

M.P.Ed.

Ordinance

I, II, III & IV

Semester

Ordinance No. -
Ordinance Related to Master of Physical Education (M.P.Ed.) Course

Chapter – 1
General

1. This ordinance may be called the “Ordinance related to Master of Physical Education (M.P.Ed.) Course in semester system”.
2. It shall come into force with immediate effect.

Chapter – 2
Eligibility for Admission

3. Intake, Eligibility and Admission procedure as per the NCTE Norms & Standard Level.

Chapter – 3
Teaching Course

4. The course will be of two-year duration, divided into four semesters.
5. The academic calendar shall be as follows :

1 st & 3 rd Semester	:	Session	–	1 st Aug. to 15 th Dec.
		Exam	–	16 th Dec. to 31 st Dec.
2 nd & 4 th Semester	:	Session	–	1 st Jan. to 31 st May
		Exam	–	1 st June to 15 th June

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

6. The Course structure shall be as given below:
 - (i) Theory:
 - a) Core course
 - b) Elective course
 - c) Value added course
 - (ii) Practicum
 - a) Compulsory Course (Track & Field)
 - b) Elective course
 - c) Internship (Internal/Simulation & External)

Semester – I

Part A : Theoretical Course						
Course Code	Title of the Papers	Total Hours	Credit	Internal Marks	External marks	Total Marks
Core Course						
MPCC-101	Research Process in Physical Education & Sports Sciences	3	3	30	70	100
MPCC-102	Physiology of Exercise	3	3	30	70	100
MPCC-103	Yogic Sciences	3	3	30	70	100
Elective Course (Anyone)						
MPEC-101	Test, Measurement and Evaluation in Physical Education	3	3	30	70	100
MPEC-102	Sports Technology					
Part – B Practical Course						
MPPC-101	Track and Field I: Running Event + Hurdles	6	3	30	70	100
	Gymnastics/Swimming (Any One)					
MPPC-102	Individual Game: (optional) (Badminton, Table Tennis, Tennis, Squash, Weight Lifting, Shooting) (Any one game)	6	3	30	70	100

MPPC-103	Yoga & Aerobics	6	3	30	70	100
MPPC-104	Adventures & Mass Demonstration Activities	6	3	30	70	100
Total		36	24	240	560	800

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

Semester – II

Part A : Theoretical Course						
Course Code	Title of the Papers	Total Hours	Credit	Internal Marks	External marks	Total Marks
Core Course						
MPCC-201	Applied Statistics in Physical Education & Sports	3	3	30	70	100
MPCC-202	Sports Biomechanics & Kinesiology	3	3	30	70	100
MPCC-203	Athletic Care and Rehabilitation	3	3	30	70	100
Elective Course (Anyone)						
MPEC-201	Sports Journalism and Mass Media	3	3	30	70	100
MPEC-202	Sports Management and Curriculum Designs in Physical Education					
Part – B Practical Course						
MPPC-201	Track and Field II : Jumping events *Gymnastics *Swimming (*any one)	6	3	30	70	100
MPPC-202	Team Game: (Optional) Kabaddi, Kho-Kho, Volleyball, Basketball Cricket, football, Handball, Hockey, Netball, (Any One)	6	3	30	70	100
MPPC-203	General Teaching: Lessons of Indigenous Activities- 5 Lessons(4 Internal & 1 External)	6	3	30	70	100
MPPC-204	Class Room Teaching: Lessons on theory of different Sports & Games- 5 Lessons (4 Internal & 1 External)	6	3	30	70	100
Total		36	24	240	560	800

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

Semester – III

Part A : Theoretical Course						
Course Code	Title of the Papers	Total Hours	Credit	Internal Marks	External marks	Total Marks
Core Course						
MPCC-301	Scientific Principles of Sports Training	3	3	30	70	100
MPCC-302	Sports Medicine	3	3	30	70	100
MPCC-303	Health Education and Sports Nutrition	3	3	30	70	100
Elective Course (Anyone)						
MPEC-301	Sports Engineering	3	3	30	70	100
MPEC-302	Physical Fitness and Wellness					
Part – B Practical Course						
MPPC-301	Track and Field III : Throwing Events + Heptathlon Event *Gymnastics *Swimming (*Any One)	6	3	30	70	100

MPPC-302	Combative Sports: (Optional) Boxing, Fencing, Judo, Karate, Wrestling, Wushu	6	3	30	70	100
MPPC-303	Coaching Lesson of Individuals & Team Games: Individual-05 (04+01), Team Game-05 (04+01) Lesson	6	2	30	70	100
MPPC-304	Internship (Internal/Simulation & External)	3	2	15	35	50
MPPC-305	Preparation of Research Proposal	3	2	15	35	50
Total		36	24	240	560	800

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

Semester – IV

Part A : Theoretical Course						
Course Code	Title of the Papers	Total Hours	Credit	Internal Marks	External marks	Total Marks
Core Course						
MPPC-401	Information & Communication Technology (ICT) in Physical Education	3	3	30	70	100
MPPC-402	Sports Psychology	3	3	30	70	100
MPPC-403	Dissertation	3	3	30	70	100
Elective Course (Anyone)						
MPPC-401	Value and Environmental Education	3	3	30	70	100
MPPC-402	Education Technology in Physical Education					
Part – B Practical Course						
MPPC-401	Track and Field: Decathlon event * Gymnastics * Swimming Practical Skill (* any one)	6	3	30	70	100
MPPC-402	Game Specialization- Student can choose any Game specialization of their choice from the Games listed in AIU and IOA (Individual Game/ Team Game/Combat Game) (Any One)	6	3	30	70	100
MPPC-403	Officiating Lessons of Track and Field/Gymnastic/ Swimming - 5 Lesson (4 Internal & 1 External)	6	3	30	70	100
MPPC-404	Officiating and Game Specialization – 5 Lessons (4 Internal & 1 External)	6	3	30	70	100
MPPC-405	Industry Internship	60	2	15	35	50
Total		96	26	255	595	850
		204	98	975	2275	3250

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

VALUE ADDED COURSES (VAC)			
Code	Title	Total Hours	Credit
VACPE/ FOE/HV	Human Value	30	2
VACPE/FOE/EDC	Emergency Dental Care	30	2
VACPE/FOE/BLS	Basic Life Support	30	2

VACPE/FOE/FIC	Fundamental of Indian Constitution	30	2
VACPE/FOE/DIS	Digitalization in Sports	30	2
VACPE/FOE/LSE	Life Skill Education	30	2
24VACDISC1	Distance Education and Open Learning	30	2
VACPE/FOE/PE	Population in Education	30	2
VACPE/FOE/GS	Gender Studies	30	2
VACPE/FOE/VE	Value Education	30	2
24VACSMC2	Stress Management	30	2
Note: One VAC in each semester should be completed by student			

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 Uni. Participation (Any one game)	2
3	Inter College Participation (min. two game)	1
4	National Cadet Corps / National Service Scheme	2
5	Blood donation / Cleanliness drive / Community services	2
6	Organization / Officiating – State / National level in any two games (max.)	2
7	Mountaineering – Basic Camp, Advance Camp & Leadership Camp	2
8	News Reporting / Article Writing / book writing / progress report writing	1
9	Working Modal Creation and submission	1
Note- 1)	Students can earn maximum 06 Bonus credits in each semester by his/her participation in the above mentioned activities duly certified by the Head of the institution / Department. This Bonus credit will be used only to compensate loss of credits in academic activities.	
2)	One Adventure/Leadership camp of one week is desired to complete with in the programme duration by the student to enhance the mandatory leadership qualities. The date & venue decided by the Head of department and for which they shall be issued a certificate by the department.	

Chapter – 4 **Attendance**

7. As per the NCTE, guideline Student must have 75% of attendance in each course for appearing the examination. Students who have 74% to 65% of attendance shall apply for condonation in the prescribed form with the prescribed fee. Students who have 64% to 50% of attendance shall apply for condonation in prescribed form with the prescribed fee along with the Medical Certificate. Students who have below 50% of attendance are not eligible to appear for the examination.

The students who are representing tournaments recognized by A.I.U & I.O.A., these days of participation including the travelling days for tournament and camp organized by University for preparation of University team or student selected in registered camp of A.I.U and I.O.A. will be considered as part of attendance. The students who are representing University as official in other registered tournaments will also be considered as a part of attendance with prior permission. The order of the Vice Chancellor in this regard shall be final.

Chapter – 5 **Examination**

8. The examination in each semester shall be conducted in two parts:

A. Internal assessment will be of 30 marks as under:-

One Test	15 Marks
Assignments/ Lab Practical	10 Marks
Attendance	05 Marks
Total	30 Marks

- a. A maximum of 05 marks in each subject shall be awarded for attending classes (theory / practical) as per the following norms:
- b. 75% or more attendance - 5 Marks
- c. 65% or more but less than 75% attendance - 4 Marks
- d. 60% or more but less than 65% attendance - 3 Marks
- e. 55% or more but less than 60% attendance - 2 Marks
- f. 50% or more but less than 60% attendance - 1 Marks
- g. Less than 50% attendance - 0 Mark

B. University Examination carrying 70 marks

Note:- Format of question paper: Each questions paper shall have Six questions. The pattern will be as follows:

Question No.	Description	Marks
1	Answer in detail (Long Question) (From Unit-1)	12
2.	Answer in detail (Long Question) (From Unit 2)	12
3.	Answer in detail (Long Question) (From Unit 3)	12
4.	Answer in detail (Long Question) (From Unit 4)	12
5.	Write short notes : any two out of four (From Unit 5)	12
6.	M.C.Q. Type Question (10 out of 15 Que.) (3 Questions. from each unit)	10

- a) **Practical examination:-** One Internal and One External Examiner is required for conducting the Practical Examination of each paper.
9. The marks obtained in the two parts of the examination shall be aggregated for the purpose of determining the total marks obtained by a student in a particular theory paper/subject of study.
10. A special examination may be held in the month of August for first year and last year students to enable them to reappear in those papers in which they had failed in either odd or Even Semester or could not appear due to any reason other than shortage of attendance. Students detained due to shortage of attendance may also appear in the special examination provided they make up their attendance by attending extra classes, which may be arranged between 15th May to 31st July.

Chapter – 6

Paper setting & Evaluation

11. The work of setting the end semester examination papers and evaluation of scripts and conduct of the end semester practical examination shall be assigned to the course teachers as well as to outsiders, ordinarily in the ratio of 50:50 for internal and external valuation respectively.

Chapter – 7
Result

12. The result shall be prepared at the end of each semester examination of the course by aggregating the marks obtained in the theory and practical examinations till date, in grades.
13. (a) The minimum passing marks for IA (Internal assessment) 20% and University examinations shall be 40% and the aggregate passing marks shall be 40 % .
- (b) If a candidate fails in only one head/subject and having passed in all other head/subject of the given examination of the year than his/her deficiency of maximum five (05) marks may be fulfilled by grace marks after fulfilling the conditions given below:
- (A) If a candidate fails in only one head/subject and having passed in all other heads/subjects of the given examination of a **semester*/year**, then his/her deficiency of marks may be fulfilled by grace marks under the following conditions:-
- (i) Grace Mark is not a matter of right of the student but is the discretion of the University.
- (ii) Provided that the candidate has appeared in the main examination of the concerned course and falls short of pass marks by not more than five (05) marks in theory paper only. Benefit of above mentioned shall not be given to the candidate who had appeared in supplementary/special examination/carry over examination.
- (iii) Further, benefit of grace marks may be given only to the candidate who will pass the entire concerned examination of the **semester*/year** after awarding the grace marks and not for the purpose of promoting the student to next year with back papers or for improvement of division or percentage.
- (iv) If in a head/subject of an examination passing in Theory, Practical or Sessional exams separately is mandatory, then the benefit of grace marks shall be given only in Theory examination of the University examination.
- (v) The award of grace marks permissible shall be on the basis of 1 grace mark for every 05 marks secured by an examinee over and above the minimum passing aggregate marks of all subjects of the year.
- (B) Awarding of Grace Marks shall be done as given below:-

Aggregate Marks Obtained over & above minimum passing marks	Permissible Grace Marks
1-5	1
6-10	2
11-15	3
16-20	4
21-25	5

Total number of Grace Marks given to the student will be marked with as trick (*) at the bottom of the mark sheet.

* Grace Mark in semester examination will be considered hereinafter.

- (c) All those who are declared as passed at the end of an academic year shall be promoted to the next academic year.
- (d) If a student obtained 50% marks in at least 50% of the papers including Practical (ignoring fractions), he/she will be provisionally promoted to the next year with carryover papers and will have to appear & obtain pass marks in carryover papers along with the subsequent regular examinations for the relevant semester.
- (e) If student not covered by clause (a) to (d) above shall have the following options to complete his/her course -
- (i) He/ she may take admission on payment of full annual course fee and repeat the entire year of study. He /She shall be treated as a regular student. Or

- (ii) He /She may pay only University exam fee for the End Semester Examination and appear in the End Semester University exams directly. He /She shall not be allowed to attend classes and the Sessional marks obtained earlier shall be retained. Or
- (iii) He /She may pay half of the annual course fee and attend classes. The Sessional marks obtained by him/her earlier shall be retained. There will not be any requirement of minimum attendance for appearing in the University examination.

(14) Final result at the end of the course shall be prepared as below by aggregating the marks obtained in all the semesters according to letter grades & grade points as under:-

Percentage	Grade Point	Letter Grade	Description	Classification of final result
85& above	8.5-10.0	O	Outstanding	First class with Distinction
70-84.99	7.0-4.49	A ⁺	Excellent	
60-69.99	6.0-6.99	A	Very Good	First Class
55-59.99	5.5-5.99	B ⁺	Good	Higher Second Class
50-54.99	5.0-5.49	B	Above Average	Second Class
40-49.99	4.0-4.99	C	Average	Pass class
Below 40	0.0	F	Fail/Dropped	Dropped
	0	AB	Absent	

(15) The final grading and division of the students shall be determined as in clause '14' above on the basis of the total marks obtained in the examinations after substituting the marks obtained in carryover papers. The degree awarded to the successful students shall indicate the grading as well as the division along with an extract of clause '14' and '13' as an explanation.

(16) The entire course has to be completed within a maximum of four years from the date of original admission in the course.

Chapter – 8 **Power to Modify**

(17) In the event of any emergent situation, if any deviation is considered necessary, the Vice Chancellor is authorised to modify the ordinance. Subject to subsequent ratification by the Executive Council.

Semester I
Theory Courses

MPCC-101 RESEARCH PROCESS IN PHYSICAL EDUCATION AND SPORTSSCIENCES

Credits 03

Objectives:

This course will enable students to understand the modern concept of research in physical education and sports. It aims to develop understanding about the methods and tools of research, research problem, survey of related literature and student enable to prepare a research proposal.

Course Learning Outcomes:

After Completing the course, the students will be able to:

- Understand the basic framework of research process.
- Classify of research.
- Describe the research process and research methods.
- Identify various sources of information for literature review and data collection.
- Formulate research problem.
- Understand the research proposal.

UNIT I: Introduction

Meaning and Definition of Research – Need, Nature and Scope of research in Physical Education and Sports. Scientific and Unscientific method for research. Classification of Research, Defining Problem, Location of Research Problem, Criteria for selection of a problem, Qualities of a researcher. Locating Reference Materials, Procedure of review of related literature. Inductive and deductive research, characteristics of scientific of research.

UNIT II: Methods and Tools of research

Descriptive Methods of Research; Survey Study, Case study, Historical Research, Steps in Historical Research, Sources of Historical Research: Primary Data and Secondary Data, Historical Criticism, Philosophical 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. Tools of Research – Questionnaire, Interviews, Schedules, Observation Techniques, Rating Scales, Electronic Media

UNIT III: Sampling and Hypothesis

Meaning and Definition of Population and Sample. Sampling frame sample error, Types of Sampling; Probability Methods; Systematic Sampling, Cluster sampling, Stratified Sampling. Area Sampling – Multistage Sampling. Non- Probability Methods; Convenience Sample, Judgment Sampling, Quota Sampling. Meaning and Definition of Hypothesis. Types of Hypothesis, Formulation and design of Hypothesis. Type I and Type II error. Qualities of a good hypothesis.

UNIT IV: Research Proposal and Report

Method of Writing Research proposal, Chapterization of Thesis/Dissertation, Front Materials, Body of Thesis – Back materials, Method of writing abstract and full paper for presenting at a conference and to publish in journals, Mechanics of writing Research Report, Format of Footnote and Bibliography. Manuals, format of the research report, Main Body of the Report, References and Appendices: The Thesis or Dissertation, style writing, reference form, APA, MLA, Shikago Format. pagination Tables, figures, The line graph, the Bar graph or chart, The circle chart or pie or sector chart, Maps, organization charts, evaluating or research report, summary.

REFERENCE:

- Best J. W (1971) Research in Education, New Jersey; Prentice Hall, Inc
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- Jerry R Thomas & Jack K. Nelson (2000) Research Methods in Physical Activities; Illinois; Human Kinetics;
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- Moorthy A. M. Research Processes in Physical Education (2010); Friend Publication. NewDelhi

Semester I
Theory Courses
MPCC-102 PHYSIOLOGY OF EXERCISE

Credits 03

Objectives:

This course will enable students to understand the structural and functional aspect of human body. It aims to develop understanding about organization of the human body and its regulations, their support and movements, integration and control systems.

Course Learning Outcomes:

After Completing the course, the students will be able to:

- Describe organization of the human body and its regulation.
- Understand the support and movement of systems of the body.
- Describe the integration and control system.
- Discuss the human body and its function.
- Describe the concept of fundamental of human body organs.
- Analyze the functional aspects of Human Body.

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

Unit I: Meaning of Physiology of Exercise and Musculoskeletal System

Meaning, Scope and Uses of Exercise Physiology in Physical Education and Sports. Skeletal system, structure of bone and effect of exercise on skeletal system.

Muscle physiology – Types of muscle fibers, types of muscular contraction, the gross and microscopic structure of muscle, sliding filament theory of muscular contraction.

Unit II: Cardiovascular and Pulmonary Response to Exercise

Cardiovascular adjustments to exercise – Description of Cardiovascular system, Phases of Cardio exercise. Cardiac output and factors affecting cardiac output, Heart rate and Stroke volume and their regulation, cardiac cycle. Long term and short term effect on heart during exercise.

Pulmonary function and gas exchange – Meaning and types of respiration, process of gas exchange and transportation of oxygen and carbon dioxide in blood, Oxygen disassociation curve, Respiratory exchange ratio, Minute ventilation, changes in minute ventilation during exercise, Lung volumes and capacities, VO₂ max.

Unit III: Bioenergetics and Development of Motor Abilities

Bioenergetics and exercise metabolism – ATP CP, Lactate (Anaerobic) and Oxidative (aerobic), Krebs cycle, Anaerobic threshold, Oxygen debt, Metabolism of carbohydrates, fats and proteins for energy.

Energy requirements of various activities – long activities like marathon, long duration games like football, hockey, basketball etc., power games like volleyball, Badminton etc. Caloric value of food, glycaemic index.

Hormonal response to exercise, effects of exercise on muscular system, nervous system, cardiovascular system and respiratory system, Effect of exercise on high altitude training.

Physiological basis of developing strength, endurance, speed, flexibility.

Unit IV: Physiological Considerations and Exercise Benefits

Physiological consideration in female performance in sports, Physiological differences between males and females and their effect on female performers.

Environmental considerations during exercise – Mechanism of thermo regulation

Hot, Humid and cold climate – physiological changes and adaptation, heat and cold related illness

Exercising at high altitude – physiological changes and adaptation.

Ergogenic aids – Meaning, classification and their effects on performance and health.

Health benefits of training and exercise, exercise prescription for obesity, diabetes and hypertension, methods for evaporation like conduction, convection, radiation, hemostasis and temperature regulation.

REFERENCES:

- Amrit Kumar, R, Moses.(1995). Introduction to Exercise Physiology. Madras: Poompugar Pathipagam.
- Beotra Alka, (2000) Drug Education Handbook on Drug Abuse in Sports: Sports Authority of India, Delhi.
- Clarke, D.H. (1975). Exercise Physiology. New Jersey: Prentice Hall Inc., Englewood Cliffs.
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- Vincent, T. Murche. (2007). Elementary Physiology. Hyderabad: Sports Publication.
- William, D. Me Aradle. (1996). Exercise Physiology, Energy, Nutrition and Human Performance. Philadelphia: Lippincott Williams and Wilkins Company.

Semester I
Theory Courses
MPCC-103 Yogic Sciences

Credits 03

Objectives:

This course will enable students to understand the concept of yoga. It aims to develop understanding about foundation of yoga, need and importance of yoga in physical education and modern lifestyle. The student will also conceptualize and practice astanga yoga, various asanas, kriyas, bandha, mudras, meditation and pranayama with reference to wellness.

Course Learning Outcomes:

After Completing the course, the students will be able to:

- Identify the common grounds of Yoga, Physical Education and Sports.
- To understand the various asanas, kriyas, bandha, mudras, meditation and pranayama.
- Describe the effect of Yoga exercise on the human body.
- Classify the, classical and theoretical foundation of the difference between field of Yoga.
- Describe the application of Yoga on Various system.

Unit I: Introduction to Yoga. Historical background of Yoga, aim and objective of Yoga Education, Misconception of Yoga in modern society.

Meaning, Definition, Scope and importance of Yoga

Streams of Yoga: Hatha Yoga, Raja Yoga, Karma Yoga, Bhakti Yoga and Gnana Yoga, Mantra Yoga

Limbs of Yoga (Astanga Yoga): Yama, Niyama, Asana, Pranayama, Prathyahara, Dharana, Dhyana, Samadhi.

Essentials of Yoga Practices; Age, Diet, Time, Bathing, Clothes, Place, Awareness, Sequence, Emptying bowels, Stainless Condition, Breathing and Relaxation.

Indications and Contraindications of Yoga Practice.

Unit II Asanas and pranayama

Concept of Punch Mahabhuta, Panchakoash, Panchaprana Loosing exercise: techniques and benefits.

Asanas Meaning definition and prevention: Types- techniques and Benefits, Surya Namaskar; Methods and benefits concept of chakras in Yoga and Aura in Yoga.

Pranayama Introduction, Meaning: Methods and benefits, precaution. Nadis: Meaning, Methods and benefits, Chakras: major chakras – Benefits of clearing and balancing chakras.

Unit-III Kriyas, Bandhas, Mudras and Meditation

Shatkriyas- Meaning Techniques and benefits of Neti-Dhati-kapalpathi –TratakaNauli- Basti.

Bandhas: Meaning Techniques and Benefits of Jalendra Bandha, jihvaBandha, uddiyana Bandhas, Mula Bandha and their precautions

Mudras: - Meaning Techniques and Benefits of Hasta Mudra, Asamyuktahastam, Samyuktahastam, ManaMudra, KayaMudra, BandaMudra, AdharaMudra.

Meditation: Meaning Techniques and benefits Meditation-passive and active, saguna Meditation. Nirguna Meditation. Mental relaxation through prayer-across-cultural approach to mental health

Unit-IV 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 Yogic practices for the health problems: Constipation, Diabetes, Cervical, Arthritis, Sciatica pain, indigestion, snoring, Eye disorders and migraine.

REFERENCE:

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Semester I
Theory Courses
MPEC-101
TEST, MEASUREMENT AND EVALUATION IN PHYSICAL EDUCATION
(Elective)

Credits 03

Objectives:

This course will enable students to understand the concept of test, measurement & evaluation in Physical Education. It aims to develop understanding about Criteria of selection, classification and administration of test, physical fitness tests and sports skill tests. *Note: Practical of indoor and outdoor tests be designed and arranged internally.*

Course Learning Outcomes:

After Completing the course, the students will be able to:

- Understand the need & importance of test, measurement and evaluation in physical education.
- Describe the criteria, classification and administration of test.
- Construct a strong basis in the evaluation techniques through the various test and measurements method used in physical education.
- Explain different physical fitness and skill tests.

UNIT I - Introduction

Meaning and Definition of Test, Measurement and Evaluation Nature and Scope of Evaluation Programme. Need and Importance of Measurement and Evaluation. Principles of Evaluation.

Criteria for Test Selection - Scientific Authenticity. Meaning, definition and establishing Validity, Reliability, Objectivity. Norms- Administrative feasibility and educational application classification of Tests, Standardized and teacher made tests, objectives and subjective tests, advantages and disadvantages of subjective and objective evaluation.

Construction of physical fitness test, knowledge test, skill tests.

UNIT II - Motor Fitness and Physical 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.

Physical Fitness Tests - AAHPERD Health Related Fitness Battery (revised in 1984), ACSM Health Related Physical Fitness Test, Roger's Physical Fitness Index.

Cardiovascular test; Harvard step test, 12 minutes run/walk test, Multi-stage fitness test (Beep test)

Motor Educability Tests: Metheny- Johnson motor educability test.

UNIT III - 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 IV - Skill Tests

Specific Sports Skill Test: Badminton: SAI Badminton Skill Test, Miller Wall Volley Test Lockhart and Mac Pherson Badminton Test, French Short Serve Test. Basketball: Johnson Basketball Test, Harrison

Basketball Ability Test, Knox Basketball Test, Aahper Basketball Test. Cricket: Sutcliff Cricket test. Hockey, SAI Hockey Skill Test: Friendel Field Hockey Test, Harban's Hockey Test, Volleyball: Russel Lange Volleyball Test, Brady Volleyball Test, SAI Volleyball Hockey Skill Test, Aapher Volleyball Test, Football: Jonshon Soccer Test, SAI Football Skill Test, Aahper Football Skill Test, Mor-Christian General Soccer Ability Skill Test Battery, Mc-Donald Volley Soccer Test. Tennis: Dyer Tennis Test, Broer Miller Tennis Test. Handball: Cornish Handball Test. Development of Test batteries.

REFERENCES:

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- Collins, R.D., & Hodges P.B. (2001) A Comprehensive Guide to Sports, Skills Tests and Measurement (2nd edition) Lanham: Scarecrow Press
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- Jenson, Clayne R and Cynt ha, C. Hirst (1980) Measurement in Physical Education and Athletics, New York, Macmillan Publishing Co. Inc
- Kansal O.K. (1996), "Test and Measurement in Sports and Physical Education, New Delhi:DVS Publications
- Krishnamurthy (2007) Evaluation in Physical Education and Sports, New Delhi; Ajay Verma Publication
- Vivian H. Heyward (2005) Advance Fitness Assessment and Exercise Prescription, 3rd Edition, Dallas TX: The Cooper Institute for Aerobics Research
- Wilmore JH and Costill DL. (2005) Physiology of Sport and Exercise: 3rd Edition. Champaign IL: Human Kinetics
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Semester I
Theory Courses
MPEC-102 SPORTS TECHNOLOGY (Elective)

Credits 03

Objectives:

This course will enable students to understand the concept of sports technology, impact of technology on sports and science of sports materials in Physical Education. It aims to develop understanding about surfaces of play field and modern equipment and training gadgets.

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.

Course Learning Outcomes:

After Completing the course, the students will be able to:

- Students able to classify the current application of advanced technology.
- Describe the future impact of technology on sports materials.
- Identify the advance technology in the field of sports.
- Identify the differences between monitoring and training technology.

Unit I- Sports Technology

Meaning and definition of Sports Technology. Significance of Sports Technology.

Purpose, advantages and applications of Sports Technology.

General Principles and purpose of instrumentation in sports, Workflow of instrumentation and business aspects.

Technological impacts on sports

Unit II - Science of Sports Materials. Meaning and definition of Nano Technology.

Adhesives- Nano glue, Nano molding technology. Nano turf. Footwear production. Factors and application in sports, constraints. Uses and benefit of Nano Technology in Sports, uniform and safety equipment.

Foams- Polyurethane, Polystyrene, Styrofoam. Closed-cell and open-cell foams, Neoprene, Foam.

Smart Materials - Shape Memory Alloy (SMA), Thermo ceramic film, High-density modeling foam.

Playing Equipment: Balls, Bat, Stick, Racquets, Clothing and shoes: Types, Materials and Advantages.

Unit III - Surfaces of Playfields

Modern surfaces for playfields, construction and installation methods 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 equipment.

Use of computer and software in Match Analysis and Coaching.

Unit IV - Modern equipment & Training Gadgets

Measuring equipment: Throwing and Jumping Events. Protective equipment: Types, Materials and Advantages. Sports equipment with Nano technology, Advantages.

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

REFERENCE:

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- Finn, R.A. and Trojan P.K. (1999) "Engineering Materials and their Applications" UK: JaicoPublisher.
- John Mongilo, (2001), "Nano Technology 101 "New York: Green wood publishing group.
- Walia, J.S. Principles and Methods of Education (Paul Publishers, Jullandhar), 1999.
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Semester I
Practicum Course
MPPC-101 TRACK AND FIELD I: RUNNING EVENT + HURDLES
GYMNASTICS/ SWIMMING (Any One)

Credits 03

Objectives:

- To define and acquaint training preparation of Game/Sport
- To employ the rules and regulation of Game/Sport
- To emphasis on preparation for the Game/Sport.
- To acquaint the student with progressive teaching stages of fundamentals skills of Game/Sport.
- To orient & employ the rules and regulation in organization of competition in Game/Sport.

Course Learning Outcomes:

After Completing the course, the students will be able to:

- Gain knowledge of the Game/Sport.
- Learn the layout and marking for the Game/Sport.
- Demonstrate various drills & lead up activities related to Game/Sport.
- Develop the skills to teach rules, fundamentals and strategies of Game/Sport.

UNIT – I: Introduction

Historical History of Athletic-Ancient and modern Olympic development of the game/sport at national and international levels.

National Bodies controlling game/sport and their affiliated units. Rules and regulation of IFA, AFI, SGFI, IOA, IAAF.

International Bodies controlling game/sport and their affiliated units.

Major National and International competitions in Game/Sport.

Layout and marking of play filed/ground/courts and measurement of equipment's used in Game/Sport.

UNIT – II: Techniques/Skills development:

Classification of techniques/skills, Sprint, Long Jump, Triple Jump, Shotput, Discus through, hurdle events, Relay.

Technique/skill training: Preparatory, Basic, Supplementary exercises.

Identification & Correction of faults.

Training for mastery in technique/skill technique/preparation.

Recreational and lead-up activities.

Warm-up and cool down for game/sports.

UNIT –III: Officiating:

Mechanics of officiating.

Qualities of good official.

Duties of official (pre, during and post game)

Rules & their interpretations.

**Semester I
Practicum Course**

**MPPC- 102 INDIVIDUAL GAMES: (Optional)
(BADMINTON, TABLE TENNIS, TENNIS, SQUASH, WEIGHT LIFTING, SHOOTING) (Any one
game)**

Credits 03

Objectives:

- To define and acquaint training preparation of Game/Sport
- To employ the rules and regulation of Game/Sport
- To emphasis on preparation for the Game/Sport.
- To acquaint the student with progressive teaching stages of fundamentals skills of Game/Sport.
- To orient & employ the rules and regulation in organization of competition in Game/Sport.

Course Learning Outcomes:

After Completing the course, the students will be able to:

- Gain knowledge of the Game/Sport.
- Learn the layout and marking for the Game/Sport.
- Demonstrate various drills & lead up activities related to Game/Sport.
- Develop the skills to teach rules, fundamentals and strategies of Game/Sport.

UNIT – I: Introduction

Historical Background of the game/sport at national and international levels.
National Bodies controlling game/sport and their affiliated units.
International Bodies controlling game/sport and their affiliated units.
Major National and International competitions in Game/Sport.
Layout and marking of play filed/grounds/courts and measurement of equipment's used in Game/Sport.

UNIT – II: Techniques/Skills development:

Classification of techniques/skills.
Technique/skill training: Preparatory, Basic, Supplementary exercises.
Identification & Correction of faults.
Training for mastery in technique/skill.
Recreational and lead-up activities.
Warm-up and cool down for game/sports.

UNIT –III: Officiating:

Mechanics of officiating.
Qualities of good official.
Duties of official (pre, during and post game)
Rules & their interpretations.

Semester I
Practicum Course
MPPC-103 YOGA & AEROBICS

Credits 03

Objectives:

- To define and acquaint training preparation of Yoga/Aerobics.
- To employ the rules and regulation of Yoga/Aerobics
- To emphasis on preparation for the Yoga/Aerobics.
- To acquaint the student with progressive teaching stages of fundamentals skills of Yoga/Aerobics.
- To orient & employ the rules and regulation in organization of competition in Yoga/Aerobics.

Course Learning Outcomes:

After Completing the course, the students will be able to:

- Gain knowledge of the Yoga/Aerobics.
- Know about equipment's & performing area of the Yoga & Aerobics
- Demonstrate various asnas & exercises related to Yoga/Aerobics.
- Develop the positions, fundamentals and strategies of Yoga/Aerobics.

YOGA

Yoga, Asanas prescribed by Maharshi 'Patanjali (Standing, Sitting, Laying, Asanas) Basic to advance Practice of Shudhi Kriyas, jalneti, sutraneti, dugdhaneti, kunjil, Nauli, Bhastika, shatkriya, Pranayams. Anulom-vilom, Kapalbhathi & etc Practice of Pranayama and their benefits.

AEROBICS

Rhythmic Aerobics & Zumba – Music and Beat counts, over the top.

Low impact aerobics & Zumba – Marching basics (Legcurl, toe touch, heel touch, in and out, side touch)

High impact aerobics & Zumba – Side touch, steps-single steps touch, v shape, double side to side step touch, Aerobics kick boxing, Moves, Warm up and cool down

Exercise and adaptation for aerobic workout.

**Semester I
Practicum**

MPPC-104 ADVENTURE ACTIVITIES/ MASS DEMONSTRATION ACTIVITIES

Credits 03

Objectives:

- To define and acquaint training preparation of Game/Sport
- To employ the rules and regulation of Game/Sport
- To emphasis on preparation for the Game/Sport.
- To acquaint the student with progressive teaching stages of fundamentals skills of Game/Sport.
- To orient & employ the rules and regulation in organization of competition in Game/Sport.

Course Learning Outcomes:

After Completing the course, the students will be able to:

- Gain knowledge of the Game/Sport.
- Learn the layout and marking for the Game/Sport.
- Demonstrate various drills & lead up activities related to Game/Sport.
- Develop the skills to teach rules, fundamentals and strategies of Game/Sport.

ADVENTURE ACTIVITIES:

Trekking, Wall climbing. River crossing, Mountaineering, Leadership Coordination etc.

MASS DEMONSTRATION ACTIVITIES-

(Lezium, Dumbel, Umbrella, Tipri, Wends, Hoops Free Arms drill, Folk dances, etc.

(Students are expected to learn and organize mass drill in school situation)

Apparatus/ Light apparatus Grip

Attention with apparatus/ Light apparatus

Stand - at - ease with apparatus/ light apparatus

Exercise with verbal command, drum, whistle and music - Two count. Four count. Eight count and Sixteen count.

Standing Exercise

Jumping Exercise

Moving Exercise

Combination of above all

Semester II
Theory Courses

MPCC-201 APPLIED STATISTICS IN PHYSICAL EDUCATION AND SPORTS

Credits 03

Objectives:

This course will enable students to understand the concept of statistics, types of statistics, function of statistics, population, variable and data. It aims to develop understanding about the measures of dispersion and scale, probability distribution, graphical presentation and analyze the data.

Course Learning Outcomes:

After Completing the course, the students will be able to:

- Identify the function and importance of statistics in Physical Education.
- Able to understand statistical techniques and Analysis the data.
- Identify the Graphical Representation.
- Classify the difference between data, population and Variables.
- Know how to organize, manage, and present data.
- Use and apply a wide variety of specific statistical methods.

UNIT I - Introduction

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

Meaning, uses and construction of frequency table. Meaning, Purpose, Calculation and advantages of Measures of central tendency— Mean, median and mode.

UNIT II - Measures of Dispersions and Scales

Meaning, Purpose, Calculation of Range. Quartile, Deviation, Mean Deviation, Standard Deviation, differentiate between sampling error and probability error. Meaning, Purpose. Calculation and advantages of scales; Sigma scale, Z Scale, Hull scale

UNIT III - Probability Distributions and Graphs

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

UNIT IV- Inferential and Comparative Statistics

Tests of significance, t-test, chi - square test, level of confidence and interpretation of data. Meaning and calculation of correlation-co-efficient by the product moment method and rank difference method. Concept and steps of ANOVA, ANCOVA, MANOVA, MANCOVA.

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

REFERENCE

- Best J. W (1971) Research in Education, New Jersey; Prentice Hall, Inc
- Clark D.H. (1999) Research Problem in Physical Education 2nd edition, Eaglewood Cliffs, Prentice Hall, Inc.
- Jerry R Thomas & Jack K Nelson (2000) Research Methods in Physical Activities; Illonosis; Human Kinetics;
- Kamlesh, M. L. (1999) Research Methodology in Physical Education and Sports, New Delhi Rothstain A (1985) Research Design and Statistics for Physical Education. Englewood Cliffs: Prentice Hall. Inc
- Sivaramakrishnan. S. (2006) Statistics for Physical Education, Delhi; Friends Publication.

Semester II
Theory Courses
MPCC-202 SPORTS BIOMECHANICS AND KINESIOLOGY

Credits 03

Objectives:

Knowledge of Kinesiology and Biomechanics is important for understanding the human movement, including those involved in sports and games. This course begins with an overview of Kinesiology and Sports Biomechanics followed by fundamental concepts, mechanical concepts, kinematics and kinetics of human movement.

Course Learning Outcomes:

After Completing the course, the students will be able to:

- Describes the differences between plan and axis.
- Identify the muscles and their movement.
- Identify the joints and their classification.
- Classify the difference between Projectile and lever.
- Student able to identify the methods of analyze.

UNIT I - Introduction

Meaning, nature, role and importance of applied kinesiology and Sports Biomechanics. Define Axis and plane, and analysis of movement through axis and plan, structure of biomechanics – static, dynamic, Statics Centre of gravity -Line of gravity plane of the body and axis of motion, Vectors and Scalars.

UNIT II - Muscle and Joints

Origin, Insertion and action of muscles: Pectoralis major and minor, Deltoid, Biceps, Triceps (Anterior and Posterior), Trapezius, serratus, Sartorius, Abdominis, Quadriceps, Hamstring, Gastrocnemius.

Muscles classification

Muscles contraction

Joint Classification

Posture and there type

UNIT III - Motion and Force

Meaning and definition of Motion. Types of Motion: Linear motion, angular motion, circular motion, uniform motion. Principals related to the law of Inertia, Law of acceleration, and law of action and reaction. Meaning and definition, type of forces - centric and eccentric force, collinear, concurrent force Force, pressure -friction -Buoyancy, Spin - Centripetal force - Centrifugal force. and Components of Force applied at an angle -

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, speed, velocity, kinetic energy and potential energy. Leverage-classes of lever-practical application, force.

Note: Laboratory practical's 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

REFERENCE:

- Deshpande S.H.(2002). Manav Kriya Vigyan - Kinesiology (Hindi Edition) Amravati: Hanuman

Vyayam Prasarak Mandal.

- Hoffman SJ. Introduction to Kinesiology (Human Kinesiology publication In. 2005.
- Steven Roy, & Richard Irvin. (1983). Sports Medicine. New Jersey: Prentice hall.
- Thomas. (2001). manual of structural Kinesiology, New York: Me Graw Hill.
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- Uppal, A (2004), Kinesiology in Physical Education and Exercise Science, Delhi Friends Publications.
- Williams M (1982) Biomechanics of Human Motion, Philadelphia; Saunders Co.

Semester II
Theory Courses
MPCC-203 ATHLETIC CARE AND REHABILITATION

Credits 03

Objectives:

This course will enable students to understand the concept of corrective physical education, posture and posture deformity and their treatment. It aims to understanding of rehabilitation exercises, PNF technique and massage.

Course Learning Outcomes:

After Completing the course, the students will be able to:

- Identify the good posture and their deformity.
- Make a list of rehabilitation exercise.
- Describe the type of message.
- Identify the sports injury and their Rehabilitation exercise.

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

Meaning and definition of posture and its importance in the field of Physical Education

Normal curve of the spine and its utility, Deviations in posture: Kyphosis, lordosis, flat back, Scoliosis, round shoulders, Knock Knee, Bow leg, Flat foot Pock Neck, Pigeon Chest, Claw Foot, Duck 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

Sprain, Strain, Dislocation, and fracture at different joints and muscles. Basic Rehabilitation: Strapping/Tapping: Definition, Principles of Precautions, Contraindications Proprioceptive neuromuscular facilitation: Definition of hold, relax, repeated contractions. Show reversal technique. Exercises: Isotonic, Isokinetic, isometric stretching- Definition, Types of stretching, Advantages, dangers of stretching, Manual of muscle grading. Principles of apply cold and heat, infrared rays - Ultrasonic, Therapy - Short wave diathermy therapy.

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

REFERENCES:

- Doherty. J. Meno. Wetb, Moder D (2000) Track & Field, Englewood Cliffs, Prentice Hal Inc.

- Lace, M. V. (1951) *Massage and Medical Gymnastics*, London: J & A Churchill Ltd.
- Mc Ooyand Young (1954) *Tests and Measurement*. New York: Appleton Century.
- Naro, C. L. (1967) *Manual of Massage and. Movement*. London: Febra and Febra Ltd.
- Rathbome, J.I. (1965) *Corrective Physical education*, London: W.B. Saunders & Co.
- Stafford and Kelly, (1968) *Preventive and Corrective Physical Education*, New York.
- Morris B. Million (1984) *Sports Injuries and Athletic Problem*. New Delhi: Surjeet Publication.

Semester II
Theory Courses
MPEC-201 SPORTS JOURNALISM AND MASS MEDIA (Elective)

Credits 03

Objectives:

This course will enable students to understand the concept of sports journalism and its role in physical education and sports. It aims to develop understanding about the sports bulletin and ethics of sports writing, writing on sports and techniques of journalism.

Course Learning Outcomes:

After Completing the course, the students will be able to:

- Explain the sports journalism and its role in sports.
- Able to write a article on sports event.
- Describe Mass Media and able to organize a press meet.
- Describe the difference between article writing and report writing on sports in any event.

UNIT I Introduction & role of Sports Journalism

Meaning and Definition of Sports Journalism and role of Sports Journalism in the field of Physical Education and Sports, Ethics of Journalism - Canons of journalism- Sports Ethics and Sportsmanship - Reporting Sports Events. Role and advancement in Journalism, Sports organization and Sports Journalism. Mode of sports journalism, print, electronic and print media

UNIT II Sports Bulletin and Ethics of Sports writing

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 – organization of pre and post press meet and sports reporting.

UNIT III Mass Media and Report Writing on Sports

Mass Media in Journalism: Radio and T.V. Commentary - Running commentary on the radio - Sports expert's comments. Role of Advertisement in Journalism. Career in Sports Photography: Equipment-Editing- Publishing.. Preparing report of an Annual Sports Meet for Publication in Newspaper. Organization of Press Meet.

UNIT -IV Journalism and Journalism techniques

Sports organization and Sports Journalism-General news reporting and sports reporting. Methods of editing a Sports report. Evaluation of Reported News. national and international sports agencies Interview with and elite Player and Coach Evaluation of report news, and coach, freelance writing in Sports.

Practical assignments to observe the matches and prepare report and news of the same; visit to News Paper office and TV Centre to know various departments and their working. Collection of Album of newspaper cuttings of sports news.

REFERENCE:

- Ahiya B.N. (1988) Theory and Practice of Journalism: Set to Indian context Ed3. Delhi: Surjeet Publications
- Ahiya B.N. Chobra S.S.A. (1990) Concise Course in Reporting. New Delhi: Surjeet Publication
- Bhatt S.C. (1993) Broadcast Journalism Basic Principles. New Delhi. Haranand Publication
- Dhananjay Joshi (2010) Value Education in Global Perspective. New Delhi: Lotus Press.
- Kannan K (2009) Soft Skills, Madurai: Madurai: Yadava College Publication
- Mohit Chakrabarti (2008): Value Education: Changing Perspective, New Delhi: Kanishka

Publication.

- Padmanabhan. A & Perumal A (2009), Science and Art of Living, Madurai: Pakavathi Publication
- Shiv Khera (2002), You Can Win, New Delhi: Macmillan India Limited.
- Varma A.K. (1993) Journalism in India from Earliest Times to the Present Period. Sterling publication Pvt. Ltd.
- Venkataiah. N (2009) Value Education,- New Delhi: APH Publishing Corporation. 43

Semester II
Theory Courses
MPEC-202 SPORTS MANAGEMENT AND CURRICULUM DESIGN IN PHYSICAL
EDUCATION (Elective)

Credits 03

Objectives:

This course will enable students to understand the concept of sports management, functional phases of sports management and program management in physical education and sports. It aims to develop understanding about the equipment and their maintenance, public relation and curriculum sources.

Course Learning Outcomes:

After Completing the course, the students will be able to:

- Identify and explain the sports management and structure of sports management.
- Gain knowledge about the organization of tournament and program management.
- Describe the types of equipment and sports facility and their Maintenance.
- Understand the public relation and their techniques.

UNIT I- Introduction to Sports Management

Definition, Importance. Basic Principles and structure of Sports Management. Functions of Sports Management- planning, organizing, staffing, directing, controlling, coordinating, evaluating, innovating. Personal Management: Objectives of Personal Management Personal Policies, Role of Personal Manager in an organization. Personnel recruitment and selection, management structure for Physical Education and Sports programmes

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, competitive sports program.

UNIT III - Equipments and Public Relation

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

UNIT IV - Curriculum and Curriculum sources

Meaning, Definition and classification of Curriculum . Principles of Curriculum Construction: Students centred, Activity centred, Community centred, Forward looking principle. Role of national level statutory bodies/UGC/NCTE and university in curriculum development

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.

Reference:

- Aggarwal, J.C (1990). Curriculum Reform in India - World overviews, Doaba World Education Series - 3 Delhi: Doaba House, Book seller and Publisher.
- Arora, G.L. (1984): Reflections on Curriculum, New Delhi: NCERT.
- Bonnie, L. (1991). The Management of Sports. St. Louis: Mosby Publishing Company, Park

House.

- Bucher A. Charles, (1993) Management of Physical Education and Sports (10th ed.,) St. Louis: Mobsy Publishing Company.
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Semester II
Practicum Course
MPPC- 201 TRACK AND FIELD II: JUMPING EVENTS
SWIMMING / GYMNASTICS (Any One)

Credits 03

Objectives:

- To define and acquaint training preparation of Game/Sport
- To employ the rules and regulation of Game/Sport
- To emphasis on preparation for the Game/Sport.
- To acquaint the student with progressive teaching stages of fundamentals skills of Game/Sport.
- To orient & employ the rules and regulation in organization of competition in Game/Sport.

Course Learning Outcomes:

After Completing the course, the students will be able to:

- Gain knowledge of the Game/Sport.
- Learn the layout and marking for the Game/Sport.
- Demonstrate various drills & lead up activities related to Game/Sport.
- Develop the skills to teach rules, fundamentals and strategies of Game/Sport.

Jumping Events

Fundamental Skills: Jumping event (High jump Long jump and Triple jump)

A) High Jump: Candidates are assessed on the following techniques and heights:

-Phases: Approach Run, Take-off, Flight (bar clearance) and, Landing

-Style: Scissors, Straddle, Fosbury flop or Any other conventional styles

B) Long Jump: Candidates are assessed on the following techniques and distances:

Phases: Approach Run, Take-off, flight, Landing.

Style: Hang, Sail, Hitch-Kick or Any other conventional styles

C) Triple Jump: Candidates are assessed on the following techniques and distances:

Phases: Approach Run, Sequence (hopstep jump), Flight, Landing

Style: Hop, Step, Jump

Gymnastic

Fundamental Skills of Floor Exercise:

Historical development of gymnastic: Japana, Pike Fold, Box Splitis, Bridges, Bent leg dish

Forward Roll, Backward Roll, Sideward Roll, different kinds of scales, Leg Split, Bridge,

Dancing steps, Head stand, Jumps-leap, scissors leap.

Vaulting Horse

Approach Run, Take off from the beat board, Cat Vault, Squat Vault.

Swimming

Fundamental Skills:

Entry into the pool.

Developing water balance and confidence

Water fear removing drills.

Floating-Mushroom and Jelly fish etc.

Gliding with and without kickboard.

Introduction of various strokes

Body Position, Leg, Kick, Arm pull, Breathing and Coordination.

Start and turns of the concerned strokes.

Introduction of Various Strokes.

Water Treading and Simple Jumping.

Starts and turns of concerned strokes.

Rules of Competitive swimming-officials and their duties, pool specifications, seeding heats and finals, Rules of the races.

Semester II
Practicum Course

MPPC-202 TEAM GAME (Optional)

**KABADDI, KHO-KHO, VOLLEYBALL, BASKETBALL CRICKET, FOOTBALL, HANDBALL,
HOCKEY, NETBALL (Any One)**

Credits 03

Objectives:

- To define and acquaint training preparation of Game/Sport
- To employ the rules and regulation of Game/Sport
- To emphasis on preparation for the Game/Sport.
- To acquaint the student with progressive teaching stages of fundamentals skills of Game/Sport.
- To orient & employ the rules and regulation in organization of competition in Game/Sport.

Course Learning Outcomes:

After Completing the course, the students will be able to:

- Gain knowledge of the Game/Sport.
- Learn the layout and marking for the Game/Sport.
- Demonstrate various drills & lead up activities related to Game/Sport.
- Develop the skills to teach rules, fundamentals and strategies of Game/Sport.

UNIT – I: Introduction

Historical development of the game/sport at national and international levels.
National Bodies controlling game/sport and their affiliated units.
International Bodies controlling game/sport and their affiliated units.
Major National and International competitions in Game/Sport.
Layout and marking of play field/ground/courts and measurement of equipment's used in Game/Sport. General Rules of the games/sports.

UNIT – II: Techniques/Skills development:

Classification of techniques/skills.
Technique/skill training: Preparatory, Basic, Supplementary exercises.
Identification & Correction of faults.
Training for mastery in technique/skill.
Recreational and lead-up activities.
Warm-up and cool down for game/sports.
Combined formation in offence and defence for games and sports

UNIT –III: Officiating:

Mechanics of officiating.
Qualities of good official.
Duties of official (pre, during and post-game)
Rules & their interpretations.
Organization and administration for the games/sports .

Semester II
Practicum Course
MPPC-203 GENERAL TEACHING LESSONS OF INDIGENOUS ACTIVITIES

Credits 03

Objectives:

- To observe children and the teaching learning process in a systematic manner.
- To learn to relate to and communicate with children during physical education activity.
- To evaluate physical education curriculum in the schools.
- To experience the school in its totality; activities in addition to classroom teaching include school activities and interaction with parents.
- To assume the role of a regular physical education teacher with appropriate planning taking into account the diverse needs of students and the varying contexts that impact the teaching learning process in physical education.
- To be able to innovate within teaching & coaching of game / sport skills.
- To learn to conduct meaningful classroom activities by careful selection and Organization of such activities.
- To learn to assess different aspects of children learning in physical education.

Course Learning Outcomes:

After Completing the course, the students will be able to:

- Demonstrate the practical concepts of teaching practice.
- Develop teaching proficiency for outdoor and indoor activities.
- Organize and compose mass demonstration /displays.
- Develop the knowledge of equipment that can be used for different indigenous activities.
- Develop the knowledge of free hand exercises emphasizing on physical fitness, rhythmic sense and neuromuscular co-ordination.

The students to develop proficiency in taking teaching classes in indigenous activities under school situation. With Specific techniques of individual game. Also developed their Personality through teaching. In view of this, the students shall be provided with teaching experience. The duration of the lesson to be conducted by these students shall be in the range of 30 to 40 minutes depending on the class they are going to handle at school and college level.

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

Semester II Practicum Course

MPPC-204 CLASS ROOM TEACHING: LESSONS ON THEORY OF DIFFERENT SPORTS & GAMES

Credits 03

Objectives:

COURSE OBJECTIVES:

- To observe children and the teaching learning process in a systematic manner.
- To learn to relate to and communicate with children during physical education activity.
- To evaluate physical education curriculum in the schools.
- To experience the school in its totality; activities in addition to classroom teaching include school activities and interaction with parents.
- To assume the role of a regular physical education teacher with appropriate planning taking into account the diverse needs of students and the varying contexts that impact the teaching learning process in physical education.
- To be able to innovate within teaching & coaching of game / sport skills.
- To learn to conduct meaningful classroom activities by careful selection and
- Organization of such activities.
- To learn to assess different aspects of children learning in physical education.

STUDENT LEARNING OUTCOMES:

- Demonstrate the practical concepts of teaching practice.
- Develop teaching proficiency for outdoor and indoor activities.
- Organize and compose mass demonstration /displays.
- Develop the knowledge of equipment that can be used for different indigenous activities.
- Develop the knowledge of free hand exercises emphasizing on physical fitness, rhythmic sense and neuromuscular co-ordination

The Students develop proficiency in taking teaching lessons as per selected games and sport or game specialization with Specific techniques of individual game. Also developed their Personality through teaching. 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.

Theory Courses
MPCC-301 SCIENTIFIC PRINCIPLES OF SPORTS TRAINING

Credits 03

Objectives:

This course will enable students to understand the modern concept of sports training. It aims to develop understanding about the aim and objective of sports training, principles of sports training, system of sports training, training components, training process and training programming and planning.

Course Learning Outcomes:

After Completing the course, the students will be able to

- Understand the modern concept of sports training.
- Describe the principles of sports training.
- Evaluate and develop system of sports training – basic performance, intermediate performance and high performance training.
- Plan training sessions.
- Realize and apply the Methods of Technique Training.
- Design different training program for Training Components.
- Explain Periodization and its types.
- Identify talents.

UNIT I – Introduction to Sports Training

- Meaning and Definition of Sports Training
- Aim and Objective of Sports Training
- Characteristics & Principles of Sports Training,
- Definition & Principal of load , Symptoms of Overload .

UNIT II - Components of Physical Fitness

- Strength: Types of strength, Methods to improve Strength:
- Speed: Forms of Speed, Methods to Develop Speed,
- Endurance: Types and methods to improve endurance,
- Flexibility: Types and methods to improve the flexibility,
- Agility and Coordinative ability: Types and methods to improve Agility and Coordinative ability.

UNIT III- Training Plan & planning

- Periodization : Meaning and types of Periodization.
- Aim and Content of Periods – Preparatory, Competition, Transitional etc.
- Planning: Meaning and types. Principles of Planning.
- Super compensation & Altitude Training

UNITY IV- Doping and Talent Identification, Performance & Training Methods

- Definition of Doping – Side effects of drugs – Blood Doping.
- Principles of Talent Identification and its Development..
- Means and Model of Sports Performance.
- Means of Weight Training and Circuit Training.

REFERENCES :

- Beotra Alka, (2000), Drug Education Handbook on Drug Abuse in Sports. Delhi: Sports Authority of India.
- Bunn, J.N. (1998) Scientific Principles of Coaching. New Jersey Engle Wood Cliffs, Prentice Hall Inc.

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- Hardayai Singh (1991) Science of Sports Training, New Delhi, DVS Publications
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- Ronald, P. Pfeiffer (1998) Concepts of Athletics Training 2nd Edition, London: Jones and Bartlett Publications
- Yograj Thani (2003), Sports Training, Delhi : Sports Publications
- SchliehMonfred (2003), Circuit Training for all sports, sports book publisher Toronto

Semester III
Theory Courses
MPCC-302 SPORTS MEDICINE

Credits 03

Objectives:

This course will enable students to understand the modern concept of sports medicine. It aims to develop understanding about the aim and objectives of sports medicine, athletes care and rehabilitation, upper lower extremity and spine injury and their exercise.

Course Learning Outcomes:

After Completing the course, the students will be able to:

- Students able to understand sports medicine and therapeutic exercise.
- Identify the spine injuries and their exercise.
- Identify the labour and upper extremity injury and their exercise.
- Identify the difference between advantage and disadvantage of PRICE and PRIENCE Therapy.

UNIT I – Introduction

- Introduction, Meaning, definition and history of Sports Medicine, 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 - Injuries of Upper Extremity

- Head Injuries: General concept, explanation of concussion.
- Neck Injuries: Mechanism of injuries, general approach.
- Shoulder Injuries: Introduction to shoulder dislocation and rotator cuff injuries.
- Lumber Spine Injuries: General introduction to ligaments and muscular injuries,.

UNIT IV - Injuries of Lower Extremity

- Low back Pain: Common causes, general care and prevention.
- Knee injuries: Introduction to injuries of main ligaments of knee and meniscus tear.
- Ankle Injuries: Introduction to ankle sprains, grades of ankle sprain.
- Overuse Injuries: General approach, brief explanation of shin splints, tennis elbow.

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

REFERENCES:

- Christopher M. Norris. (1993). Sports Injuries Diagnosis and Management for Physiotherapists. East Kilbride: Thomson Litho Ltd.
- James, A. Gould & George J. Davies. (1985). Physical Physical Therapy. Toronto: C.V. Mosby Company.
- Morris B. Million (1984) Sports Injuries and Athletic Problem. New Delhi: Surjeet Publication.
- Pande. (1998). Sports Medicine. New delhi: Khel Shitya Kendra
- The Encyclopedia of Sports Medicine. (1998). The Olympic Book of Sports Medicine, Australia:

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- Practical: Anthropometric Measurements,
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Lippincott Williams & Wilkins Health. ISBN-13: 978-1451130584. ISBN 10: 1451130589.

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

Credits 03

Objectives:

This course will enable students to understand the concept, dimensions, spectrum and determinants of Health and Health Education. It aims to understanding of Health problems in India, health and hygiene, sports nutrition and weight management.

Course Learning Outcomes:

After Completing the course, the students will be able to:

- Identify the Health problems and make their list.
- Distinguish differentiate between Communicable and Non Communicable diseases.
- Identify the effect of alcohol and Tobacco on health.
- Able to know about the personal and environment Hygiene in schools.
- Make a chart of food nutrients.

Unit -1 Introduction to Health and Health Education:

- Health Education: Its concept aims and objectives.
- Inter-relationship between different components of Health.
- History of Health in India, concept and various levels of Health Care of in India.
- Latest trends in Health Education.
- Use of Audio-visual aids, method of individual, group, mass approaches of Health Education.
- Medical care in rural and urban areas.

Unit - II Health Problems in India

- National Family Welfare Programme
- STD Contral Programme
- National Cancer Contral Programme
- National Tuberculosis Contral Programme
- National Malaria Contral Programme
- 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

Unit- HI - Hygiene and Health

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

Unit- IV- Introduction to Sports Nutrition

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

Unit - V Nutrition and Weight Management

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

References:

- Bucher, Charles A. "Administration of Health and Physical Education Programme".
- Delbert, Oberteuffer, et. al." The School Health Education".
- Ghosh, B.N. "Treaties of Hygiene and Public Health".

- Hanlon, John J. "Principles of Public Health Administration" 2003.
- Turner, C.E. "The School Health and Health Education".
- Moss and et. At. "Health Education" (National Education Association of U.T.A.)
- Nemir A. "The School Health Education" (Harber and Brothers, New York).
- Nutrition Encyclopedia, edited by Delores C.S. James, The Gale Group, Inc.
- Boyd-Eaton S. et al (1989) "The Stone Age Health Programme: Diet and Exercise as Nature Intended." Angus and Robertson.
- Terras S. (1994) "Stress, How Your Diet can Help: The Practical Guide to Positive Health Using Diet, Vitamins, Minerals, Herbs and Amino Acids, Thorons."
 - Connolly, M. (2012). "Skills-based health education." Sudbury, MA: Jones & Bartlett Learning. ISBN 9781449630201

Semester III
Theory Courses
MPEC-301 SPORTS ENGINEERING (Elective)

Credits 03

Objectives:

This course will enable students to understand the concept of sports engineering, dimensions, equipment and facility design and mechanical principles in movement. It's also aims to understanding sports dynamic and building and maintenance.

Course Learning Outcomes:

After Completing the course, the students will be able to:

- Gain knowledge about the sports engineering.
- Able to construct Sports infrastructure like gymnasium, Swimming pool, Indoor Stadium and Outdoor Stadium.
- Gain knowledge about the maintains policy of various sports facility.

Unit - II Introduction

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- "Include a gymnasium, pavilion, indoor and outdoor stadiums, swimming pool, play park, academic, administrative, research, and library blocks, plus dedicated sports hostels—all integral to complete sports infrastructure."

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, "Ensure seamless pedestrian flow through well-planned corridors and gates, with robust emergency systems (lighting, fire safety, and exits), eco-friendly surroundings, dedicated maintenance personnel, and sound financial planning."

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.

Reference

- Franz K. F. et. al., Editor, **Routledge Handbook of Sports Technology and Engineering** (Routledge, 2013)
- Steve Hake, Editor, **The Engineering of Sport** (CRC Press, 1996)
- Franz K. F. et. al., Editor **The Impact of Technology on Sports II** (CRC Press, 2007)
- Helge N., **Sports Aerodynamics** (Springer Science & Business Media, 2009)

- Youlin Hong, Editor **Routledge Handbook of Ergonomics in Sport and Exercise** (Routledge. 2013)
- Jenkins M., Editor **Materials in Sports Equipment, Volume I** (Elsevier. 2003)
- Colin White, **Projectile Dynamics in Sport: Principles and Applications**
- Eric C. et al., Editor **Sports Facility Operations Management** (Routledge, 2010)
- Caroline Adams, David James, Terry Senior, Tom Allen, Nick Hamilton (.September 2018),
Correction to: Effect of surrogate, design on the measured stiffness of snowboarding wrist
protectors Pascal Hemon (September2018), Hydrodynamic characteristics of sea kayak
traditional paddles

Semester III
Theory Courses
MPEC-302 PHYSICAL FITNESS AND WELLNESS (Elective)

Credits 03

Objectives:

This course will enable students to understand the modern concept of physical fitness and wellness. It aims to develop understanding about the techniques of physical education and fitness, principles of exercise program, importance of food nutrition, food pyramid, aerobic and anaerobic exercise and understand flexibility and its improvement exercise.

Course Learning Outcomes:

After Completing the course, the students will be able to:

- Student able to make a list of leisure time Physical activity.
- Describe and uses of current trends in fitness and conditioning.
- Explain the effect of drugs on sports performance.
- Design different types of Aerobic and Anaerobic exercise.

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 - General Nutritional Concept:

- Modern concept of sport nutrition.
- Role of Nutrition in sport fitness and performance.
- Fuel for muscular activities: • Protein • Carbohydrates • Fats • Micronutrients • Dietary fibers
- Nutritional consideration of diet planning for athletes.
- Recommendations of healthy nutrition for athletes

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 - Establishment and Management of Fitness Centre

- Principles of starting a fitness center-environment, location, policy, offer of programmers, record keeping, public relation.
- Fitness center membership and its types.
- Safety aspects in a fitness center.
- Qualification and qualities for a fitness trainer.

Reference:

- David K. Miller & T. Earl Allen, Fitness, A life time commitment, Surjeet Publication Delhi 1989.
- Dificore Judy, the complete guide to the postnatal fitness. A & C Black Publishers Ltd. 35 Bedford row, London 1998
- Dr. A.K. Uppal, Physical Fitness, Friends Publications (India), 1992. Warner W.K. Oeger & Sharon A. Hoeger, Fitness and Wellness, Morton Publishing Company, 1990.
- Elizabeth & Ken day, Sports fitness for women, B.T. Bats ford Ltd, London, 1986.
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- Robert Malt. 90 day fitness plan, O.K. publishing, Inc. 95, Madison Avenue, New York 2001
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Semester III
Practicum Course
MPPC- 301 TRACK AND FIELD III: THROWING EVENTS + HEPTATHLON EVENT
GYMNASTICS/SWIMMING (Any One)

Credits 03

Objectives:

- To define and acquaint training preparation of Game/Sport
- To employ the rules and regulation of Game/Sport
- To emphasis on preparation for the Game/Sport.
- To acquaint the student with progressive teaching stages of fundamentals skills of Game/Sport.
- To orient & employ the rules and regulation in organization of competition in Game/Sport.

Course Learning Outcomes:

After Completing the course, the students will be able to:

- Gain knowledge of the Game/Sport.
- Learn the layout and marking for the Game/Sport.
- Demonstrate various drills & lead up activities related to Game/Sport.
- Develop the skills to teach rules, fundamentals and strategies of Game/Sport.

Throwing Events:

- **Proper Grip & Preparation**
- **Grip Essentials:**
 - **Shot Put / Discus:** Use fingertips to hold the implement, thumb positioned behind for stability.
 - **Hammer:** Interlock fingers with thumb secure around the handle.
 - **Javelin:** Grip centrally with fingers across the grip and thumb opposing.
- **Stance Foundation:**
 - **Shot Put:** Feet shoulder-width, knees slightly bent, forward-leaning posture.
 - **Discus:** Similar stance with staggered foot placement.
 - **Hammer:** Feet apart, bent knees, hips slightly lowered.
 - **Javelin:** Side-on stance, feet parallel, throwing arm positioned behind.
- **Generating Momentum Through Movement**
- **Rotational Momentum:**
 - **Discus:** Execute 1.5 turns, shifting from back to front of the circle with torque buildup.
 - **Hammer Throw:** Begin with swings, followed by 3–5 rotational turns using heel-toe stepping, then release.
- **Linear Momentum:**
 - **Javelin:** Use a run-up transitioning into delivery via shoulder rotation and leverage from core muscles
- . **Efficient Release Mechanics**
- . **Balance, Stability & Footwork**
- . **Explosive Strength & Power Development**
- . **Technical Drills & Mental Cues**

- Rules and their interpretations and duties of officials

Gymnastics

Fundamental Skills of Floor Exercise:

Forward Roll, Backward Roll, Sideward Roll, different kinds of scales, Leg Split, Bridge, Dancing steps, Head stand, Jumps-leap, scissors leap.

Vaulting Horse

Approach Run, Take off from the beat board, Cat Vault, Squat Vault.

1. **Rolling Basics (Tumblings)**
2. **Handstand Proficiency**
3. **Cartwheels & Roundoffs**
4. **Power Tumbling & Hand-Springing**
5. **Flexible Jumps & Leaps**
6. **Turns & Spins**
7. **Walkovers & Limbers**
8. **Advanced Strength Holds**

Swimming

UNIT-I

1.1 Significance of Swimming as an activity and as a sport – its contribution to mankind

1.2 Construction, Care, Supervision and Maintenance of Swimming Pool.

1.3 Latest rules governing Competitive Swimming, officials

1.4 Working of Swimming Federation of India (SFI), Paralympics Swimming Federation of India (PSFI) and Federation Internationale de Natation (FINA) and their affiliated units.

UNIT-II

2.1 Early stages of teaching Swimming to beginners.

2.2 Diseases and illnesses caused by Swimming and their preventive measures.

2.3 Aquatherapy as rehabilitative Swimming.

UNIT-III

3.1 Mechanical principles involved in Swimming (Hydrodynamics).

3.2 Classification of Swimming Techniques (strokes, starts and turns).

3.3 Phases of skill acquisition and scientific procedure of technique training in Swimming.

REFERENCES

- Maglischo, Ernest W., Swimming Fastest, Human Kinetics Publishers Ltd., Leeds, England, 2003.
- Colwin, Cecil M., Swimming into 21st Century, Leisure Press, Illinois, U.S.A., 1992.
- Counsilman, James E., The Science of Swimming, S. Chand & Company Ltd., New Delhi, India, 1989.
- MacLaren D. ed., Biomechanics and Medicine in Swimming, E & FN SPON, Madras, India, 1992.
- Carcia, David F., Swimming Pools, Daly Technical Books Publishers Ltd., Fuengirola, Spain, 2005.

Semester III
Practicum Course
MPPC-302 COMBATIVE SPORTS: (OPTIONAL)
BOXING, FENCING, JUDO, KARATE, WRESTLING & WUSHU

Credits 03

Objectives:

- To define and acquaint training preparation of Game/Sport
- To employ the rules and regulation of Game/Sport
- To emphasis on preparation for the Game/Sport.
- To acquaint the student with progressive teaching stages of fundamentals skills of Game/Sport.
- To orient & employ the rules and regulation in organization of competition in Game/Sport.

Course Learning Outcomes:

After Completing the course, the students will be able to:

- After Completion of the course the students shall be able to:
- Gain knowledge of the Game/Sport.
- Learn the layout and marking for the Game/Sport.
- Demonstrate various drills & lead up activities related to Game/Sport.
- Develop the skills to teach rules, fundamentals and strategies of Game/Sport

Boxing

Fundamental Skills:

- History and evolution of boxing
- Objectives and benefits (fitness, self-defense, discipline, confidence)
- Safety precautions and rules of boxing
- Equipment familiarization: gloves, wraps, mouthguards, headgear, punching bags
- Boxing Stance**
 - Orthodox and Southpaw stance
 - Guard position (hands, elbows, chin, feet)
- Footwork**
 - Forward and backward step
 - Side-to-side movement
 - Pivoting
 - Maintaining balance and mobility
 - Punches – Jab, cross, hook, upper cut, combinations.
 - Defense slip – bob and weave, parry/block, cover up, clinch, and counter attack
 - Tactics – Toe to toe, counter attack, fighting in close, feinting
 - Rules and their interpretations and duties of officials

Fencing

Fundamental Skill:

Introduction to Fencing

- Brief history and evolution of fencing
- The three weapons: **Foil, Épée, Sabre**
- Objectives and benefits (discipline, agility, strategy, fitness)
- Equipment familiarization: weapon, mask, jacket, plastron, glove, lame (for foil/sabre), piste (fencing strip)
- Safety rules and etiquette

Basic Stance and Footwork

- **En garde position** (basic stance)
- **Footwork fundamentals**

- Advance (moving forward)
- Retreat (moving backward)
- Lunge
- Recovery
- Balestra (jump step)
- Fleche (running attack)
- Balance, posture, and distance control

Semicircular parries – octave and septime

Understand the layout of a piste.

Compound or successive parries

Lateral parry and direct riposte

Fence a bout – judges etc. salutes and handshakes

Rules and their interpretations and duties of officials

Judo

Introduction to Judo

- Origin and philosophy (Jigoro Kano, principles of Seiryoku Zenyo – maximum efficiency, Jita Kyoei – mutual benefit)
- Judo as a martial art, self-defense method, and Olympic sport
- Benefits: physical fitness, discipline, confidence, respect
- Equipment: judogi (uniform), obi (belt), tatami (mat)
- Dojo rules and etiquette (rei – bowing, respect for partner and instructor)
- Safety measures in training

Basic Posture and Movement

- **Shizen-hontai** (natural stance)
- **Jigo-hontai** (defensive stance)
- **Kumi-kata** (basic gripping techniques)
- Fundamental movements:
 - **Shintai** (advancing/retreating)
 - **Tsugi-ashi** (sliding step)
 - **Ayumi-ashi** (walking step)
- Principles of **Kuzushi** (breaking balance)

Ukemi (Break Fall)-UrhiroUkemi (Rear break Fall), Yoko Ukemi (Side Break Fall), Mae Ukemi (Front Break Fall), Mae mawariUkemi (Front Rolling break fall)

Shin Tai (Advance or retreat foot movement)-Suri-ashi (Gliding foot), Twugi-ashi (Following footsteps), Ayumi-ashi (Waling steps).

Tai Sabaki (Management of the body)

NageWaze (Throwing techniques)-HizaGuruma (Knee wheel), SesaeTwurikomi-ashi(Drawing ankle throw), De ashihari (Advance foot sweep),

Goshi (Major loinm),SeoiNage (Shoulder throw).

Katamawaze (Grappling techniques)-Kesagatame (Scaff hold), Kata gatame (Shoulder hold),

Kami shihogatama (Locking of upper four quarters), Method of escaping from each hold.

Karate

Introduction to Karate

- History and origin (Okinawa, Japan; Shotokan, Goju-Ryu, Shito-Ryu, Wado-Ryu styles)
- Philosophy and principles (Dojo Kun: discipline, respect, character, effort, self-control)
- Benefits: self-defense, fitness, confidence, focus, discipline
- Karate uniform (Gi), belt system (Kyu/Dan ranks), dojo etiquette (bowing, respect)

- Safety rules during practice

2. Basic Stances (Dachi)

- **Heiko-dachi** (parallel stance)
- **Zenkutsu-dachi** (front stance)
- **Kokutsu-dachi** (back stance)
- **Kiba-dachi** (horse stance)
- **Shiko-dachi** (wide stance)
- Principles of balance, stability, and mobility

Player Stances – walking, hand positions, front-leaning, side-fighting

Hand Techniques - Punches (form of a punch, straight punch, and reverse punch), Blocks (eight basic).

Leg Techniques - Snap kicks, stretching straight leg, thrust kicks, sidekicks, round house

Forms - The first cause Katas.

Self Defense - against punches, grabs and strikes, against basic weapons (knife, club sticks).

Sparring - One-step for middle punch, high punch and groin punch. (Defended by appropriate block from eight basic blocks)

Rules and their interpretations and duties of officials.

Wrestling

Fundamental Skills:

- History and types of wrestling (Freestyle, Greco-Roman, Folkstyle)
- Importance of wrestling in fitness, discipline, self-defense, and sportsmanship
- Wrestling equipment: singlet, wrestling shoes, headgear, mat

Take downs, Leg tackles, Arm drag.

Counters for take downs, Cross face, Whizzer series.

Escapes from under-sit-out turn in tripped.

Counters for escapes from under-Basic control back drop, Counters for stand up.

Pinning combination-Nelson series(Half Nelson, Half Nelson and Bar arm), Leg lift series, Leg cradle series, Reverse double bar arm, chicken wing and half Nelson.

Escapes from pinning: Wing lock series, Double arm lock roll, Cridge.

Standing Wrestling-Head under arm series, whizzer series

Referees positions

Wushu

Fundamental Skills:

- Origin and development of Wushu (Chinese martial art, modern vs. traditional)
- Major categories: **Taolu** (forms/routines) and **Sanda** (sparring/combat)
- Benefits: fitness, flexibility, coordination, discipline, cultural appreciation

Foot Techniques (Balgisul) – standing kick (soseochagi), Front kick (AP chagi), Arc kick (BandalChagi), Side kick, (YeopChagi), Turning kick (DollyoChagi), Back kick (Twit Chagi), Reverse turning kick (BandaeDollyoChagi), Jump kick (TwimyoChagi),

Poomsae (Forms) – Jang, Yi Jang, Sam Jang, Sa Jang, O Jang, Yook Jang, Chil Jang, Pal Jang (Fundamental Movement – eye control, concentration of spirit, speed control, strength control, flexibility, balance, variety in techniques)

Sparring (Kyorugi) – One Step Sparring (hand techniques, foot techniques, self-defense techniques, combination kicks), Free Sparring.

Board Breaking (Kyokpa) – eye control, balance, power control, speed, point of attack

Rules and their interpretations and duties of officials

Basic Defensive and Offensive Movements

Semester III
Practicum Course
MPPC-303 COACHING LESSONS OF TRACK AND FIELD

Credit: 3

Objectives:

- To observe children and the teaching learning process in a systematic manner.
- To learn to relate to and communicate with children during physical education activity.
- To evaluate physical education curriculum in the schools.
- To experience the school in its totality; activities in addition to classroom teaching include school activities and interaction with parents.
- To assume the role of a regular physical education teacher with appropriate planning taking into account the diverse needs of students and the varying contexts that impact the teaching learning process in physical education.
- To be able to innovate within teaching & coaching of game / sport skills.
- To learn to conduct meaningful classroom activities by careful selection and Organization of such activities.
- To learn to assess different aspects of children learning in physical education.

Course Learning Outcomes:

After Completing the course, the students will be able to:

- Demonstrate the practical concepts of teaching practice.
- Develop teaching proficiency for outdoor and indoor activities.
- Organize and compose mass demonstration /displays.
- Develop the knowledge of equipment that can be used for different indigenous activities.
- Develop the knowledge of free hand exercises emphasizing on physical fitness, rhythmic sense

The students to develop proficiency in taking coaching lesson on above mentioned selected discipline. In view of this, the students shall be provided with advance training and coaching in selected discipline. The duration of the lesson to be conducted by these students shall be in the range of 30 to 40 minutes depending on the class, they are going to handle at school and college level.

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

Semester III
Practicum Course
MPPC-304 COACHING LESSONS
INDIVIDUAL GAME, TEAM GAME AND COMBAT GAME

Credit: 3

Objectives:

- To observe children and the teaching learning process in a systematic manner.
- To learn to relate to and communicate with children during physical education activity.
- To evaluate physical education curriculum in the schools.
- To experience the school in its totality; activities in addition to classroom teaching include school activities and interaction with parents.
- To assume the role of a regular physical education teacher with appropriate planning taking into account the diverse needs of students and the varying contexts that impact the teaching learning process in physical education.
- To be able to innovate within teaching & coaching of game / sport skills.
- To learn to conduct meaningful classroom activities by careful selection and Organization of such activities.
- To learn to assess different aspects of children learning in physical education.

Course Learning Outcomes:

After Completing the course, the students will be able to:

- Demonstrate the practical concepts of teaching practice.
- Develop teaching proficiency for outdoor and indoor activities.
- Organize and compose mass demonstration /displays.
- Develop the knowledge of equipment that can be used for different indigenous activities.
- Develop the knowledge of free hand exercises emphasizing on physical fitness, rhythmic sense

The students 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
Theory Courses
MPCC-401 INFORMATION & COMMUNICATION TECHNOLOGY (ICT) IN
PHYSICAL EDUCATION

Objectives:

Credits 03

- Students enable to understand communication, Types of Communication, communicative skills.
- To understand the need of ICT in Physical Education.
- To know about the fundamentals of computers, Types of computer memory, viruses types and its management.
- To provide knowledge MS Word, MS Excel, MS Access, Tables and its uses in Physical Education.
- Understand ICT integration in teaching learning process.

Course Learning Outcomes:

After Completing the course, the students will be able to:

- Describe and uses of various types of Communication skills.
- Describe the importance of information and Communication Technology (ICT)
- Recognize and use application software used in Physical Education and sports.
- Create format and edit features of MS Word, MS excel and MS Power Point.

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 - Applications & Software Used in Physical Education

Software in Sports Psychology

Software in Exercise Physiology

Software in Sports Training and Evaluation.

Software in Sports Biomechanics

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

E-Learning Web Based Learning Visual Classroom

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Semester IV
Theory Courses
MPCC-402 SPORTS PSYCHOLOGY

Credits 03

Objectives:

This course will enable students to understand the psycho-sociological aspects of human behaviour in relation to physical education and sports. It aims to develop understanding about the motivation, types and methods of relaxation and anxiety and its impact on sports performance.

Course Learning Outcomes:

After Completing the course, the students will be able to:

- Describe the history of sports Psychology and know the states of sports Psychology in India.
- Uses the techniques of motivation in the field of sports.
- Analysis the anxiety level of the players and effect on sports performance.
- Describe the personality and its characteristics.
- Develop skill proficiency in psychological assessment.

UNIT I – Introduction

Meaning, Definition and Scope of Sports Psychology

Importance of Sports Psychology Learning Process

Meaning and Nature of Learning

Theories of Learning and there implication in teaching Learning Process Motivation in Sports

Meaning, Definition and types of Motivation

Theories of Motivation

Concept of Achievement Motivation

Psychological preparation of competitor: Need, Short-term Preparation Period and Pre-game Preparation

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. Aggression: Meaning and Definition, Aggression and Sports Performance.

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 . Questionnaire: Sports Achievement Motivation, Sports Competition Anxiety. Self-Concept: Meaning and Definition, Methods of Measurement.

UNIT IV - Sports Sociology & Group Cohesion

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. Group: Definition and Meaning, Group Size, Groups on Composition, Group Cohesion, Group Interaction, Group Dynamics. Current Problems in Sports and Future Directions

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

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- Authors Guide (2013) National Library of Educational and Psychological Test (NLEPT) Catalogue of Tests, New Delhi: National Council of Educational Research and Training Publication.
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Semester IV
Theory Courses
MPCC-403 DISSERTATION

Credits 03

Objectives:

- To enable the students to develop skills and competencies for conducting rigorous, theoretically correct and practically relevant research in Physical Education & Sports

Course Learning Outcomes:

After Completing the course, the students will be able to:

- Develop scholarly inquiry into a problem or issues, involving a systematic approach of gathering and analysis of information/data, leading to production of a structured report.
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 IVth Semester Examination.
 3. The candidate has to face the Viva-Voce conducted by DRC.

UNIT-I

- Introduction & Review of Related Literature :
- Writing Introduction,
- Preparation of review of literature,
- Meta-Analysis, operationalization of terminologies, writing hypothesis.

UNIT-II

- Procedure :
- Procedure of selection of subjects, selection of variables
- Collection of data, administration of tools and statistical procedures.

UNIT-III

- Analysis of Data and Results of the study :
- Analysis of data
- Result of the Study
- Discussion of findings and discussion of hypothesis

UNIT-IV

- Summary Conclusions and Recommendations Referencing

Semester IV
Theory Courses
MPEC-401 VALUE AND ENVIRONMENTAL EDUCATION

Credits 03

Objectives:

- To understand about the Value Education, Personal and communal values, need and theories of Values and classification of Values.
- To understand about the role of school in environment conservation.
- To understand about the ecosystem.
- To understand rural health problems, causes and improvement of rural health problems.
- To know about the natural resources and environment issues.
- Understand the Govt. policies to prevent the environment.

Course Learning Outcomes:

After Completing the course, the students will be able to:

- Able to describe the Value Education, Personal and communal values, need and theories of Values and classification of Values.
- To understand the role of school in environment conservation.
- To understand about the ecosystem.
- Classify the rural health problems, causes and improvement of rural health problems.
- To understand about the natural resources and environment issues.

UNIT I - Introduction

- Concept and importance of value education in physical education
- Role of physical education in promoting social, moral, and ethical values
- Environmental awareness through sports and outdoor activities
- Integration of sustainability with physical activity and sports culture

UNIT - II - Environmental Education through Physical Education

- Relationship between physical activity, health, and environment
- Outdoor education and nature-based activities (hiking, trekking, camping, adventure sports)
- Awareness of environmental issues: pollution, deforestation, climate change, waste management
- Sustainable use of sports facilities and resources
- Promotion of eco-friendly practices in sports (reduce, reuse, recycle)

UNIT - III Rural Sanitation and Urban Health

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

UNIT - IV Natural Resources and related environmental issues:

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

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Semester IV
Theory Courses
MPEC-402 EDUCATION TECHNOLOGY IN PHYSICAL EDUCATION

Credits 03

Objectives:

- To understand Education Technology is Physical Education and Sports.
- To understand need and importance of Audio-visual media in the field of Physical Education & Sports
- To Understand instructional design in Physical Education & Sports.
- To Understand and uses of system approach (Goal setting, Task Analysis, Content Analysis etc).
- Learn communication mode, Barriers & Process of communication.

Course Learning Outcomes:

After Completing the course, the students will be able to:

- To develop knowledge about Computer Application
- To develop knowledge of Office Word and Office excel
- To understand the MS Power Point
- To develop knowledge about internet

Unit I - Nature and Scope

- Introduction , meaning and Concept of Educational technology.
- Approaches of Educational technology.
- Educational technology: teaching technology, instructional technology, and behavior technology.
- Programmed Learning.

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. Review of Researches on Instructional Design.

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- Digital Tools and ICT Applications

- ICT in Physical Education: Smart boards, projectors, online platforms
- Software and Applications: fitness apps, sports tracking apps, video analysis tools (Dartfish, Hudl, Coach's Eye, Kinovea)
- Wearable Technology: fitness trackers, heart rate monitors, GPS devices
- Virtual and Augmented Reality in Sports Training

- Use of computers and internet for lesson planning and e-learning

REFERENCE:

- Amita Bhardwaj, New Media of Educational Planning".Sarup of Sons, New Delhi-2003
- Bhatia and Bhatia. The Principles and Methods of Teaching (New Delhi : Doaba House), 1959. Communication and Education, D. N. Dasgupta, Pointer Publishers
- Education and Communication for development, O. P. Dahama, O. P. Bhatnagar, Oxford Page 68 of 71 IBH Publishing company, New Delhi
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Semester IV
Practicum Course
MPPC- 401 TRACK AND FIELD: DECATHLON EVENT
GYMNASTICS /SWIMMING

Credit: 3

Objectives:

- To define and acquaint training preparation of Game/Sport
- To employ the rules and regulation of Game/Sport
- To emphasis on preparation for the Game/Sport.
- To acquaint the student with progressive teaching stages of fundamentals skills of Game/Sport.
- To orient & employ the rules and regulation in organization of competition in Game/Sport.

Course Learning Outcomes:

After Completing the course, the students will be able to:

- After Completion of the course the students shall be able to:
- Gain knowledge of the Game/Sport.
- Learn the layout and marking for the Game/Sport.
- Demonstrate various drills & lead up activities related to Game/Sport.
- Develop the skills to teach rules, fundamentals and strategies of Game/Sport

Unit I: Introduction to Decathlon

- History and origin of decathlon in athletics
- Importance of decathlon in track & field and Olympic Games
- Structure and sequence of events (2 days – 10 events)
 - Day 1 → 100m, Long Jump, Shot Put, High Jump, 400m
 - Day 2 → 110m Hurdles, Discus Throw, Pole Vault, Javelin Throw, 1500m
- Eligibility and categories (male/female competitions)
- General rules and scoring system (IAAF/World Athletics guidelines)

Unit II: Sprinting Events (100m, 400m, 1500m)

- Fundamental skills of sprint start, acceleration, and stride mechanics
- Techniques for 100m sprint – start, drive, finish
- 400m sprint – pacing, rhythm, speed endurance
- 1500m run – aerobic/anaerobic balance, race strategies, endurance training
- Common errors and corrective drills
- Fitness requirements: speed, stamina, and lactic acid tolerance

Unit III: Jumping Events (Long Jump, High Jump, Pole Vault)

- Long Jump: approach run, take-off, flight techniques (sail, hang, hitch-kick), landing
- High Jump: Fosbury flop/scissor techniques, approach, take-off, bar clearance, landing
- Pole Vault: grip, carry, planting, take-off, swing-up, extension, turn, clearance
- Training drills for take-off power and flight control
- Equipment specifications and safety precautions

Unit IV: Throwing Events (Shot Put, Discus, Javelin)

- Shot Put: standing throw, glide technique, spin technique
- Discus Throw: grip, stance, rotation, release, follow-through
- Javelin Throw: grip, approach, withdrawal, transition, release, recovery
- Strength training for throwers – explosive power, flexibility, coordination

- Safety measures and common errors in throwing events

Unit V: Hurdling and Combined Event Strategies (110m Hurdles + Overall Decathlon Training)

- 110m Hurdles: start, approach, take-off, clearance technique, rhythm between hurdles
- Drills for speed, flexibility, and hurdle clearance efficiency
- Decathlon Training Strategies:
 - Periodization of training (preparatory, competitive, recovery phases)
 - Balancing energy systems across 10 events
 - Tactical planning for 2-day competition
 - Psychological preparation and motivation
- Scoring tables and point system (IAAF guidelines)

UNIT –V: Officiating:

Mechanics of officiating.

Qualities of good official.

Duties of official (pre, during and post game)

Rules & their interpretations.

Semester IV
Practicum Course
MPPC-402 GAMES SPECIALIZATION

Credit: 3

Objectives:

- To define and acquaint training preparation of Game/Sport
- To employ the rules and regulation of Game/Sport
- To emphasis on preparation for the Game/Sport.
- To acquaint the student with progressive teaching stages of fundamentals skills of Game/Sport.
- To orient & employ the rules and regulation in organization of competition in Game/Sport.

Course Learning Outcomes:

After Completing the course, the students will be able to:

- After Completion of the course the students shall be able to:
- Gain knowledge of the Game/Sport.
- Learn the layout and marking for the Game/Sport.
- Demonstrate various drills & lead up activities related to Game/Sport.
- Develop the skills to teach rules, fundamentals and strategies of Game/Sport

Unit I: Introduction to Game Specialization

- History, development, and growth of the selected game (National & International level)
- Philosophy and ethics of sports participation in the game
- Structure of national and international governing bodies (e.g., FIFA, FIBA, ICC, AIFF, BAI, FIH, etc.)
- Fundamental skills and techniques of the game (advanced level recap)
- Role of Physical Education professionals in promoting and developing the game

Unit II: Skills, Techniques, and Tactics

- Advanced teaching, training, and coaching of fundamental & complex skills
- Biomechanical principles applied to the techniques of the game
- Offensive and defensive skills: their teaching progressions
- Tactical preparation: team strategies, formations, systems of play
- Error detection, correction, and skill refinement drills
- Analysis of high-performance models in the game

Unit III: Rules, Officiating, and Coaching

- Latest rules, regulations, and interpretations by International Federations
- Duties and responsibilities of referees/umpires/officials in the game
- Officiating mechanics: positioning, signaling, decision-making under pressure
- Match officiating practice: score sheet maintenance, technical reports
- Use of technology in officiating (VAR, DRS, Hawk-Eye, video analysis, electronic timing)
- Principles of coaching, planning, and conducting practice sessions

Semester IV
Practicum Course

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

Credit: 3

Objectives:

- To observe children and the teaching learning process in a systematic manner.
- To learn to relate to and communicate with children during physical education activity.
- To evaluate physical education curriculum in the schools.
- To experience the school in its totality; activities in addition to classroom teaching include school activities and interaction with parents.
- To assume the role of a regular physical education teacher with appropriate planning taking into account the diverse needs of students and the varying contexts that impact the teaching learning process in physical education.
- To be able to innovate within teaching & coaching of game / sport skills.
- To learn to conduct meaningful classroom activities by careful selection and Organization of such activities.
- To learn to assess different aspects of children learning in physical education.

Course Learning Outcomes:

After Completing the course, the students will be able to:

- Demonstrate the practical concepts of teaching practice.
- Develop teaching proficiency for outdoor and indoor activities.
- Organize and compose mass demonstration /displays.
- Develop the knowledge of equipment that can be used for different indigenous activities.
- Develop the knowledge of free hand exercises emphasizing on physical fitness, rhythmic sense

The students to develop proficiency in taking officiating lesson on selected above discipline, in view of this, the students shall be provided with advance mechanism of officiating in selected discipline. The duration of the lesson to be conducted by these students shall be in the range of 30 to 40 minutes depending on the class time they are going to handle at school and college level.

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

Unit I: Introduction to Officiating in Sports

- Meaning, need, and importance of officiating in Physical Education and Sports
- Qualities and responsibilities of good officials (referee, judge, umpire, starter, scorer, etc.)
- Ethics in officiating: impartiality, fairness, discipline, decision-making
- Difference between officiating in individual and team events

Unit II: Officiating in Track and Field (Athletics)

- Structure and duties of officials in athletics competitions (starter, umpire, timekeeper, judges, recorder, referee)
- Officiating in **Track Events**: sprints, middle- and long-distance, hurdles, relay races, walking events
- Officiating in **Field Events**: jumps (long jump, triple jump, high jump, pole vault) and throws (shot put, discus, javelin, hammer)

- Rules, regulations, and scoring system (World Athletics/IAAF standards)
- Procedure for protests, appeals, and decision-making
- Practical sessions: mock officiating in school/college athletics meets

Unit III: Officiating in Gymnastics

- Roles and responsibilities of gymnastics officials (judges, referees, scorers, announcers)
- Rules and scoring system: artistic gymnastics, rhythmic gymnastics, trampoline basics
- Code of Points: evaluation of performance, difficulty, execution, artistry
- Officiating procedures for men's and women's apparatus:
 - Men: floor exercise, pommel horse, still rings, vault, parallel bars, horizontal bar
 - Women: vault, uneven bars, balance beam, floor exercise
- Common errors and judging criteria
- Practical: mock judging and score sheet preparation

Unit IV: Officiating in Swimming

- Roles of officials in swimming (referee, starter, timekeeper, inspector of turns, judges of stroke, recorder, announcer)
- Rules and regulations by **FINA/World Aquatics**
- Officiating in swimming strokes: freestyle, backstroke, breaststroke, butterfly, individual medley, relays
- Timing, lap counting, and finish judging procedures
- Rules for disqualification and protests
- Officiating in diving, water polo, and synchronized swimming (basic introduction)
- Practical sessions: officiating in mock swimming competitions

Unit V: Tournament Organization and Management

- Planning and conducting competitions in track & field, gymnastics, and swimming
- Preparation of fixtures, draws, and schedules for inter-house/inter-school meets
- Facility and equipment requirements for smooth conduct
- Technical meetings and briefing of officials
- Recording, reporting, and result preparation

Unit VI: Practical Evaluation & Field Experience

- Officiating practice in at least one **track and field event**
- Officiating practice in at least one **gymnastics event**
- Officiating practice in at least one **swimming event**
- Preparation of **officiating record book** by students
- Assessment based on knowledge of rules, officiating ability, fairness, and efficiency

Semester IV
Practicum Course
MPPC-404 OFFICIATING LESSONS OF GAME SPECIALIZATIONS

Credit: 3

Objectives:

- To observe children and the teaching learning process in a systematic manner.
- To learn to relate to and communicate with children during physical education activity.
- To evaluate physical education curriculum in the schools.
- To experience the school in its totality; activities in addition to classroom teaching include school activities and interaction with parents.
- To assume the role of a regular physical education teacher with appropriate planning taking into account the diverse needs of students and the varying contexts that impact the teaching learning process in physical education.
- To be able to innovate within teaching & coaching of game / sport skills.
- To learn to conduct meaningful classroom activities by careful selection and Organization of such activities.
- To learn to assess different aspects of children learning in physical education.

Course Learning Outcomes:

After Completing the course, the students will be able to:

- Demonstrate the practical concepts of teaching practice.
- Develop teaching proficiency for outdoor and indoor activities.
- Organize and compose mass demonstration /displays.
- Develop the knowledge of equipment that can be used for different indigenous activities.
- Develop the knowledge of free hand exercises emphasizing on physical fitness, rhythmic sense

The students to be develop proficiency in taking officiating lesson on selected game specialization. In view of this, the students shall be provided with advance mechanism of officiating in selected game specialization. The duration of the lesson to be conducted by these students shall be in the range of 30 to 40 minutes depending on the class time they are going to handle at school and college level.

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

Unit I: Introduction to Officiating in Games

- Meaning, definition, and importance of officiating in sports and games
- Characteristics and qualities of a good official (knowledge, fitness, fairness, quick decision-making)
- Duties, roles, and responsibilities of referees, umpires, judges, scorers, and timekeepers in games
- Ethics of officiating: impartiality, honesty, neutrality, discipline
- Common challenges in officiating team sports and methods to overcome

Unit II: Rules and Regulations of Games (Specializations)

- Study of rules, laws, and interpretations of selected games (any 2–3 as per specialization, e.g., Football, Volleyball, Basketball, Cricket, Hockey, Handball, Kabaddi, Kho-Kho, Badminton, etc.)
- International and National governing bodies (FIFA, FIBA, FIVB, ICC, BAI, AIKF, AKFI, etc.)
- Latest rule modifications and their implications

- Types of signals, scoring methods, fouls, penalties, and violations in games
- Officiating mechanics (positioning, movement, teamwork of officials during the game)

Unit III: Duties of Officials in Different Games

- Structure of officials required in major games (Referee, Umpire, Scorer, Table Officials, Line Judges, Technical Delegate)
- Pre-game responsibilities: ground/field inspection, equipment check, player eligibility, toss, briefing
- During-game responsibilities: signaling, enforcing rules, penalizing, scoring, maintaining flow of the game
- Post-game responsibilities: result submission, protest handling, report writing
- Practical demonstration: signaling practice, maintaining score sheets

Unit IV: Officiating Mechanics and Techniques

- Mechanics of officiating in indoor and outdoor games
- Positioning of referee/umpire in different situations (service, attack, defense, fouls, etc.)
- Use of technology in officiating (VAR in football, DRS in cricket, video replay in volleyball/badminton, timing systems)
- Communication skills of officials – verbal, non-verbal, whistle control, gestures
- Decision-making under pressure and conflict resolution

Unit V: Tournament Organization and Management

- Types of tournaments: Knock-out, League, Combination, Challenge, Ladder
- Preparation of fixtures and schedules for competitions in specialization games
- Role of officials in organizing inter-school/college tournaments
- Technical committee, protest committee, and responsibilities in event management
- Facility, equipment, and logistics required for smooth officiating in games

Unit VI: Practical Officiating Experience

- Officiating practice in at least two specialization games (e.g., Football & Volleyball OR Basketball & Cricket)
- Recording and maintaining score sheets, result books, and officiating records
- Mock officiating sessions and feedback from peers/faculty
- Organizing inter-class/college competitions as officials
- Final assessment based on theoretical knowledge + practical officiating skills