6.66875, Grade= A, Class=First Class

SEMESTER-3

Courses No.	Credit	Marks out o f 100 (%)	Grade	Grade Point	Credit Grade point
CC-301	4	64	A	6.4	25.6
CC-302	4	64	A	6.4	25.6
CC-303	4	59	B+	5.9	23.6
EC-301/EC-302	4	81	A+	8.1	32.4
PC-301	4	49	C	4.9	19.6
PC-302	4	64	A	6.4	25.6
PC-303	4	68	A	6.8	27.2
TP-301	4	75	A+	7.5	30
	32				209.6

SGPA Sem. III =6.55
At the end of Semester-3

Total SGPA for three Semesters= 19.4
Cumulative Grade Point Average (CGPA) =19.4/3=6.466667

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

SEMESTER-4

Courses No.	Credit	Marks out o f 100 (%)	Grade	Grade Point	Credit Grade point
CC-401	4	83	A+	8.3	33.2
CC-402	4	76	A+	7.6	30.4
CC-403	4	59	B+	5.9	23.6
EC-401/EC-402	4	81	A+	8.1	32.4
PC-401	4	49	C	4.9	19.6
PC-402	4	78	A+	7.8	31.2
TP-401	4	81	A+	8.1	32.4
TP-402	4	75	A+	7.5	30
	32				232.8

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=6.66875CGPA=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 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 B.P.Ed. Degree shall be awarded on the basis of last CGPA (grade) from all the one to four semester examinations.

R. B.P.Ed. 19. Grievance Redressal Committee:

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

R. B.P.Ed.20.RevisionofSyllabi:

1. Syllabi of every course should be revised according to the NCTE.
2. Revised Syllabi of each semester should be implemented in a sequential way.
3. In courses, where units/ topics related to governmental provisions, regulations or laws, that change to accommodate the latest developments, changes or corrections are to be made consequentially as recommended by the Academic Council

4. All formalities for revisions in the syllabi should be completed before the end of the semester for implementation of the revised syllabi in the next academic year.
5. During every revision, up to twenty percent of the syllabi of each course should be changed to ensure the appearance of the students who have studied the old (unrevised) syllabi without any difficulties in the examinations of revised syllabi.
6. In case, the syllabus of any course is carried forward without any revision, it shall also be counted as revised in the revised syllabi.

Semester - I

Part A: Theoretical Course						
Course Code	Title of the Papers	Total Hours	Credit	Internal Marks	External Marks	Total Marks
Core Course						
CC-101	History, Principle and Foundation of Physical Education& Olympic Movement	4	4	30	70	100
CC-102	Anatomy and Physiology	4	4	30	70	100
CC-103	Health Education and Environmental Studies	4	4	30	70	100
Elective Course (Anyone)						
EC-101	Physical Literacy through Movement Education	4	4	30	70	100
EC-102	Officiating and Coaching					
Part–B Practical Course						
PC-101	Track and Field: All Running Events - 60 Running Broad Jump & Triple Jump)– 40	6	4	30	70	100
PC-102	Swimming or Gymnastics	6	4	30	70	100
PC-103	March Past – 20 (Compulsory) Mass Demonstration Activities: Bratachari – 20 (Compulsory) and Dumbbells/ Wands/ Hoop/ Umbrella/ Tipri// Malkhamb/Lezium/Callisthenics (Any two)- 10+10=20 Indigenous Sports: KabaddiandKho-kho -20+20= 40	6	4	30	70	100
PC-104	Yoga- 40, Weighttraing- 30 Aerobics- 30	6	4	30	70	100
Total		40	32	240	560	800

Semester - II

Part A: Theoretical Course						
Course Code	Title of the Papers	Total Hours	Credit	Internal Marks	External Marks	Total Marks
Core Course						
CC-201	Yoga Education and Inclusive Education	4	4	30	70	50+50=100
CC-202	Educational Technology and Methods of Teaching in Physical Education	4	4	30	70	100
CC-203	Organization and Administration	4	4	30	70	100
Elective Course (Anyone)						
EC-201	Contemporary issues in physical education, fitness and wellness	4	4	30	70	100
EC-202	Sports Nutrition and Weight Management					
Part–B PracticalCourse						
PC-201	Track and Field (Jumping Events)	6	4	30	70	100
PC-202	Yoga/Aerobics/ Gymnastics/ Swimming	6	4	30	70	100
PC-203	Team Games: Football, Netball, Volleyball, Handball (Any three) (3x25 marks) Racket Sports: Table Tennis, Badminton, Tennis, Squash (Any one)-(1x25 marks)	6	4	30	70	100
Part – C Teaching Practices						
TP-201	Teaching Practices (05lessons in class room teaching and 05 lessons in outdoor activities) - Internal	6	4	30	70	100
Total		40	32	240	560	800

Semester - III

Part A: Theoretical Course						
Course Code	Title of the Papers	Total Hours	Credit	Internal Marks	External Marks	Total Marks
Core Course						
CC-301	Sports Training	4	4	30	70	100
CC-302	Computer Applications in Physical Education and Sports Science	4	4	30	70	100
CC-303	Sports Psychology and Sociology in Physical Education and Sports	4	4	30	70	100
Elective Course (Anyone)						
EC-301	Sports Medicine, Physiotherapy and Rehabilitation	4	4	30	70	50+50 =100
EC-302	Curriculum Design and Gender Education					
Part–B Practical Course						
PC-301	Track and Field (Throwing Events)	6	4	30	70	100
PC-302	Combative Sports: Martial Art/ Karate/ Judo/ Fencing/ Boxing/ Taekwondo/ Wrestling/Lathi (Any two out of these)	6	4	30	70	100
PC-303	Team Games: Baseball/ Cricket/ Football/ Hockey/ Softball/ Volleyball/ Handball/ Basketball/ Netball (Any two of these)	6	4	30	70	100
Part – C Teaching Practices						
TP-301	Sports specialization: Coaching lessons Plans (For One Sports - 5 lessons)- Internal – One lesson will be evaluated by external examiner (30+70)	6	4	30	70	100
Total		40	32	240	560	800

Semester - IV

Part A: Theoretical Course						
Course Code	Title of the Papers	Total Hours	Credit	Internal Marks	External Marks	Total Marks
Core Course						
CC-401	Measurement and Evaluation in Physical Education	4	4	30	70	100
CC-402	Kinesiology and Biomechanics	4	4	30	70	100
CC-403	Research and Statistics in Physical Education	4	4	30	70	100
Elective Course (Anyone)						
EC-401	Theory of sports and game	4	4	30	70	100
EC-402	Sports Management					
Part–B Practical Course						
PC-401	Track and Field / Swimming / Gymnastics (Any one out of three)	6	4	30	70	100
PC-402	Kabaddi/ Kho-Kho/ Baseball/ Cricket/ Football/Hockey/Softball/ Volleyball/ Handball/ Basketball/ Netball/ Badminton/ Table Tennis/ Squash/ Tennis (Any Two of these)	6	4	30	70	100
Part – C Teaching Practices						
TP-401	Teaching Practice: (Teaching Lesson Plans for Racket Sport/ Team Games/Indigenous Sports) (out of 10 lessons 5 internal and 5 external at practicing school) –Internal and External (50+50)	6	4	30	70	100
TP-402	Games specialization: Coaching lessons Plans (One for Games 5 lessons) - Internal					100
		40	32	240	560	800
		160	128	60	2240	3200

Semester-I

Theory Courses

CC-101: HISTORY, PRINCIPLES AND FOUNDATION OF PHYSICAL EDUCATION & OLYMPIC MOVEMENT (CORE COURSE)

UNIT-1: Introduction to the Concept of Physical Education

1.1 Meaning, Definition, Misconceptions and Scope of Physical Education.
1.2 Aims and Objective of Physical Education.
1.3 Relationship of Physical Education with General Education, Need for Physical Education in Modern society.
1.4 Physical Education as an Art and Science.

UNIT-2: History of Development of Physical Education

2.1 History of the development of Physical Education during pre-independence period.
2.2 Post-Independence Period - Physical Education in India with reference to development of Physical education in West Bengal.
2.3 Contribution of Akhras, Vyayamshalas & YMCA.
2.4 Contribution of Eminent Physical Educationists: J.B. Basedow, J.F. Gustmuth, F.L.Jahn, Franz Natchtegall, Niles Bukh, P.H.Ling. H.C.Buck, James Buchanan, P.M. Joshep, Rabindranath Tagore, Swami Vivekananda, Rishi Aurobindo.

UNIT-3: Foundation & Principles of Physical Education

3.1 ***Philosophical foundation:***
Idealism, Realism, Pragmatism and Naturalism in Physical Education.

3.2 ***Biological Principles:***
Change of locomotion from Biped to Quadruped position – Advantages and Disadvantages. - Age & Gender Characteristics, Body type, Fitness and wellness movement in the contemporary perspectives.

3.3 ***Psychological principles:***
Psychological factors affecting sports performance, Growth and Development – meaning, difference and principles.

3.4 ***Sociological principles:***
Socialization through Physical Education, social integration and cohesiveness, National & International integration through sports.

UNIT-4: Olympic Movement

4.1 The history of ancient Olympic movement.
4.2 The significant stages in the development of the modern Olympic movement, Philosophy of Olympic movement
4.3 Significance of Olympic Ideals, Olympic Rings, Olympic Flag, Olympic Oath.
4.4 International Olympic Committee - Structure and Functions, National Olympic committees and their role in Olympic movement, Types of Olympic Games.

References:

1. **Bucher, C. A. (n.d.)** Foundation of physical education. St. Louis: The C.V. Mosby Co. Deshpande, S. H. (2014). Physical Education in Ancient India. Amravati: Degree college of Physical education.
2. **Mohan, V. M. (1969).** Principles of physical education. Delhi: Metropolitan Book Dep. Nixon, E. E. & Cozen, F.W. (1969). An introduction to physical education. Philadelphia: W.B. Saunders Co.
3. **Obertuffer, (1970).** Delbert physical education. New York: Harper & Brothers Publisher. Sharman, J. R. (1964). Introduction to physical education. New York: A.S. Barnes & Co.
4. **William, J. F. (1964)**. The principles of physical education. Philadelphia: W.B. Saunders Co.

CC-102: Anatomy and Physiology

UNIT-1: Introduction of the Human Body

1.1 Organization of the human body and Brief introduction of Anatomy Physiology in the field of Physical Education and Sports
1.2 Cell-structure and functions of cells
1.3 Tissue- Types of tissue and their functions
1.4 Skeletal System- Bones of the human body-axial and appendicular skeleton. Classification and functions of bone Anatomical sex difference. Brief description of Joints.

UNIT-2: System I

2.1 Muscular system- Types of muscle and functions-Structure of skeletal muscle, Major muscles of shoulder, hip and knee joint
2.2 Digestive system: The alimentary cannel /G.I.tract, Accessory glands and digestive juices – Brief outline of process of carbohydrate, fat and protein digestion
2.3 Energy metabolism : Brief discussion on energy metabolism , Fuel for muscular work
2.4 Circulatory System: Function of circulatory system. Composition and function of blood, Heart- location and structure, pulmonary circulation, Systemic circulation. Cardiac cycle, Blood pressure, Blood group, Blood coagulation. Blood and immunity.

UNIT-3: System II

3.1 Respiratory system: Organs of respiration, meaning internal and external respiration. mechanism of respiration,
3.2 Excretory system: Structure and function of kidney, urine formation
3.3 Endocrine system: Location, secretion and functions of different endocrine glands
3.4 Nervous system: organization, central nervous system- Brain, spinal cord, autonomic nervous system. Concept of nerve- muscle physiology: Neuromuscular junction and transmission.

UNIT-4: Effect of Exercise on Different System

4.1 Exercise-Concept and type
4.2 Types of muscular contraction. Effect of exercise on muscular system
4.3 Effect of exercise on circulatory system- Heart rate, stroke volume, cardiac output, athletic heart
4.4 Effect of exercise on respiratory system- Tidal volume, respiratory rate, pulmonary ventilation, oxygen uptake, oxygen debt or EPOC (Excess Post exercise oxygen consumption.)

References:

1. Gupta, A. P. (2010). Anatomy and physiology. Agra: SumitPrakashan.
2. Gupta, M. and Gupta, M. C. (1980). Body and anatomical science. Delhi: Swaran Printing Press.
3. Guyton, A.C. (1996). Textbook of Medical Physiology, 9th edition. Philadelphia: W.B.
4. Karpovich, P. V. (n.d.). Philosophy of muscular activity. London: W.B. Saunders Co. Lamb, G. S. (1982). Essentials of exercise physiology. Delhi: Surjeet Publication.
5. Moorthy, A.M. (2014). Anatomy physiology and health education.Karaikudi: MadalayamPub.
6. Morehouse, L. E. & Miller, J. (1967). Physiology of exercise. St. Louis: The C.V. Mosby Co. Pearce,
7. E. C. (1962). Anatomy and physiology for nurses. London: Faber & Faber Ltd.
8. Sharma, R. D. (1979). Health and physical education, Gupta Prakashan.
9. Singh, S. (1979). Anatomy of physiology and health education. Ropar: Jeet Publications.

CC-103: Health Education and Environmental Studies

UNIT-1: Health Education

1.1 Concept, Dimensions, Spectrum and Determinants of Health.
1.2 Definition of Health, Health Education, Aims, objectives and principles of Health Education
1.3 Personal Hygiene: Care of eye, ear, skin and hair.
1.4 School Health Program: Health service, Health instruction, Health supervision, health appraisal and Health record.

UNIT-2: Health Problems in India- Prevention and Control

2.1 Communicable diseases: Malaria, Dengue, Dysentery, Cough and cold, chicken pox.
2.2 Non-Communicable diseases: Obesity, Diabetes, Hyper Tension, Cancer.
2.3 Nutritional Disorder: Mother-child Health Care, Explosive Population, Food Adulteration, First-Aid and emergency care.
2.4 Postural Deformities

UNIT- 3: Environmental Studies

3.1 Historical Background and concept of Environmental Studies
3.2 Definition, scope, need and importance of Environmental Studies
3.3 Recycling of wastes, plastic recycling and probation of plastic bag/cover
3.4 Role of School in Environmental conservation and sustainable development.

UNIT- 4: Natural Resources and Related Environmental Issues

4.1 Water resources, food resources and Land resources.
4.2 Definition, effects and control measures of air pollution, water pollution, soil pollution, Noise pollution and thermal pollution.
4.3 Management of environment and Govt. Policies- role of Pollution Control Board
4.4 Celebration of various days in relation with environment.

References:

1. Agrawal, K.C. (2001). Environmental biology.Bikaner: Nidhi publishers Ltd.
2. Frank, H. &Walter, H., (1976). Turners school health education. Saint Louis: The C.V. Mosby Company.
3. Nemir, A. (n.d.). The school health education. New York:Harber and Brothers. Odum, E.P. (1971). Fundamental of ecology. U.S.A.: W.B. Saunders Co.

EC-101: Physical Literacy through Movement Education (Elective)

UNIT-1: Introduction to Movement Education and Physical Literacy

1.1 Definition, Meaning & Importance of Movement Education.
1.2 Definition, Meaning & Importance of Physical Literacy.
1.3 Concept of developmentally Appropriate Physical Activities.
1.4 Standards based Physical Education Curriculum (NASPE Standards).

UNIT-2: Motor Skill & Movement Pattern

2.1 Classification of Motor Skills: Fundamental (Locomotor, Nonlocomotor, Body Management Skill), Specialized (Manipulative, Rhythmic Movement, Game & Sport Skills).
2.2 Skill Themes Approach and Development of Skill Themes: Traveling, Chasing, fleeing, dodging, jumping, landing, transferring body weight, striking, kicking, throwing and catching.
2.3 Introduction to Movement Concepts, Development of Movement Concepts: Space Awareness, Effort Concepts, Relationships.
2.4 Long Term Athlete Development (LTAD)

UNIT- 3: Participation in Physical Activity and Personal &Social Development

3.1 Personal Development: Self-concept, Cognitive Functioning and Motivational outcomes
3.2 Social Development: Altruism, Controlling Aggression, Cooperation, Group development.
3.3 United Nations and other organizations using Sport and Traditional Sports for Social Development
3.4 Sport for Development: Sport for Education, Economic, Gender, Health and Peace.

UNIT- 4: Pedagogical Models for Physical Literacy &Movement Education

4.1 Need for child centered teaching models.
4.2 Teaching Games for Understanding (TGFU) model: Invasion Games, Net/Wall Games, Striking/ Fielding Games, Target Games
4.3 Education through Movement (ETM) program
4.4 Coaching life skills through sport

References:

1. **Abels, K. & Bridges, J. M. (2010)** Teaching Movement Education: Foundations for active lifestyles. Human Kinetics
2. **Graham, G., Holt, Shirley & Parker, Melissa (1993)** Children Moving. A Reflective Approach to Teaching Physical Education with Movement Analysis, Wheel 3rdEdition, Mayfield Publishing Company.
3. **Lund, J &Tannehill& Lund, Jacalyn (2010)** Standards-Based Physical Education Curriculum Development, 2nd Edition. Jones &Barlett Learning.
4. **Frank, A. M (2003)** Sports and Education: A Reference Handbook (Contemporary Education Issues), ABC-CLIO.
5. Ciccomascolo, L. E. & Sullivan, E. C. (2013) The Dimensions of Physical Education. Jones &Barlett Learning.
6. **Pangrazi, R. P. (1998)** Dynamic Physical Education for Elementary School Children, 12th Edition. Allyn& Bacon.
7. **Griffin, L. & Butler, J. (2005)** Teaching Games for Understanding: Theory, Research, and Practice. Human Kinetics
8. **Coalter, F. (2013)** Sport for Development: What game are we playing?.Routledge.

EC 102: Officiating and Coaching (Elective)

UNIT – 1: Introduction of Officiating and Coaching

1.1 Concept of Officiating and Coaching
1.2 Importance and principles of Officiating
1.3 Relation of official and coach with management, players and spectators
1.4 Measures of improving the standards of Officiating and Coaching

UNIT – 2: Coach as a Mentor

2.1 Duties of coach in general, pre, during and post-game.
2.2 Philosophy of coaching.
2.3 Responsibilities of a coach on and off the field
2.4 Psychology of competition and coaching

UNIT – 3: Duties of Official

3.1 Duties of official in general, pre, during and post-game.
3.2 Philosophy ofOfficiating
3.3 Mechanics of officiating – Position, singles and movement etc.
3.4 Ethics of officiating

UNIT – 4: Qualities and Qualification of Coach and Official

4.1 Qualities and Qualification of coach and official
4.2 General rules of game and sports
4.3 Eligibility rules of inter-collegiate and inter-university tournaments, preparation of TA,DA bills
4.4 Integrity and values of sports

Reference Books:

1. Bunn, J. W. (1968). The art of officiating sports. Englewood cliffs N.J. Prentice Hall.
2. Bunn, J. W. (1972). Scientific principles of coaching. Englewood cliffs N. J. Prentice
3. Hall. Dyson, G. H. (1963). The mechanics of athletics. London: University of London
4. Press Ltd. Dyson, G. H. (1963). The mechanics of Athletics. London: University of London Press Ltd.
5. Lawther, J.D. (1965). Psychology of coaching. New York: Pre. Hall.
6. Singer, R. N. (1972). Coaching, athletic &psychology.New York: M.C. Graw Hill.

Semester–II

Theory Courses

CC-201: YOGA EDUCATION AND INCLUSIVE EDUCATION

UNIT -1: Introduction of Yoga

1.1 Meaning and Definition of Yoga
1.2 Aim and Objectives of Yoga
1.3 History and Philosophical aspects of Yoga
1.4 Need and Importance of Yoga in Physical Education and Sports

UNIT -2: Methods of Yoga

2.1 KarmaYoga, JnanaYoga, BhaktiYoga and Raja Yoga
2.2 Steps of Hatha Yoga, Astanga Yoga and Yogic Teaching Method
2.3 Effect of asana and pranayama on human body and mind
2.4 Yoga as therapy

UNIT -3: Introduction to Inclusive Education

3.1 Concept and history of special education, integrated education and inclusive education and their relationship
3.2 Philosophical, Sociological, Economical and Humanitarian dimensions of inclusive education.
3.3 Advantages of inclusive education for the individual and society
3.4 Factors affecting inclusion

UNIT -4: Inclusion in Operation & Teacher preparation for inclusive school

4.1 Class room management and organizations, curricular adaptations, learning designing and development of suitable Teaching Learning Method
4.2 Pedagogical strategies to respond to individual needs of students: Cooperative learning strategies in the class room, peer tutoring, social learning, buddy system, reflective teaching, multisensory teaching etc.
4.3 Problems in inclusion in the real class room situations; ways for overcoming the problems.
4.4 Teacher preparation for inclusive education. Skills and competencies of teachers

Reference Books:

1. Brown, F.Y. (2000). Howtouseyoga. Delhi: Sports Publication.
2. Gharote, M.L. &Ganguly, H, (1988). Teaching methods for yogic practices. Lonawala: Kaixydahmoe.
3. Rajjan,S.M.(1985).Yogastrentheningofrelexationforsportsman.NewDelhi:AlliedPublishers.
4. Shankar, G. (1998). Holistic approach of yoga. New Delhi: Aditya Publishers. Shekar, K.C. (2003). Yoga for health. Delhi: KhelSahitya Kendra.
5. Nanda,B.P.(2014) Sikhya Ekibhaban,Classiq Books,Kolkata.
6. Nanda,B.P.(2012) Challenged Children: Problems and Management.Ankush Prakashan,Kolkata.
7. Nanda,B.P.(2008) School without walls in 21st Century: From exclusion to inclusion practices in education. Mittal Publications, New Delhi.
8. Nanda,B.P. and Ghosh,S. (2010) Bishes Sikshar Itihas, Rabindra Bharati Prakasana, Kolkata.
9. Nanda,B.P. and Zaman, S.S. (2002) Batichrom dharmi Sishu. Mawola Brothers, Dhaca, Bangladesh

CC – 202: Educational technology and methods of teaching in physical education

UNIT – 1: Introduction

1.1 Education and education technology- meaning and definitions
1.2 Types of education – Formal, Informal and non-formal education
1.3 Educative Processes
1.4 Importance of device and methods of teaching and class management

UNIT – 2: Teaching Technique

2.1 Teaching Techniques – Lecture Method, Command Method, Demonstration Method, Imitation Method, Project Method etc. ; Teaching procedure – Whole method, Whole – part- whole method, Part- whole method
2.2 Presentation technique – personal and technical preparation and presentation
2.3 Verbal Non-verbal communication technique
2.4 Details of three fundamental methods – meaning, types and its uses in different situation

UNIT – 3: Teaching Aids and Competition

3.1 Teaching Aids – meaning importance and its criteria for selecting teaching aids. Community Aids, Co-curricular Aids
3.2 Type of Teaching Aids – Audio aids, Visual Aids, Audio-visual Aids
3.3 Meaning, Principles and advantages of team teaching
3.4 Group Competition, Intramural and extramural Competition

UNIT – 4: Learning Designing and Teaching Innovations

4.1 Meaning, Types and Principle of Learning designing
4.2 General and Specific Learning designing. Simulation Teaching – meaning, types and steps of Simulation Teaching
4.3 Meaning, Types and Steps of Micro and Macro Teaching.
4.4 Classification of students

References:

1. Bhardwaj, A. (2003). New media of Educational Planning. New Delhi: Sarup of sons.
2. Bhatia & Bhatia, (1959). The Principle and Methods of Teaching. New Delhi: Doaba House.
3. Kochar,S.K.(1982). Methods and Technique of Teaching. New Delhi: Sterling Publishers Pvt. Ltd.
4. Sampath, K., Pannirselvam, A. &Santhanam, S. (1981). Introduction to educational technology. New Delhi: Sterling Publishers Pvt. Ltd.
5. Wlia, J.S. (1999). Priciples and Methods of Education. Jullandhar: Paul Publishers.

CC – 203: Organization and Administration

UNIT - 1: Introduction to Organization and Administration

1.1 Meaning Definition, and Importance of organization and Administration in Physical Education
1.2 Meaning, Definition and Importance of Planning
1.3 Basic principles of Planning
1.4 Functions of organization and Administration

UNIT – 2: Office and Time-Table Management

2.1 Meaning Definition, and Functions of Office Management
2.2 Kinds of office Management
2.3 Maintenance of different types of Register
2.4 Time-Table Management: Meaning, need and Importance

UNIT – 3: Management of Sports Facility

3.1 Types of facilities: Infrastructure -Indoor, Outdoor
3.2 Facility Management: Equipment Store Room, Gymnasium, Swimming pool, Play ground
3.3 Equipment: Need, Importance, Procedure of purchase, Care and Maintenance
3.4 Physical efficiency Record, Medical examination Record

UNIT – 4: Tournament

4.1 Importance of Tournament
4.2 Types of Tournament and its organizational structure
4.3 Organizational structure of athletic meet
4.4 Sports Event, Intramural and Extramural Tournament Planning

References:

1. Broyles, F. J. &Rober, H. D. (1979). Administration of sports, Athletic programme: A Managerial Approach. New York: Prentice hall Inc.
2. Bucher, C. A. (1983). Administration of Physical Education and Athletic programme.St.Lolis: The C.V. Hosby Co.
3. Kozman, H.C. Cassidly, R. & Jackson, C. (1960).Methods in Physical Education. London:W.B. Saunders Co.
4. Pandy, L.K. (1977). Methods in Physical Education.Delhe: Metropolitan Book Depo.

EC 201: CONTEMPORARY ISSUES IN PHYSICAL EDUCATION, FITNESS AND WELLNESS (Elective)

UNIT – 1: Concept of Fitness

1.1 Meaning and Definition of Fitness
1.2 Type of fitness
1.3 Definition and component of physical fitness
1.4 Changing concept of physical fitness

UNIT – 2: Concept of Wellness and Lifestyle

2.1 Concept and dimensions of wellness
2.2 Cyber culture and modern life style
2.3 Diseases due to lifestyle – Their prevention and management through physical activities
2.4 Construction of Wellness profile

UNIT – 3: Principle of Exercise Programme

3.1 Means of fitness development – aerobic and anaerobic exercises
3.2 Principle of obesity control and weight management
3.3 Concept of sets, repetition, volume, intensity, density of exercise
3.4 Concept of designing different fitness training programme for different age group

UNIT – 4: Safety Education and Fitness Promotion

4.1 Definition and need of Safety Education
4.2 Determination of desirable body weight
4.3 Health drinks and sports drinks- their need and importance
4.4 Common injuries and their management

References:

1. Difiore, J.(1998). Complete guide to postnatal fitness. London: A & C Black,.
2. Giam, C.K &The, K.C. (1994). Sport medicine exercise and fitness. Singapore: P.G. Medical Book.
3. Mcglynn, G., (1993). Dynamics of fitness. Madison: W.C.B Brown. Sharkey, B. J.(1990). Physiology of fitness, Human Kinetics Book.

EC- 202: Sports Nutrition and Weight Management (Elective)

UNIT-1: Introduction to Nutrition

1.1 Meaning and definition of Nutrition and sports nutrition
1.2 Guidelines of basic nutrition
1.3 Role of nutrition in sports
1.4 Factors for developing a nutritional plan

UNIT- 2: Nutrients

2.1 Macro Nutrients- Carbohydrate, protein, fat - Meaning, Sources and functions
2.2 Micro Nutrients- Vitamins, minerals, water – meaning, Sources, classification and functions
2.3 Role of carbohydrate, fat and protein during exercise
2.4 Role of hydration during exercise and water balance.

UNIT-3: Nutrition and Weight Management

3.1 Meaning and concept of weight management in modern era. Factors affecting weight management and values of weight management
3.2 Concept of B.M.I.(Body Mass Index) and Obesity
3.3 Obesity and its hazards, Myth of Spot reduction, dieting versus exercise for weight control, Common Myths about weight loss
3.4 Health risks associated with Obesity – Causes and solution for overcoming obesity.

UNIT-4: Steps of Planning of Weight Management

4.1 Nutrition – Daily calorie intake and expenditure.
4.2 Balance diet and athletic diet
4.3 Role of diet and exercise in weight management
4.4 Weight management programme for sporty child, Design diet and exercise schedule for weight gain and loss.

References:

1. Bessesen, D. H. (2008). Update on obesity. J ClinEndocrinolMetab.93(6), 2027-2034.
2. Butryn, M.L., Phelan, S., &Hill, J. O.(2007). Consistent self-monitoring of weight: a key component of successful weight loss maintenance.Obesity(Silver Spring). 15(12), 3091-3096.
3. Chu, S.Y. & Kim, L. J. (2007). Maternal obesity and risk of stillbirth: a metaanalysis. Am J ObstetGynecol, 197(3), 223-228.
4. DeMaria, E. J. (2007). Bariatric surgery for morbid obesity. N Engl J Med,356(21), 2176-2183.
5. Dixon, J.B., O'Brien, P.E., Playfair, J. (n.d.). Adjustable gastric banding and conventional therapy for type 2 diabetes: a randomized controlled trial. JAMA. 299(3), 316-323.

Semester – III

Theory Courses

CC – 301: Sports Training

UNIT – 1: Introduction to Sports Training

1.1 Meaning and Definition of Sports Training and Sports Coaching
1.2 Aim and Objectives of Sports Training
1.3 Principles of Sports Training and qualification and duties of sports trainer
1.4 Components of games and sports training (Motor fitness components Technique, Tactics and Strategical approach, Psychological components facilities and infrastructure)

UNIT – 1: Process of development of motor fitness component

2.1 Strength- Means and method of Strength development
2.2 Speed - Means and method of Speed development
2.3 Endurance- Means and method of Endurance development
2.4 Power and Balance - Means and method of Power and Balance development

UNIT – 1: Training load, load dynamics and Training processes

3.1 Concept definition and types of training load
3.2 Components of training load
3.3 Concept of load dynamics and its principles
3.4 Technical and Tactical training- Meaning, Importance and methods.

UNIT – 1:Programme, planning and system of sports training

4.1 Periodization- Meaning, definition and types. Aims, Objectives and Content of different periods- Preparatory, Competition and Transition.
4.2 Planning- Training session for Micro, Meso and Macro cycles.
4.3 Systems of Sports Training- Basic Performance, Good Performance and High Performance.
4.4 Talent identification. Meaning of Flexibility and coordinative ability and their role in High Performance

Reference:

1. Dick, W. F. (1980).Sports training principles. London: Lepus Books.
2. Harre, D.(1982).Principles of sports training. Berlin: Sporulated.
3. Jensen, R. C.& Fisher, A.G. (1979). Scientific basis of athletic conditioning. Philadelphia: Lea and Fibiger, 2ndEdn.
4. Matvyew, L.P. (1981).Fundamental of sports training. Moscow: Progress Publishers.
5. Singh, H. (1984).Sports training, general theory and methods.Patials: NSNIS.
6. Uppal, A.K., (1999).Sports Training.New Delhi: Friends Publication.

CC-302: Computer Applications in Physical Education and Sports Science

UNIT – 1: Introduction to Computer Application

1.1 Components of computer-input and output unit, storage unit, CPU, ALU, control unit.
1.2 Starting & quitting windows, setting display, time & date, managing files and folders.

1.3 Meaning, need and importance of information and communication technology (ICT).
1.4 Application of computer and computer software in Physical Education and Sports

UNIT – 2: Word

2.1 Introduction to word
2.2 Creating, saving and opening a document
2.3 Formatting & editing features, drawing table and graphs, page setup, paragraph alignment, spelling and grammar check, bullets and numbering, page number, header and footer, footnote and endnotes, mail merge, printing option and hyperlink.
2.4 Preparation of word document

UNIT – 3: Excel

3.1 Introduction to Excel
3.2 Creating, saving and opening spreadsheet
3.3 Format and editing features, adjusting columns width and row height, Creating formulas, short and filter, inserting graph and pictures, printing option
3.4 Preparation of Excel worksheet

UNIT – 4: Power Point

4.1 Introduction to Power Point
4.2 Creating, saving and opening a ppt file
4.3 Format and editing features, slide show, design, inserting slide number, picture, graph, table, hyperlink and graphics.
4.4 Preparation of Power Point Presentation

References:

1. Irtegov, D. (2004). *Operating system fundamentals*. Firewall Media.
2. Marilyn, M.& Roberta, B.(n.d.).*Computers in your future*. 2nd edition, India: Prentice Hall.
3. Milke, M.(2007). *Absolute beginner's guide to computer basics*. Pearson Education Asia.
4. Sinha, P. K. &Sinha, P. (n.d.).*Computer fundamentals*. 4th edition, BPB Publication.

CC – 303: Sports Psychology and Sociology in Physical Education and Sports

UNIT – 1: Introduction to Psychology and Sociology

1.1 Meaning, Importance and scope of Sports Psychology and Sociology.
1.2 Biological Basis of Human Behaviour
1.3 Individual Differences – Heredity and Environment
1.4 Psycho-social aspects of Human behavior in relation to Physical Education and Sports

UNIT – 2: Learning, Maturity and Growth & Development

2.1 Learning-Definition, Types and Laws of Learning. Theories of Learning. Factors affecting Learning, Transfer of Learning. Learning Curve – Stagnation in learning.
2.2 Growth and Development – Stages of Development, need of Physical Activity
2.3 Personality - Meaning and definition of personality, characteristics of personality, Dimensionofpersonality,PersonalityandSportsperformance.
2.4 Mental Aspects – Attention, Interest, Motivation, Aggression, Emotion, Anxiety.

UNIT – 3: Social Science and Physical Education

3.1 Orthodoxy, customs, Tradition and PhysicalEducation.
3.2 Importance of Festivals in physical Education.
3.3 Theories of Play, SocializationthroughPhysicalEducation.
3.4 SocialGrouplifeSocialconglomeration– Socialgroup,Primary groupandRemotegroup.

UNIT – 4: Culture and Physical Education

4.1 Features of culture, Importance of culture
4.2 Importance of sports in modern society
4.3 Effectsofcultureonpeoplelifestyle.
4.4 Different methods of studying (Observation/Inspection method Questionnairemethod,Interviewmethod.)

Suggested Readings

1. B. J. Cratty. Psychology of Contemporary sports Champaign: Human Kinetics Publishers,
2. John M. Silva & Roberts.Psychological Foundations of Sport. Champaign: Human Kinetics Publishers.
3. Diane Gills, Psychological Dynamics of sports. Champaign: Human Kinetics Publishers.
4. Cox, Sports Psychology. Champaign: Human Kinetics Publishers.
5. Richard M. Sumin, "Psychology in Sports, Methods & Application. New Delhi: Surjeet Publication.

EC-301: Sports Medicine, Physiotherapy and Rehabilitation (Elective)

UNIT-1: Sports Medicine

1.1 Meaning and concept of sports medicine, Aim and objectives of sports medicine.
1.2 Development of sports medicine as discipline –aspect of sports medicine
1.3 Common regional injuries and their management- shoulder, elbow, wrist knee and ankle – signs , symptoms and diagnosis of injuries
1.4 Concept of doping and doping agents banded by WADA

UNIT-2: Physiotherapy

2.1 Brief introduction of Physiotherapy
2.2 Need and importance of Physiotherapy
2.3 Different types of therapeutic modalities (cryotherapy, superficial thermo therapy, penetrating thermotherapy, Electrical stimulation)
2.4 Guiding principles of therapeutic modalities

UNIT–3: Athletic Care and Massage

3.1 Prevention of athletic injuries – steps of prevention –pre-participation evaluation –Warm up and conditioning.
3.2 Emergency care in athletics and First aid – Meaning and principles – First aid care for I) Loss of consciousness II) control of building III)Drowning and basic life support.
3.3 Protective and supportive equipment:Taping,Bandaging, padding and orthotics.
3.4 Massage: Classification – general principles, indication and contraindication.

UNIT –4: Rehabilitations

4.1 Concept and goal of rehabilitation
4.2 Principle of therapeutic exercises –Classification ,uses of
4.3 Passive movement and active movement
4.4 Mobility exercise

References:

1. Christine, M. D., (1999). Physiology of sports and exercise.USA: Human Kinetics.
2. Conley, M. (2000). Bioenergetics of exercise training. In T.R. Baechle, & R.W. Earle, (Eds.), Essentials of Strength Training and Conditioning (pp. 73-90). Champaign, IL: Human Kinetics.
3. David, R. M. (2005).Drugs in sports, (4th Ed). Routledge Taylor and Francis Group.
4. Hunter, M. D. (1979). A dictionary for physical educators. In H. M. Borrow & R. McGee, (Eds.), A Practical approach to measurement in Physical Education (pp. 573-74). Philadelphia: Lea &Febiger.

EC-302: CURRICULUM DESIGN AND GENDER EDUCATION (Elective)

UNIT-1: Modern concept of the curriculum

1.1 Meaning of Curriculum Design. Need and importance of curriculum development, the role of the teacher in curriculum development.
1.2 The role of the teacher in curriculum development.
1.3 Factors affecting curriculum-Social factors-Personnel qualifications-Climatic consideration
1.4 Steps in curriculum construction.

UNIT-2: Basic Guideline for curriculum construction.

2.1 Focalization, Socialization and Individualisation
2.2 Steps in curriculum construction.
2.3 Principles of Curriculum design according to the needs of the students and state and national level policies.
2.4 Professional Competencies to be developed-Facilities and special resources for library, laboratory and other facilities.

UNIT-3: Concept on Gender

3.1 Meaning and concept on gender, Types
3.2 Types - Transgender and third gender, sex, patriarchy.
3.3 Gender bias, gender stereotyping, and empowerment
3.4 Equity and equality in relation with caste, class, religion, ethnicity, disability and region

UNIT-4: Gender and Education

4.1 Role of Teacher in the light of Gender Identity, Sexuality and Sexual harassment
4.2 Socialisation Practices in Family, Schools, and Other formal and informal organization
4.3 Schooling of Girls and Women Empowerment
4.4 Agencies perpetuating violence: Family, school, work place and media

Reference:

1. Barrow, H. M. (1983). Man and movement: principles of physical education. Philadelphia: Lea and Febiger.
2. Bucher, C. A. (1986). Foundation of physical education: St. Louis: The C. V. Mosby & Company.
3. Cassidy, R. (1986). Curriculum development in physical education. New York: Harper & Company.
4. Cowell, C.C. & Hazelton, H.W. (1965). Curriculum designs in physical education.Englewood Cliffs: N.J. prentice Hall Inc.
5. Larson, L.A. (n.d.). Curriculum foundation in physical education. Englewood Cliffs: N.J. Prentice Hall Inc.
6. Underwood, G. L. (1983). The physical education curriculum in secondary school: planning and implementation.England: Taylor and Francis Ltd.
7. Willgoose, C.E. (1979). Curriculum in physical education. 3rd Ed. Englewood Cliffs. N.J. Prentice Hall, Inc.

Semester – IV

Theory Courses

CC– 401: Measurement and Evaluation in Physical Education

UNIT- 1: Introduction to Test, Measurement & Evaluation

1.1 Meaning of Test, Measurement & Evaluation in Physical education
1.2 Need, Importance of Test, Measurement & Evaluation in Physical Education
1.3 Application of Test, Measurement & Evaluation in Physical Education
1.4 Principles of Evaluation

UNIT - 2: Criteria, Classification and Administration of Test

2.1 Criteria of a good Test and Scientific authenticity (reliability, objectivity, validity and availability of norms)
2.2 Types of Test
2.3 Difference between Physical Fitness Test, Motor Fitness test, and Sports Skill Test
2.4 Administration of test- Advance preparation, Duties during test and after test.

UNIT- 4: Physical Fitness; Motor Fitness and Cardio-respiratory Tests

3.1 AAHPER Youth Fitness Test
3.2 AAHPERD Health Related Physical Fitness Test
3.3 Indiana Motor Fitness Test and JCR test
3.4 Harvard Step test and Tattle pulse ratio test

UNIT- 5: Sports Skill Tests

4.1 Mitchei's modification of McDonald Soccer Test
4.2 Johnson Basketball Test
4.3 Lockhart and McPherson Badminton Test
4.4 Russel-Lange Volleyball Test
4.5 Schmithal-French Field Hockey Test

References:

1. Bangsbo, J. (1994). Fitness training in football: A scientific approach. Bagsvaerd, Denmark: Ho+Storm.
2. Barron, H. M., &Mchee, R. (1997). A practical approach to measurement in physical education. Philadelphia: Lea and Febiger.
3. Barron, H.M. &Mchee, R. (1997). A Practical approach to measurement in physical education. Philadelphia: Lea and Febiger.
4. Kansal, D.K. (1996). Test and measurement in sports and physical education. New Delhi: D.V.S. Publications.
5. Mathews, D.K., (1973). Measurement in physical education, Philadelphia: W.B. Sounders Company.
6. Pheasant, S. (1996). Body space: anthropometry, ergonomics and design of work. Taylor & Francis, New York.
7. Phillips, D. A., &Hornak, J. E. (1979). Measurement and evaluation in physical education. New York: John Willey and Sons.
8. Sodhi, H.S., &Sidhu, L.S. (1984). Physique and selection of sports- a kinanthropometric study. Patiala: Punjab Publishing House.

CC-402: Kinesiology and Biomechanics

UNIT – 1: Introduction to Kinesiology and Sports Biomechanics

1.1 Meaning and Definition of Kinesiology, Biomechanics and Sports Biomechanics
1.2 Importance and Scope of Kinesiology and Sports Biomechanics in Physical Education and Sports Science
1.3 Terminology of Fundamental Movements
1.4 Fundamental Concepts of Following Terms – Axes and Planes, Centre of Gravity, Line of Gravity, Scalars and Vectors Quantities,Equilibrium.

UNIT – 2:Kinesiological Aspects of Human Movement

2.1 Classification of Joints and Muscles, Name of the Major Superficial Muscles, movements around the joints
2.2 Types of Muscle Contractions
2.3 Posture – Meaning, Types and Importance of Good Posture.
2.4 Fundamental Concepts of Following Terms- Angle of Pull, All or None Law, ReciprocalInnervations

UNIT – 3: Mechanical Concepts

3.1 Force - Meaning, Definition, Types, Units and its Application to Sports Activities
3.2 Lever - Meaning, Definition, Types and Body Lever.Wheel, Axel and Pulley.
3.3 Motion – Concept, Types and its Application to Sports Activities. Newton's Laws of Motion
3.4 Projectile Motion – Concept, Types,Principles and Factors Influencing Projectile Motion.

UNIT – 4: Kinematics and Kinetics of Human Movement

4.1 Linear Kinematics – Distance and Displacement, Speed and Velocity, Acceleration
4.2 Angular kinematics – Angular Distance and Displacement, Angular Speed and velocity,Angular Acceleration.
4.3 Linear Kinetics – Inertia, Mass, Momentum,Impulse, Friction.
4.4 Angular Kinetics – Moment of Inertia, Couple, Stability.

Reference:

1. Bunn, J. W. (1972).*Scientific principles of coaching.*Englewood Cliffs, N.J. Prentice HallInc.
2. Hay, J. G. & Reid, J. G.(1982).*The anatomical and mechanical basis of human motion.*Englewood Cliffs, N.J.: prentice Hall Inc.
3. Hay, J. G. & Reid, J. G. (1988).*Anatomy, mechanics and human motion.* Englewood Cliffs,N.J.: prentice Hall Inc.
4. Hay, J. G. (1970).*The biomechanics of sports techniques*. Englewood Cliffs, N.J.: PrenticeHall, Inc.
5. Simonian, C.(1911).*Fundamentalsof sport biomechanics.* Englewood Cliffs, N.J.: PrenticeHall Inc.
6. Hall, J.S. (1991). Basic Biomechanics. The McGraw-Hill Companies, Inc. First Edition 1991, Brown and Benchmark Publishers.

CC– 403: Researches and Statistics in Physical Education

UNIT- 1: Introduction to Research

1.1 Definition of Research, Need and importance of Research in Physical Education and Sports.
1.2 Scope of Research in Physical Education & Sports.
1.3 Classification of Research
1.4 Research Problem, Quality of a good researcher

UNIT -2: Research Proposal and Project Report

2.1 Need for surveying related literature and Literature Sources
2.2 Research Proposal- Meaning and Significance of Research Proposal.
2.3 Preparation of a Project proposal and Project report.
2.4 Methods of Collection of data

UNIT-3: Basics of Statistical Analysis

3.1 Statistics: Meaning, Definition, Nature and Importance
3.2 Class Intervals: Raw Score, Continuous and Discrete Series
3.3 Frequency and Frequency Distribution, Construction of Frequency Distribution Tables
3.4 Graphical Presentation of Data: Histogram, Frequency Polygon, Frequency Curve.

UNIT-4: Statistical Models in Physical Education and Sports

4.1 Measures of Central Tendency: Mean, Median and Mode :
4.2 Definition, Importance, Advantages, Disadvantages and Calculation from Group and Ungrouped data
4.3 Measures of Variability: Meaning, importance, computing from group and ungroup data
4.4 Percentiles and Quartiles: Meaning, importance, computing from group and ungroup data

References:

1. Best, J.W. (1963). Research in education. U.S.A.: Prentice Hall.
2. Bompa, T. O. &Haff, G. G. (2009). Periodization: theory and methodology of training, 5th ed.Champaign, IL: Human Kinetics.
3. Brown, L. E., &Ferrigno, V. A. (2005). Training for speed, agility and quickness, 2nd ed.Champaign, IL: Human Kinetics.
4. Brown, L.E. & Miller, J., (2005). How the training work. In: Training Speed, Agility, and Quickness. Brown, L.E. &Ferrigno, V.A &Ferrigno, V.A., eds. Champaign, IL: Human Kinetics.
5. Carl, E. K., & Daniel, D. A. (1969). Modern principles of athletes training. St. Louis: St. Louis's Mosby Company.
6. Clark, H. H., & Clark, D. H. (1975). Research process in physical education. Englewood cliffs, New Jersey: Prentice Hall, Inc.
7. Garrett, H.E. (1981). Statistics in psychology and education. New York: VakilsFeffer and Simon Ltd.
8. Oyster, C. K., Hanten, W. P., &Llorens, L. A. (1987). Introduction to research: A guide for the health science professional. Landon: J.B. Lippincott Company.
9. Thomas, J.R., & Nelson J.K. (2005). Research method in physical activity. U.S.A: Champaign, IL: Human Kinetics Books.
10. Thomas, J.R., Nelson, J.K. & Silverman, S.J. (2011). Research method in physical activity.U.S.A: Champaign, IL: Human Kinetics Books.
11. Uppal, A. K. (1990). Physical fitness: how to develop. New Delhi: Friends Publication.
12. Verma, J. P. (2000). A text book on sports statistics. Gwalior: Venus Publications.

EC- 401: Theory of Sports and Games (Elective)

UNIT – 1: Introduction

1.1 General Introduction of specialized game and sports: athletics, badminton, basketball, Volleyball, cricket, football, gymnastics, hockey, hand ball, kabaddi, kho-kho, tennis, Yoga. Each Game or sports to be dealt under the following heads: history and development of the game and of sports(any two)

1.2 Ground preparation, dimension and marking

1.3 Standard equipment and their specification

1.4 Ethics of sports and sportsmanship

UNIT – 2: Scientific principles of coaching (particular sports and game specific)

2.1 Motion- Types of motion and displacement, speed, Velocity, Acceleration, distance and Newton's Laws of motion.

2.2 Force- Friction, Centripetal and Centrifugal force, principles of force.

2.3 Equilibrium and lever: Their types

2.4 Sports training- Aims, Principles and characteristics. Training load- Component, principles of load, over load(Causes and symptoms), Crest load, Maximum and Sub maximum load.

UNIT – 3: Physical fitness components: (Particular sports and games specific)

3.1 Definition and types of speed, Strength and endurance.

3.2 Flexibility and its types.

3.3 Coordinative ability and its types

3.4 Training methods: Development of Components of Physical fitness and motor fitness through following training methods (Continuous method, Interval method, Circuit method, Fartlek and Weight Training)

UNIT – 4: Conditioning Exercise and warming up

4.1 Concept and conditioning of warming up

4.2 Role of weight training in games and sports

4.3 Teaching of fundamental skill and their mastery(Technique, Tactics and different phases of skill acquisition). Recreational and lead up games

4.4 Strategy- Offence and defense, Principles of offense and defense.

References:

1. Bunn, J. W. (1968). The art of officiating sports. Englewood cliffs N.J. Prentice Hall.
2. Bunn, J. W. (1972). Scientific principles of coaching. Englewood cliffs N. J. Prentice Hall.
3. Dyson, G. H. (1963). The mechanics of athletics. London: University of London Press Ltd.
4. Lawther, J.D. (1965). Psychology of coaching. New York: Pre. Hall.
5. Singer, R. N. (1972). Coaching, athletic &psychology.New York: M.C. Graw Hill.

EC-402: Sports Management (Elective)

UNIT – 1: Introduction to Sports Management

1.1 Nature, Scope and Purpose of Sports Management
1.2 Steps and Principles of Sports Management
1.3 Qualities and Competencies require for the Sports Manager
1.4 Event Management in Physical Education and Sports

UNIT – 2: Development of Leadership Qualities

2.1 Meaning and Definition of Leadership
2.2 Forms of Leadership- Autocratic, Laissez-faire, Democratic, Benevolent Dictator
2.3 Qualities of administrative Leader
2.4 Preparation of administrative Leader

UNIT – 3: Sports Management in Different Agencies

3.1 Sports Management in schools, Colleges and Universities
3.2 Factors affecting planning
3.3 Planning a school or college sports programme
3.4 Controlling a school, college and University sports programme- Developing Performance standard, establishing a reporting system, Evaluation

UNIT – 4: Financial Management in Physical Education

4.1 Financial Management in Physical Education and Sports in different Institutions
4.2 Budget-Meaning, Importance, Criteria of preparing a good Budget
4.3 Steps of Budget making
4.4 Principles of Budgeting

References:

1. Ashton, D. (1968).Administration of physical education for women.New York: The Ronal Press Cl.
2. Bucher, C.A. Administration of physical education and athletic programme. 7th Edition, St.Louis: The C.V. Mosby Co.
3. Daughtrey, G. & Woods, J.B. (1976). Physical education and intramural programmes, organisation and administration. Philadelphia U.S.A.: W.B. Sounders Cp.
4. Earl, F. Z, & Gary, W. B. (1963).Management competency development in sports and physical education. Philadelphia: W. Lea and Febiger.

Part – B
Practical Courses
Semester – I

Course Code	PAPER TITLE	Marks		
		Internal	**External**	**Credit**
PC-101	**Track and Field**	**30**	**70**	**4**
1.1 1.2 1.3 1.4	Running Events: Starting techniques: Standing start, Crouch start and its variations, Proper use of blocks. Finishing Techniques: Run Through, Forward lunging, Shoulder Shrug Marking, Rules and Officiating Hurdles: Fundamental Skills- Starting, Clearance and Landing Techniques. Types of Hurdles, Marking and Officiating. Relay: Baton Exchange for different distances, Understanding of Relay Zones, Marking and interpretation of rules and officiating Jumping: Running Broad Jump and Triple Jump Approach Run, Take-off, Flight and Landing	**20** **20** **20** **20+20**		
PC-102	**Swimming or Gymnastics**	**30**	**70**	**4**
2.1 2.2	Gymnastics: Floor Exercise, Forward Roll, Backward Roll, Hand stand, Cart Wheel, Leg Split, Different dancing steps (Combination) Table Vault: Approach Run, Take off from the beat board, Cat Vault, Squat Vault. Men: Parallel bar, Horizontal bar/Roman rings, Rhythmic Gymnastics, Pyramid (Pair, Trio, Quadrates, Penthats) Women: Uneven bars, Balance Beam, Rhythmic Gymnastics, Pyramid (Pair, Trio, Quadrates, Penthats) Swimming: Floating, Gliding, Leg Action, Arm action, Breathing technique Introduction of various strokes : Front crawl, Back crawl, Butterfly, Brest Stroke: Starting Technique and entry into water Medley, Life Savings			
PC-103 3.1 3.2	March Past – 20 (Compulsory) Mass Demonstration Activities: Bratachari – 20 (Compulsory) and Dumbbells/ Wands/ Hoop/ Umbrella/ Tipri// Malkhamb/Lezium/Callisthenics (Any two)- 10+10=20 Indigenous Sports: Kabaddiand, Kho-kho -20+20= 40:	20+(10+10)=40 30 + 30		4

PC-104 4.1	Yoga: Surya Namaskar and Pranayam Sitting Position: Paschimottanasana, Gomukhasana, Ustrasana, Arda-maschandrasan Halasana, Salvasana, Sarvangasana, Chakrasana Vrikshasana, Padahastasana, Trikonasana, Utkatasana	40	
4.2	Weight Training: Crouch Sitting Position, Different types of grip, Standing with weight, Dead lift Curling: Two arm dumbbell curling, Barbell curling, Front Curling, Reverse Curling Dumbbell and Barbell press, Front and back press, Bench press (Incline & Decline) Squat: Front and back squat	30	
4.3	Aerobics: Low impact core moves - 1. March, 2. Side to side, 3. Double side to side, 4.grapevine, 5. Knee up, 6. Leg curl, 7. Toe touch, 8. Side lunge, 9. Back lunge, 10. Kick front, 11. Kick side, 12. Heel to raft, 13. 'E' shape, 14.'v' shape 15. Introduction of Bench Exercise	30	

Semester – II

Corse Code	COURSE CODE			
		Marks		
PC-201	Track and Field Jumping: High Jump- Approach run, Take off, Bar clearance, Landing Or Pole vault: Approach, Planting, Riding, Bar clearance, Landing Throwing Events: Putting the Shot,	**Internal** **30**	**External** **70**	**Credit** **4**
PC-202	Yoga/Aerobics/Gymnastics/Swimming: Gymnastics: Gymnastics: Floor Exercise, Forward Roll, Backward Roll, Hand stand, Cart Wheel, Leg Split, Different dancing steps (Combination) Table Vault: Approach Run, Take off from the beat board, Cat Vault, Squat Vault. Men: Parallel bars, Horizontal bar/Roman rings, Rhythmic Gymnastics, Pyramid (Pair, Trio, Quadrates, Penthats) Women: Uneven bars, Balance Beam, Rhythmic Gymnastics, Pyramid (Pair, Trio, Quadrates, Penthats) Swimming: Floating, Gliding, Leg Action, Arm action, Breathing technique Introduction of various strokes : Front crawl, Back crawl, Butterfly, Brest Stroke: Starting Technique and entry into water Medley, Life Savings	**30**	**70**	**4**
PC-203	Team Games: Football, Netball, Volleyball, Handball (Any three) (3x25 marks) Racket Sports: Table Tennis, Badminton, Tennis, Squash (Any one)-(1x25 marks)	**30**	**70**	**4**

Semester – III

Course Code	COURSE TITLE	Marks		
		Internal	External	Credit
PC-301	Track and Field (Throwing Events) - Discus, and Javelin	**30**	**70**	**4**
PC-302	Combative Sports: Martial Art/ Karate/ Judo/ Fencing/ Boxing/ Taekwondo/ Wrestling/Lathi (Any two out of these)	**30**	**70**	**4**
PC-303	Team Games: Baseball/ Cricket/ Football/ Hockey/ Softball/ Volleyball/ Handball/ Basketball/ Netball (Any two of these)	**30**	**70**	**4**

SEMESTER-IV

Course Code	PAPER TITLE	Marks		
		Internal	External	Credit
PC-401	Track and Field / Swimming / Gymnastics (Any one out of three)	**30**	**70**	**4**
PC-402	Kabaddi/ Kho-Kho/ Baseball/ Cricket/ Football/Hockey/Softball/ Volleyball/ Handball/ Basketball/ Netball/ Badminton/ Table Tennis/ Squash/ Tennis (Any Two of these)	**30**	**70**	**4**

Part – C
Teaching Practice
Semester – II

TP-201	Teaching Practices (05lessons in class room teaching and 05 lessons in outdoor activities) – Internal	6	4	30	70	100

Semester – III

TP-301	Sports specialization: Coaching lessons Plans (For One Sports - 5 lessons)- Internal – One lesson will be evaluated by external examiner (30+70)	6	4	30	70	100

Semester – IV

TP-401	Teaching Practice: (Teaching Lesson Plans for Racket Sport/ Team Games/Indigenous Sports) (out of 10 lessons 5 internal and 5 external at practicing school) –Internal and External (50+50)	6	4	30	70	100
TP-402	Games specialization: Coaching lessons Plans (One for Games 5 lessons) - Internal					100

Table–1: Semester wise distribution of hours per week

Semester	***Theory***	***Practicum***	***Teaching practice***	***Total***
I	*16*	*24*	*00*	*40*
II	*16*	*18*	*06*	*40*
III	*16*	*18*	*06*	*40*
IV	*16*	*12*	*12*	40
Total	*64*	*72*	*24*	160
Minimum of 36 teaching hours per week is required in five or six days in a week				

Table–2:Number of credits per semester

Semester	***Theory***	***Practicum***	***Teaching practice***	***Total***
I	*16*	*16*	*00*	*32*
II	*16*	*12*	*04*	*32*
III	*16*	*12*	*04*	*32*
IV	*16*	*08*	*08*	*32*
Total	*64*	*48*	*16*	*128*
Minimumof36teachinghoursperweekisrequiredinfiveorsixdaysinaweek				

N.B: Practical Course content should be followed as per NCTE regulation-2014

CURRICULUMFRAMEWORK:
TWO-YEAR M.P.ED.PROGRAMME

Revised Curriculum as per the NCTE New Regulations 2014 for two Year M.P.Ed. Programme as adopted in the Workshop Organised by the Deptt. of Physical Education, Jadavpur University held on 15th to 17th June, 2016 in collaboration with the West Bengal Committee of the Institutes of Physical Education (WBCIPE), West Bengal University of Teachers' Training, Education Planning and Administration (WBUTTEPA) and the Department of Higher education Govt. of West Bengal.

GUIDE LINES OF REGULATIONS AND MODEL SYLLABUSS TRUCTURE FOR TWO YEARS M.P.Ed. PROGRAMME (FOURSEMESTERS) (CBCS)

Important Note:

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

2 *If the University or affiliating bodies have yet to adopt CBCS, only the hours of teaching mentioned for each paper /activity /course will be considered, the credit in teaching hours may be ignored.*

Preamble:

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

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

R.M.P.Ed.1. In take, Eligibility and Admission Procedure:

TheIntake,EligibilityandAdmissionProcedureisaspertheNCTEnormsandstandards.

R.M.P.Ed.2.Duration:

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

R.M.P.Ed.3.TheCBCSSystem:

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

R.M.P.Ed.4.Course:

The term course usually referred to, as 'papers' is a component of a programme. All courses need not carry the same weight. The courses should define learning objectives and learning outcomes. A course may be designed to comprise Lectures/ tutorials/ laboratory work/ field work/ outreach activities/ project work/ vocational training/ viva/ seminars/ term papers/ assignments/ presentations/ self-study etc. or a combination of some of these.

R. M.P.Ed.5.CoursesofProgramme:

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

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

R. M.P.Ed. 6.Semesters:

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

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

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

R. M.P.Ed.8. Credits:

The term 'Credit' refers to a unit by which the programme is measured. It

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

Provision of Bonus Credits Maximum 06 Credits in each Semester

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

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

R.M.P.Ed.9.Evaluation:

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

One Test	15Marks
Seminar/Quiz	5Marks
Assignments	5Marks
Attendance	5Marks
Total	30Marks

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 for man integral component of the evaluation. The ratio of marks to be allotted to continuous internal assessment and to end semester examination is 30: 70. The evaluation of practical work, wherever applicable, will also be based on continuous internal assessment and on an end- semester practical examination.

R.M.P.Ed10.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 the be graded as per details provided in R.B.P.Ed.12 from the first semester onwards the average performance within any semester from the first semester is indicated by Semester Grade Point Average (SGPA) while continuo us performance (including the performance of the previous semester al so) starting from the first semester is indicated by Cumulative Grade Point Average (CGPA). The set wore calculated by the following formula:

$$1111 = \frac{\sum_{11\,1}^{1} 1_1 1_1}{\sum_{11\,1}^{1} 1_1}$$

$$1111 = \frac{\sum_{11\,1}^{1} 1111_1}{1}$$

Where C*r*istae Credit earned for the course is in any semester; G*r*istle Grade point obtained by the student for the course*/* and *number* of courses obtained in that semester; 11111 is SGPA of semester */*and *N*umber of semester. Thus CGPA is average of SGPA of all the semester starting from the first semester to the current semester.

R.M.P.Ed.11.ClassificationofFinalResults:

For the purpose of declaring a candidate to have qualified for the Degree of Bachelor of Physical Education in the First class/ Second class /Pass class or First class with Distinction, the

Marks and the corresponding CGPA earned by the candidate in Core Courses will be the

criterion. It is further provided that the candidate should haves cored the First /Second Class separately in both the grand total and end Semester (External) examinations.

R. M.P.Ed.12.LetterGradesandGradePoints:

i. Two methods- relative grading or absolute grading– have been in vogue for a warding grades in a course. The relative grading is based on the distribution (usually normal distribution) of marks obtained by all the students in the course and the grades are

Awarded based on a cut-off mark or percentile. Under the absolute grading, the marks are converted to grades based on pre-determined class intervals. To implement the following grading system, the colleges and universities can use any one of the above methods.

ii. The grades for each course would be decided on the basis of the percentage marks obtained at the end- semester external and internal examinations as per following table:

Percentage	Grade Point	Latter Grade	Description	Classification of final result
85&above	8.5-10.0	O	Outstanding	First class with Distinction
70-84.99	7.0-8.49	A^+	Excellent	
60-69.99	6.0-6.99	A	Very Good	First Class
55-59.99	5.5-5.99	B+	Good	Higher Second Class
50-54.99	5.0-5.49	B	Above Average	Second Class
40-49.99	4.0-4.99	C	Average	Pass Class
Below40	0.0	F	Fail/Dropped	Dropped
	0	AB	Absent	

R. M.P.Ed.13.GradePointCalculation

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

The credit grade point aerobe calculated on the following basis

$$1\ 1\ 1\ 1 = \frac{\sum_{11\ 1}^{1}\ 1\ _1 1\ _1}{\sum_{11\ 1}^{1}\ 1\ _1}$$

Example–I

Marks obtained by Student in course CC101=5/100

Percentage of marks=65%

Grade from the conversion table is =A

Grade Point=6.0+5(0.99/9.99)

=6.0 + 5x0.1

=6.0+0.5

=6.5

The Course Credits= 04

Credits Grade Point (CGP) = 6.5×04=26

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

SEMESTER-1

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

Examples: Conversion of marks into grade points

MPCC-10165=60+5=6.0+5x (0.99/9.99)=6.0+5x0.1= 6.0+ 0.5=6.5

MPCC-10260=6.0

MPCC-10362=60+2=6.0+2x(0.99/9.99)=6.0+2x0.1=6.0+0.2=6.2

MPEC-101/MPEC-10257=55+2=5.5+2x(0.49/4.99)=5.5 +2x0.1=5.5+0.2=5.7

MPPC-10155=5.5

MPPC-10272=70+2=7.0+2x(1.49/14.99)=7.0+2x0.1= 7.0+0.2=7.2

MPPC-10366=60+6= 6.0+ 6x(0.99/9.99)=6.0+6x 0.1= 6.0+0.6=6.6

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

SEMESTER GRADE POINT AVERAGE (SGPA)=Total Credi tGrade Points

=152.7/24=6.3625

SGPA Sem. I=6.3625

AttheendofSemester-1TotalSGPA=6.3625

Cumulative Grade Point Average(CGPA)= 6.3625/ 1=6.3625CGPA= 6.66875 ,

Grade=A, Class= First Class

SEMESTER-2

CoursesNo.	Credit	Marks out of 100(%)	Grade	Grade Point	Credit Grade point
MPCC-201	3	76	A+	7.6	22.8
MPCC-202	3	64	A	6.4	19.2
MPCC-203	3	59	B+	5.9	17.7
MPEC-201/MPEC-202	3	80	A+	8	24
MPPC-201	3	49	C	4.9	14.7
MPPC-202	3	64	A	6.4	19.2
MPPC-203	3	55	B+	5.5	16.5
MPPC–204	3	72	A+	7.2	21.6
	24				155.7

SGPA Sem.II=6.4875

AttheendofSemester-2

Total SGPA for two Semesters=12.85

Cumulative Grade Point Average(CGPA)=12.85/2=6.425

CGPA=6.66875,Grade =A, Class=FirstClass

SEMESTER-3

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

SGPA Sem.III=6.55

AttheendofSemester-3

Total SGPA forthree Semesters=19.4

Cumulative Grade Point Average (CGPA)=19.4/3=6.466667

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

SEMESTER-4

Courses No.	Credit	Marks out of100(%)	Grade	Grade Point	Credit Grade point
MPCC-401	3	83	A+	8.3	24.9
MPCC-402	3	76	A+	7.6	22.8
MPCC-403	3	59	B+	5.9	17.7
MPEC-401/MPEC-402/MPEC-403	3	81	A+	8.1	24.3
MPPC-401	3	49	C	4.9	14.7
MPPC-402	3	78	A+	7.8	23.4
MPPC-403	3	81	A+	8.1	24.3
MPPC-404	3	75	A+	7.5	22.5
	24				174.6

SGPA Sem.IV=7.275

AttheendofSemester-4

Total SGPA for all the four semesters= 26.675

Cumulative Grade Point Average (CGPA)=

26.675/4=6.66875CGPA=6.66875,Grade=A,Class=FirstClass

Note:

(1) SGPA is calculated only if the candidate passes in all the courses i.e. get minimum 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 B.P.Ed. Degree shall be awarded on the basis of last CGPA (grade) from all the one to four semester examinations

R.M.P.Ed.14.GrievanceRedressalCommittee:

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

R. M.P.Ed.15.RevisionofSyllabi:

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

Semester - I

Part A: Theoretical Course						
Course Code	**Title of the Papers**	**Total Hours**	**Credit**	**Internal Marks**	**External Marks**	**Total Marks**
Core Course						
MPCC-101	Research Process in Physical Education & Sports Sciences	3	3	30	70	100
MPCC-102	Physiology of Exercise.	3	3	30	70	100
MPCC-103	Yogic Sciences	3	3	30	70	100
Elective Course (Anyone)						
MPEC-101	Tests, Measurement and Evaluation in Physical Education	3	3	30	70	100
MPEC-102	Sports Technology					
Part–B Practical Course						
MPPC-101	Track and Field (I) : Running Events	6	3	30	70	100
MPPC-102	Sports Major – I: Swimming And Gymnastics	6	3	30	70	100
MPPC-103	Karate / Self Defense and Adventure Sports	6	3	30	70	100
MPPC-104	Class Room Teaching Lessons (4+1) one from each theory subject and one for External	6	3	30	70	100
Total		36	24	240	560	800

Semester - II

Part A: Theoretical Course						
Course Code	**Title of the Papers**	**Total Hours**	**Credit**	**Internal Marks**	**External Marks**	**Total Marks**
Core Course						
MPCC-201	Applied Statistics in Physical Education & Sports	3	3	30	70	100
MPCC-202	Sports Biomechanics & Kinesiology	3	3	30	70	100
MPCC-203	Athletic Care and Rehabilitation	3	3	30	70	100
Elective Course (Anyone)						
MPEC-201	Sports Journalism and Mass Media	3	3	30	70	100
MPEC-202	Sports Management					
Part–B Practical Course						
MPPC-201	Track & Field – II: Shot put Discus and Javelin Throws, High, Long and Triple Jump	6	3	30	70	100
MPPC-202	Sports Major – II: Basketball and Cricket (Fundamental Skills, Individual Tactics, Officiating and Lead-up Games)	6	3	30	70	100
MPPC-203	Yoga: Asanas, Pranayam and Kriyas	6	3	30	70	100
MPPC-204	Teaching Lessons: Sports Major – 4 lessons Track & Field- 4 lessons	6	3	30	70	100
Total		36	24	240	560	800

Semester - III

Part A: Theoretical Course						
Course Code	**Title of the Papers**	**Total Hours**	**Credit**	**Internal Marks**	**External Marks**	**Total Marks**
Core Course						
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
Elective Course (Anyone)						
MPEC-301	Physical Fitness and Wellness	3	3	30	70	100
MPEC-302	Curriculum Design and Gender Education	3	3	30	70	100
MPEC-303	Sports Engineering And Technology	3	3	30	70	100
Part–B Practical Course						
MPPC-301	Sports Major – III: Football and One Racket Sports (Fundamental Skills, Individual Tactics, Officiating and Lead-up Games)	6	3	30	70	100
MPPC-302	Sports Major – IV: Volleyball and Handball (Fundamental Skills, Individual Tactics, Officiating and Lead-up Games)	6	3	30	70	100
MPPC-303	Officiating of Track & Fields and Sports Activities – Taught in SEM – I, II, and III	6	3	30	70	100
MPPC-304	Internship on a Team Game*/ Project Work on Practical Activities*	6	3	30	70	100
Total		36	24	240	560	800

Semester - IV

Part A: Theoretical Course						
Course Code	**Title of the Papers**	**Total Hours**	**Credit**	**Internal Marks**	**External Marks**	**Total Marks**
Core Course						
MPCC-401	Information & Communication Technology (ICT) in Physical Education And Sports	3	3	30	70	100
MPCC-402	Psychology and Sociology Of Sports	3	3	30	70	100
MPCC-403	Dissertation	3	3	30	70	100
Elective Course (Anyone)						
MPEC-401	Value and Environmental Education	3	3	30	70	100
MPEC-402	Education Technology in Physical Education and Sports					
MPEC-403	Inclusive Education					
Part–B Practical Course						
MPPC-401	Hammer or Pole Vault or Combined Events – Triathlon, Pentathlon, Heptathlon and Decathlon: (Fundamental Skills, Individual Tactics, Officiating)	6	3	30	70	100
MPPC-402	Sports Specialization (One): Among Track & Field, Yoga and Sports Major (Technique of Officiating, Fundamental and Advanced Skill, Tactics, Strategies, Game Practice and Lead-up Games.	6	3	30	70	100
MPPC-403	Coaching Lessons on Sports Specialization Five internal practice lessons and one Final Lesson	6	3	30	70	100
MPPC-404	Lab Practical (25 marks in each subject)(Any Four) A) Physiology of Exercise B) Kinesiology and Sports Biomechanics C) Sports Psychology D) Measurement & Evaluation in Physical Education E) Sports Management	6	3	Internal assessment		100
Total		36	24	240	560	800
		144	96	960	2240	3200

Semester-I

Theory Courses

MPCC-101: RESEARCH PROCESS IN PHYSICAL EDUCATION AND SPORTS SCIENCES

UNIT 1 – Introduction to Research

1.1 Meaning and Definition of Research.
1.2 Need, Nature and Scope of Research in Physical Education & Sports.
1.3 Classification of Research- Basic, Action and Applied Research.
1.4 Location of Research Problem, Criteria for selection of a research problem. Method of collecting data and its salient features.

UNIT 2 – Methods of Research & Experimental Research

2.1 Descriptive Methods of Research - Survey Study, Case study.
2.2 Historical Research – Meaning, Sources and criticism of Historical Research: Primary Data and Secondary Data.
2.3 Experimental Research: Meaning, Nature and Importance, Steps of Experimental Research. Meaning of Variable, Types of Variables.
2.4 Experimental Design, Meaning & Types.

UNIT 3 – Sampling

3.1 Meaning and Definition of Sample and Population, Statistic and parameter.
3.2 Sampling and its importance.
3.3 Probability Sampling: Random sampling, Systematic Sampling, Cluster sampling, Stratified Sampling. Area & Multistage sampling.
3.4 Non- Probability Sampling: Purposive, Judgment, Quota Sampling.

UNIT 4 – Research Proposal and Report

4.1 Research Proposal: Meaning, Significance, Method of Writing Research proposal
4.2 Hypothesis: Meaning Characteristics, Types, and testing of hypothesis
4.3 Method of writing Thesis / Dissertation, Importance of review of related literature.
4.4 Research report: Format, writing style, common faults and characteristics of Research report. Style of writing foot notes and bibliography.

REFERENCE :

Best J. W (1971) Research in Education, New Jersey; Prentice Hall, Inc

Clarke David. H & Clarke H, Harrison (1984) Research processes in Physical Education, New Jersey; Prentice Hall Inc.

Craig Williams and Chris Wragg (2006) Data Analysis and Research for Sport and Exercise Science, LondonlRoutledge 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; PoompugarPathippagam 2 years M.P.Ed Curriculum 17

Rothstain, A (1985) Research Design and Statistics for Physical Education, Englewood Cliffs: PrenticeHall, Inc

Subramanian, R, Thirumalai Kumar S &Arumugam C (2010) Research Methods in Health, Physical Education and Sports, New Delhi; Friends Publication

Moorthy A. M. Research Processes in Physical Education (2010); Friend Publication, New Delhi

MPCC-102: PHYSIOLOGY OF EXERCISE

UNIT 1 – Skeletal Muscles and Exercise

1.1 Macro &Micro Structure of the Skeletal Muscle, Chemical Composition, Types of Muscle fiber, Muscle Tone.
1.2 Nerve supply to muscle, concept of neuromuscular transmission.
1.3 Sliding Filament theory of Muscle Contraction, Chemistry of Muscular Contraction –Heat Production in the Muscle.
1.4 Effect of exercises and training on the muscular system.

UNIT 2 – Cardiovascular System and Exercise

2.1 Conduction System of the Heart- Blood Supply to the Heart- Stroke Volume- Cardiac Output.
2.2 Blood Flow at rest and during exercise – hemodynamic principle.
2.3 Heart Rate-Factors Affecting Heart Rate- Regulation of Heart rate, Cardiac Hypertrophy.
2.4 Effect of exercises and training on the Cardio vascular system. Cardiac diseases and therapeutic exercises.

UNIT 3 – Respiratory System and Exercise

3.1 Mechanism of Breathing –Respiratory Muscles, Pulmonary- Ventilation at Rest and During Exercise.
3.2 Exchange of Gases in the Lungs –Exchange of Gases in the Tissues- Control of Ventilation- Oxygen Debt/ EPOC.
3.3 Vo2 max: concept, determination and its implication in sports performance.
3.4 Effect of exercises and training on the respiratory system.

UNIT 4 – Metabolism and Energy Transfer

4.1 Metabolism- ATP-PC or Phosphagen System-Lactic Acid System –Anaerobic Metabolism- Aerobic Metabolism.
4.2 Aerobic and Anaerobic Systems during Rest and Exercise.
4.3 Energy supply at Short Duration High Intensity Exercises –High Intensity Exercise Lasting Several Minutes- Long Duration Exercises.
4.4 Measurement of energy cost of an activity.

UNIT 5 – Climatic conditions and sports performance and ergogenic aids

5.1 Variation in Temperature and Humidity- Thermoregulation.
5.2 Sports performance in hot climate, Cool Climate, high altitude.
5.3 Ergogenic Aid- Androstenedione, Beta Blocker, Choline, Creatine, Human growth hormone on sports performance.
5.4 Doping agents: Narcotics, Stimulants, Amphetamines, Caffeine, Ephedrine, Sympathomimetic amines. Stimulants and sports performance.

REFERENCES:

Amrit Kumar, R, Moses. (1995). Introduction to Exercise Physiology. Madras: P oompugarPathipagam.

BeotraAlka, (2000) Drug Education Handbook on Drug Abuse in Sports: Sports Authority of India Delhi.

Clarke, D.H. (1975). Exercise Physiology. New Jersey: Prentice Hall Inc., Englewood Cliffs.

David, L Costill. (2004). Physiology of Sports and Exercise. Human Kinetics.

Fox, E.L., and Mathews, D.K. (1981). The Physiological Basis of Physical Education and Athletics. Philadelphia: Sanders College Publishing.

Guyton, A.C. (1976). Textbook of Medical Physiology. Philadelphia: W.B. Sanders co.

Richard, W. Bowers. (1989). Sports Physiology. WMC: Brown Publishers.

William, D. McAradle. (1996). Exercise Physiology, Energy, Nutrition and Human Performance. Philadelphia: Lippincott Williams and Wilkins Company.

MPCC-103: YOGIC SCIENCE

UNIT 1 – Introduction of Yoga

1.1.Meaning and Definition of Yoga.
1.2.Different schools of yoga.
1.3.Yoga: A mind-body medicine.
1.4.Yoga: Complementary Alternative Medicine (CAM).

UNIT 2 – Methods of Yoga

2.1 Meaning, types and techniques of Kriya.
2.2 Meaning, types and techniques of Asana.
2.3 Meaning, types and techniques of Pranayama.
2.4 Meaning, types and techniques of Meditation.

UNIT 3 – Effects of Yogic Practices

3.1 Effects of Kriya on various systems of human body.
3.2 Effects of Asana on various systems of human body.
3.3 Effects of Pranayama on various systems of human body.
3.4 Effects of Meditation on various systems of human body.

UNIT 4 – Applied Aspect of Yoga

4.1 Yoga for Health and Wellness
4.2 Yoga as therapy
4.3 Yoga for Sports Performance
4.4 Yoga and Relaxation

REFERENCE:

1. George Feuerstein, (1975). Text Book of Yoga. London: MotilalBansaridassPublishers(P)Ltd. Gore, (1990).
2. Anatomy and Physiology of Yogic Practices. Lonavata: KanchanPrkashan.
3. Helen Purperhart (2004),The Yoga Adventure for Children. Netherlands: A Hunter House book.
4. Iyengar,B.K.S.(2000), LightonYoga. New Delhi: Harper Collins Publishers.
5. Karbelkar N.V. (1993) PatanjalYogasutraBhashya (Marathi Edition) Amravati: Hanuman VyayamPrasarakMandal.
6. Kenghe.C.T. (1976). Yogaas Depth-Psychology and para-Psychology (Vol-I): Historical Background, Varanasi: BharataManishai.

7. Kuvalyananada Swami & S.L. Vinekar, (1963), Yogic Therapy – Basic Principles and Methods. NewDelhi: Govt. of India, Central Health Education and Bureau.
8. MoorthyA.M. &Alagesan.S. (2004) Yoga Therapy. Coimbatore: Teachers Publication House.
9. Swami Kuvalayanda, (1998), Asanas. Lonavala: Kaivalyadhama.
10. Swami SatyananadaSarasvati. (1989), Asana Pranayama Mudra Bandha. Munger: Bihar School of Yoga.
11. Swami SatyanandaSaraswathi. (1984), KundaliniandTantra, Bihar: YogaPublicationsTrust.
12. Swami Sivananda, (1971), The Science of Pranayama. Chennai: A Divine Life Society Publication.
13. Thirumalai Kumar. S and Indira.S (2011)Yogain Your Life, Chennai: The Parkar Publication.
14. Tiwari O.P. (1998), Asanas- Why and How. Lonavala: Kaivalyadham.

MPEC-101: TEST, MEASUREMENT AND EVALUATION IN PHYSICAL EDUCATION (Elective)

UNIT 1– Introduction

1.1. Meaning and Definition of Test, Measurement and Evaluation.
1.2. Need and Importance of Measurement and Evaluation, Principles of Evaluation, Criteria of a good Test.
1.3. Define Norms. Meaning, Definition and Classification of Validity, Reliability and Objectivity.
1.4. Grading in Physical Education: Kinds of Grade, Basis of Grading.

UNIT 2 –Physical Fitness Test and Motor Fitness Tests

2.1 Meaning and Definition of Motor Fitness. Test for Motor Fitness: Indiana Motor Fitness Test (For elementary and high school boys, girls and College Men), JCR test, Oregon Motor Fitness Test, Canadian Motor Fitness Test. Muscular Fitness – Kraus Weber Minimum Muscular Fitness Test.
2.2 Motor Ability Test: Barrow Motor Ability Test.
2.3 Health Related Fitness Test: AAHPERD Health Related Fitness Battery, Rogers's Physical Fitness Index.
2.4 Cardiovascular Test: Harvard Step Test, Cooper 12 Minutes Run and Walk Test, Beep Test.

UNIT 3 – Physiological and Anthropometric Test

3.1 Aerobic Capacity: The Bruce Treadmill Test Protocol.
3.2 Anaerobic Capacity: Margaria- Kalamen Test, Wingate anaerobic test.
3.3 Method of Measuring Standing Height and Sitting Height. Method of measuring Circumference: Arm, Waist, Hip, Thigh and Skin folds: Biceps, Triceps, Sub scapular, Suprailiac.
3.4 Assessment of Body Composition, Measurement of Somatotyping.

UNIT 4 – Skill Tests

4.1 Badminton Test: Miller Wall Volley Test. Basketball Test: Johnson Basketball Test, Harrison Basketball Ability Test. Tennis Test: Dyer Tennis Test.
4.2 Football Test: Mc-Donald Volley Soccer Test. Volleyball Test: Russel Lange Volleyball Test, Brady Volleyball Test.
4.3 Hockey Test: Friendel Field Hockey Test, Harban's Hockey Test.
4.4 Psychological test - Kinesthetic Perception, Reaction Ability Test, SCAT, Achievement Motivation.

REFERENCES :

Authors Guide (2013) ACSM's Health Related Physical Fitness Assessment Manual, USA: ACSM Publications

Collins, R.D., & Hodges P.B. (2001) A Comprehensive Guide to Sports Skills Tests and Measurement (2nd edition) Lanham: Scarecrow Press

Cureton T.K. (1947) Physical Fitness Appraisal and Guidance, St. Louis: The C. Mosby Company

Getchell B (1979) Physical Fitness A Way of Life, 2nd Edition New York, John Wiley and Sons, Inc

Jenson, Clayne R and Cynt ha, C. Hirst (1980) Measurement in Physical Education and Athletics, New York, Macmillan Publising Co. Inc

Kansal D.K. (1996), "Test and Measurement in Sports and Physical Education, New Delhi: DVS Publications

Krishnamurthy (2007) Evaluation in Physical Education and Sports, New Delhi; Ajay Verma Publication

Vivian H. Heyward (2005) Advance Fitness Assessment and Exercise Prescription, 3rd Edition, Dallas TX: The Cooper Institute for Aerobics Research

MPEC-102: SPORTS TECHNOLOGY (Elective)

UNIT I – Sports Technology

1.1 Meaning, definition, purpose, advantages and applications,
1.2 General Principles and purpose of instrumentation in sports,
1.3 Workflow of instrumentation and business aspects, Technological impacts on sports.
1.4 Adhesives- Nano glue, nanomoulding technology, Nano turf. Foot wear production, Factors and application in sports, constraints.

UNIT II – Surfaces of Playfields

2.1 Modern surfaces for playfields, construction and installation of sports surfaces.
2.2 Types of materials – synthetic, wood, polyurethane. Artificial turf.
2.3 Modern technology in the construction of indoor and outdoor facilities.
2.4 Technology in manufacture of modern play equipments.

UNIT III – Modern Equipment

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

UNIT IV – Training Gadgets

4.1 Basketball: Ball Feeder, Cricket: Bowling Machine, Tennis: Serving Machine, Volleyball: Serving Machine.

4.2 Lighting Facilities: Method of erecting Flood Light and measuring luminous.

4.3 Video Coverage: Types, Size, Capacity, Place and Position of Camera in Live coverage of sporting events.

4.4 Use of computer and software in Match Analysis and Coaching.

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

REFERENCE:

1. Charles J.A. Crane, F.A.A. and Furness, J.A.G. (1987) “Selection of Engineering Materials”
2. UK: Butterworth Heiremann. Finn, R.A. and Trojan P.K. (1999) “Engineering Materials and their Applications”UK: Jaico
3. Publisher.
4. John Mongilo, (2001), “Nano Technology 101 “New York: Green wood publishing group.
5. Walia, J.S. Principles and Methods of Education (Paul Publishers, Jullandhar), 1999.
6. Kochar, S.K. Methods and Techniques of Teaching (New Delhi, Jullandhar, Sterling
7. Publishers Pvt. Ltd.), 1982 2 years M.P.Ed Curriculum | 22
8. Kozman, Cassidy and Jackson. Methods in Physical Education (W.B. Saunders Company, Philadelphia and London), 1952.

Semester-II

Theory Courses

MPCC-201: APPLIED STATISTICS IN PHYSICAL EDUCATION AND SPORTS

UNIT 1 – Introduction to Applied Statistics

1.1 Meaning, Definition, Function, need and importance of applied Statistics and concept of Bio-statistics.
1.2 Meaning of the terms- Population, Sample, Data-types, and Variables-types. Constructions of Frequency table. Graphical representation- Cumulative, Ogive and Percentile, Parametric and Non-Parametric statistics.
1.3 Measures of Central Tendency (Mean, median and mode): Meaning, Purpose, Calculation and advantages.
1.4 Measures of Variability and its type (Range, Quartile Deviation, Average Deviation, Standard Deviation): Meaning, Purpose, Calculation and advantages of variability.

UNIT 2 – Probability Distributions and Standard Scale

2.1 Meaning of probability, Normal curve, Principle of Normal Curve– Properties of normal Curve.
2.2 Divergence form normality – Skewness and Kurtosis.
2.3 Calculation and advantage of Scale: Sigma scale, Z-Scale, Hull Scale and T- scale.
2.4 Level of Significance and Degree of Freedom.

UNIT 3 – Comparative Statistics

3.1 Correlation: Meaning, Types and Magnitude. Co-efficient of correlation.
3.2 Calculation of correlation-Rank difference and Product moment (Grouped data and ungrouped data).
3.3 Construction of Norms.
3.4 Concept: Regression and Prediction, Biserial, Partial and Multiple Correlation.

UNIT 4 – Inferential Statistics/ Significance of means and other statistic

4.1 Standard error, type-I & type II error, one tailed and two tailed test.
4.2 Dependent and independence “t”- test with interpretation of the results.
4.3 Nonparametric test: Chi Square test.
4.4 Concept of ANOVA and ANCOVA.

REFERENCE

Best J. W (1971) Research in Education, New Jersey; Prentice Hall, Inc

Clark D.H. (1999) Research Problem in Physical Education 2nd edition, Eaglewood Cliffs, Prentice Hall, Inc.

Jerry R Thomas & Jack K Nelson (2000) Research Methods in Physical Activities; Illonosis;

Human Kinetics;

Kamlesh, M. L. (1999) Reserach Methodology in Physical Education and Sports, New Delhi

Rothstain A (1985) Research Design and Statistics for Physical Education, Englewood Cliffs:

Prentice Hall, Inc

Sivaramakrishnan. S. (2006) Statistics for Physical Education, Delhi; Friends Publication

Thirumalaisamy (1998), Statistics in Physical Education, Karaikudi, SenthilkumarPublications.

MPCC-202: SPORTS BIOMECHANICS AND KINSESIOLOGY

UNIT 1 – Introduction

1.1 Meaning, Nature, Role and Scope of Applied Kinesiology and Sports Biomechanics.
1.2 Historical Development of Sports Biomechanics.
1.3 Statics, Dynamics: Kinematics, Kinetics. Stability, Equilibrium, Work, Power and Energy.
1.4 Centre of gravity -Line of Gravity, Plane and Axis, Vectors and Scalars.

UNIT 2 – Kinesiological Aspects of Human Movement

2.1 Conceptof Origin, Insertion and Action of muscles.
2.2 Origin and Insertion: Muscles of Upper Extremities- Pectoralis Major and Minor, Deltoid, Biceps, Triceps (Anterior and Posterior), Trapezius, Serratus, Abdominis.
2.3 Origin and Insertion: Muscles of Lower Extremities- Sartorius, Rectus femoris, Quadriceps, Hamstring, Gastrocnemius.
2.4 Action of muscles: Upper and Lower Extremities.

UNIT 3 – Mechanical Concept

3.1 Motion & Force: Meaning, Definition and Types.
3.2 Lever: Meaning, Definition, Types, Principles and Body Levers.
3.3 Projectile: Concept, Types and Factors Influencing Projectile Motion. Equations and Principles of Projectile Motion.
3.4 Pressure, Friction & Fluid Resistance: Water Resistance, Air Resistance-Aerodynamics.

UNIT 4 – Movement Analysis

4.1 Analysis of Movement: Types of analysis: Kinesiological, Biomechanical. Cinematographic.
4.2 Methods of analysis – Qualitative, Quantitative, Predictive.
4.3 Analysis of Fundamental Movements-Walking & Running.
4.4 Analysis of Games and Sports Techniques-Throwing (Putting the shot) &Jumping (Horizontal and Vertical).

Note: Laboratory Practical should be designed and arranged for Students Internally.

Biomechanics Practical:

1. Determination of Average and Instantaneous Velocity.
2. Drawing (S-T) Curve and (V-T) Curve.
3. Determination of Co-efficient of Elasticity of Different Balls.
4. Determination of Cg by Reaction Board/ Mass Centre method.
5. Determination of Work done for a Vertical Jump.
6. Scientific Filming of a Movement.
7. Drawing a Kinegram of a Movement.
8. Analysis of Distance and Time of a Movement.
9. Measurement of Angle using Goniometer.
10. Measurement of Centrifugal Force.

REFERENCE:

1. Deshpande S.H.(2002). ManavKriyaVigyan – Kinesiology (Hindi Edition) Amravati: Hanuman VyayamPrasarakMandal.
2. Hoffman S.J. Introduction to Kinesiology (Human Kinesiology publication In.2005.
3. Thomas. (2001). Manual of structural Kinesiology, New York: Me Graw Hill.
4. Uppal A.K. Lawrence Mamta MP Kinesiology(Friends Publication India 2004)
5. Uppal, A (2004), Kinesiology in Physical Education and Exercise Science, Delhi Friends publications.
6. Williams M (1982) Biomechanics of Human Motion, Philadelphia; Saunders Co.
7. Hay, J. G. (1970).*The biomechanics of sports techniques*. Englewood Cliffs, N.J.: PrenticeHall, Inc.
8. Simonian, C. (1911).*Fundamentalsof sport biomechanics.*Englewood Cliffs, N.J.: PrenticeHall Inc.
9. Hall, J.S. (1991). Basic **Biomechanics**.The McGraw-Hill Companies, Inc.First Edition 1991, Brown and Benchmark Publishers.
10. Knudson, D. (2007). Fundamentals of Biomechanics. Chico, USA: Springer Publication.

MPCC-203: ATHLETIC CARE AND REHABILITATION

UNIT 1 – Introduction

1.1 Meaning, Definition and Importance of Rehabilitation.
1.2 Steps of Rehabilitation.
1.3 Types of Rehabilitation.
1.4 Guiding Principles of Rehabilitation.

UNIT 2 – Basic Rehabilitation

2.1 Definition, Principles Precaution, Indication & Contraindication of Strapping/ Tapping.
2.2 Objectives and Principles of rehabilitation
2.3 Rehabilitation Techniques: Proprioceptive Neuromuscular Facilitation (PNF), Isotonic, Isometric, Isokinetic Stretching.
2.4 Rehabilitation exercises: Passive, Active, Assisted and Resisted, Continuous Passive Movement (CPM).

UNIT 3 – Corrective Physical Education

3.1 Definition and objective of corrective Physical Education.
3.2 Standard of Standing Posture, Value of Good Posture.
3.3 Pasture Test: Examination of Spine.
3.4 Deviation of Posture: Kyphosis, Lordosis, Flat Back, Scoliosis, Round Shoulder, Knock Knee, Bow Leg, Flat Foot, Symptom ,Causes and Treatment with exercises.

UNIT 4 – Therapeutic Modalities

4.1 Meaning, Need Importance of Physiotherapy.
4.2 Guiding Principles of Therapeutic Modalities.
4.3 Different Types of Therapeutic Modalities (Cryotherapy, Superficial thermotherapy, Penetrating thermotherapy, Electrical Stimulation).
4.4 Massage: Principles and Classification of massage of massage, Physiological, Chemical and Psychological effects of massage.

REFERENCES:

Dohenty. 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.

McOoyand Young (1954) Tests and Measurement, New York: Appleton Century.

Naro, C. L. (1967) Manual of Massage and, Movement, London: Febra and Febra Ltd.

MPEC-201: SPORTS JOURNALISM AND MASS MEDIA (Elective)

UNIT 1 – Introduction

1.1 Meaning and Definition of sports Journalism, History, objectives and obligations of sports journalism.
1.2 Reporting of Sports Events- Traditional and open source reporting.
1.3 Concept of Sports Bulletin: Structure of sports bulletin – Compiling a bulletin – Types of bulletin.
1.4 Role of Journalism in the Field of Physical Education – General news reporting and sports reporting.

UNIT 2 – Mass Media

2.1 Concept, Characteristics and function of Mass Media.
2.2 Commentary – Running commentary on the radio – Sports expert's comments.
2.3 Role of Advertisement in Journalism.
2.4 Sports Photography: Equipment- Editing – Publishing.

UNIT 3 – Report Writing on Sports

3.1 Brief review of Olympic Games, Asian Games, Commonwealth Games, World Cup, National Games and Indian Traditional Games.
3.2 Preparing report of an Annual Sports Meet for Publication in Newspaper.
3.3 Methods of editing a Sports report, Critical Appraisal of Reported News.
3.4 Sports ethics and sponsorship.

UNIT 4 – Journalism

4.1 Sports organization and Sports Journalism.
4.2 Organization of Press Meet, Press Release.
4.3 Interview with Elite Player and Coach.
4.4 Practical assignments to observe the matches and prepare report and news of the same.

REFERENCE:

Ahiya B.N. (1988) Theory and Practice of Journalism: Set to Indian context Ed3. Delhi :

Surjeet Publications

Ahiya B.N. Chobra S.S.A. (1990) Concise Course in Reporting. New Delhi: Surjeet

Publication

Bhatt S.C. (1993) Broadcast Journalism Basic Principles. New Delhi. Haranand Publication

Dhananjay Joshi (2010) Value Education in Global Perspective. New Delhi: Lotus Press.

Kannan K (2009) Soft Skills, Madurai: Madurai: Yadava College Publication

MohitChakrabarti (2008): Value Education: Changing Perspective, New Delhi: Kanishka Publication,.

Padmanabhan. A &Perumal A (2009), Science and Art of Living, Madurai: Pakavathi Publication

Shiv Khera (2002), You Can Win, New Delhi: Macmillan India Limited.

Varma A.K. (1993) Journalism in India from Earliest Times to the Present Period. Sterling publication Pvt. Ltd.

MPEC-202: SPORTS MANAGEMENT (Elective)

UNIT 1 – Introduction to Sports Management

1.1 Concept of Management and Sports Management-Early and Modern Concept.
1.2 Principles and Functions of Sports Management.
1.3 Objectives of Personnel Management, Role of Personnel Manager in an organization, Personnel recruitment and selection.
1.4 Programme development, Factors of programme development, Importance and steps in programme development.

UNIT 2 – Organizations and Management in Sports

2.1 Public Sector of Sports- Role of Government and Governmental Organizations

2.2 Private Sector of Sports- Concept of Professional Sports

2.3 Strategic Management in Sports

2.4 Performance Evaluation in Sports

UNIT 3 – Sports Sponsorship, Sports Economics and Financial Aspects

3.1 Definition of Sponsorship, Process and Objectives of Sponsorship.
3.2 Structure of Sponsorship, Categories of Sponsorship, Role of Intermediaries, Sponsorship Proposal and Brand Management
3.3 Basic Understanding of Sports Economics, Micro & Macro Economic analysis of Sports.
3.4 Basic Understanding of Sports Finance, Preparation of Budget.

UNIT 4 – Competitive Sports and Public Relations

4.1 Concept of Competitive Sports, Management Guidelines for School, College and University Sports Program.
4.2 Guidelines for Selection of Equipments and Supplies, Guidelines for checking, storing, issuing, care and maintenance of Equipments and Supplies.
4.3 Principles of Public Relations Programme, Planning the Public Relations Programme.
4.4 Public Relations in School and Communities, Public Relations and Media.

REFERENCE:

Aggarwal, J.C (1990). Curriculum Reform in India – World overviews, Doaba World Education Series – 3 Delhi: Doaba House, Book seller and Publisher.

Arora, G.L. (1984): Reflections on Curriculum, New Delhi: NCERT. 2 years M.P.EdCurriculum | 27

Bonnie, L. (1991). The Management of Sports. St. Louis: Mosby Publishing Company, Park House.

Bucher A. Charles, (1993) Management of Physical Education and Sports (10^{th} ed.,) St. Louis: Mobsy Publishing Company.

Carl, E, Willgoose. (1982. Curriculum in Physical Education, London: Prentice Hall.

Chakraborthy&Samiran.(1998). Sports Management. New Delhi: Sports Publication.

Charles, A, Bucher & March, L, Krotee.(1993). Management of Physical Education and Sports. St. Louis: Mosby Publishing Company.

Chelladurai, P. (1999). Human Resources Management in Sports and Recreation.Human Kinetics.

John, E, Nixon & Ann, E, Jewett. (1964). Physical Education Curriculum, New York: The Ronald Press Company.

McKernan, James (2007) Curriculum and Imagination: Process, Theory, Pedagogy and Action Research,. U.K. Routledge

NCERT (2000). National Curriculum Framework for School Education, New Delhi: NCERT.

NCERT (2000). National Curriculum Framework for School Education, New Delhi: NCERT.

NCERT (2005). National Curriculum Framework-2005, New Delhi: NCERT.

Williams, J.F. (2003). Principles of Physical Education. Meerut: College Book House.

Yadvnider Singh. Sports Management, New Delhi: Lakshay Publication.

Semester-III

Theory Courses

MECC-301: SCIENTIFIC PRINCIPLES OF SPORTS TRAINING

UNIT 1 – Introduction to Sports Training

1.1 Meaning and definition of Sports Training and Sports Coaching.
1.2 Aims and characteristics of Sports Training.
1.3 Principles of Sports Training.
1.4 Philosophy of Sports Training and Coaching.

UNIT 2 – Training Load and Adaptation

2.1 Meaning, definition of Training Load and components of Training Load and variation of Load distribution.
2.2 Training load and adaptation process. Concept of Super Compensation. Factors affecting recovery process.
2.3 Concept of Overload causes of Overload, symptoms of Overload and remedial measures of Overload.
2.4 Principles of overload.

UNIT 3 – Components of Motor Fitness and Training Method

3.1 Strength: Meaning and Forms of Strength. Factors determining Strength. Methods to improve Strength- Weight Training, Isometric, Isotonic, Circuit Training.
3.2 Speed: Meaning and Forms of Speed. Factors determining speed. Methods to improve speed- Repetition method, Downhill Run, Parachute Running, Wind Sprints (In's and Out's method) Pace Runs and Differential Paces.
3.3 Endurance: Meaning and forms of Endurance. Factors determining Endurance, Methods to improve Endurance- Continuous method, Interval method, Repetition method, Cross country, Fartlek Training, Altitude Training.
3.4 Coordinative Abilities and Flexibility: Meaning and Forms. Factors determining coordinative abilities and flexibility (plyometric Training, Sensory Method, different types of Stretching).

UNIT 4 – Periodization, Planning and Tactical Training

4.1 Periodization- Meaning and Types of Periodization. Different phases of Periodization and their contents.
4.2 Training plan- Meaning, Principles and types of Training (Micro, Meso and Macro), Short term and Long Term.
4.3 Tactical Training- Meaning of Tactics and Strategy. Difference between Tactics and Strategy. Different types of Tactics (Individual and Team Tactics). Training through Competition- Importance of Competition as Method of Training.
4.4 Psychological preparation during training phase. Types of doping and their bad effects.

REFERENCES :

BeotraAlka, (2000), Drug Education Handbook on Drug Abuse in Sports. Delhi: Sports Authority of India.

Bunn, J.N. (1998) Scientific Principles of Coaching, New Jersey Engle Wood Cliffs, Prentice Hall Inc.

Cart, E. Klafs&Daniel, D. Arnheim (1999) Modern Principles of Athletic Training St. Louis C. V. Mosphy Company

Daniel, D. Arnheim (1991) Principles of Athletic Traning, St. Luis, Mosby Year Book

David R. Mottram (1996) Drugs in Sport, School of Pharmacy, Liverpool: John Moore University

Gary, T. Moran (1997) – Cross Training for Sports, Canada : Human Kinetics

Hardayal Singh (1991) Science of Sports Training, New Delhi, DVS Publications

Jensen, C.R. & Fisher A.G. (2000) Scientific Basic of Athletic Conditioning, Philadelphia

MCC-302: SPORTS MEDICINE

UNIT 1 – Introduction

1.1 Meaning, definition and importance of Sports medicine.
1.2 Historical Development of Sports Medicine as a Discipline.
1.3 Sports Medicine as a Profession.
1.4 Sports Medicine as an Inter disciplinary Subject: Physiological Psychological and Sociological Aspect.

UNIT 2 – Doping

2.1 Drugs in Sports: Use, Misuse and Abuse in Sports.
2.2 Doping Agents: Classification, Drugs banned by WADA, Dope Test.
2.3 Effects and adverse effects of doping agents.
2.4 Guideline of Controlling Doping.

UNIT 3 – Head and Spine Injuries and Management

3.1 Head, Neck and Spine Injuries, Causes, symptom, Degrees of Injury.
3.2 Prevention of Injuries of Head, Neck and Spine.
3.3 Exercises injury management: Flexion, Compression, Hyper extension, Rotation, Spinal range of Motion and Free hand exercises.
3.4 Treatment of Injuries of Head, Neck and spine.

UNIT 4 – Upper and Lower Extremity Injuries and Management

4.1 Causes and Symptoms of Various Injuries of Upper and Lower extremities.
4.2 Prevention of Injuries: Supporting and adding Techniques and Equipment for Lower and Upper extremities.
4.3 Exercise for Injuries Management: Breathing Exercises, Relaxation Techniques, Free hand Exercises, Stretching and Strengthening exercise of various parts of upper and Lower extremities.
4.4 Treatment of common upper and lower extremity's injuries: Sprain, Strain, Dislocation, Fracture and Contusion.

REFERENCES:

Christopher M. Norris. (1993). Sports Injures Diagnosis and Management for Physiotherapists. East Kilbride: Thomson Litho Ltd.

James, A. Gould & George J. Davies. (1985). PhysicalPhysical 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: KhelShitya Kendra

The Encyclopedia of Sports Medicine. (1998). The Olympic Book of Sports Medicine, Australia: Tittel Blackwell Scientific publications.

Practical: Anthropometric Measurements.

MPCC-303 HEALTH EDUCATION AND SPORTS NUTRITION

UNIT 1 – Health Education

1.1 Concept, Dimensions, Spectrum and Determinants of Health.
1.2 Definition of Health, Health Education, Objectives and principles of health Education.
1.3 Mental Health.
1.4 Population Health, Social Health and Occupational Health.

UNIT 2 – Health Problems in India

2.1 Hypokinetic Diseases-Obesity, Cardio Vascular Diseases and Diabeties.
2.2 Degenerated Diseases- Aging, Arthritis, Spondylosis.
2.3 Various health organizations and their Role.
2.4 Problems of Healthful School and Community Environment.

UNIT 3 – Health and Hygiene

3.1 Meaning and Type of Hygiene.
3.2 Effect of Alcohol and tobacco on Health.
3.3 Components of Lifestyle Management.
3.4 Management of Blood Pressure and Stress.

UNIT 4 – Sports Nutrition

4.1 Meaning and Definition of Sports Nutrition and its role, Role of Macro and Micro-nutrition in Exercise.
4.2 Concept and pattern of BMI.
4.3 Maintenance of Healthy Life style.
4.4 Role of Diet and Exercise in Weight Management.

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.

MPEC-301: PHYSICAL FITNESS AND WELLNESS (Elective)

UNIT 1 – Introduction

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

UNIT 2 – Nutrition and aerobic exercise

2.1 Nutrients; Food Choices, Food Guide Pyramid, food sources, Comparison of food values. Weight Management-proper practices to maintain, lose and gain. Eating Disorders, Proper hydration
2.2 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.
2.3 Assessment of cardio respiratory fitness and set goals to maintain or improve fitness levels.
2.4 Cardio respiratory activities including i.e. power walking, pacer test, interval training, incline running, distance running, aerobics and circuits.

UNIT 3 – Anaerobic Exercise

3.1 Resistance Training for Muscular Strength and Endurance; principles of resistance training,
3.2 Safety techniques (spotting, proper body alignment, lifting techniques, spatial, awareness. and proper breathing techniques).
3.3 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)
3.4 . Modern concept of weight training, Advanced techniques of weight training.

UNIT 4 – Flexibility Exercise

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

REFERENCE:

1. David K. Miller & T. Earl Allen, Fitness, A life time commitment, Surjeet Publication Delhi 1989.
2. Dificore Judy, the complete guide to the postnatal fitness, A & C Black Publishers Ltd. 35 Bedford row, London 1998
3. Dr. A.K. Uppal, Physical Fitness, Friends Publications (India), 1992.
4. Warner W.K. Oeger& Sharon A. Hoeger, Fitness and Wellness, Morton Publishing Company, 1990.
5. Elizabeth & Ken day, Sports fitness for women, B.T. Batsford Ltd, London, 1986.
6. Emily R. Foster, KarynHartiger& Katherine A. Smith, Fitness Fun, Human Kinetics Publishers 2002.
7. Lawrence, Debbie, Exercise to Music. A & C Black Publishers Ltd. 37, Sohe Square, London 1999
8. Robert Malt. 90 day fitness plan, D.K. publishing, Inc. 95, Madison Avenue, New York 200

MPEC-302: CURRICULUM DESIGN AND GENDER EDUCATION

UNIT-1: Meaning, Concept and foundation of Curriculum in Physical Education

1.1 Nature, Meaning, Concept, Forms (Types) of curriculum in Physical Education
1.2 Evolution and Functions of Curriculum as Product, Process and Programme, Structures of Curriculum: Frameworks, Courses of Studies, Syllabus
1.3 Indian Perspective with regard to Curriculum Policy and Schemes.
1.4 Levels of Curriculum Planning: National, State, System Wide, Institutional, Teacher-Team and Individual Teacher level, Principles of Curriculum Planning Improvement of Curriculum Planning: A Review of NCF 2000 and 2005

Unit –II: Curriculum Construction & Evaluation

1.1 Concept and principles of curriculum development
1.2 Processes of curriculum construction: Situational Analysis, Selection of curriculum objectives, Selection of content and learning activities,
1.3 Organization of content and learning activities, Selection of instructional procedures/methods, Evaluation
1.4 Concept, Nature, Scope, Purpose and Approaches of Curriculum Evaluation

Unit-III: Concept & Historical Perspectives of Gender Issues

1.1 Gender, sex, sexuality, patriarchy, masculinity and feminism, Gender bias, gender stereotyping, and empowerment, Equity and equality in relation with caste, class, religion, ethnicity regions.
1.2 Historical backdrop: Some landmarks from social reform movements of the nineteenth and twentieth centuries with focus on women's education, Contemporary period: Recommendations of policy initiatives commissions and committees, schemes, programmes and plan
1.3 Family, Schools, Other formal and informal organisation. Schooling of Girls:
1.4 Inequalities and resistances (issues of access, retention and exclusion), Understanding the importance of addressing sexual harassment in family, neighbourhood and other formal and informal institutions

Unit-IV: Curriculum and gender issues

1.1 Curriculum and the gender question, Construction of gender in curriculum framework since Independence: An analysis
1.2 Gender and the hidden curriculum, Gender in text and context (textbooks' inter-sectionality with other disciplines, classroom processes, including pedagogy)
1.3 Teacher as an agent of change
1.4 Development of life skill and sexuality

REFERENCES:

1. Agarwal, J. C. I. (1990) Curriculum Reform in India. Delhi: Doaba.
2. Brent, Allen (1978). Philosophical Foundations for the Curriculum. Boston: Allen and Unwin.
3. Das, R. C. (1987). Curriculum and Evaluation. New Delhi: NCERT.
4. Dell, Ronald C. (1986). Curriculum Improvement: Decision Making &Process. (6th ed.). London: Allyn& Bacon Inc.
5. Diamond, Robert M. (1989). Designing & Improving Courses & Curricula in Higher Education: A Systematic Approach. California: Jossey Bass Inc. Publishers.
6. Erickson, H. L. (2000). Concept based Curriculum and Instruction. CA: Corwin Press, Sage Publications, Thousand Oaks.

MPEC-303: SPORTS ENGINEERING AND TECHNOLOGY (Elective)

UNIT 1 – Introduction

1.1 Meaning of Sports Engineering.
1.2 Human motion detection and recording, human performance assessment.
1.3 Equipment and facility designing.
1.4 Sports related instrumentation and measurement (Fitness gadgets and Software/ applications).

UNIT 2 - Mechanics of Engineering Materials

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

UNIT 3- Sports Dynamics

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

UNIT 4 – Infrastructural Development, Maintenance and life cycle costing

4.1 Sports Infrastructure: Gymnasium, Pavilion, Swimming Pool, Indoor Stadium, Out-door Stadium, Play Park, Academic Block, Administrative Block, Research Block, Library, Sports Hostel, etc.
4.2 Requirements: Air ventilation, Day light, Lighting arrangement, Galleries, Store rooms, Office, Toilet Blocks (M/F), Drinking Water, Sewage and Waste Water disposal system, Changing Rooms (M/F), Sound System (echo-free), Internal arrangement according to need and nature of performed activity, Corridors and Gates for free movement of people, Emergency provisions of lighting, fire and exits, Eco-friendly outer surrounding. Maintenance staff, financial consideration.
4.3 Building process and maintenance phase: design phase (including brief documentation), construction phase functional (occupational) life, Re-evaluation, refurnish, demolish. Maintenance policy, preventive maintenance, corrective maintenance, record and register for maintenance.
4.4 Facility life cycle costing: Basics of theoretical analysis of cost, total life cost concepts, maintenance costs, energy cost, capital cost and taxation.

REFERENCE:

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

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

Franz K. F. et. al., Editor The Impact of Technology on Sports II (CRC Press, 2007)

Helge N., Sports Aerodynamics (Springer Science & Business Media, 2009)

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

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

Semester-IV

Theory Courses

MPCC-401: ICT IN PHYSICAL EDUCATION AND SPORTS

UNIT 1 – Fundamentals of Computers

1.1 Characteristics, Types, Functions, Advantages & Applications of Computers.
1.2 Hardware of Computer: Input, Output & Storage Devices.
1.3 Software of Computer: Concept & Types application in Physical Education and Sport.
1.4 Concepts, Types & Functions of Computer Networks, Internet and its applications, Web Browsers & Search Engines, Legal & Ethical Issues.

UNIT 2– Communication & Classroom Interaction

2.1 Concept, Elements, Process & Types of Communication, Communication Barriers & Facilitators of Communication and cloud computing.
2.2 Communicative Skills in English - Listening, Speaking, Reading & Writing.
2.3 Concept & Importance of ICT, Need of ICT in Education, Scope of ICT: Teaching-Learning Process, Publication, Evaluation, Research and Administration.
2.4 Challenges in Integrating ICT in Physical Education.

UNIT 3 – MS Office Applications

3.1 Word: Main Features & their uses in Physical Education.
3.2 Excel: Main Features & their applications in Physical Education.
3.3 Access: Creating a Database, Creating a Table, Queries, Forms & Reports on Tables and its Uses in Physical Education.
3.4 Power Point: Preparation of Slides with Multimedia Effects, MS Publisher: Newsletter & Brochure.

UNIT 4 – ICT Integration in Teaching Learning Process, E-Learning & Web Based Learning

4.1 Approaches to Integrating ICT in Teaching Learning Process.
4.2 Project Based Learning (PBL), Co- Operative Learning, Collaborative Learning.
4.3 ICT and Constructivism: A Pedagogical Dimension.
4.4 E-Learning, Web Based Learning, Visual Classroom.

REFERENCES:

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

MPCC-402: PSYCHOLOGY AND SOCIOLOGY OF SPORTS

UNIT 1 – Introduction

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

UNIT 2 – Psychological Factors Affecting Sports Performance:

2.1 Motivation: Meaning, Definition and Types, Motivation and sports performance.
2.2 Anxiety and Stress: Meaning, Definition, Nature, Types, Causes and Sports Performance.
2.3 Aggression: Meaning and Definition, Aggression and Sports Performance.
2.4 Goal Setting- Meaning and Definition, Process of Goal Setting in Physical Education and Sports. Relaxation: Meaning and Definition, types and methods of psychological relaxation.

UNIT 3 – Sports Sociology:

3.1 Meaning and definition of Sports Sociology.
3.2 Sports as Social Institutions, Sports and Socialization. National Integration through Sports.
3.3 Fans and Spectators: Meaning and definition, Effects of Audience on Sports performance. Sports Aggression and Violence. Sports and Politics.
3.4 Leadership: Meaning, Definition, types. Leadership and Sports Performance, Leadership Theories.

UNIT 4 – Social Structure of Sports:

4.1 Group: Definition, Meaning and Types.
4.2 Group Size, Groups on Composition, Group Cohesion, Group Interaction, Group Dynamics.
4.3 Sports Social Crisis Management – Women in Sports: Sports Women in our Society, Participation pattern among Women, Gender inequalities in Sports.
4.4 Socio Economic Status and Sports. Current Problems in Sports and Future Directions.

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

Psychological Test: Instrument based tests: Pass-along test – Tachistoscope – Reaction timer – Finger dexterity board – Depth perception box – Kinesthesiometer board. Questionnaire: Sports Achievement Motivation, Sports Competition Anxiety Test (SCAT). PST.

REFERENCES:

1. B. J. Cratty. Psychology of Contemporary sports Champaign: Human Kinetics Publishers,
2. John M. Silva &Roberts.Psychological Foundations of Sport. Champaign: Human Kinetics Publishers.
3. Diane Gills, Psychological Dynamics of sports. Champaign: Human Kinetics Publishers.
4. Cox, Sports Psychology. Champaign: Human Kinetics Publishers.
5. Richard M. Sumin, "Psychology in Sports, Methods & Application. New Delhi: SurjeetPublication.

MPCC-403 DISSERTATION

1. A candidate shall have dissertation for M. P. Ed. – IV Semester and must submit his/her Synopsis and get it approved by the Head of Department on the recommendation of D.R.C. (Departmental Research Committee).

2. A candidate selecting dissertation must submit his/her dissertation not less than one week before the beginning of the IVthSemester Examination.

3. The candidate has to face the Viva-Voce conducted by DRC.

MPEC-401 VALUE AND ENVIRONMENTAL EDUCATION (Elective)

UNIT 1 – Introduction to Value Education.

1.1 Values: Meaning, Definition, Concepts of Values. Value Education: Need, Importance and Objectives.
1.2 Moral Values: Need and Theories of Values. Classification of Values: Basic
1.3 Values of Religion, Classification of Values.
1.4 Meaning and Definition, Personal and Communal Values, Consistency, Internally consistent, internally inconsistent, Judging Value System, Commitment, Commitment to values.

UNIT 2 – Environmental Education

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

UNIT 3 – Rural Sanitation and Urban Health

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

UNIT 4 – Natural Resources and related environmental issues:

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

REFERENCE:

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

MPEC-402: EDUCATION TECHNOLOGY IN PHYSICAL EDUCATION AND SPORTS (Elective)

UNIT 1 – Nature, Scope and Systems Approach to Physical Education and Communication

1.1 Educational technology-concept, Nature and Scope. Forms of educational technology: teaching technology, instructional technology.
1.2 Usage of educational technology: integrated, complementary, supplementary stand-alone (independent); programmed learning stage.
1.3 Systems Approach to Education and its Components: Goal Setting, Task Analysis, Content Analysis, Context Analysis and Evaluation Strategies; Instructional Strategies and Media for Instruction.
1.4 Effectiveness of Communication in instructional system; Communication -Modes, Barriers and Process of Communication.

UNIT 2 – Instructional Design

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

UNIT 3 – Audio Visual Media

3.1 Audio-visual media - meaning, importance and various forms Audio/Radio: Broadcast and audio recordings.
3.2 Script writing, pre-production, post-production process and practices, Audio Conferencing and Interactive Radio Conference.
3.3 Video/Educational Television: Telecast and Video recordings Strengths and limitations, Use of Television and CCTV in instruction and Training.
3.4 Use of animation films for the development of children's imagination.

UNIT 4 – New Horizons of Educational Technology

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

REFERENCE:

1. AmitaBhardwaj, New Media of Educational Planning". Sarup of Sons, New Delhi-2003
2. Bhatia and Bhatia, 'The Principles and Methods of Teaching', New Delhi :Doaba House,1959.
3. 'Communication and Education', D. N. Dasgupta, Pointer Publishers
4. 'Education and Communication for development', O. P. Dahama, O. P. Bhatnagar, Oxford Page 68 of 71 IBH Publishing company, New Delhi
5. 'Essentials of Educational Technology', MadanLal, Anmol Publications
6. K. Sampath, A. Pannirselvam and S. Santhanam. 'Introduction to Educational Technology' (New Delhi: Sterling Publishers Pvt. Ltd.): 1981.
7.

MPEC-403: Inclusive Education

Unit-1: Inclusive Society: Overview

1.1 What is meant by an inclusive society?
1.2 Elements necessary for creating an inclusive society
1.3 Exclusion and Inclusion in Education: Conceptual overview through Physical Education
1.4 Understanding social inclusion: Role of Education and Physical Education

Unit-2: Educational Reforms for Inclusive Society.

1.1 Building an Inclusive school: desired changes in System, Structure, Practice and Culture,
1.2 Physical Education for a multicultural society,
1.3 Principles of teaching and learning in a multicultural society through the light of Physical Education.
1.4 Physical Education for peaceful co-existence

Unit-3: Assessment and Teaching Learning Strategies for the Disabled

1.1 Need and process of early identification and assessment for Special, Integrated and Inclusive Education
1.2 Curriculum adjustment and adaptation, Classroom Management, Peer tutoring, assistive devices, Barrier free Environment and Teaching Strategies
1.3 Vocational Training, Employment and Rehabilitation, Individualized Education Programme and Computer Assisted Instruction. Use of Information and Communication Technologies, Audio-Visual Aids, Multi-Sensory Approach, Individualized Education Programme, Computer assistive Instruction

Unit-4: Physical Education and Sports culture for inclusive Education

1.1 Suitable minor games and major games for different categories of challenged children

1.2 Physical activity considering the different demand

1.3 Camp, trekking, hiking, different adventure sports

1.4 Organization of play and sports programme

REFERENCES:

1. Jha. M.(2002) Inclusive Education for All: Schools Without Walls, Heinemann Educational publishers, Multivista Global Ltd, Chennai, 600042, India.
2. Sharma, P.L. (1990) Teachers handbook on IED-Helping children with special needs NCERT Publication.
3. Sharma P.L. (2003) Planning Inclusive Education in Small Schools, RIE Mysore
4. CowelsMilly (1969): Perspectives in the education of Disadvantaged children.
5. Beg, M.A. (2014).*Inclusive Growth*, New Delhi: A.K. Publishers
6. Ministry of Law and Justice (2009) Right to Education. Govt of India

Practical Courses

Course Code	Subject	CIA	End SEM	Total	Credit
	SEM - I				
MPPC 101	Track & Field – I: Sprint, Middle & Long Distance Running, Relay and Hurdles. Developing essential Components like Physical and Motor Fitness, Technical and Tactical aspects.	30	70	100	3
MPPC 102	Sports Major – I: Swimming And Gymnastics (Fundamental Skills, Individual Tactics, Officiating and Lead-up Games)	30	70	100	3
MPPC 103	Karate / Self Defense and Adventure Sports	30	70	100	3
MPPC 104	Class Room Teaching Lessons (4+1) one from each theory subject and one for External	30	70	100	3
	SEM - II				
MPPC 201	Track & Field – II: Shot put Discus and Javelin Throws, High, Long and Triple Jump	30	70	100	3
MPPC 202	Sports Major – II: Basketball and Cricket (Fundamental Skills, Individual Tactics, Officiating and Lead-up Games)	30	70	100	3
MPPC 203	Yoga: Asanas, Pranayam and Kriyas	30	70	100	3
MPPC 204	Teaching Lessons: Sports Major – 4 Lessons Track Field- 4 Lessons	30	70	100	3
	SEM - III				
MPPC 301	Sports Major – III: Football and One Racket Sports (Fundamental Skills, Individual Tactics, Officiating and Lead-up Games)	30	70	100	3
MPPC 302	Sports Major – IV: Volleyball and Handball (Fundamental Skills, Individual Tactics, Officiating and Lead-up Games)	30	70	100	3
MPPC 303	Officiating of Track & Fields and Sports Activities – Taught in SEM – I, II, III and IV	30	70	100	3
MPPC 304	Internship on a Team Game*/ Project Work on Practical Activities*	30	70	100	3
	SEM - IV				
MPPC 401	Hammer or Pole Vault or Combined Events – Triathlon, Pentathlon, Heptathlon and Decathlon: (Fundamental Skills, Individual Tactics, Officiating)	30	70	100	3
MPPC 402	Sports Specialization (One): Among Track & Field, Yoga and Sports Major (Technique of Officiating, Fundamental and Advanced Skill, Tactics, Strategies, Game Practice and Lead-up Games.	30	70	100	3
MPPC 403	Coaching Lessons on Sports Specialization Five internal practice lessons and one Final Lesson	30	70	100	3
MPPC 404	Lab Practical (25 marks in each subject)(Any Four) A) Physiology of Exercise B) Kinesiology and Sports Biomechanics C) Sports Psychology D) Measurement & Evaluation in Physical Education E) Sports Management	INTERNAL Assessment		100	3

*Preparation and maintenance of grounds, care of equipments, learn the office procedure of organizing Inter College / University / State Level Competition. Assist in regular Teaching / Training Programme and necessary event management.

[#] Practical Course content should be followed as per NCTE regulation-2014

Table–1: Semester wise distribution of hours per week

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

Table–2: Number of credits per semester

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