

**DR. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY,
AURANGABAD.**



CIRCULAR NO.SU/INTERDISCIPLINARY STUDIES /M. P. Ed. /19/2019

It is hereby inform to all concerned that, on recommendation of the Dean, Faculty of Interdisciplinary Studies, the Academic Council at its meeting held on **01st October, 2019** has accepted the **minor changes in the Curriculum of M.P.Ed. Two Years Degree Course Ist to IVth semester under Choice Based Credit & Grading System** as per the Norms given by the NCTE under the Faculty of Interdisciplinary Studies. The curriculum of minor changes shall be applicable from the **Academic year 2019-20 and onwards** as appended herewith

All concerned are requested to note the contents of this circular and bring notice to the students, teachers and staff for their information and necessary action.

University Campus,
Aurangabad-431 004.

REF.NO.SU/M.P.Ed/ 2019/4641-48

Date:- 11-11-2019.

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*Deputy Registrar,
Syllabus Section.*

Copy forwarded with compliments to:-

- 1] **The Head, Physical Education Department,
Dr. Babasaheb Ambedkar Marathwada University.**
- 2] **The Principals, affiliated concerned colleges,
Dr. Babasaheb Ambedkar Marathwada University.**

Copy to :-

- 1] The Controller of Examinations, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad.
- 2] The In-Charge, E-Suvidha Kendra, [Professional Unit], Rajarshi Shahu Maharaj Pariksha Bhavan, Dr. Babasaheb Ambedkar Marathwada University,
- 3] The Section Officer, [Professional Unit], Examinations,
- 4] The Programmer [Computer Unit-1] Examinations,
- 5] The Programmer [Computer Unit-2] Examinations,
- 6] The Record Keeper, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad.

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**DR. BABASAHEB AMBEDKAR
MARATHWADA UNIVERSITY,
AURANGABAD.**



**Revised Syllabus of
M.P.Ed. Two Year
Degree Course
Semester- I to IV**

Under Choice Based Credit & Grading System

[Effective Form the Academic Year - 2019-2020 & Onwards]

Dr. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY, AURANGABAD

FACULTY OF PHYSICAL EDUCATION

With effect from 2019-20

**GUIDELINES OF REGULATIONS AND SYLLABUS STRUCTURE FOR TWO YEARS M.
P. Ed. PROGRAMME (FOUR SEMESTERS) (CBCS)
WITH EFFECT FROM JUNE 2019 ONWARDS**

Important Note:

1. If the University or affiliating body like college 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.

Preamble:

The Master of Physical Education (M. P. Ed.) two years (Four Semesters, Choice Based Credit System) programme is a professional programme meant for preparing Physical Education Teachers for senior secondary (Class XI and XII) level as well as Assistant Professor/Directors/Sports Officers in Colleges/Universities and teacher educators in College of Physical Education. M. P. Ed. programme is designed to integrate the study of childhood, social context of Physical Education, subject knowledge, pedagogical knowledge, aim of Physical Education and communication skills. The programme comprise of compulsory and optional theory as well as practical courses and compulsory school internship in School/ College/Sports Organizations/Sports Academy/Sports Club.

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

The Intake, Eligibility and Admission Procedure are as per the NCTE norms and standards and also rules of Concerned University.

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

The M.P.Ed programme is 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. M.P.Ed. 3. The CBCS System:

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

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

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

R. M.P.Ed.5. Courses of Programme:

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**
- **Environmental Sciences**
- **Indian Constitution**
- **Service Course**

· **Practicum**

- **Compulsory Course**
- **Elective Course**
- **Teaching/Coaching Practices**
- **Internship**
- **Dissertation**

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

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

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

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

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

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

Provision of bonus credits maximum 06 credits in each semester

Sr. no.	Special credits for extra co-curricular activities	Credit
1	Sports achievement at State Level competition (Medal Winner)	1
	Sports Achievement National Level Competition (Medal Winner)	2
	Sports participation International Level Competition	4
2	Inter University Participation (any one game)	2
3	Inter College Participation (any one 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 games	2
8	News Reporting / 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. 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	05 marks
Seminar / Quiz	05 Marks
Assignments	05 Marks
Attendance	05 Marks
Total	20 Marks

Attendance shall be taken as a component of continuous assessment, although the students should have minimum 75% attendance in each course. In addition to continuous evaluation component, the end semester examination, which will be written type examination of at least 3 hours duration, would also form an integral component of the evaluation. The ratio of marks to be allotted to continuous internal assessment and to end semester examination is 20:80. The evaluation of practical work, wherever applicable, will also be based on continuous internal assessment and on an end-semester practical examination.

R. B. P. Ed 10. Grading:

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

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

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

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

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

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

Sr. No.	Equivalent Percentage	Grade Points	Grade	Grade description
1	90.00-100	9.00-10	O	Outstanding
2	80.00-89.99	8.00-8.99	A++	Excellent
3	70.00-79.99	7.00-7.99	A+	Exceptional
4	60.00-69.99	6.00-6.99	A	Very Good
5	55.00-59.99	5.50-5.99	B+	Good
6	50.00-54.99	5.00-5.49	B	Fair
7	45.00-49.99	4.50-4.99	C+	Average
8	40.01-44.99	4.01-4.49	C	Below Average
9	40	4.00	D	Pass
10	<40	0.00	F	Fail

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

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

Note: (1) SGPA is calculated only if the candidate passes in all the courses i.e. get minimum C grade in all the courses.

(2) CGPA is calculated only when the candidate passes in all the courses of all the previous and current semesters.

(3) The cumulative grade point average will be calculated as the average of the SGPA of all the semesters continuously, as shown above.

(4) For the award of the class, CGPA shall be calculated on the basis of:

(a) Marks of each Semester End Assessment And

(b) Marks of each Semester Continuous Internal Assessment for each course. The final Class for M. P. Ed. Degree shall be awarded on the basis of last CGPA (grade) from all the one to four semester examinations.

Note:

(1) SGPA is calculated only if the candidate passes in all the courses i.e. get minimum C grade in all the courses.

(2) CGPA is calculated only when the candidate passes in all the courses of all the previous and current semesters.

(3) The cumulative grade point average will be calculated as the average of the SGPA of all the semesters continuously, as shown above.

(4) For the award of the class, CGPA shall be calculated on the basis of:

(a) Marks of each Semester End Assessment And

(b) Marks of each Semester Continuous Internal Assessment for each course. The final Class for M.P.Ed. Degree shall be awarded on the basis of last CGPA (grade) from one to four semester examinations.

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

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

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

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

R. M. P. Ed. 16. Minimum Passing Standard:

The minimum passing standard for CIA (Continuous Internal Assessment) and External Examinations shall be 40% i.e., 40 marks out of 100 (internal 20 + External 80) marks for theory courses. The minimum passing for aggregate of CIA & external examination shall be 50%, i.e. 50 marks out of 100 (internal 40 + external 60) marks for the practical courses. The minimum passing for aggregate of CIA and External examination shall be 50% i.e., 50 marks out of 100 marks (internal 40 + external 60) in teaching lessons on ground and in classroom school subject, physical education and internship.

Note: The Candidate has to complete 3 months internship during the M. P. Ed. as per the availability of the schools or colleges and produce letter from the concerned institution duly signed by the authority on their letterhead

**CURRICULUM FRAMEWORK:
TWO - YEAR M. P. ED. PROGRAMME (CBCS)
Dr. Babasaheb Ambedkar Marathwada University, Aurangabad**

First semester

Part A :_Theoretical Course						
Course Code	Title of Paper	Total hours/ week	Credit	Internal Marks	External Marks	Total Marks
<u>Core Course</u>						
MPCC - 101	Research process in P. E. and Sports Sciences	03	03	20	80	100
MPCC - 102	Physiology of Exercise	03	03	20	80	100
MPCC - 103	Yogic Sciences	03	03	20	80	100
MPCC - 104	Environmental Sciences	03	03	20	80	100
<u>Elective Course (Any one)</u>						
MPEC - 101	Athletic care and Rehabilitation	03	03	20	80	100
MPEC - 102	Sports Engineering					
<u>Part B:Practical course</u>						
MPPC – 101	Running Event / Gymnastics (F. Ex. and T.V.)/ Swimming	06	03	40	60	100
MPPC – 102	Yoga/ Aerobics/ Combat	06	03	40	60	100
MPPC – 103	Adventure Activity/ Mass Demonstration	06	03	40	60	100
Total		33	24	220	580	800

Note: Total number of hours required to earn 03 credits for each theory course are 45-50 hours per semester whereas 90-100 hours for each practicum course

Second semester

Part A : Theoretical Course						
Course Code	Title of Paper	Total hours/ week	Credit	Internal Marks	External Marks	Total Marks
Core Course						
MPCC - 201	Applied Statistics in P. E.	03	03	20	80	100
MPCC - 202	Sports Biomechanics and Kinesiology	03	03	20	80	100
MPCC - 203	Test Measurement and Evaluation	03	03	20	80	100
MPCC - 204	Indian Constitution	03	03	20	80	100
Elective Course (Any one)						
MPEC - 201	Health education and sports nutrition	03	03	20	80	100
MPEC - 202	Sports Journalism and Mass Communication					
Part B: Practical course						
MPPC – 201	Laboratory Practical	06	03	40	60	100
MPPC – 202	Teaching lessons in Indigenous activities 5	06	03	40	60	100
MPPC – 203	Classroom Teaching lessons 5	06	03	40	60	100
		33	24	220	580	800

Note: Total number of hours required to earn 03 credits for each theory course are 45-50 hours per semester whereas 90-100 hours for each practicum course

Third Semester

Part A : Theoretical Course						
Course Code	Title of Paper	Total hours/ week	Credit	Internal Marks	External Marks	Total Marks
<u>Core Course</u>						
MPCC - 301	Scientific Principles of Sports Training	03	03	20	80	100
MPCC - 302	Sports Medicine	03	03	20	80	100
MPCC - 303	Sports Pedagogy	03	03	20	80	100
Elective Course (Any one)						
MPEC - 301	Physical Fitness and Wellness	03	03	20	80	100
MPEC - 302	Sports Technology					
Service Course (any one)						
MPDSC-001	Life Guards Course	04	04	20	80	100
MPDSC-002	Fitness And Gym-Instructor					
MPDSC-003	Counseling Psychology					
MPDSC-004	Environmental Awareness And Disaster Management					
MPDSC-005	Fitness And Nutrition Management					
Part B: Practical course						
MPPC – 301	Training Methods of Motor Abilities – 5 lessons	06	03	40	60	100
MPPC – 302	T & F Jumping Event+ Throwing Event	06	03	40	60	100
MPPC – 303	Internship	06	03	40	60	100
	Total	34	25	220	580	800

Note: Total number of hours required to earn 03 credits for each theory course and service course of 04 credits are 45-50 hours for this semester whereas 90-100 hours for each practicum course and Internship

Fourth semester

Part A : Theoretical Course						
Course Code	Title of Paper	Total hours/ week	Credit	Internal Marks	External Marks	Total Marks
Core Course						
MPCC - 401	Information and Communication Technology in P. E.	03	03	20	80	100
MPCC - 402	Sports Psychology	03	03	20	80	100
MPCC - 403	Sports Management	03	03	20	80	100
Elective Course (Any one)						
MPEC - 401	Education Technology in P. E.	03	03	20	80	100
MPEC - 402	Professional Preparation and Curriculum Design					
Part B: Practical course						
MPPC - 401	Coaching Lessons Game Specialization - 5	06	03	40	60	100
MPPC - 402	Officiating lesson Game Specialization - 5	06	03	40	60	100
MPPC - 403	Dissertation	12	06	80	120	200
	Total	36	24	240	560	800

Note: Total number of hours required to earn 03 credits for each theory course are 45-50 hours per semester whereas 90-100 hours for each practicum course

First semester

Part A : Theoretical Courses						
Course Code	Title of Paper	Total hours/ week	Credit	Internal Marks	External Marks	Total Marks
Core Course						
MPCC - 101	Research process in P. E. and Sports Sciences	03	03	20	80	100
MPCC - 102	Physiology of Exercise	03	03	20	80	100
MPCC - 103	Yogic Sciences	03	03	20	80	100
MPCC - 104	Environmental Sciences	03	03	20	80	100
Elective Courses (Any one)						
MPEC - 101	Athletic care and Rehabilitation	03	03	20	80	100
MPEC - 102	Sports Engineering					
Part B: Practical courses						
MPPC – 101	Running Event / Gymnastics (F. Ex. and T.V.)/ Swimming	06	03	40	60	100
MPPC – 102	Yoga/ Aerobics/ Combat	06	03	40	60	100
MPPC – 103	Adventure Activity/ Mass Demonstration	06	03	40	60	100
	Total	33	24	220	580	800

Note: Total number of hours required to earn 03 credits for each theory course are 45-50 hours per semester whereas 90-100 hours for each practicum course

Semester I
Theory Course
MPCC-101: RESEARCH PROCESS IN PHYSICAL EDUCATION AND SPORTS
SCIENCES

Unit I:

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

Unit II:

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

Unit III:

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

Unit IV:

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

Unit V:

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

References:

1. Best J. W (1971) Research in Education, New Jersey; Prentice Hall, Inc
2. Clarke David. H & Clarke H, Harrison (1984) Research processes in Physical Education, New Jersey; Prentice Hall Inc.
3. Craig Williams and Chris Wragg (2006) Data Analysis and Research for Sport and Exercise Science, London; Routledge Press
4. Jerry R Thomas & Jack K Nelson (2000) Research Methods in Physical Activities; Illinois; Human Kinetics;
5. Kamlesh, M. L. (1999) Research Methodology in Physical Education and Sports, New Delhi
6. Moses, A. K. (1995) Thesis Writing Format, Chennai; Poompugar Pathippagam
7. Rothstein, A (1985) Research Design and Statistics for Physical Education, Englewood Cliffs: Prentice Hall, Inc
8. Shatrunjay Kote, Makarand Joshi, Research Methodology and statistical methods in Physical Education, Chhaya Publishing House, Aurangabad, (2006).
9. Subramanian, R, Thirumalai Kumar S & Arumugam C (2010) Research Methods in Health, Physical Education and Sports, New Delhi; Friends Publication
10. Moorthy A. M. Research Processes in Physical Education (2010); Friend Publication, New Delhi

Semester I
Theory Course
MPCC-102: PHYSIOLOGY OF EXERCISE

Unit I:

Skeletal Muscles and Exercise: Macro & Micro Structure of the Skeletal Muscle, Chemical Composition; Sliding Filament theory of Muscular Contraction; Types of Muscle fiber; Muscle Tone, Chemistry of Muscular Contraction – Heat Production in the Muscle, Effect of exercises and training on the muscular system.

Unit II:

Cardiovascular System and Exercise: Heart Valves and Direction of the Blood Flow – Conduction System of the Heart – Blood Supply to the Heart – Cardiac Cycle – Stroke Volume – Cardiac Output – Heart Rate – Factors Affecting Heart Rate – Cardiac Hypertrophy – Effect of exercises and training on the Cardio vascular system.

Unit III:

Respiratory System and Exercise: Mechanics of Breathing – Respiratory Muscles, Minute Ventilation – Ventilation at Rest and During Exercise; Diffusion of Gases – Exchange of Gases in the Lungs –Exchange of Gases in the Tissues – Control of Ventilation – Ventilation and the Anaerobic Threshold; Oxygen Debt – Lung Volumes and Capacities – Effect of exercises and training on the respiratory system

Unit IV:

Metabolism and Energy Transfer: Metabolism – ATP – PC or Phosphogene System – Anaerobic Metabolism – Aerobic Metabolism – Aerobic and Anaerobic Systems during Rest and Exercise. Short Duration High Intensity Exercises – High Intensity Exercise Lasting Several Minutes – Long Duration Exercises.

Unit V:

Climatic conditions and sports performance and ergogenic aids: Variation in Temperature and Humidity – Thermoregulation – Sports performance in hot climate, Cool Climate, high altitude. Influence of: Amphetamine, Anabolic steroids, Androstenedione, Beta Blocker, Choline, Creatine, Human growth hormone on sports performance. Narcotic, Stimulants: Amphetamines, Caffeine, Ephedrine, Sympathomimetic amines. Stimulants and sports performance

Note: Laboratory Practicals in Physiology be designed and arranged internally.

References:

1. Amrit Kumar, R, Moses. (1995). Introduction to Exercise Physiology. Madras: Poompugar Pathipagam
2. Beotra Alka, (2000) Drug Education Handbook on Drug Abuse in Sports: Sports Authority of India Delhi.
3. Clarke, D.H. (1975). Exercise Physiology. New Jersey: Prentice Hall Inc., Englewood Cliffs.
4. David, L Costill. (2004). Physiology of Sports and Exercise, Human Kinetics
5. Fox, E.L., and Mathews, D.K. (1981), The Physiological Basis of Physical Education
6. and Athletics. Philadelphia: Sanders College Publishing
7. Guyton, A.C. (1976). Textbook of Medical Physiology, Philadelphia: W.B. Sanders co.
8. Richard, W. Bowers. (1989). Sports Physiology, WMC: Brown Publishers.
9. Sandhya Tiwaji. (1999). Exercise Physiology. Sports Publishers
10. Shaver, L. (1981). Essentials of Exercise Physiology, New Delhi: Subject Publications.
11. Shatrunjay Kote, Giri A. V., Kamble D.R., Biomechanics, Applied Kinesiology and Physiology of Exercise, Chhaya Publishig House, Aurangabad, (2006)
12. Shatrunjay Kote, Scientific Coaching Manual for Martial Arts, Rana Publications, Hyderabad, (1997).
13. Vincent, T. Murche. (2007). Elementary Physiology, Hyderabad: Sports Publication.
14. William, D. Mc Aradle. (1996). 'Exercise Physiology, Energy, Nutrition and Human Performance' Philadelphia: Lippincott Williams and Wilkins Company.

Semester I

Theory Course

MPCC-103: Yogic Sciences

Unit I:

Introduction: Meaning and Definition of Yoga. Astanga Yoga: Yama, Niyama, Aasna, Pranayama, Prathyahara, Dharana, Dhyana, Samadhi, Concept of Yogic Practices; Principles of Breathing – Awareness – Relaxation, Sequence – Counter pose – Time – Place – Clothes – Bathing – Emptying the bowels – Stomach – Diet – No Straining – Age – Contra- Indication – Inverted asana – Sunbathing.

Unit II:

Aasanas and Pranayam: Loosening exercise: Techniques and benefits. Asanas: Types- Techniques and Benefits, Surya Namaskar: Methods and benefits. Pranayama: Types- Methods and benefits. Nadis: Meaning, methods and benefits, Chakras: Major Chakaras- Benefits of clearing and balancing Chakras.

Unit III:

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

Unit IV:

Mudras: Meaning, Techniques and Benefits of Hasta Mudras, Asamyukta hastam, Samyukta hastam, Mana Mudra, Kaya Mudra, Banda Mudra, Adhara Mudra. Meditation: Meaning, Techiques and Benefits of Meditation – Passive and active, Saguna Meditation and Nirguna Meditation.

Unit V:

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

Note: Laboratory Practicals be designed and arranged internally.

References:

1. Background, Varanasi: Bharata Manishai.
2. book.
3. George Feuerstein, (1975). Text Book of Yoga, London: Motilal Bansaridass Publishers (P)
4. Gore, (1990), Anatomy and Physiology of Yogic Practices; Lonavata: Kanchan Prkashan
5. Helen Purperhart (2004), The Yoga Adventure for Children. Netherlands: A Hunter House
6. Iyengar, B.K.S. (2000), Light on Yoga. New Delhi: Harper Collins Publishers.
7. Karbelkar N.V.(1993) Patanjali Yogasutra Bhashya (Marathi Edition) Amravati: Hanuman
8. Kenghe. C.T. (1976). Yoga as Depth-Psychology and para-Psychology (Vol-I): Historical
9. Kuvalyananada Swami & S.L. Vinekar, (1963), Yogic Therapy – Basic Principles and Methods. New Delhi: Govt. of India, Central Health Education and Bureau.
10. Ltd.
11. Moorthy A.M. & Alagesan. S. (2004) Yoga Therapy. Coimbatore: Teachers Publication House.
12. Swami Kuvalayanda, (1998), Asanas. Lonavala: Kaivalyadhama.
13. Swami Satyananada Sarasvati. (1989), Asana Pranayama Mudra Bandha. Munger: Bihar School of Yoga.
14. Swami Satyananda Saraswathi. (1984), Kundalini and Tantra, Bihar: Yoga Publications Trust.
15. Swami Sivananda, (1971), The Science of Pranayama. Chennai: A Divine Life Society Publication.
16. Thirumalai Kumar. S and Indira. S (2011) Yoga in Your Life, Chennai: The Parkar Publication.
17. Tiwari O.P. (1998), Asanas-Why and How. Lonavala: Kaivalyadham Vyayam Prasarak Mandal

Semester I

Theory Course

MPCC – 104: ENVIRONMENTAL SCIENCES

UNIT I:

Multidisciplinary nature of environmental studies Definition, scope and importance, need for public awareness. **Natural Resources: Renewable and non-renewable resources:** Natural resources and associated problems. a) Forest resources: Use and over-exploitation, deforestation, case studies. Timber extraction, mining, dams and their effects on forest and tribal people. b) Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams-benefits and problems. c) Mineral resources: Use and exploitation, environmental effects of extracting and using mineral resources, case studies. d) Food resources: World food problems, changes caused by agriculture and over-grazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity, case studies. e) Energy resources: Growing energy needs, renewable and non renewable energy sources, use of alternate energy sources. f) Land resources: Land as a resource, land degradation, man induced landslides, soil erosion and desertification. • Role of an individual in conservation of natural resources. • Equitable use of resources for sustainable lifestyles.

UNIT II:

Ecosystems: • Concept of an ecosystem. • Structure and function of an ecosystem. • Producers, consumers and decomposers. • Energy flow in the ecosystem. • Ecological succession. • Food chains, food webs and ecological pyramids. • Introduction, types, characteristic features, structure and function of the following ecosystems: - a. Forest ecosystem b. Grassland ecosystem c. Desert ecosystem d. Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries) **Biodiversity and its conservation:** • Introduction – Definition: genetic, species and ecosystem diversity. • Biogeographically classification of India • Value of biodiversity: consumptive use, productive use, social, ethical, aesthetic and option values • Biodiversity at global, National and local levels. • India as a mega-diversity nation • Hot-spots of biodiversity. • Threats to biodiversity: habitat loss, poaching of wildlife, man-wildlife conflicts. • Endangered and endemic species of India • Conservation of biodiversity: In-situ and Ex-situ conservation of biodiversity.

UNIT III:

Environmental Pollution: Definition; • Cause, effects and control measures of :- a. Air pollution b. Water pollution c. Soil pollution d. Marine pollution e. Noise pollution f. Thermal pollution g. Nuclear hazards • Solid waste Management : Causes, effects and control measures of urban and industrial wastes. • Role of an individual in prevention of pollution. • Pollution case studies. • Disaster management: floods, earthquake, cyclone and landslides.

UNIT IV:

Social Issues and the Environment: • From Unsustainable to Sustainable development • Urban problems related to energy • Water conservation, rain water harvesting, watershed management • Resettlement and rehabilitation of people; its problems and concerns. • Environmental ethics: Issues and possible solutions. • Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust. • Wasteland reclamation. • Consumerism and waste products. • Environment Protection Act. • Air (Prevention and Control of Pollution) Act. • Water (Prevention and control of Pollution) Act • Wildlife Protection Act • Forest Conservation Act • Issues involved in enforcement of environmental legislation. • Public awareness. **Human Population and the Environment:** • Population growth, variation among nations. • Population explosion – Family Welfare Programme. • Environment and human health. • Human Rights. • Value Education. • HIV/AIDS. • Women and Child Welfare. • Role of Information Technology in Environment and human health. • Case Studies.

References:

- a) Agarwal, K.C. 2001 Environmental Biology, Nidi Publ. Ltd. Bikaner.
- b) Bharucha Erach, The Biodiversity of India, Mapin Publishing Pvt. Ltd., Ahmedabad –380 013, India, Email:mapin@icenet.net (R)
- c) Brunner R.C., 1989, Hazardous Waste Incineration, McGraw Hill Inc. 480p
- d) Clark R.S., Marine Pollution, Clarendon Press Oxford (TB)
- e) Cunningham, W.P. Cooper, T.H. Gorhani, E & Hepworth, M.T. 2001, Environmental Encyclopedia, Jaico Publ. House, Mumabai, 1196p
- f) De A.K., Environmental Chemistry, Wiley Eastern Ltd.
- g) Down to Earth, Centre for Science and Environment (R)
- h) Jadhav, H & Bhosale, V.M. 1995. Environmental Protection and Laws. Himalaya Pub. House, Delhi 284 p.
- i) Mckinney, M.L. & School, R.M. 1996. Environmental Science Systems & Solutions, Web enhanced edition. 639p.
- j) Mhaskar A.K., Matter Hazardous, Techno-Science Publication (TB)
- k) Miller T.G. Jr. Environmental Science, Wadsworth Publishing Co. (TB)
- l) Odum, E.P. 1971. Fundamentals of Ecology. W.B. Saunders Co. USA, 574p
- m) Rao M N. & Datta, A.K. 1987. Waste Water treatment. Oxford & IBH Publ. Co. Pvt. Ltd. 345p.
- n) Sharma B.K., 2001. Environmental Chemistry. Geol Publ. House, Meerut
- o) Survey of the Environment, The Hindu (M)
- p) Townsend C., Harper J, and Michael Begon, Essentials of Ecology, Blackwell Science
- q) Trivedi R.K., Handbook of Environmental Laws, Rules Guidelines, Compliances and Standards, Vol I and II, Enviro Media (R)
- r) Trivedi R. K. and P.K. Goel, Introduction to air pollution, Techno-Science Publication (TB)
- s) Wanger K.D., 1998 Environmental Management. W.B. Saunders Co. Philadelphia, USA 499p

Semester I

Theory Course

MPEC-101: ATHLETIC CARE AND REHABILITATION (Elective)

Unit I:

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

Unit II:

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

Unit III:

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

Unit IV:

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

Unit V:

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

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

References:

1. Doherty. J. Meno.Wetb, Moder D (2000) Track & Field, Englewood Cliffs, Prentice Hal Inc.
2. Lace, M. V. (1951) Massage and Medical Gymnastics, London: J & A Churchill Ltd.
3. Mc Ooyand Young (1954) Tests and Measurement, New York: Appleton Century.
4. Naro, C. L. (1967) Manual of Massage and, Movement, London: Febra and Febra Ltd.
5. Rathbome, J.I. (1965) Corrective Physical education, London: W.B. Saunders & Co.
6. Stafford and Kelly, (1968) Preventive and Corrective Physical Education, New York.
7. Shatrunjay Kote, Giri A. V., Kamble D.R., Biomechanics, Applied Kinesiology and Physiology of Exercise, Chhaya Publishig House, Aurangabad, (2006).
8. Shatrunjay Kote, Scientific Coaching Manual for Martial Arts, Rana Publications, Hyderabad, (1997)

Semester I
Theory Course
MPEC-102: SPORTS ENGINEERING (Elective)

Unit I:

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

Unit II:

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

Unit III:

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

Unit IV:

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

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

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

Unit V:

Facility life cycle costing: Basics of theoretical analysis of cost, total life cost concepts, maintenance costs, energy cost, capital cost and taxation

References:

- Franz K. F. et. al., Editor, Routledge Handbook of Sports Technology and Engineering (Routledge, 2013)
- Steve Hake, Editor, The Engineering of Sport (CRC Press, 1996)
- Franz K. F. et. al., Editor The Impact of Technology on Sports II (CRC Press, 2007)
- Helge N., Sports Aerodynamics (Springer Science & Business Media, 2009)
- Youlin Hong, Editor Routledge Handbook of Ergonomics in Sport and Exercise (Routledge, 2013)
- Jenkins M., Editor Materials in Sports Equipment, Volume I (Elsevier, 2003)
- Colin White, Projectile Dynamics in Sport: Principles and Applications
- Eric C. et al., Editor Sports Facility Operations Management (Routledge, 2010)

Semester I
Practicum Course
**MPPC- 101: TRACK AND FIELD I: RUNNING EVENTS / GYMNASTICS/
SWIMMING**

Running Events:

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

Gymnastics:

Floor Exercises:

Basics jumps, rolls, turns, scales, hand stand, head stand, cartwheel,

Table Vault:

Straddle vault, Through Vault, Stoop Vault (if possible), Hand Spring (if possible)

Swimming:

Basic Swimming, Different Strokes, Different Distances, Turns underneath water etc.

Semester I
Practicum Course
**MPPC- 102: YOGA/ AEROBICS/ SELF DEFENCE TECHNIQUES-MARTIAL ARTS,
TAEK-WON-DO/ SHOOTING/ ARCHERY**

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

AEROBICS

Rhythmic Aerobics – dance; Low impact aerobics; High impact aerobics; Aerobics kick boxing; Moves: March single, basics, side to side alternate, turn s/a ,double side to side, step touch, grapevine, knee up, leg curl, kick front, toe touch, kick side, side lunge, over the top, back lunge, straddle, kick front, travel s 11. kick side, corner, heel to reft, shape, 'e' shape, shapew, shape, repeater left mode Warm up and cool down; Being successful in exercise and adaptation to aerobic workout.

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

Basics of all combat sports

Semester I
Practicum
MPCC-103 ADVENTURE ACTIVITIES/ MASS DEMONSTRATION ACTIVITIES

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

LEZIM, DUMB-BELL, UMBRELLA, TIPRI, WANDS, HOOPS/ MALKHAMBH

MASS DEMONSTRATION ACTIVITIES- Lezium, dumb-bell, umbrella, tipri, wands, hoops, free arms drill, folk dances, etc.(Students are expected to learn and organize mass drill in school situation) o Apparatus/ Light apparatus Grip; o Attention with apparatus/ Light apparatus; o Stand – at – ease with apparatus/ light apparatus; o Exercise with verbal command, drum, whistle and music – Two count, Four count, Eight count and Sixteen count; o Standing Exercise; o Jumping Exercise; o Moving Exercise; o Combination of above all

MALKHAMB: Table of Exercises on Malkhamb should be prepared internally for teaching General out-line of the contents of teaching of theory of Games and Sports

Introduction of the game/sport and historical development with special reference to India, Orientation of the students to the play area and equipment used in the game/sport, Important tournaments held at National and International levels, Distinguished sports awards and personalities related to the Game/sport. Warming-up- General free hand exercises, specific work out using equipment. Fundamental skills, Lead up activities, General rules and their interpretations, Duties of officials, officiating in class competitions and Intramurals, Marking of the play area.

Second semester

Part A : Theoretical Course						
Course Code	Title of Paper	Total hours/ week	Credit	Internal Marks	External Marks	Total Marks
<u>Core Course</u>						
MPCC - 201	Applied Statistics in P. E.	03	03	20	80	100
MPCC - 202	Sports Biomechanics and Kinesiology	03	03	20	80	100
MPCC - 203	Test Measurement and Evaluation	03	03	20	80	100
MPCC - 204	Indian Constitution	03	03	20	80	100
<u>Elective Course (Any one)</u>						
MPEC - 201	Health education and sports nutrition	03	03	20	80	100
MPEC - 202	Sports Journalism and Mass Communication					
<u>Part B: Practical course</u>						
MPPC – 201	Laboratory Practical	06	03	40	60	100
MPPC – 202	Teaching lessons in Indigenous activities 5	06	03	40	60	100
MPPC – 203	Classroom Teaching lessons 5	06	03	40	60	100
		33	24	220	580	800

Note: Total number of hours required to earn 03 credits for each theory course are 45-50 hours per semester whereas 90-100 hours for each practicum course

Semester II
Theory Course
MPCC-201: APPLIED STATISTICS IN PHYSICAL EDUCATION AND SPORTS

Unit I:

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

Unit II:

Data Classification, Tabulation and Measures of Central Tendency: Meaning, uses and construction of frequency table. Meaning, Purpose, Calculation and advantages of Measures of central tendency – Mean, median and mode.

Unit III:

Measures of Dispersions and Scales: Meaning, Purpose, Calculation and advances of Range, Quartile, Deviation, Mean Deviation, Standard Deviation, Probable Error. Meaning, Purpose, Calculation and advantages of scoring scales; Sigma scale, Z Scale, Hull scale

Unit IV:

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

Unit V:

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

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

References:

1. Best J. W (1971) Research in Education, New Jersey; Prentice Hall, Inc
2. Clark D.H. (1999) Research Problem in Physical Education 2nd edition, Eaglewood Cliffs, Prentice Hall, Inc.
3. Jerry R Thomas & Jack K Nelson (2000) Research Methods in Physical Activities; Illinois; Human Kinetics;
4. Kamlesh, M. L. (1999) Reserach Methodology in Physical Education and Sports, New Delhi
5. Rothstain A (1985) Research Design and Statistics for Physical Education, Englewood Cliffs: Prentice Hall, Inc
6. Sivaramakrishnan. S. (2006) Statistics for Physical Education, Delhi; Friends Publication
7. Shatrunjay Kote, Makarand Joshi, Research Methodology and statistical methods in Physical Education, Chhaya Publishing House, Aurangabad, (2006)
8. Thirumalaisamy (1998), Statistics in Physical Education, Karaikudi, Senthilkumar Publications

Semester II
Theory Course
MPCC-202: SPORTS BIOMECHANICS AND KINESIOLOGY

Unit I:

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

Unit II:

Muscle Action: Origin, Insertion and action of muscles: Pectoralis major and minor, Deltoid, Biceps, Triceps (Anterior and Posterior), Trapezius, Serratus, Sartorius, Rectus Femoris, Abdominis, Quadriceps, Hamstring, Gastrocnemius

Unit III:

Motion and Force: Meaning and definition of Motion. Types of Motion: Linear motion, angular motion, circular motion, uniform motion. Principles related to the law of Inertia, Law of acceleration, and law of counter force. Meaning and definition of force- Sources of force -Force components .Force applied at an angle - pressure -friction -Buoyancy, Spin - Centripetal force - Centrifugal force.

Unit IV:

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

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

Unit V:

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

References:

1. Deshpande S.H.(2002). Manav Kriya Vigyan – Kinesiology (Hindi Edition) Amravati :Hanuman Vyayam Prasarak Mandal.
2. Hoffman S.J. Introduction to Kinesiology (Human Kinesiology publication In.2005).
3. Steven Roy & Richard Irvin. (1983). Sports Medicine. New Jersey: Prentice hall.
4. Shatrunjay Kote, Giri A. V., Kamble D.R., Biomechanics, Applied Kinesiology and Physiology of Exercise, Chhaya Publishig House, Aurangabad, (2006).
5. Shatrunjay Kote, Scientific Coaching Manual for Martial Arts, Rana Publications, Hyderabad, (1997)
6. Thomas. (2001). Manual of structural Kinesiology, New York: Me Graw Hill.
7. Uppal A.K. Lawrence Mamta MP Kinesiology(Friends Publication India 2004)
8. Uppal, A (2004), Kinesiology in Physical Education and Exercise Science, Delhi Friends publications.
9. Williams M (1982) Biomechanics of Human Motion, Philadelphia; Saunders Co.

MPCC-203

Theory Course

TEST, MEASUREMENT AND EVALUATION IN PHYSICAL EDUCATION

Unit I:

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

Unit II:

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

UNIT III – Physical Fitness Tests

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

Unit IV:

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

Unit V:

Skill Tests: Specific Spots Skill Test: Badminton: Miller Wall Volley Test. Basketball: Johnson Basketball Test, Harrison Basketball Ability Test. Cricket: Sutcliff Cricket test. Hockey: Friendel Field Hockey Test, Harban's Hockey Test, Volleyball, Russel Lange Volleyball Test, Brady Volleyball Test. Football: Mor-Christian General Soccer Ability Skill Test Battery, Johnson Soccer Test, Mc-Donald Volley Soccer Test. Tennis: Dyer Tennis Test.

Note: Practicals of indoors and out-door tests be designed and arranged internally.

References:

1. Authors Guide (2013) ACSM's Health Related Physical Fitness Assessment Manual, USA: ACSM Publications
2. Collins, R.D., & Hodges P.B. (2001) A Comprehensive Guide to Sports Skills Tests and Measurement (2nd edition) Lanham: Scarecrow Press
3. Cureton T.K. (1947) Physical Fitness Appraisal and Guidance, St. Louis: The C. Mosby Company
4. Getchell B (1979) Physical Fitness A Way of Life, 2nd Edition New York, John Wiley and Sons, Inc
5. Jenson, Clayne R and Cynt ha, C. Hirst (1980) Measurement in Physical Education and Athletics, New York, Macmillan Publishing Co. Inc
6. Kansal D.K. (1996), "Test and Measurement in Sports and Physical Education, New Delhi: DVS Publications
7. Krishnamurthy (2007) Evaluation in Physical Education and Sports, New Delhi; Ajay Verma
8. Publication
9. Shatrunjay Kote, Test Measurement and Evaluation in Physical Education, Chhaya Publications, Aurangabad, (2006)
10. Vivian H. Heyward (2005) Advance Fitness Assessment and Exercise Prescription, 3rd Edition, Dallas TX: The Cooper Institute for Aerobics Research
11. Wilmore JH and Costill DL. (2005) Physiology of Sport and Exercise: 3rd Edition Champaign IL: Human Kinetics
12. Yobu, A (2010), Test, Measurement and Evaluation in Physical Education in Physical Education and Sports, New Delhi; Friends Publications

MPCC-204
Theory Course
INDIAN CONSTITUTION

Unit I: Introduction

Constitution' meaning of the term,, Indian Constitution: Sources and constitutional history, Features: Citizenship, Preamble, Fundamental Rights and Duties, Directive Principles of State Policy

Unit II: Union Government and its Administration

Structure of the Indian Union: Federalism, Centre- State relationship, President: Role, power and position, PM and Council of ministers, Cabinet and Central Secretariat, Lok Sabha, Rajya Sabha

Unit III: State Government and its Administration

Governor: Role and Position, CM and Council of ministers, State Secretariat: Organisation, Structure and Functions

Unit IV: Local Administration

District's Administration head: Role and Importance, Municipalities: Introduction, Mayor and role of Elected Representative, CEO of Municipal Corporation, Pachayati raj: Introduction, PRI: Zila Pachayat, Elected officials and their roles, CEO Zila Pachayat: Position and role, Block level: Organizational Hierarchy (Different departments), Village level: Role of Elected and Appointed officials, Importance of grass root democracy

Unit V: Election Commission

Election Commission: Role and Functioning, Chief Election Commissioner and Election Commissioners, State Election Commission: Role and Functioning, Institute and Bodies for the welfare of SC/ST/OBC and women

References:

1. 'Indian Polity' by Laxmikanth
2. 'Indian Administration' by Subhash Kashyap
3. 'Indian Constitution' by D.D. Basu
4. 'Indian Administration' by Avasti and Avasti

MPEC - 201

Theory Course

HEALTH EDUCATION AND SPORTS NUTRITION (Elective)

Unit I:

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

Unit II:

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

Unit III:

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

Unit IV:

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

Unit V:

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

References:

1. Boyd-Eaton S. et al (1989) The Stone Age Health Programme: Diet and Exercise as Nature Intended. Angus and Robertson
2. Bucher, Charles A. "Administration of Health and Physical Education Programme".
3. Delbert, Oberteuffer, et. al." The School Health Education".
4. Ghosh, B.N. "Treaties of Hygiene and Public Health".
5. Hanlon, John J. "Principles of Public Health Administration" 2003.
6. Moss and et. At. "Health Education" (National Education Association of U.T.A.)
7. Nemir A. "The School Health Education" (Harber and Brothers, New York). Nutrition Encyclopedia, edited by Delores C.S. James, The Gale Group, Inc.
8. Shatrunjay Kote, Giri A. V., Kamble D.R., Biomechanics, Applied Kinesiology and Physiology of Exercise, Chhaya Publishing House, Aurangabad, (2006).
9. Shatrunjay Kote, Scientific Coaching Manual for Martial Arts, Rana Publications, Hyderabad, (1997).
10. Terras S. (1994) Stress, How Your Diet can Help: The Practical Guide to Positive Health Using Diet, Vitamins, Minerals, Herbs and Amino Acids, Thorons. Turner, C.E. "The School Health and Health Education".

Semester II
Theory Course

MPEC-202: SPORTS JOURNALISM AND MASS MEDIA (Elective)

Unit I:

Introduction: Meaning and Definition of Journalism, Ethics of Journalism – Canons of journalism- Sports Ethics and Sportsmanship – Reporting Sports Events. National and International Sports News Agencies.

Unit II:

Sports Bulletin: Concept of Sports Bulletin: Journalism and sports education – Structure of sports bulletin – Compiling a bulletin – Types of bulletin – Role of Journalism in the Field of Physical Education: Sports as an integral part of Physical Education – Sports organization and sports journalism – General news reporting and sports reporting.

Unit III:

Mass Media: Mass Media in Journalism: Radio and T.V. Commentary – Running commentary on the radio – Sports expert's comments. Role of Advertisement in Journalism. Sports Photography: Equipment- Editing – Publishing.

Unit IV:

Report Writing on Sports: Brief review of Olympic Games, Asian Games, Common Wealth Games World Cup, National Games and Indian Traditional Games. Preparing report of an Annual Sports Meet for Publication in Newspaper, Organization of Press Meet

Unit V:

Journalism: Sports organization and Sports Journalism – General news reporting and sports reporting. Methods of editing a Sports report. Evaluation of Reported News, Interview with and elite Player and Coach, Practical assignments to observe the matches and prepare report and news of the same; visit to News Paper office and TV Centre to know various departments and their working, Collection of Album of newspaper cuttings of sports news

References:

1. Ahiya B.N. (1988) Theory and Practice of Journalism: Set to Indian context Ed3. Delhi: Surjeet Publications
2. Ahiya B.N. Chobra S.S.A. (1990) Concise Course in Reporting. New Delhi: Surjeet Publication
3. Bhatt S.C. (1993) Broadcast Journalism Basic Principles. New Delhi. Haranand Publication
4. Dhananjay Joshi (2010) Value Education in Global Perspective. New Delhi: Lotus Press
5. Kannan K (2009) Soft Skills, Madurai: Madurai: Yadava College Publication
6. Mohit Chakrabarti (2008): Value Education: Changing Perspective, New Delhi: Kanishka Publication,.
7. Padmanabhan. A & Perumal A (2009), Science and Art of Living, Madurai: Pakavathi Publication
8. Shiv Khera (2002), You Can Win, New Delhi: Macmillan India Limited.
9. Varma A.K. (1993) Journalism in India from Earliest Times to the Present Period. Sterling publication Pvt. Ltd.
Venkataiah. N (2009) Value Education,- New Delhi: APH Publishing Corporation.

Semester I

Practicum Course

MPPC- 201 LABORATORIES PRACTICAL: SPORTS PSYCHOLOGY, PHYSIOLOGY OF EXERCISE, SPORTS BIOMECHANICS AND KINESIOLOGY (TWO PRACTICAL FOR EACH SUBJECT)

Sports Psychology: Level of Aspiration Measure (Performance Type); Social Maturity Scale; Self Confidence Inventory; Achievement Scale; Aggression Scale; Comprehensive; Anxiety Test; Mental Ability Test; Exploring Emotional Ability; Personality Inventories

Physiology of Exercise:

Use of Microscope with Various Observations of Stained Slides Related To Cell, Tissues, Etc
Utilization of Stop Watch with Various Tests of Physiology; Utilization of Reaction Timer with Various Senses (Auditory, Visual & Tactile); Use of Metronome for Different Tests
Ergo-metric Machines (Finger, Bicycle, Treadmill Etc); Various Step Tests; Grip Dynamometer, Back & Leg Dynamometer Etc; Study of Various Models, Specimen, Bones Etc; Measurement of Muscular Strength: Kraus –Weber-Strength Test; Rogers Strength Test; Phillips JCR Test ; Measurement of Muscular Endurance: Static (Isometric) Muscular; Endurance Test; Dynamic Or Isotonic Muscular Endurance Test; Cardio Pulmonary Endurance: a) Tuttle Pulse Ratio Test; b) Harvard Step Test; Flexibility: Sit And Reach Test; Bridge Up Test; Test of Strength: Standing Broad Jump; Vertical Jump (Sergeant Jump); Co-ordination : Agility Test: a) Squat Thrusts (Burpee) Test; b) Side Step Test; c) Shuttle Run; Test; d) SEMO Agility Test; e) Right Boomerang Run Test; f) Dodging Run Test; Tests of Balance: Static Balance Test – A) Stork Stand Test B) Bass Stick Test; Reaction Time: Nelson Hand Reaction Time; Nelson Foot Reaction Time

Sports Biomechanics: Utilization Of Various Anthropometric Instruments (Anthropometric Rod, Chest Girth, Small Breadth, Skin fold Calliper, Chest Diameter Width, Goniometer, Flexometer, Weighing Machine, Stadio-meter, sitting height stature Etc.); Understanding forces; Understanding Centre of Gravity; Understanding force and motion relationships; Understanding Linear Momentum; Understanding biomechanical aspects of flexibility; Understanding projections for accuracy and speed; Understanding aerodynamic lift force and the Magnus effect; Understanding the factors influencing swimming velocity; Understanding torque and motion relationship; Understanding angular momentum; Understanding balance related situations; Understanding the body rotation free of support; Understanding the initiating of rotation in the air; Understanding the rotation of a body supported; Understanding projections of the body

Kinesiology: Understanding Musculoskeletal Machines; Understanding postural alignments Palpitations of various muscles during strength training; Palpitating of muscles during; flexibility training

**Semester II
Practicum Course**

MPPC-202: TEACHING LESSONS OF INDIGENIOUS ACTIVITIES AND SPORTS

The students of M.P.Ed – II Semester need to develop proficiency in taking teaching classes in indigenous activities and sport under school situation. In view of this, the students shall be provided with teaching experience. The duration of the lesson to be conducted by these students shall be in the range of 30 to 40 minutes depending on the class they are going to handle at school and college level. Each student teacher is expected to take at least five lessons during the course of the second semester. The lessons will be supervised by the faculty members and experts who would discuss the merits and demerits of the concerned lesson and guide them for the future. In these lessons, the duration should slowly increase and all the parts of the lesson covered progressively.

**Semester II Practicum Course
MPPC-203: CLASSROOM TEACHING
(LESSONS ON PHYSICAL EDUCATION)**

The students of M.P.Ed – II Semester need to develop proficiency in taking teaching lessons as per selected games and sport or game specialization. In view of this, the students shall be provided with selected or specialized game teaching experience. The duration of the lesson to be conducted by these students shall be in the range of 30 to 40 minutes depending on the class time they are going to handle at school and college level. Each student teacher is expected to take at least five lessons during the course of the second semester. The lessons will be supervised by the faculty members and experts who would discuss the merits and demerits of the concerned lesson and guide them for the future. In these teaching lessons, the duration should slowly increase and all the parts of the lesson covered progressively.

Third Semester

Part A : Theoretical Courses						
Course Code	Title of Paper	Total hours/ week	Credit	Internal Marks	External Marks	Total Marks
Core Courses						
MPCC - 301	Scientific Principles of Sports Training	03	03	20	80	100
MPCC - 302	Sports Medicine	03	03	20	80	100
MPCC - 303	Sports Pedagogy	03	03	20	80	100
Elective Courses (Any one)						
MPEC - 301	Physical Fitness and Wellness	03	03	20	80	100
MPEC - 302	Sports Technology					
Service Courses (any one)						
MPDSC-001	Life Guards Course	04	04	20	80	100
MPDSC-002	Fitness And Gym-Instructor					
MPDSC-003	Counseling Psychology					
MPDSC-004	Environmental Awareness And Disaster Management					
MPDSC-005	Fitness And Nutrition Management					
Part B: Practical courses						
MPPC – 301	Training Methods of Motor Abilities – 5 lessons	06	03	40	60	100
MPPC – 302	Track & Field Jumping Event+ Throwing Event	06	03	40	60	100
MPPC – 303	Internship	06	03	40	60	100
	Total	34	25	220	580	800

Note: Total number of hours required to earn 03 credits for each theory course and service course of 04 credits are 45-50 hours for this semester whereas 90-100 hours for each practicum course and Internship

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

Unit I:

Introduction: Sports training: Definition – Aim, Characteristics, Principles of Sports Training means and methods. Training load types, intensity, volume, components of training load, and principles of training load. Adaptation process – process of super compensation, overload – definition, causes, symptoms and tackling of overload. Recovery – definition, means of recovery phases of recovery, factors affecting recovery.

Unit II:

Training motor components:

Strength – types of strength, training means and methods of strength training, circuit training, resistance training, weight training, multi-gym training; Endurance – types of endurance, endurance training means and methods – altitude training, cross country; Flexibility – types of flexibility, means and methods of developing flexibility

Unit III:

Speed: forms of speed, training means and methods of speed, parachute running; Coordinative abilities: Types of coordinative abilities means and methods to improve coordinative abilities, training for women and children in all motor components.

Unit IV:

Planning and periodization: Planning definition, importance of planning, principles of planning, system of planning; Periodization – definition its types, contents of various periods

Unit V:

Techniques and Tactics in Sports Training: Technique – skill acquisition phases, methods of technique training, causes and correction of errors; Tactics -Basic tactical concepts, methods of tactical training, style, techniques, skills, strategy and tactics. Talent Identification – process of talent identification.

References:

1. Beotra Alka, (2000), Drug Education Handbook on Drug Abuse in Sports. Delhi: Sports Authority of India.
2. Bunn, J.N. (1998) Scientific Principles of Coaching, New Jersey Engle Wood Cliffs, Prentice Hall Inc.
3. Cart, E. Klafs & Daniel, D. Arnheim (1999) Modern Principles of Athletic Training St. Louis C. V. Mosphy Company
4. Daniel, D. Arnheim (1991) Principles of Athletic Training, St. Luis, Mosby Year Book
5. David R. Mottram (1996) Drugs in Sport, School of Pharmacy, Liverpool: John Moore University
6. Gary, T. Moran (1997) – Cross Training for Sports, Canada : Human Kinetics
7. Hardayal Singh (1991) Science of Sports Training, New Delhi, DVS Publications
8. Jensen, C.R. & Fisher A.G. (2000) Scientific Basic of Athletic Conditioning, Philadelphia
9. Archana S. Giri, Shatrunjay M. Kote, Scientific Manual of Sports Training, Kreedaa Prakashan, Aurangabad (2015)
10. Shatrunjay Kote, Makarand Joshi Scientific Principles of Sports Training, Chhaya Publications, Aurangabad, (2006)
11. Shatrunjay Kote, Scientific Coaching Manual for Martial Arts, Rana Publications, Hyderabad, (1997)
12. Ronald, P. Pfeiffer (1998) Concepts of Athletics Training 2nd Edition, London: Jones and Bartlett Publications Yograj Thani (2003), Sports Training, Delhi : Sports Publications

Semester III

Theory Course MPCC-302: SPORTS MEDICINE

Unit I:

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

Unit II:

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

Unit III:

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

Unit IV:

Upper Extremity Injuries and Exercise: Upper Limb and Thorax Injuries: Shoulder: Sprain, Strain, Dislocation, and Strapping. Elbow: Sprain, Strain, Strapping. Wrist and Fingers: Sprain Strain, Strapping. Thorax, Rib fracture. Breathing exercises, Relaxation techniques, Free hand exercise, Stretching and strengthening exercise for shoulder, Elbow, Wrist and Hand. Supporting and aiding techniques and equipment for Upper Limb and Thorax Injuries.

Unit V:

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

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

References:

1. Christopher M. Norris. (1993). Sports Injuries Diagnosis and Management for Physiotherapists. East Kilbride: Thomson Litho Ltd.
2. James, A. Gould & George J. Davies. (1985). Physical Physical Therapy. Toronto: C.V. Mosby Company.
3. Morris B. Million (1984) Sports Injuries and Athletic Problem. New Delhi: Surjeet Publication.
4. Pande. (1998). Sports Medicine. New delhi: Khel Shitya Kendra
5. Shatrunjay Kote, Giri A. V., Kamble D. R., Biomechanics and Exercise Physiology, Chhaya Publications, Aurangabad, (2006)
6. Shatrunjay Kote, Scientific Coaching Manual for Martial Arts, Rana Publications, Hyderabad, (1997).
7. The Encyclopedia of Sports Medicine. (1998). The Olympic Book of Sports Medicine, Australia: Tittel Blackwell Scientific publications.

Semester III
Theory Course
MPCC-303: SPORTS PEDAGOGY

UNIT – I: Systematic improvement in teaching skills:

Science and art of teaching; meaning of teaching, learning and pedagogy, appropriate practices – goals and feedback. Stages of skill developing in teaching, sources of help, expert PE teacher. Effective teacher – how are they identified? Active teachers, contextual variations of active teaching. What teachers do in PE? What students do in PE? Effective PE teaching.

UNIT – II: Assessing and improving teaching:

Assessment model, on-site assessment of teaching, steps in assessment process; Task system-ecology of PE, importance concepts in ecological framework; interpersonal skills in PE teaching – teacher-student interaction skills, effective communication skills; Legal, ethical and moral issues in teaching, promoting self growth in PE; Strategies for content development – factors affecting program level planning, differing visions of good in PE

UNIT – III: Developing effective units of instructions:

Determining entry and exit levels, end of unit objectives, practical factors related to unit planning, constructing unit plan, writing instructional objectives; generic instructional strategies – guided practice, independent practice, monitoring student performance; instructional format-active teaching, task teaching, teaching through questioning, peer teaching, cooperative learning; Self-instructional formats- contracts, PSI , providing effective instruction for mainstream students.

UNIT – IV: Measuring teaching and its outcomes:

Traditional methods for assessing teaching – intuitive judgment, eyeballing, anecdotal records, checklists, rating scale; Systematic observation records – event recording, duration recording, interval recording, group-time sampling, self recording. Combining observation techniques, important decisions in developing observation strategies, building observation system; What to observe, training observers, calculating reliability of observation data, examples of observation system.

References:

1. Siedentop, D. (1991) developing teaching skills in physical education, Ca: Mayfield publishing company
2. Mosston, M., Ashworth, S. (1994), teaching physical education (4th Ed.), NY : Macmillan College Publishing Company
3. Kelly, L. E., Nelograno, V. J. (2004) developing the physical education curriculum, Champaign, IL: Human Kinetics
4. Hopple, D. J. (2005) Elementary Physical Education teaching and assessment – A practical guice, Champaign IL: Human Kinetics

**Semester III
Theory Course**

MPEC-301: PHYSICAL FITNESS AND WELLNESS (Elective)

Unit I:

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

Unit II:

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

Unit III – Aerobic Exercise

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

Unit IV:

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

Unit V:

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

References:

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. Warner W.K. Oeger & Sharon A. Hoeger, Fitness and Wellness, Morton Publishing Company, 1990.
4. Elizabeth & Ken day, Sports fitness for women, B.T. Batsford Ltd, London, 1986.
5. Emily R. Foster, Karyn Hartiger & Katherine A. Smith, Fitness Fun, Human Kinetics Publishers 2002.
6. Lawrence, Debbie, Exercise to Music. A & C Black Publishers Ltd. 37, Sohe Square, London 1999
7. Shatrunjay Kote, Giri A. V., Kamble D.R., Biomechanics, Applied Kinesiology and Physiology of Exercise, Chhaya Publishing House, Aurangabad, (2006).
8. Shatrunjay Kote, Scientific Coaching Manual for Martial Arts, Rana Publications, Hyderabad, (1997).
9. Robert Malt. 90 day fitness plan, D.K. publishing, Inc. 95, Madison Avenue, New York 2001

Semester III
Theory Course
MPEC-302: SPORTS TECHNOLOGY (Elective)

Unit I:

Sports Technology: Meaning, definition, purpose, advantages and applications, General Principles and purpose of Instrumentation in sports, Workflow of instrumentation and business aspects, Technological impacts on sports.

Unit II:

Science of Sports Materials: Adhesives- Nano glue, nano moulding technology, Nano turf. Foot wears production, Factors and application in sports, constraints. Foams- Polyurethane, Polystyrene, Styrofoam, closed cell and open-cell foams, Neoprene, Foam. Smart Materials – Shape Memory Alloy (SMA), Thermo chromic film, High-density modeling foam.

Unit III:

Surfaces of Playfields: Modern surfaces for playfields, construction and installation of sports surfaces. Types of materials – synthetic, wood, polyurethane, artificial turf, Modern technology in the construction of indoor and outdoor facilities, Technology in manufacture of modern play equipments. Use of computer and software in Match Analysis and Coaching

Unit IV:

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

Unit V:

Training Gadgets: Basketball: Ball Feeder, Mechanism and Advantages. Cricket: Bowling Machine, Mechanism and Advantages, Tennis: Serving Machine, Mechanism and Advantages, Volleyball: Serving Machine Mechanism and Advantages, Lighting Facilities: Method of erecting Flood Light and measuring luminous, Video Coverage: Types, Size, Capacity, Place and Position of Camera in Live coverage of sporting events.

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

References:

1. Charles J.A. Crane, F.A.A. and Furness, J.A.G. (1987) "Selection of Engineering Materials"
2. UK: Butterworth Heiremann.
3. Finn, R.A. and Trojan P.K. (1999) "Engineering Materials and their Applications" UK: Jaico 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 Publishers Pvt. Ltd.), 1982
7. Kozman, Cassidy and Jackson. Methods in Physical Education (W.B. Saunders Company, Philadelphia and London), 1952.

SEMESTER - III

Service Course (Any one)

CODE	NAME OF THE COURSE	CREDITS
MPDSC-001	Life Guards Course	04
MPDSC-002	Fitness And Gym-Instructor	04
MPDSC-003	Counseling Psychology	04
MPDSC-004	Environmental Awareness And Disaster Management	04
MPDSC-005	Fitness And Nutrition Management	04

LIFE GUARDS COURSE (MPDSC-001)

(Service Course): 4 credits (45 TO 50 lectures of 1 hour each)

UNIT-1

Course Introduction: Course, instructor, and student introductions; Prerequisites; Facility Orientation; General Course information, course completion requirements; Emergency Action Plan (EAP); **Course Prerequisite Swim Test:** -300 yard continuous swim (100 yards of freestyle, 100 yards of breaststroke, and 100 yards of combination of the two); Swim 20 yards, surface dive 7ft, retrieve a 10 lb diving brick, and return. **Breathing and Cardiac Emergencies: CPR/AED for the Professional Rescuer:** Primary Survey; Obtaining Consent and Legal Considerations; Basic Precautions to prevent disease transmission; Resuscitation masks: using a Bag Valve Mask (BVM) vs. a Pocket Mask; General procedures for injury or sudden illness on land; moving a victim; **Breathing Emergencies:** Airway Obstruction conscious/unconscious infant, child, adult; Rescue Breathing; **Cardiac Emergencies:** Signs and Symptoms of Cardiac Arrest (Heart Attack); Cardiopulmonary Resuscitation infant, child, adult; **Automated External; Defibrillator:** Basic Cardiology; **Two Rescuer CPR on Adult, Child, and Infant**

UNIT-2

First Aid: Initial Assessment vs. Secondary Assessment; Emergency Moves – Clothes Drag, Seat Carry; Physical Exam and SAMPLE History; Documentation; Sudden Illness; Wounds; Bleeding; Caring for Shock; Weather, Burns; Injuries to muscles, bones, and joints; Splints; Bites and Stings; Administering Epinephrine; Assisting with bronchodilators (inhalers); Heat Related Emergencies; Cold Related Emergencies; Designing and Implementing Emergency Action Plan; Common types of injuries in geographical area; First Aid Kits

UNIT-3

Lifeguard Training: The Professional Lifeguard and Injury Prevention; Benefits of being a professional LG; Responsibilities of a professional LG; Decision making; The LG Team; How facility management promotes LG professionalism; Preventing injuries – patron safety; Communicating with patrons; Safety checks; Weather conditions; Management and safety;

UNIT-4

Water Rescues: Extension assist from the deck; swimming extension rescue; active drowning victim rear rescue and extricate; multiple victim rescue; passive drowning victim rear rescue and extricate; feet first surface dive; submerged victim rescue; escapes; **Caring for Head, Neck and Back Injuries on Land; in Shallow and Deep Water:** - Defining and caring for a Head, Neck and Back Injury; In-line stabilization techniques; Defining and caring for a Head, Neck and Back Injury; In-line stabilization techniques; **Shallow Water:** Suspected spinal victim – on top of water and submerged passive victim; rescue; Using a backboard in shallow water; **Deep Water:** Suspected spinal victim – on top of water and submerged passive victim; rescue; Using a backboard in deep water

FITNESS AND GYM INSTRUCTOR (MPDSC-002)
(Service Course): 4 credits (45 TO 50 lectures of 1 hour each)

UNIT-1

Foundations of Exercise, Prescription and Weight Control: Meaning, forms and types of exercise, Mode of exercise; Concept of Training and fitness, Health related fitness, Components of fitness, specificity of training effect, Retraining and Maintenance of training; The exercise prescription, quantity and quality of the exercise program, Warm up and limbering down; Concept of body composition, Somato-type and physical activity, Body weight control, Obesity, Energy Balance and weight control, Nutrition and Exercise; Diet Prescription: Nutritional Value and requirement of food in relation to exercise, Malnutrition and obesity causes, effect, prevention and treatment, Harmful effects of nutritional ergo-genic aids.

UNIT-2

Foundations of Weight Training and Circuit Training (Strength and Flexibility): Meaning, types and forms of weight training, Mode of weight training, Principles of weight training; Meaning, Definitions, Forms and Methods to develop strength and endurance; Loading Procedures with respect to weekly training programme; Concept of circuit training; Weight training for different body parts using different gym equipment and facilities.

UNIT-3

Foundations of Fitness Sciences: The Muscular System: Structure of the muscles; Different types of muscles; Functions of the muscles; Physical and clinical change in the muscular activity; Effect of exercise on the muscular system; Fatigue, Staleness, Muscle Cramp, Muscle Pull; The Circulatory System: General arrangement of circulatory system; Functions of the circulatory system, Pulse, Effect of exercise on circulatory system, Judgment of Pulse Rate in brief; The Respiratory System: anatomy of respiratory system, mechanics of respiration, vital capacity, role of oxygen in exercise on the respiratory system (in brief); The Skeleton System: Structure of classification and functions of Bone, Joints, Ligaments Movement around different types of Joints.

UNIT-4

Sports Medicine, First Aid and Safety Management: Soft tissue injuries – Sprain, Strain, Cramp, Abrasion sign and symptoms, prevention, cause and first aid treatment; Lower Back pain, Knees; shoulders, wrists and ankle joint pain causes, sign and symptoms, prevention, first aid treatment; First aid and safety management in gym.; ABCD of first aid, Recovery Position, CPR. Management of Fitness Facility: Customer Care: Public relation, phone handling, guest satisfaction, language, etiquettes, and maintenance of records; Classroom Management: Preparation for the class, grouping of participants, time schedule; Facility: Set-up and placement of equipments, list of equipments to be introduced, mechanical functioning of the equipments, wear, tear and maintenance of facilities in a gym.

Practical:

1. Warming up and cooling down:

- General exercise
- Stretching exercise
- Specific exercises
- Conditioning exercises

2. Exercises:

3. Basic Concept:

4. Prime movers:

5. Various training methods for fitness:

6. Training Programme:

7. Daily Analysis, Measurement and Record of athlete

REFERENCES:

1. Athletic Training and Sport Medicine Rubert C. Schenck
2. Basic Weight Training for Men and Women Thomas D. Fahey
3. Concepts of Athletic Training Pfeiffier Mangus
4. Essential of Exercise Psychology Lorry G. Shaver
5. Exercise Physiology George, Thomas
6. Exercise Physiology Fox Falls
7. Inside the Body Anita Ganeri
8. Introduction to Human Nutrition Gibney, Varster and Kok
9. Methods Measurement and Evaluation in Physical Education Satish Sonkar
10. New Allis of Human Anatomy
11. Nutrition and Diet Therapy Lutz and Przytulshi
12. Nutrition in Exercise and Sport Ira Wolinsky
13. Prentice Therapeutic Modalities in Sports Medicine William E. Prentice
14. Science of Sports Training Hardayal Singh
15. Sport Training Principles Frank W. Dick
16. Sports Exercise
17. Sports Medicine Dr. P.K. Pande Dr. G. S. Sundararajan
18. Sports Medicine of the Lower Extremity Steven I. Subotnick
19. Strength Training and Conditioning R. A. Proctor
20. Test and Measurement Dhananjay Shaw
21. Wood Essential of Anatomy and Physiology Michael G. Wood

COUNSELING PSYCHOLOGY (MPDSC-003)

Service Course: 4 credits (45 TO 50 lectures of 1 hour each)

Objectives: 1. to understand academic, emotional, behavioural difficulties of children and adolescents. 2. To explore counseling needs in marriage, workplace and among elderly. 3. To highlight counseling for people with addiction issues, attempted suicide, disabilities and trauma 4. To delineate the theories of career development and technological advances in counseling

UNIT I:

Definition and nature of Counselling Psychology; Roots of Counselling Psychology; Goals of Counselling; Roles and functions of counsellor: Characteristics of an effective Counsellor; Confidentiality and Ethics in Counselling; Theoretical perspectives : Psychodynamic, Cognitive-Behavioral and Humanistic

UNIT II:

Methods of securing client information; Case History, Psycho diagnosis Use of Tests; Process of Counselling; Nature and Characteristics of the Counselling Process; Steps in Counselling Process; Relationship techniques: Rapport building, Reflection of feeling, Acceptance, Silence, Reassurance, Listening, Empathy; Special Relationship problems: Transference, Counter transference, Resistance Interpretation Techniques: Nature and Types of Interpretation

UNIT III:

Counseling Special Groups: Counselling for Special Groups; Counselling children with leaning and behavior problems; Counselling for the mentally retarded; Counselling adolescents for better adjustment; Counselling women; Counselling the Elderly; Counselling for Anxiety problems; Counselling for Depression; Counselling the alcoholic and drug abuse groups; Counselling those with chronic mental disorders; Counselling patients with chronic medical illness: (terminally ill and HIV/AIDS)

UNIT 4:

Career Counselling; Counselling for Stress and burnout; Marital and family counseling; Group counseling; Issues related to process and outcome

References:

1. Brammer, L.M., Abrego, P.J. & Shostrom, E.L. (1993). Therapeutic Counselling and Psychotherapy. London: Prentice Hall.
2. Woolfe, R & Dryden, W. (1996). Handbook of Counselling Psychology. New Delhi: SAGE
3. Geldard, K. & Geldard, D. (1997) Counselling Children: A Practical Introduction. London: SAGE.
4. Bergin, A.E. & Garfield, S.L. (Eds.) (1994). Handbook of Psychotherapy and Behaviour Change. New York: John Wiley & Sons.
5. Bhatnagar, A. & Gupta, N. (1999). Guidance and Counselling: A Theoretical Perspective. New Delhi: Vikas Publishing House.
6. Gilbert, P. (1992). Counselling for Depression. London: SAGE.
7. Hallam, R. (1992). Counselling for Anxiety Problems. London: SAGE.
8. Krumboltz, J.D. & Thorensen, C.E. (Eds.) (1969). Behavioral Counselling: Cases and Techniques. New York: Holt, Rinehart and Winston.
9. Lee, C. (1998). Women's Health. London: Sage.
10. Schloss, P.J., Smith, M.A. & Schloss, C.N. (1995). Instructional Methods for Adolescents with Learning and Behavior Problems. Boston: Allyn and Bacon.

ENVIRONMENTAL AWARENESS AND DISASTER MANAGEMENT (MPDSC-004)

(Service Course): 4 credits (45 TO 50 lectures of 1 hour each)

ENVIRONMENTAL AWARENESS

UNIT I:

Multidisciplinary nature of environmental studies Definition, scope and importance, need for public awareness. **Natural Resources: Renewable and non-renewable resources:** Natural resources and associated problems. a) Forest resources: Use and over-exploitation, deforestation, case studies. Timber extraction, mining, dams and their effects on forest and tribal people. b) Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams-benefits and problems. c) Mineral resources: Use and exploitation, environmental effects of extracting and using mineral resources, case studies. d) Food resources : World food problems, changes caused by agriculture and over-grazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity, case studies. e) Energy resources : Growing energy needs, renewable and non renewable energy sources, use of alternate energy sources. f) Land resources: Land as a resource, land degradation, man induced landslides, soil erosion and desertification. • Role of an individual in conservation of natural resources. • Equitable use of resources for sustainable lifestyles. **Ecosystems:** • Concept of an ecosystem. • Structure and function of an ecosystem. • Producers, consumers and decomposers. • Energy flow in the ecosystem. • Ecological succession. • Food chains, food webs and ecological pyramids. • Introduction, types, characteristic features, structure and function of the following ecosystems: - a. Forest ecosystem b. Grassland ecosystem c. Desert ecosystem d. Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries) **Biodiversity and its conservation:** • Introduction – Definition: genetic, species and ecosystem diversity. • Biogeographically classification of India • Value of biodiversity: consumptive use, productive use, social, ethical, aesthetic and option values • Biodiversity at global, National and local levels. • India as a mega-diversity nation • Hot-spots of biodiversity. • Threats to biodiversity: habitat loss, poaching of wildlife, man-wildlife conflicts. • Endangered and endemic species of India • Conservation of biodiversity: In-situ and Ex-situ conservation of biodiversity.

UNIT II

Environmental Pollution: Definition; • Cause, effects and control measures of :- a. Air pollution b. Water pollution c. Soil pollution d. Marine pollution e. Noise pollution f. Thermal pollution g. Nuclear hazards • Solid waste Management : Causes, effects and control measures of urban and industrial wastes. • Role of an individual in prevention of pollution. • Pollution case studies. • Disaster management: floods, earthquake, cyclone and landslides. **Social Issues and the Environment:** • From Unsustainable to Sustainable development • Urban problems related to energy • Water conservation, rain water harvesting, watershed management • Resettlement and rehabilitation of people; its problems and concerns. • Environmental ethics: Issues and possible solutions. • Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust. • Wasteland reclamation. • Consumerism and waste products. • Environment Protection Act. • Air (Prevention and Control of Pollution) Act. • Water (Prevention and control of Pollution) Act • Wildlife Protection Act • Forest Conservation Act • Issues involved in enforcement of environmental legislation. • Public awareness. **Human Population and the Environment:** • Population growth, variation among nations. • Population explosion – Family Welfare Programme. • Environment and human health. • Human Rights. • Value Education. • HIV/AIDS. • Women and Child Welfare. • Role of Information Technology in Environment and human health. • Case Studies.

DISASTER MANAGEMENT:

UNIT III:

Introduction to Disasters: Concepts, and definitions (Disaster, Hazard, Vulnerability, Resilience, Risks); Disasters: Classification Causes, Impacts (including social, economic, political, environmental, health, psychosocial, etc.) Differential impacts- in terms of caste, class, gender, age, location, disability Global trends in disasters urban disasters, pandemics, complex emergencies, Climate change

UNIT IV:

Approaches to Disaster Risk reduction: Disaster cycle - its analysis, Phases, Culture of safety, prevention, mitigation and preparedness community based DRR, Structural- nonstructural measures, roles and responsibilities of- community, Panchayati Raj Institutions/Urban Local Bodies (PRIs/ULBs), states, Centre, and other stake-holders. Inter-relationship between Disasters and Development: Factors affecting Vulnerabilities, differential impacts, impact of Development projects such as dams, embankments, changes in Land-use etc. Climate Change Adaptation. Relevance of indigenous knowledge, appropriate technology and local resources; Disaster Risk Management in India Hazard and Vulnerability profile of India Components of Disaster Relief: Water, Food, Sanitation, Shelter, Health, Waste Management Institutional arrangements (Mitigation, Response and Preparedness, DM Act and Policy, Other related policies, plans, programmes and legislation)

(Environment Awareness)

- t) Agarwal, K.C. 2001 Environmental Biology, Nidi Publ. Ltd. Bikaner.
- u) Bharucha Erach, The Biodiversity of India, Mapin Publishing Pvt. Ltd., Ahmedabad –380 013, India, Email:mapin@icenet.net (R)
- v) Brunner R.C., 1989, Hazardous Waste Incineration, McGraw Hill Inc. 480p
- w) Clark R.S., Marine Pollution, Clanderson Press Oxford (TB)
- x) Cunningham, W.P. Cooper, T.H. Gorhani, E & Hepworth, M.T. 2001, Environmental Encyclopedia, Jaico Publ. House, Mumabai, 1196p
- y) De A.K., Environmental Chemistry, Wiley Eastern Ltd.
- z) Down to Earth, Centre for Science and Environment (R)

- aa) Jadhav, H & Bhosale, V.M. 1995. Environmental Protection and Laws. Himalaya Pub. House, Delhi 284 p.
 - bb) Mckinney, M.L. & School, R.M. 1996. Environmental Science Systems & Solutions, Web enhanced edition. 639p.
 - cc) Mhaskar A.K., Matter Hazardous, Techno-Science Publication (TB)
 - dd) Miller T.G. Jr. Environmental Science, Wadsworth Publishing Co. (TB)
 - ee) Odum, E.P. 1971. Fundamentals of Ecology. W.B. Saunders Co. USA, 574p
 - ff) Rao M N. & Datta, A.K. 1987. Waste Water treatment. Oxford & IBH Publ. Co. Pvt. Ltd. 345p.
 - gg) Sharma B.K., 2001. Environmental Chemistry. Geol Publ. House, Meerut
 - hh) Survey of the Environment, The Hindu (M)
 - ii) Townsend C., Harper J, and Michael Begon, Essentials of Ecology, Blackwell Science
 - jj) Trivedi R.K., Handbook of Environmental Laws, Rules Guidelines, Compliances and Standards, Vol I and II, Enviro Media (R)
 - kk) Trivedi R. K. and P.K. Goel, Introduction to air pollution, Techno-Science Publication (TB)
 - ll) Wanger K.D., 1998 Environmental Management. W.B. Saunders Co. Philadelphia, USA 499p
- (M) Magazine (R) Reference (TB) Textbook

(Disaster Management)

1. A range of Films- documentaries and feature films related to disasters and their impacts and on vulnerabilities of people are available which a teacher could choose with care and screen. This could form a basis for classroom discussion.
2. Alexander David, Introduction in 'Confronting Catastrophe', Oxford University Press, 2000
3. Andharia J. Vulnerability in Disaster Discourse, JTCDM, Tata Institute of Social Sciences Working Paper no. 8, 2008
4. Govt. of India: Disaster Management Act 2005, Government of India, New Delhi.
5. Government of India, 2009. National Disaster Management Policy, Gupta Anil K, Sreeja S. Nair. 2011 Environmental Knowledge for Disaster Risk Management, NIDM, New Delhi
6. Indian Journal of Social Work 2002. Special Issue on Psychosocial Aspects of Disasters, Volume 63, Issue 2, April.
7. Kapur, Anu & others, 2005: Disasters in India Studies of grim reality, Rawat Publishers, Jaipur
8. Kapur Anu 2010: Vulnerable India: A Geographical Study of Disasters, IIAS and Sage Publishers, New Delhi.
9. Parasuraman S, Acharya Niru 2000. Analyzing forms of vulnerability in a disaster, The Indian Journal of Social Work, vol 61, issue 4, October

FITNESS AND NUTRITION MANAGEMENT (MPDSC-005)

(Service Course): 4 credits (45 TO 50 lectures of 1 hour each)

HEALTH AND FITNESS

Objectives: To enable the students to Learn about the terms related to health and fitness

Comprehend the interaction between fitness and nutrition.

UNIT-I:

Health: Concept of Health, changing concepts definitions of health, dimensions of health, concept of well being, spectrum of health, determinants of health, ecology of health, right to health, responsibility for health, indicators of health. Exercise and Health related fitness: Health related fitness, health promotion, and physical activity for health benefits. Sports related fitness: Role of nutrition in sports, nutrition to athletic performance. Body weight and composition for Health and Sports: Ideal body weight, values and limitations of the BMI, composition of the body, Diet during training, prior to competition, during Dietary supplements after competition for sports.

UNIT-II:

Exercise performance: Energy expenditure during physical activity, carbohydrate metabolism and performance, fat metabolism and performance, effect of exercise on protein requirements, physique and sports performance. Exercise programmes: Resistance exercise training, aerobic exercise, types of exercise, effective for weight contrast, - dieting or exercise, weight reduction programme for young athletes.

NUTRITION:

Objectives

To enable students: Obtain knowledge of different food groups and their nutritive value Understand the scientific principles underlying food preparation Develop skill and techniques in food preparation with conservation of nutrients and palatability using cooking methods generally employed.

UNIT-III :

Functions of food in relation to health - classification of foods based on nutrients. Food groups - Basic Four, Basic Five and Basic Seven. Preliminary preparation of foods prior to cooking with special reference to conservation of nutrients and palatability, different methods of cooking on acceptability and nutritive value of foods. Dry methods - frying, broiling, parching, and baking. Moist methods - boiling, stewing, cooking under pressure. Micro-wave cooking - advantages and disadvantages. EXPERIMENTAL STUDY OF FOODS: Cereal and Cereal products - Microscopic structure of various starch granules -Nutritive value of Rice, Wheat and locally available millets. Effect of cooking on the nutritive value of cereals. Gelatinisation, Dextrinization, gluten formation. Pulses and nuts - Composition, Nutritive value of grams, dhals - some common nuts - meat substitutes - soya products. Textured Vegetable Protein (TVP). Effect of cooking on pulses.

UNIT-IV:

Vegetables and Fruits - Classification, composition and Nutritive value - methods of minimize the loss of nutrients, color, texture, flavor. Browning reaction - changes during cooking. ANIMAL FOODS: a. Milk and milk products - Composition and Nutritive value, Principles of milk cookery, Milk protein, coagulation, problems in milk cookery. Effect of cooking and processing on milk b. Meat - Nutritive values, methods of cooking - Post mortem changes in meat, factors affecting tenderness - organ meat. c. Fish - Classification, Nutritive value - selection, Methods of cooking. d. Poultry - Nutritive value, economic aspects. Principles and methods of cooking poultry. e. Eggs - Structure, composition, Nutritive value, selection - principles of egg cookery - uses of eggs in cookery, methods of cooking eggs. a. Fats and Oils - Types - saturated, MUFA, PUFA, Hydrogenation - Invisible fats - uses of fat in cookery - factors affecting absorption of fats - smoking point - Rancidity. b. Spices and Condiments - Uses and abuses in Indian cookery. c. Sugar and Sugar Products - Jaggery - uses in Indian cookery - Stages in sugar, Indian sweets d. Beverages - Classification, Nutritive value and uses - coffee, tea, cocoa.

REFERENCES:

(Health and fitness):

1. K. Park Test book of preventive and social medicine, 15th edition, MIS Banarsidas Bhano Publishers, Jabalpur, 1997.
2. Melvin H. Williams, Nutrition for Health, fitness and Sports, 7th edition, MC Graw Hill international Edition, 2005.
3. Micheal J. Gibney, Ian A Macdonald and Helan M. Roche, Nutrition and Metabolism, Blackwell Publishing Company, Bangalore, Reprint 2004.

(Nutrition)

1. Bennion, M. and Hughes, D. Introductory foods Macmillan Publishing Co. Inc. New York. 1975.
2. Brich C.G. Spencer M and Cancerron, A.G Food Science, Pergamon Press, New York, 1977.
3. Gopalan. C, Ramasastry, P.N, Balasubramanian, S.C. Nutritive value of Indian Foods, National Institute of Nutrition, Hyderabad, 1977. B.Sc. Nutrition, Food Service Management and Dietetics : Syllabus (CBCS) 20
4. Growworld. R.H, The experimental study of foods. Houghton Mifflin Co, Boston, 1972.
5. Swaminathan. M, Food Science and Experimental foods. Ganesh and Co, Madras, 1979.
6. Mudambi. S.R, Rao, S.M. Food Sciene, Wiley Eastern Ltd, New Delhi, 1986

**SEMESTER – III
Practicum Courses**

MPPC – 301

TRAINING METHODS OF MOTOR ABILITIES - 5 LESSONS

Strength Training: Explosive Strength; Maximum Strength; Strength Endurance

Speed Training: Reaction (Auditory, Tactile, and Visual), Acceleration, Locomotion, Speed Endurance and Movement Speed

Endurance Training: General endurance, Specific Endurance, Short Time endurance, Medium Time Endurance, Long Time Endurance

Flexibility Training: Active and Passive

Coordinative Abilities Training: Adaptation, Balance, Couple, Differentiation, Orientation, Reaction, Rhythm

MPPC- 302

TRACK AND FIELD III: THROWING EVENTS/ JUMPING EVENTS

Basics of all throwing and jumping events in track and field

MPPC – 303

INTERNSHIP

The Candidate has to complete 3 months internship during the M. P. Ed. as per the availability of the schools or colleges and produce letter from the concerned institution duly signed by the authority on their letterhead

Fourth semester

Part A :_Theoretical Course						
Course Code	Title of Paper	Total hours/ week	Credit	Internal Marks	External Marks	Total Marks
<u>Core Course</u>						
MPCC - 401	Information and Communication Technology in P. E.	03	03	20	80	100
MPCC - 402	Sports Psychology	03	03	20	80	100
MPCC - 403	Sports Management	03	03	20	80	100
Elective Course (Any one)						
MPEC - 401	Education Technology in P. E.	03	03	20	80	100
MPEC - 402	Professional Preparation and Curriculum Design					
Part B:Practical course						
MPPC – 401	Coaching Lessons Game Specialization - 5	06	03	40	60	100
MPPC – 402	Officiating lesson Game Specialization - 5	06	03	40	60	100
MPPC - 403	Dissertation	12	06	80	120	200
	Total	36	24	240	560	800

Note: Total number of hours required to earn 03 credits for each theory course are 45-50 hours per semester whereas 90-100 hours for each practicum course

Semester IV
Theory Course
MPCC-401: INFORMATION & COMMUNICATION TECHNOLOGY (ICT) IN
PHYSICAL EDUCATION

Unit I:

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

Unit II:

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

Unit III:

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

Unit IV:

ICT Integration in Teaching Learning Process: Approaches to Integrating ICT in Teaching Learning Process Project Based Learning (PBL) Co-Operative Learning; Collaborative Learning; ICT and Constructivism: A Pedagogical Dimension

Unit V:

E-Learning & Web Based Learning: E-Learning, Web Based Learning, Visual Classroom

References:

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-2006

Semester IV
Theory Course
MPCC-402: SPORTS PSYCHOLOGY

Unit I:

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

Unit II:

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

Unit III:

Goal Setting

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

Unit IV:

Sports Sociology: Meaning and Definition – Sports and Socialization of Individual Sports as Social Institution. National Integration through Sports, Fans and Spectators: Meaning and definition, Advantages and disadvantages on Sports Performance. Leadership: Meaning, Definition, types. Leadership and Sports Performance

Unit V:

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

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

References:

1. Authors Guide (2013) National Library of Educational and Psychological Test (NLEPT)
2. Authors Guide (2013) National Library of Educational and Psychological Test (NLEPT)
3. Catalogue of Test, New Delhi: National Council of Educational Research and Training Publication.
4. Catalogue of Tests, New Delhi: National Council of Educational Research and Training Publication.
5. Jain (2002), Sports Sociology, Heal Sahety Kendre Publishers.
6. Jay Coakley. (2001) Sports in Society – Issues and Controversies in International Education, Mc-Craw Seventh Ed.
7. John D Lauther (2000) Psychology of Coaching. Ner Jersey: Prenticce Hall Inc.
8. John D. Lauther (1998) Sports Psychology. Englewood, Prentice Hall Inc.
9. Miroslaw Vauks & Bryant Cratty (1999). Psychology and the Superior Athlete. London: The Macmillan Co.
10. Richard, J. Crisp. (2000). Essential Social Psychology. Sage Publications.
11. Robert N. Singer (2001). Motor Learning and Human Performance. New York: The Macmillan Co.
12. Robert N. Singer. (1989) The Psychology Domain Movement Behaviour. Philadelphia: Lea and Febiger.
13. Shatrunjay Kote, Principles of Education and Psychology, Chhaya Publications, Aurangabad, (2006)
14. Thelma Horn. (2002). Advances in Sports Psychology. Human Kinetic.
15. Whiting, K, Karman.,. Hendry L.B & Jones M.G. (1999) Personality and Performance in Physical Education and Sports. London: Hendry Kimpton Publishers.

Semester IV Theory Course

MPCC-403: SPORTS MANAGEMENT IN PHYSICAL EDUCATION

Unit I:

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

Unit II:

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

Unit III:

Leadership: Meaning and Definition of leadership: Leadership style and method; Elements of leadership; Forms of Leadership; · Autocratic; · Laissez-faire; · Democratic; · Benevolent Dictator; Qualities of administrative leader; sports management in schools, colleges and universities; factors affecting planning ; planning a school or college sports programme; directing of school or college sports programme, controlling a school, college and university sports programme

Unit III:

Equipments and Public Relation: Purchase and Care of Supplies of Equipment, Guidelines for selection of Equipments and Supplies, Purchase of equipments and supplies, Equipment Room, Equipment and supply Manager. Guidelines for checking, storing, issuing, care and maintenance of supplies and equipments, Public Relations in Sports: Planning the Public Relation Program – Principles of Public Relation – Public Relations in School and Communities – Public Relation and the Media.

References:

1. Aggarwal, J.C (1990). Curriculum Reform in India – World overviews, Doaba World Education Series – 3 Delhi: Doaba House, Book seller and Publisher.
2. Arora, G.L. (1984): Reflections on Curriculum, New Delhi: NCERT.
3. Bonnie, L. (1991). The Management of Sports. St. Louis: Mosby Publishing Company, Park House.
4. Bucher A. Charles, (1993) Management of Physical Education and Sports (10th ed.,) St. Louis: Moby Publishing Company.
5. Carl, E, Willgoose. (1982). Curriculum in Physical Education, London: Prentice Hall, Chakraborty & Samiran. (1998). Sports Management. New Delhi: Sports Publication, Charles, A, Bucher & March, L, Krotee. (1993). Management of Physical Education and Sports. St. Louis: Mosby Publishing Company.
6. Chelladurai, P. (1999). Human Resources Management in Sports and Recreation. Human Kinetics.

**Semester IV
Theory Course**

MPEC-401: EDUCATION TECHNOLOGY IN PHYSICAL EDUCATION AND SPORTS

Unit I:

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

Unit II:

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

Unit III:

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

Unit IV:

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

Unit V:

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

References:

1. Amita Bhardwaj, 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, Madan Lal, Anmol Publications K. Sampath, A. Pannirselvam and S. Santhanam. Introduction to Educational Technology (New Delhi: Sterling Publishers Pvt. Ltd.) : 1981.
6. Kochar, S.K. Methods and Techniques of Teaching (New Delhi, Jalandhar, Sterling Publishers Pvt. Ltd.), 1982
7. Kozman, Cassidy and Jackson. Methods in Physical Education (W.B. Saunders Company, Philadelphia and London), 1952.

**Semester IV
Theory Course**

MPEC-402: PROFESSIONAL PREPARATION AND CURRICULUM DESIGN

Unit I:

Historical perspective: Professional Preparation in India; pre and post independence perspective; comparative analysis of professional preparation program in U. S., Europe and China; The profession; Meaning, criteria and evaluation of professional preparation programs; A professional and professionalism in physical education and sports physical education as a profession

Unit II:

Professional preparation policy perspective; role and responsibilities of center and state in the implementation of policies on education and physical education; compulsions and constraints affecting planning and implementation of educational policies and programs; theoretical perspectives

Unit III:

Career avenues and job opportunities in physical education and sports; career avenues after graduation and post graduation and research degrees; exploring and venturing into new avenues: challenges and opportunities in physical education; self appraisal and parameter influencing self appraisal; guiding principles and professional relations; qualifications and duties, responsibilities and job profiles of school physical education teachers, directors of physical Education in colleges and university; laboratory experience, teaching practice, field work, non-curricular preparation.

Unit IV:

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

Unit V:

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

References:

1. Adams William C. Foundation of Physical Education Exercise and Sports Sciences, Philadelphia, (1991)
2. Barrow, H. M. Man and Movement (3rd Edition) Philadelphia and Febiger (1983)
3. Buchor, C. A. And Wuest, C. A. Foundations of physical Education and sports, St. Louis: Times mirror/ Mosby college publication (1987)
4. Gupta Rakesh, Sharma Akhilesh, and Sharma Santosh, professional preparation and Curriculum
5. Hoover, Kenneth H., The professional teacher's Handbook, Boston, Allyn and Bacon, (1972)
6. Kasat, G. and Karmarkar, A. K. Professional Preparation in physical education and sports, Amravati: Kasat, (1996)
7. John, E, Nixon & Ann, E, Jewett. (1964). Physical Education Curriculum, New York: The Ronald Press Company.
8. Mc Kernan, James (2007) Curriculum and Imagination: Process, Theory, Pedagogy and Action Research,. U.K. Routledge
9. NCERT (2000). National Curriculum Framework for School Education, New Delhi: NCERT.
10. NCERT (2000). National Curriculum Framework for School Education, New Delhi: NCERT.
11. NCERT (2005). National Curriculum Framework, New Delhi: NCERT.
12. NCERT (2005). National Curriculum Framework-2005, New Delhi: NCERT.
13. Dube P. B., Atallulha Jhagirdar, Professional Preparation in Physical Education, Khel Prakashan, New Delhi (2015)
14. Williams, J.F. (2003). Principles of Physical Education. Meerut: College Book House.
15. Yadvnider Singh. Sports Management, New Delhi: Lakshay Publication.

Semester IV

Practicum Course

MPPC-401: COACHING LESSONS OF GAME SPECIALIZATIONS – 5 Lessons

The students of M.P.Ed – III Semester need to be develop proficiency in taking coaching lesson in selected game discipline. In view of this, the students shall be provided with advance training and coaching in selected discipline. The duration of the lesson to be conducted by these students shall be in the range of 30 to 40 minutes depending on the class they are going to handle at school and college level. Each student teacher is expected to take at least five lessons during the course of the third semester. The lessons will be supervised by the faculty members and experts who would discuss the merits and demerits of the concerned lesson and guide them for the future. In these coaching lessons, the duration should slowly increase and all the parts of the lesson covered progressively.

Semester IV

Practicum Course

MPPC-402: OFFICIATING LESSONS OF GAME SPECIALIZATIONS – 5 lessons

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

Semester IV
Practicum Course
MPPC- 403: DISSERTATION

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

organized into four main sections with subsections. Use the following list to organize the draft and final electronic copy of the thesis/dissertation. The following guidelines apply to both thesis and dissertation formats: (a) **Language:** English/Hindi/Marathi is acceptable. If candidate is writing in English/Hindi/Marathi then Quotations in languages other than English/Hindi/Marathi must require a translation respectively. (b) **Paper:** The thesis must be printed on good quality, A4 Size (8.27" x 11.69"), white paper (Executive bond) on one side of the paper only. Photographs and other special figures or tables may be printed on photographic quality paper. Oversize or undersize pages (e.g., maps/Drawings) can be included but will not be bound into the thesis—they will be placed in a pocket at the back of the thesis. (c) **Margins:** Left-hand margins should be 38 mm (1.5") wide, to facilitate binding. All other margins should be well defined at approximately 25 mm (1"). Text alignment should be justified. (d) **Font:** For the main body of the text, a standard, easily legible, 12-point font is preferred (e.g., Times New Roman) although for some font styles (e.g., Arial or Helvetica) 11-point may be acceptable. For Marathi a 16-point font is preferred (e.g. Shree lipi). Condensed type is not acceptable. Chapter titles and section (sub) headings may be in a different style and should stand out clearly from the text. Text styles and title/(sub)heading styles should be consistent throughout the thesis, except that 11- or 12-point font consistent with the thesis text may be used in the table of contents. The thesis must be printed in black ink; printing should be laser or better quality. Title Marathi/Hindi/English; Chapter Heading 16/18 Bold 14 Bold; Headings 16 Bold 14 Bold; Sub Headings 14 Bold 12 Bold; Body Text 14/ 12. (e) **Page Numbers:** All pages must be numbered in sequence. There must be no missing, blank, or duplicate pages: 1. The page numbers in the preliminary material are to be in lower case Roman numerals, centered at the bottom of the page, except for the title page, which is not numbered. Minimum font size is 12-point and must be consistent throughout the text. 2. The page numbers in the main part (all text pages) are to be numbered consecutively with Arabic numerals. Placement of page numbers is as follows: Assign page numbers for the first page of each chapter, bibliography, and title page but do not print the number. Number should be placed ½ inch from top of page and aligned with right margin. (f) **Line Spacing:** 1.5 for text; exceptions are noted below. (g) **Table of Contents:** The thesis must contain a complete table of contents. Individual entries (titles, headings, etc.) that extend onto more than one line should be single-spaced; line spacing of 1.5 should be maintained between entries. For clarity, chapter titles and (sub) headings should be in 12-point font regardless of their font size in the main body of the text. Page numbers listed in the table of content should be aligned at the right-hand side of the page. (h) **List of Illustrations/Figures and/or Tables** (if applicable): Individual entries (titles, captions, etc.) that extend onto more than one line should be single-spaced, but line spacing of 1.5 should be

maintained between entries. The lists should include any material inserted in a back pocket. (i) **Abstract:** The thesis must contain an abstract. This should occupy a single page, and may be single-spaced, if necessary. There should be no illustrations or footnotes. Students are advised that, due to space limitations shorten abstract to minimum 350 words. **Order of Items:** The following order of items is applicable for M. P. Ed. **Preliminaries:** Title Page; Certificate of the Guide; Statement/Declaration by the Candidate; Acknowledgement (Not more than TWO pages); Abstract; Table of Contents; List of Tables(if applicable); List of Figures(if applicable); Body of Thesis;

Bibliography; Appendix (If Applicable); Vita(optional) **Appendices and other Supplementary Material:** a) **General:** Appendices may include survey forms, or any other supplementary material excluding data. Content and format should be in accordance with discipline practice. b) **Copyright Permission:** Where a thesis includes copyrighted material (e.g., publications), copyright permission letters should be included as a separate appendix. Reprints may be included in the appendices, provided copyright permission is obtained. **Electronic Formats:** a) **General:** Students may include supplementary material in electronic format. A CD-ROM or DVDROM (read-only) containing this material should be submitted in a hard case and will go in the back pocket of the thesis. A description of the supplementary material, including file names, formats, and a brief description of the contents, should be included as an appendix in the paper copy of the thesis and as a "read-me" file on the CD/DVD-ROM. b) **Labeling:** The CD/DVD-ROM must include both electronic and physical labels that list the thesis title, author, institution, and date. **Vita:** Include your vita, or biographical sketch, with the document. List all educational institutions attended after graduation from high school and the date you received the undergraduate or graduate degree (or both). Include the list of professional organizations and other personal information of a scholarly nature. Do not include a list of publications. Do not number the vita page. Margins are identical to the preliminary pages. The Vita is limited to one page only.

FORMAT OF DISSERTATION TO BE SUBMITTED BY M. P. Ed. SECOND YEAR STUDENTS
(FIRST PAGE)

“TITLE OF RESEARCH PROJECT”

A dissertation submitted to
Faculty of Physical Education,
Dr. B. A. M. University, Aurangabad
For the partial fulfillment of
Masters in Physical Education

By
XYZ

Under the Guidance of
Dr. / Prof. ABC
Asst. Prof. / Assoc. Prof / Prof., Department of Physical Education
Dr. B.A.M.U. Aurangabad, Maharashtra
March/April 20

SECOND PAGE

CERTIFICATE

This is to certify that the work embodied in this dissertation entitled, “TITLE OF THE RESEARCH PROBLEM”, has been carried out by XYZ. The work included in this dissertation is original, unless stated otherwise and has not been submitted for other degree of Dr. B. A. M. University or any other University. References made to the work of others have been cited in the text.

(Dr. / Prof. ABC)
Asst. Prof./Assoc. Prof / Prof., Department of Phy. Edu.,
Aurangabad, Maharashtra

Place:

Date:

THIRD PAGE

DECLARATION

I hereby declare that the present work completed in the form of dissertation entitled, “TITLE OF THE RESEARCH PROBLEM”, is an original work and has not been submitted, or published in any form for the fulfillment of any other degree or any other similar to this or any other University.

(Mr./ Miss. XYZ)
M. P. Ed. 2nd year,
Department of Phy. Edu.,

Table 1: Semester wise distribution hours per week:

Semester	Theory	Practicum	Teaching Practice	Total
I	15	18	--	33
II	15	06	12	33
III	15	06	12	33
IV	12	12	12	36
Total	57	42	36	135
Minimum of 36 teaching hours per week is required in five or six days in a week				

Table 2: Number of Credit per semester:

Semester	Theory	Practicum	Teaching Practice	Total
I	15	09	--	24
II	15	06	03	24
III	16	03	06	25
IV	12	06	06	24
Total	58	24	15	97
Minimum of 36 teaching hours per week is required in five or six days in a week				

**SCHEME OF EXAMINATION
SEMESTER – I**

Part A: Theoretical course				
Course code	Title of the paper	Internal marks	External marks	Total marks
Core course				
MPCC - 101	Research process in P. E. and Sports Sciences	20	80	100
MPCC - 102	Physiology of Exercise	20	80	100
MPCC - 103	Yogic Sciences	20	80	100
MPCC - 104	Environmental Sciences	20	80	100
Elective Course (Anyone)				
MPEC - 101	Athletic care and Rehabilitation	20	80	100
MPEC - 102	Sports Engineering			
Part B: Practical course				
MPPC – 101	Running Event (C) / Gymnastics (F. Ex. and T.V.) (E)/ Swimming (E)	40 (20+20)	60	100
MPPC – 102	Yoga (C)/ Aerobics (E)/ Combat (E)	40(20+20)	60	100
MPPC – 103	Adventure Activity/ Mass Demonstration	40	60	100
Total		220	580	800

Note: Total number of hours required to earn 03 credits for each theory course are 45-50 hours per semester whereas 90-100 hours for each practicum course

SCHEME OF EXAMINATION
SEMESTER – II

Part A: Theoretical course				
Course code	Title of the paper	Internal marks	External marks	Total marks
Core course				
MPCC - 201	Applied Statistics in P. E.	20	80	100
MPCC - 202	Sports Biomechanics and Kinesiology	20	80	100
MPCC - 203	Test Measurement and Evaluation	20	80	100
MPCC - 204	Indian Constitution	20	80	100
Elective Course (Anyone)				
MPEC - 201	Health education and sports nutrition	20	80	100
MPEC - 202	Sports Journalism and Mass Communication			
Part B: Practical course				
MPPC – 201	Laboratory Practical	40	60	100
MPPC – 202	Teaching lessons in Indigenous activities 5	40	60	100
MPPC – 203	Classroom Teaching lessons 5	40	60	100
Total		220	580	800

Note: Total number of hours required to earn 03 credits for each theory course are 45-50 hours per semester whereas 90-100 hours for each practicum course

**SCHEME OF EXAMINATION
SEMESTER – III**

Part A: Theoretical course				
Course code	Title of the paper	Internal marks	External marks	Total marks
Core courses				
MPCC - 301	Scientific Principles of Sports Training	20	80	100
MPCC - 302	Sports Medicine	20	80	100
MPCC - 303	Sports Pedagogy	20	80	100
Elective Courses (Anyone)				
MPEC - 301	Physical Fitness and Wellness	20	80	100
MPEC - 302	Sports Technology			
Service Courses (Any One)				
MPDSC-001	Life Guards Course			
MPDSC-002	Fitness And Gym-Instructor			
MPDSC-003	Counseling Psychology	20	80	100
MPDSC-004	Environmental Awareness and Disaster Management			
MPDSC-005	Fitness and Nutrition Management			
Part B: Practical course				
MPPC – 301	Training Methods of Motor Abilities – 5 lessons	40	60	100
MPPC – 302	T & F Jumping Event+ Throwing Event	40 (20+20)	60	100
MPPC – 303	Internship	40	60	100
Total		220	580	800

Note: Total number of hours required to earn 03 credits for each theory course and service course of 04 credits are 45-50 hours for this semester whereas 90-100 hours for each practicum course and Internship.

**SCHEME OF EXAMINATION
SEMESTER – IV**

Part A: Theoretical course				
Course code	Title of the paper	Internal marks	External marks	Total marks
Core course				
MPCC - 401	Information and Communication Technology in P. E.	20	80	100
MPCC - 402	Sports Psychology	20	80	100
MPCC - 403	Sports Management	20	80	100
Elective Course (Anyone)				
MPEC - 401	Education Technology in P. E.	20	80	100
MPEC - 402	Professional Preparation and Curriculum Design			
Part B: Practical course				
MPPC – 401	Coaching Lessons Game Specialization - 5	40	60	100
MPPC – 402	Officiating lesson Game Specialization - 5	40	60	100
MPPC - 403	Dissertation	80	120	200
Total		220	580	800
		880	2320	3200
Grand Total		880	2320	3200

Note: Total number of hours required to earn 03 credits for each theory course are 45-50 hours per semester whereas 90-100 hours for each practicum course